

Residential Energy Consumption Surveys

2001 Consumption and Expenditures Tables

Electric Air-Conditioning Consumption Tables

(26 pages, 90 kb)

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These data are from the 2001 Residential Energy Consumption Survey (RECS) which provides information on the use of energy in residential housing units in the United States. The RECS is a national statistical survey that collects energy-related data for occupied primary housing units. RECS was first conducted in 1978; the eleventh and most recent survey was conducted in 2001. In the 2001 RECS, data were collected from a sample of 4,822 households in housing units statistically selected to represent the 107.0 million housing units in the United States. The RECS data are available for the four Census regions, the nine Census divisions, and for the four most populous States--California, Florida, New York, and Texas.

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Table CE3-1c. Electric Air-Conditioning Energy Consumption in U.S. Households by Climate Zone, 2001 - Preliminary Data

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.4	1.6	1.0	0.9	1.6	1.0	
Million Households							
Total U.S. Households	107.0	9.2	28.6	24.0	21.0	24.1	8.1
No/Don't Use Air-Conditioning	26.2	4.0	8.1	4.2	7.6	2.3	11.3
Electric Air-Conditioning ²	80.8	5.3	20.5	19.9	13.4	21.8	8.2
Central Air-Conditioning ³	57.5	3.1	12.9	12.7	10.5	18.2	9.2
Room/Wall Air-Conditioning	23.3	2.2	7.6	7.2	2.9	3.6	11.3
Quadrillion Btu							
Electric Air-Conditioning Btu Consumption							
Total	0.62	0.02	0.09	0.11	0.11	0.30	10.3
Central Air-Conditioning	0.55	0.02	0.07	0.09	0.10	0.27	10.6
Room/Wall Air-Conditioning	0.08	(*)	0.02	0.02	0.01	0.02	15.0
Billion kWh							
Electric Air-Conditioning kWh Consumption							
Total	183	6	25	33	31	87	10.3
Central Air-Conditioning	161	4	21	27	28	80	10.6
Room/Wall Air-Conditioning	22	1	4	6	3	7	15.0
Million Btu per Household⁴							
Electric Air-Conditioning Btu Consumption per Household							
Electric Air-Conditioning	7.7	3.7	4.2	5.7	8.0	13.7	5.0
Central Air-Conditioning	9.6	4.9	5.4	7.4	9.2	15.1	4.6
Room/Wall Air-Conditioning	3.2	1.9	2.0	2.9	3.9	6.8	8.1
kWh per Household⁴							
Electric Air-Conditioning kWh Consumption per Household							
Electric Air-Conditioning	2,265	1,074	1,220	1,683	2,355	4,014	5.0
Central Air-Conditioning	2,802	1,429	1,589	2,159	2,687	4,412	4.6
Room/Wall Air-Conditioning	943	562	590	837	1,135	1,982	8.1
2001 Cooling Degree-Days (CDD) per Household⁴							
2001 Cooling Degree-Days per Household							
Total U.S. Households	1,407	665	777	1,147	1,236	2,852	3.8
No/Don't Use Air-Conditioning	883	603	639	860	738	2,752	8.2
Electric Air-Conditioning	1,578	712	832	1,207	1,520	2,863	3.0
Central Air-Conditioning	1,701	732	848	1,221	1,561	2,887	3.2
Room/Wall Air-Conditioning	1,274	681	804	1,181	1,368	2,742	3.4

See footnotes at end of table.

Table CE3-1c. Electric Air-Conditioning Energy Consumption in U.S. Households by Climate Zone, 2001 - Preliminary Data (Continued)

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.4	1.6	1.0	0.9	1.6	1.0	
Cooled Square Footage (CSF) per Household⁴							
Cooled Square Footage per Household							
Electric Air-Conditioning	1,724	1,867	1,863	1,697	1,732	1,579	4.1
Central Air-Conditioning	2,032	2,405	2,336	2,101	1,989	1,729	4.1
Room/Wall Air-Conditioning	967	1,090	1,058	981	790	811	6.2
Air-Conditioning Intensity⁴ [kWh÷(CDD×(CSF÷1000))]							
Air-Conditioning Intensity							
Electric Air-Conditioning	0.83	0.81	0.79	0.82	0.89	0.89	2.6
Central Air-Conditioning	0.81	0.81	0.80	0.84	0.87	0.88	3.0
Room/Wall Air-Conditioning	0.77	0.76	0.69	0.72	1.05	0.89	5.1

¹ One of five climatically distinct areas, determined according to the 30-year average (1961-1990) of the annual heating and cooling degree-days. For this report, the heating or cooling degree-days are a measure of how cold or how hot a location is over a period of one year, relative to a base temperature of 65 degrees Fahrenheit. A household is assigned to a climate zone according to the 30-year average annual degree-days for an appropriate nearby weather station.

² The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

³ The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

⁴ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

(*) = Value rounds to zero in the units displayed.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-2c. Electric Air-Conditioning Energy Consumption in U.S. Households by Year of Construction, 2001 - Preliminary Data

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.8	1.1	1.1	1.2	1.0	0.8	
Million Households								
Total U.S. Households	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.2
No/Don't Use Air-Conditioning	26.2	2.1	2.5	4.6	3.6	4.0	9.5	8.7
Electric Air-Conditioning ²	80.8	13.4	15.8	14.2	10.1	10.2	17.1	4.7
Central Air-Conditioning ³	57.5	12.6	13.7	11.0	7.1	6.6	6.4	5.9
Room/Wall Air-Conditioning	23.3	0.8	2.1	3.1	3.1	3.5	10.8	8.7
Quadrillion Btu								
Electric Air-Conditioning Btu Consumption								
Total	0.62	0.14	0.14	0.12	0.07	0.06	0.09	6.9
Central Air-Conditioning	0.55	0.14	0.14	0.11	0.06	0.05	0.05	7.8
Room/Wall Air-Conditioning	0.08	(*)	0.01	0.01	0.01	0.01	0.03	13.1
Billion kWh								
Electric Air-Conditioning kWh Consumption								
Total	183	41	42	36	20	19	25	6.9
Central Air-Conditioning	161	40	40	33	17	15	16	7.8
Room/Wall Air-Conditioning	22	1	2	3	3	4	10	13.1
Million Btu per Household⁴								
Electric Air-Conditioning Btu Consumption per Household								
Electric Air-Conditioning	7.7	10.4	9.0	8.7	6.7	6.3	5.1	5.1
Central Air-Conditioning	9.6	10.8	9.9	10.3	8.1	7.8	8.5	5.4
Room/Wall Air-Conditioning	3.2	3.7	3.2	3.1	3.4	3.6	3.0	9.5
kWh per Household⁴								
Electric Air-Conditioning kWh Consumption per Household								
Electric Air-Conditioning	2,265	3,041	2,649	2,553	1,972	1,859	1,481	5.1
Central Air-Conditioning	2,802	3,162	2,906	3,023	2,387	2,277	2,487	5.4
Room/Wall Air-Conditioning	943	1,071	930	905	1,011	1,067	889	9.5
2001 Cooling Degree-Days (CDD) per Household⁴								
2001 Cooling Degree-Days per Household								
Total U.S. Households	1,407	1,455	1,648	1,586	1,376	1,352	1,135	3.4
No/Don't Use Air-Conditioning	883	583	1,032	841	932	971	874	8.2
Electric Air-Conditioning	1,578	1,590	1,744	1,826	1,536	1,502	1,279	3.5
Central Air-Conditioning	1,701	1,608	1,838	1,957	1,606	1,544	1,412	4.1
Room/Wall Air-Conditioning	1,274	1,299	1,114	1,367	1,373	1,422	1,200	6.2

See footnotes at end of table.

Table CE3-2c. Electric Air-Conditioning Energy Consumption in U.S. Households by Year of Construction, 2001 - Preliminary Data (Continued)

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.8	1.1	1.1	1.2	1.0	0.8	
Cooled Square Footage (CSF) per Household⁴								
Cooled Square Footage per Household								
Electric Air-Conditioning	1,724	2,297	1,785	1,562	1,616	1,667	1,454	3.7
Central Air-Conditioning	2,032	2,376	1,937	1,804	1,912	2,012	2,106	3.8
Room/Wall Air-Conditioning	967	1,005	773	714	929	1,013	1,070	6.6
Air-Conditioning Intensity⁴ [kWh÷(CDD×(CSF÷1000))]								
Air-Conditioning Intensity								
Electric Air-Conditioning	0.83	0.83	0.85	0.90	0.79	0.74	0.80	3.3
Central Air-Conditioning	0.81	0.83	0.82	0.86	0.78	0.73	0.84	3.5
Room/Wall Air-Conditioning	0.77	0.82	1.08	0.93	0.79	0.74	0.69	8.0

¹ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

² The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

³ The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

⁴ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

(*) = Value rounds to zero in the units displayed.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-3c. Electric Air-Conditioning Energy Consumption in U.S. Households by Household Income, 2001 - Preliminary Data

	Total	2001 Household Income				Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.6	1.1	0.9	0.8	1.3	1.0	
Million Households								
Total U.S. Households	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.3
No/Don't Use Air-Conditioning	26.2	4.2	8.8	6.1	7.1	5.9	11.3	6.9
Electric Air-Conditioning ²	80.8	6.9	21.7	21.0	31.2	9.1	22.6	3.9
Central Air-Conditioning ³	57.5	3.2	13.7	15.2	25.3	4.5	12.4	5.5
Room/Wall Air-Conditioning	23.3	3.7	8.0	5.8	5.9	4.7	10.1	5.9
Quadrillion Btu								
Electric Air-Conditioning Btu Consumption								
Total	0.62	0.03	0.13	0.15	0.31	0.05	0.13	6.1
Central Air-Conditioning	0.55	0.02	0.10	0.13	0.29	0.04	0.10	7.2
Room/Wall Air-Conditioning	0.08	0.01	0.03	0.02	0.02	0.02	0.03	8.8
Billion kWh								
Electric Air-Conditioning kWh Consumption								
Total	183	10	38	43	91	16	39	6.1
Central Air-Conditioning	161	7	30	38	86	11	30	7.2
Room/Wall Air-Conditioning	22	4	8	5	6	5	10	8.8
Million Btu per Household⁴								
Electric Air-Conditioning Btu Consumption per Household								
Electric Air-Conditioning	7.7	5.1	6.0	7.0	10.0	5.9	6.0	4.3
Central Air-Conditioning	9.6	7.1	7.5	8.5	11.6	8.3	8.1	4.6
Room/Wall Air-Conditioning	3.2	3.3	3.3	2.9	3.3	3.6	3.3	6.7
kWh per Household⁴								
Electric Air-Conditioning kWh Consumption per Household								
Electric Air-Conditioning	2,265	1,489	1,758	2,050	2,934	1,731	1,744	4.3
Central Air-Conditioning	2,802	2,093	2,213	2,502	3,390	2,443	2,375	4.6
Room/Wall Air-Conditioning	943	968	977	862	962	1,049	969	6.7
2001 Cooling Degree-Days (CDD) per Household⁴								
2001 Cooling Degree-Days per Household								
Total U.S. Households	1,407	1,423	1,444	1,396	1,381	1,435	1,372	3.1
No/Don't Use Air-Conditioning	883	974	994	896	682	1,029	972	5.2
Electric Air-Conditioning	1,578	1,696	1,627	1,542	1,541	1,696	1,572	3.1
Central Air-Conditioning	1,701	1,920	1,779	1,687	1,638	1,915	1,741	3.6
Room/Wall Air-Conditioning	1,274	1,502	1,366	1,157	1,121	1,486	1,365	4.4

See footnotes at end of table.

Table CE3-3c. Electric Air-Conditioning Energy Consumption in U.S. Households by Household Income, 2001 - Preliminary Data (Continued)

	Total	2001 Household Income				Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.6	1.1	0.9	0.8	1.3	1.0	
Cooled Square Footage (CSF) per Household⁴								
Cooled Square Footage per Household								
Electric Air-Conditioning	1,724	967	1,203	1,585	2,349	1,017	1,164	2.9
Central Air-Conditioning	2,032	1,289	1,404	1,778	2,618	1,317	1,448	3.4
Room/Wall Air-Conditioning	967	689	857	1,074	1,185	730	813	4.8
Air-Conditioning Intensity⁴ [kWh÷(CDD×(CSF÷1000))]								
Air-Conditioning Intensity								
Electric Air-Conditioning	0.83	0.91	0.90	0.84	0.81	1.00	0.95	3.0
Central Air-Conditioning	0.81	0.85	0.89	0.83	0.79	0.97	0.94	3.7
Room/Wall Air-Conditioning	0.77	0.93	0.84	0.69	0.72	0.97	0.87	6.0

¹ Below 150 percent of poverty line or 60 percent of median State income.

² The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

³ The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

⁴ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-4c. Electric Air-Conditioning Energy Consumption in U.S. Households by Type of Housing Unit, 2001 - Preliminary Data

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Multifamily		Mobile Home	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.5	1.5	1.5	1.8	
Million Households						
Total U.S. Households	107.0	73.7	9.5	17.0	6.8	4.4
No/Don't Use Air-Conditioning	26.2	16.1	3.2	5.2	1.7	8.4
Electric Air-Conditioning ¹	80.8	57.6	6.3	11.8	5.1	4.9
Central Air-Conditioning ²	57.5	43.6	3.2	7.1	3.5	6.7
Room/Wall Air-Conditioning	23.3	13.9	3.1	4.7	1.6	7.7
Quadrillion Btu						
Electric Air-Conditioning Btu Consumption						
Total	0.62	0.49	0.03	0.05	0.05	7.9
Central Air-Conditioning	0.55	0.44	0.02	0.04	0.04	9.0
Room/Wall Air-Conditioning	0.08	0.05	0.01	0.01	0.01	11.5
Billion kWh						
Electric Air-Conditioning kWh Consumption						
Total	183	143	9	15	16	7.9
Central Air-Conditioning	161	129	6	13	13	9.0
Room/Wall Air-Conditioning	22	14	2	3	3	11.5
Million Btu per Household³						
Electric Air-Conditioning Btu Consumption per Household						
Electric Air-Conditioning	7.7	8.5	4.7	4.5	10.3	5.6
Central Air-Conditioning	9.6	10.1	6.7	6.1	12.4	5.8
Room/Wall Air-Conditioning	3.2	3.5	2.5	1.9	5.7	7.8
kWh per Household³						
Electric Air-Conditioning kWh Consumption per Household						
Electric Air-Conditioning	2,265	2,492	1,363	1,309	3,023	5.6
Central Air-Conditioning	2,802	2,956	1,978	1,802	3,649	5.8
Room/Wall Air-Conditioning	943	1,035	731	556	1,671	7.8
2001 Cooling Degree-Days (CDD) per Household³						
2001 Cooling Degree-Days per Household						
Total U.S. Households	1,407	1,421	1,282	1,389	1,485	4.2
No/Don't Use Air-Conditioning	883	919	825	751	1,059	7.4
Electric Air-Conditioning	1,578	1,561	1,511	1,673	1,623	4.3
Central Air-Conditioning	1,701	1,646	1,952	1,957	1,627	5.0
Room/Wall Air-Conditioning	1,274	1,295	1,058	1,240	1,613	5.4

See footnotes at end of table.

Table CE3-4c. Electric Air-Conditioning Energy Consumption in U.S. Households by Type of Housing Unit, 2001 - Preliminary Data (Continued)

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Multifamily		Mobile Home	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.5	1.5	1.5	1.8	
Cooled Square Footage (CSF) per Household³						
Cooled Square Footage per Household						
Electric Air-Conditioning	1,724	2,061	1,029	787	958	3.3
Central Air-Conditioning	2,032	2,348	1,181	924	1,128	3.4
Room/Wall Air-Conditioning	967	1,161	874	578	591	4.6
Air-Conditioning Intensity³ [kWh÷{CDD×(CSF÷1000)}]						
Air-Conditioning Intensity						
Electric Air-Conditioning	0.83	0.77	0.88	0.99	1.94	2.9
Central Air-Conditioning	0.81	0.76	0.86	1.00	1.99	3.1
Room/Wall Air-Conditioning	0.77	0.69	0.79	0.78	1.75	6.2

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

³ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-5.1u. Electric Air-Conditioning Energy Consumption and Expenditures by Household Member and Demographics, 2001 - Preliminary Data

Household Demographics	Electric Air-Conditioning Energy								RSE Row Factors
	Households (millions)	Total		Per Household			Per Household Member		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	0.9	1.4	1.4	1.0	1.0	0.5	1.0	1.0	
Total Households Using Air-Conditioning¹	80.8	0.62	15.92	7.7	197	2.5	3.0	77	2.2
Household Size									
1 Person	20.1	0.10	2.54	4.8	127	1.0	4.8	127	4.8
2 Persons	27.7	0.20	4.99	7.1	180	2.0	3.5	90	3.2
3 Persons	13.1	0.12	2.85	8.8	218	3.0	2.9	73	4.9
4 Persons	12.2	0.13	3.33	10.7	273	4.0	2.7	68	5.9
5 Persons	5.3	0.06	1.52	11.4	287	5.0	2.3	57	8.1
6 or More Persons	2.4	0.03	0.69	10.8	282	6.5	1.7	43	9.1
2001 Household Income Category									
Less than \$9,999	6.9	0.03	0.88	5.1	128	1.8	2.8	70	7.4
\$10,000 to \$14,999	5.0	0.03	0.68	5.5	135	2.1	2.7	65	7.8
\$15,000 to \$19,999	6.4	0.04	1.05	6.6	166	2.1	3.1	78	8.3
\$20,000 to \$29,999	10.4	0.06	1.52	5.9	147	2.3	2.6	64	6.1
\$30,000 to \$39,999	10.6	0.07	1.78	6.6	167	2.5	2.7	67	4.7
\$40,000 to \$49,999	10.4	0.08	1.93	7.4	186	2.6	2.8	71	6.1
\$50,000 to \$74,999	17.4	0.16	4.06	9.1	233	2.9	3.1	80	4.3
\$75,000 to \$99,999	6.6	0.06	1.59	9.3	241	3.0	3.1	82	5.9
\$100,000 or More	7.1	0.09	2.42	12.9	340	3.0	4.2	112	7.7
Income Relative to Poverty Line									
Below 100 Percent	9.1	0.05	1.33	5.9	146	2.5	2.4	59	6.2
100 to 150 Percent	7.8	0.05	1.34	7.0	172	2.7	2.6	64	7.2
Above 150 Percent	63.8	0.52	13.24	8.1	207	2.5	3.2	81	2.4
Eligible for Federal Assistance²									
Yes	22.6	0.13	3.36	6.0	149	2.6	2.3	57	4.6
No	58.2	0.49	12.56	8.4	216	2.5	3.3	85	2.5
Age of Householder									
Under 25 Years	4.2	0.03	0.69	6.7	163	2.6	2.6	62	7.9
25 to 34 Years	12.6	0.10	2.47	7.8	196	3.0	2.6	65	4.9
35 to 44 Years	17.2	0.15	3.94	8.9	230	3.3	2.7	70	4.4
45 to 54 Years	15.4	0.15	3.77	9.7	245	2.7	3.6	89	5.0
55 to 64 Years	11.4	0.09	2.41	8.3	212	2.1	3.9	100	4.7
65 to 74 Years	9.9	0.05	1.37	5.3	138	1.8	2.9	76	6.5
75 Years or More	10.2	0.05	1.28	4.7	126	1.6	2.9	78	5.4
Race of Householder									
Non-Hispanic	74.7	0.58	14.63	7.7	196	2.5	3.1	79	2.4
Non-Hispanic White	61.6	0.48	12.00	7.8	195	2.4	3.2	81	2.6
Non-Hispanic Black	9.4	0.08	2.00	8.2	214	2.7	3.1	80	6.7
Multi-racial ³	0.6	(*)	0.10	6.0	168	3.0	2.0	56	22.7
Other ⁴	3.1	0.02	0.52	5.8	168	3.3	1.8	51	11.3
Hispanic	6.1	0.05	1.29	7.8	210	3.3	2.4	64	8.4

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² Below 150 percent of poverty line or 60 percent of median State income.

³ Respondents could select one or more race categories to describe themselves.

⁴ Includes Native American, Native Alaskan, Asian, and Pacific Islander households.

(*) = Value rounds to zero in the units displayed.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-5.2u. Electric Air-Conditioning Energy Consumption and Expenditures by Square Feet and Household Demographics, 2001 - Preliminary Data

Household Demographics	Electric Air-Conditioning Energy								RSE Row Factors
	Households (millions)	Total		Per Household			Per Square Feet		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Cooled Square Feet	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	0.9	1.4	1.4	1.0	1.0	0.7	0.9	1.0	
Total Households Using Air-Conditioning¹	80.8	0.62	15.92	7.7	197	1,724	4.5	0.11	2.4
Household Size									
1 Person	20.1	0.10	2.54	4.8	127	1,218	3.9	0.10	5.1
2 Persons	27.7	0.20	4.99	7.1	180	1,768	4.0	0.10	3.4
3 Persons	13.1	0.12	2.85	8.8	218	1,827	4.8	0.12	5.2
4 Persons	12.2	0.13	3.33	10.7	273	2,138	5.0	0.13	5.6
5 Persons	5.3	0.06	1.52	11.4	287	2,039	5.6	0.14	8.3
6 or More Persons	2.4	0.03	0.69	10.8	282	2,091	5.2	0.13	11.0
2001 Household Income Category									
Less than \$9,999	6.9	0.03	0.88	5.1	128	967	5.3	0.13	7.0
\$10,000 to \$14,999	5.0	0.03	0.68	5.5	135	1,084	5.1	0.12	7.6
\$15,000 to \$19,999	6.4	0.04	1.05	6.6	166	1,207	5.4	0.14	8.6
\$20,000 to \$29,999	10.4	0.06	1.52	5.9	147	1,258	4.7	0.12	6.1
\$30,000 to \$39,999	10.6	0.07	1.78	6.6	167	1,412	4.7	0.12	5.0
\$40,000 to \$49,999	10.4	0.08	1.93	7.4	186	1,762	4.2	0.11	6.2
\$50,000 to \$74,999	17.4	0.16	4.06	9.1	233	2,073	4.4	0.11	4.5
\$75,000 to \$99,999	6.6	0.06	1.59	9.3	241	2,434	3.8	0.10	6.3
\$100,000 or More	7.1	0.09	2.42	12.9	340	2,944	4.4	0.12	7.8
Income Relative to Poverty Line									
Below 100 Percent	9.1	0.05	1.33	5.9	146	1,017	5.8	0.14	6.0
100 to 150 Percent	7.8	0.05	1.34	7.0	172	1,185	5.9	0.14	7.3
Above 150 Percent	63.8	0.52	13.24	8.1	207	1,892	4.3	0.11	2.5
Eligible for Federal Assistance²									
Yes	22.6	0.13	3.36	6.0	149	1,164	5.1	0.13	4.7
No	58.2	0.49	12.56	8.4	216	1,942	4.3	0.11	2.6
Age of Householder									
Under 25 Years	4.2	0.03	0.69	6.7	163	971	6.9	0.17	7.8
25 to 34 Years	12.6	0.10	2.47	7.8	196	1,500	5.2	0.13	5.1
35 to 44 Years	17.2	0.15	3.94	8.9	230	1,892	4.7	0.12	4.6
45 to 54 Years	15.4	0.15	3.77	9.7	245	2,004	4.9	0.12	5.2
55 to 64 Years	11.4	0.09	2.41	8.3	212	1,873	4.4	0.11	4.9
65 to 74 Years	9.9	0.05	1.37	5.3	138	1,620	3.3	0.09	6.6
75 Years or More	10.2	0.05	1.28	4.7	126	1,542	3.1	0.08	5.8
Race of Householder									
Non-Hispanic	74.7	0.58	14.63	7.7	196	1,766	4.4	0.11	2.5
Non-Hispanic White	61.6	0.48	12.00	7.8	195	1,822	4.3	0.11	2.8
Non-Hispanic Black	9.4	0.08	2.00	8.2	214	1,491	5.5	0.14	7.8
Multi-racial ³	0.6	(*)	0.10	6.0	168	1,379	4.4	0.12	23.2
Other ⁴	3.1	0.02	0.52	5.8	168	1,549	3.8	0.11	11.7
Hispanic	6.1	0.05	1.29	7.8	210	1,220	6.4	0.17	9.2

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² Below 150 percent of poverty line or 60 percent of median State income.

³ Respondents could select one or more race categories to describe themselves.

⁴ Includes Native American, Native Alaskan, Asian, and Pacific Islander households.

(*) = Value rounds to zero in the units displayed.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-6.1u. Electric Air-Conditioning Energy Consumption and Expenditures by Household Member and Usage Indicators, 2001 - Preliminary Data

Usage Indicators	Electric Air-Conditioning Energy								RSE Row Factors
	Households (millions)	Total		Per Household			Per Household Member		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	1.0	1.4	1.5	1.0	1.0	0.5	1.0	1.0	
Total Households Using Air-Conditioning¹	80.8	0.62	15.92	7.7	197	2.5	3.0	77	2.2
Central Air-Conditioning²									
Have Equipment ³	57.5	0.55	13.81	9.6	240	2.6	3.7	93	2.5
Use of Equipment									
Only a Few Times	16.8	0.06	1.77	3.9	105	2.4	1.6	45	3.8
Quite a Bit	12.1	0.12	3.02	9.7	249	2.7	3.6	93	4.5
All Summer	28.4	0.37	8.99	12.9	316	2.7	4.8	119	3.1
Room Air-Conditioning									
Have Equipment	23.3	0.08	2.11	3.2	91	2.5	1.3	37	4.1
Use of Equipment									
Only a Few Times	13.6	0.02	0.75	1.8	55	2.4	0.7	23	4.3
Quite a Bit	5.0	0.02	0.49	3.5	97	2.5	1.4	39	7.1
All Summer	4.7	0.03	0.87	7.0	184	2.6	2.7	70	7.3
Weekday Home Activities									
Home Used for Business									
Yes	5.9	0.05	1.39	9.2	234	2.9	3.2	82	7.5
No/Don't Know	74.8	0.57	14.53	7.6	194	2.5	3.0	77	2.5
Energy-Intensive Activity									
Yes	1.3	0.01	0.28	8.2	218	2.8	2.9	78	15.9
No/Don't Know	79.5	0.61	15.64	7.7	197	2.5	3.0	77	2.2
Someone Home All Day									
Yes	39.9	0.30	7.75	7.6	194	2.6	2.9	73	3.4
No/Don't Know	40.8	0.32	8.16	7.8	200	2.5	3.2	81	2.5
Cooled Floorspace Category (square feet)									
Fewer than 500	9.2	0.02	0.64	2.5	70	2.3	1.1	31	6.5
500 to 999	17.4	0.09	2.33	5.1	134	2.2	2.4	62	5.0
1,000 to 1,499	17.2	0.13	3.28	7.5	191	2.4	3.1	78	4.5
1,500 to 1,999	12.0	0.10	2.61	8.5	218	2.7	3.2	81	5.1
2,000 to 2,499	8.5	0.08	1.97	9.4	233	2.7	3.5	87	5.2
2,500 to 2,999	5.6	0.05	1.36	9.7	243	2.7	3.6	89	8.7
3,000 to 3,499	3.7	0.04	1.07	11.5	289	3.2	3.6	90	6.6
3,500 to 3,999	2.2	0.03	0.81	14.2	370	3.4	4.1	107	14.3
4,000 or More	5.0	0.07	1.84	14.7	366	3.1	4.7	118	6.6
Year of Construction									
1939 or Before	11.9	0.06	1.44	4.6	121	2.5	1.9	49	5.5
1940 to 1949	5.2	0.03	0.82	6.1	157	2.7	2.3	59	9.4
1950 to 1959	10.2	0.06	1.66	6.3	164	2.4	2.7	69	5.3
1960 to 1969	10.1	0.07	1.79	6.7	176	2.4	2.8	74	6.4
1970 to 1979	14.2	0.12	3.11	8.7	220	2.4	3.6	90	5.2
1980 to 1989	15.8	0.14	3.56	9.0	226	2.5	3.6	90	5.1
1990 to 1999	12.6	0.13	3.30	10.4	262	3.0	3.5	89	8.8
2000 to 2001 ⁴	0.8	0.01	0.23	10.5	286	3.5	3.1	83	19.6
Housing Unit Type and Number of Bedrooms									
Mobile Home	5.1	0.05	1.23	10.3	240	2.6	3.9	91	9.7
Less than 3 Bedrooms	2.7	0.02	0.54	8.2	198	2.1	4.0	96	11.5
3 or More Bedrooms	2.4	0.03	0.69	12.7	287	3.3	3.9	87	11.3

See footnotes at end of table.

Table CE3-6.1u. Electric Air-Conditioning Energy Consumption and Expenditures by Household Member and Usage Indicators, 2001 - Preliminary Data
(Continued)

Usage Indicators	Electric Air-Conditioning Energy								RSE Row Factors
	Households (millions)	Total		Per Household			Per Household Member		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	1.0	1.4	1.5	1.0	1.0	0.5	1.0	1.0	
Single-Family Detached	49.3	0.44	11.04	8.9	224	2.7	3.3	83	3.0
Less than 3 Bedrooms	8.8	0.05	1.27	5.6	144	2.0	2.9	73	4.9
3 Bedrooms	27.0	0.22	5.37	8.0	199	2.6	3.1	76	3.8
4 Bedrooms	11.2	0.14	3.58	12.6	321	3.3	3.8	97	5.5
5 or More Bedrooms	2.3	0.03	0.82	13.7	360	3.8	3.6	96	12.5
Single-Family Attached	8.3	0.05	1.40	6.3	169	2.6	2.4	65	9.1
Less than 3 Bedrooms	2.9	0.01	0.36	4.6	125	2.0	2.3	63	11.5
3 Bedrooms	3.6	0.02	0.65	6.5	178	2.5	2.6	70	10.8
4 or More Bedrooms	1.8	0.02	0.39	8.7	222	3.7	2.3	59	16.8
Apartments (2 to 4 units) ...	6.3	0.03	0.79	4.7	125	2.2	2.1	58	8.5
Less than 2 Bedrooms	1.6	0.01	0.14	3.2	87	1.6	1.9	53	12.2
2 Bedrooms	3.6	0.02	0.49	5.2	136	2.0	2.5	67	9.5
3 or More Bedrooms	1.1	0.01	0.16	5.0	144	3.4	1.5	43	22.4
Apartments (5 or more units)	11.8	0.05	1.46	4.5	124	2.0	2.2	61	9.1
Less than 2 Bedrooms	5.6	0.02	0.50	3.2	90	1.6	2.0	57	9.6
2 Bedrooms	5.2	0.03	0.73	5.0	140	2.3	2.2	60	13.2
3 or More Bedrooms	1.0	0.01	0.23	8.9	235	3.3	2.7	71	18.4

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).
² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.
³ If a household has both a central and room air-conditioner then the usage and age of the equipment is presented only for the central unit.
⁴ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.
Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-6.2u. Electric Air-Conditioning Energy Consumption and Expenditures by Square Feet and Usage Indicators, 2001 - Preliminary Data

Usage Indicators	Electric Air-Conditioning Energy								RSE Row Factors
	Households (million)	Total		Per Household			Per Square Feet		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Cooled Square Feet	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	1.0	1.4	1.4	0.9	1.0	0.6	0.9	1.0	
Total Households Using Air-Conditioning¹	80.8	0.62	15.92	7.7	197	1,724	4.5	0.11	2.4
Central Air-Conditioning²									
Have Equipment ³	57.5	0.55	13.81	9.6	240	2,032	4.7	0.12	2.6
Use of Equipment									
Only a Few Times	16.8	0.06	1.77	3.9	105	1,933	2.0	0.05	3.9
Quite a Bit	12.1	0.12	3.02	9.7	249	2,049	4.7	0.12	4.5
All Summer	28.4	0.37	8.99	12.9	316	2,092	6.2	0.15	3.3
Room Air-Conditioning									
Have Equipment	23.3	0.08	2.11	3.2	91	967	3.3	0.09	4.2
Use of Equipment									
Only a Few Times	13.6	0.02	0.75	1.8	55	911	2.0	0.06	4.6
Quite a Bit	5.0	0.02	0.49	3.5	97	1,062	3.3	0.09	7.1
All Summer	4.7	0.03	0.87	7.0	184	1,026	6.8	0.18	7.3
Weekday Home Activities									
Home Used for Business									
Yes	5.9	0.05	1.39	9.2	234	2,179	4.2	0.11	8.1
No/Don't Know	74.8	0.57	14.53	7.6	194	1,688	4.5	0.11	2.7
Energy-Intensive Activity									
Yes	1.3	0.01	0.28	8.2	218	2,163	3.8	0.10	16.4
No/Don't Know	79.5	0.61	15.64	7.7	197	1,717	4.5	0.11	2.4
Someone Home All Day									
Yes	39.9	0.30	7.75	7.6	194	1,789	4.3	0.11	3.4
No/Don't Know	40.8	0.32	8.16	7.8	200	1,662	4.7	0.12	2.8
Cooled Floorspace Category (square feet)									
Fewer than 500	9.2	0.02	0.64	2.5	70	338	7.3	0.21	5.9
500 to 999	17.4	0.09	2.33	5.1	134	763	6.7	0.18	4.9
1,000 to 1,499	17.2	0.13	3.28	7.5	191	1,234	6.1	0.15	4.6
1,500 to 1,999	12.0	0.10	2.61	8.5	218	1,741	4.9	0.13	5.3
2,000 to 2,499	8.5	0.08	1.97	9.4	233	2,223	4.2	0.10	5.5
2,500 to 2,999	5.6	0.05	1.36	9.7	243	2,741	3.5	0.09	9.6
3,000 to 3,499	3.7	0.04	1.07	11.5	289	3,237	3.5	0.09	6.6
3,500 to 3,999	2.2	0.03	0.81	14.2	370	3,700	3.8	0.10	16.6
4,000 or More	5.0	0.07	1.84	14.7	366	5,280	2.8	0.07	6.3
Year of Construction									
1939 or Before	11.9	0.06	1.44	4.6	121	1,463	3.2	0.08	5.6
1940 to 1949	5.2	0.03	0.82	6.1	157	1,432	4.2	0.11	9.2
1950 to 1959	10.2	0.06	1.66	6.3	164	1,667	3.8	0.10	5.6
1960 to 1969	10.1	0.07	1.79	6.7	176	1,616	4.2	0.11	6.5
1970 to 1979	14.2	0.12	3.11	8.7	220	1,562	5.6	0.14	5.4
1980 to 1989	15.8	0.14	3.56	9.0	226	1,785	5.1	0.13	5.5
1990 to 1999	12.6	0.13	3.30	10.4	262	2,245	4.6	0.12	9.4
2000 to 2001 ⁴	0.8	0.01	0.23	10.5	286	3,111	3.4	0.09	21.1
Housing Unit Type and Number of Bedrooms									
Mobile Home	5.1	0.05	1.23	10.3	240	958	10.8	0.25	10.1
Less than 3 Bedrooms	2.7	0.02	0.54	8.2	198	722	11.3	0.27	11.0
3 or More Bedrooms	2.4	0.03	0.69	12.7	287	1,228	10.4	0.23	12.0

See footnotes at end of table.

Table CE3-6.2u. Electric Air-Conditioning Energy Consumption and Expenditures by Square Feet and Usage Indicators, 2001 - Preliminary Data (Continued)

Usage Indicators	Electric Air-Conditioning Energy								RSE Row Factors
	Households (million)	Total		Per Household			Per Square Feet		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Cooled Square Feet	Consumption (million Btu)	Expenditures (dollars)	
	RSE Column Factor:	1.0	1.4	1.4	0.9	1.0	0.6	0.9	
Single-Family Detached	49.3	0.44	11.04	8.9	224	2,078	4.3	0.11	3.1
Less than 3 Bedrooms	8.8	0.05	1.27	5.6	144	1,408	4.0	0.10	5.1
3 Bedrooms	27.0	0.22	5.37	8.0	199	1,932	4.1	0.10	4.0
4 Bedrooms	11.2	0.14	3.58	12.6	321	2,694	4.7	0.12	5.7
5 or More Bedrooms	2.3	0.03	0.82	13.7	360	3,390	4.0	0.11	13.5
Single-Family Attached	8.3	0.05	1.40	6.3	169	1,957	3.2	0.09	9.3
Less than 3 Bedrooms	2.9	0.01	0.36	4.6	125	1,355	3.4	0.09	11.0
3 Bedrooms	3.6	0.02	0.65	6.5	178	2,036	3.2	0.09	10.7
4 or More Bedrooms	1.8	0.02	0.39	8.7	222	2,777	3.1	0.08	16.6
Apartments (2 to 4 units) ...	6.3	0.03	0.79	4.7	125	1,029	4.5	0.12	9.0
Less than 2 Bedrooms	1.6	0.01	0.14	3.2	87	716	4.4	0.12	13.5
2 Bedrooms	3.6	0.02	0.49	5.2	136	1,082	4.8	0.13	10.5
3 or More Bedrooms	1.1	0.01	0.16	5.0	144	1,305	3.8	0.11	24.2
Apartments (5 or more units)	11.8	0.05	1.46	4.5	124	787	5.7	0.16	8.8
Less than 2 Bedrooms	5.6	0.02	0.50	3.2	90	597	5.3	0.15	8.8
2 Bedrooms	5.2	0.03	0.73	5.0	140	907	5.5	0.15	12.6
3 or More Bedrooms	1.0	0.01	0.23	8.9	235	1,229	7.2	0.19	18.5

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

³ If a household has both a central and room air-conditioner then the usage and age of the equipment is presented only for the central unit.

⁴ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-7c. Electric Air-Conditioning Energy Consumption in U.S. Households by Four Most Populated States, 2001 - Preliminary Data

	Four Most Populated States					RSE Row Factors
	Total U.S.	New York	California	Texas	Florida	
	0.4	1.0	1.6	1.3	1.3	
Million Households						
Total U.S. Households	107.0	7.1	12.3	7.7	6.3	NF
No/Don't Use Air-Conditioning	26.2	2.4	7.2	0.3	Q	9.6
Electric Air-Conditioning ¹	80.8	4.7	5.2	7.4	6.1	2.6
Central Air-Conditioning ²	57.5	1.3	3.9	6.2	5.7	6.7
Room/Wall Air-Conditioning	23.3	3.4	1.2	1.2	0.3	13.6
Quadrillion Btu						
Electric Air-Conditioning Btu Consumption						
Total	0.62	0.01	0.02	0.11	0.10	8.2
Central Air-Conditioning	0.55	(*)	0.02	0.10	0.09	9.8
Room/Wall Air-Conditioning	0.08	0.01	(*)	0.01	(*)	17.8
Billion kWh						
Electric Air-Conditioning kWh Consumption						
Total	183	3	5	32	28	8.2
Central Air-Conditioning	161	1	5	29	27	9.8
Room/Wall Air-Conditioning	22	2	(*)	3	1	17.8
Million Btu per Household³						
Electric Air-Conditioning Btu Consumption per Household						
Electric Air-Conditioning	7.7	2.4	3.3	14.9	15.7	6.7
Central Air-Conditioning	9.6	3.3	3.9	16.3	16.3	8.0
Room/Wall Air-Conditioning	3.2	2.0	1.2	8.0	7.2	10.7
kWh per Household³						
Electric Air-Conditioning kWh Consumption per Household						
Electric Air-Conditioning	2,265	693	959	4,368	4,613	6.7
Central Air-Conditioning	2,802	961	1,151	4,765	4,767	8.0
Room/Wall Air-Conditioning	943	593	337	2,343	2,098	10.7
2001 Cooling Degree-Days (CDD) per Household³						
2001 Cooling Degree-Days per Household						
Total U.S. Households	1,407	988	860	2,653	3,452	4.5
No/Don't Use Air-Conditioning	883	946	627	2,186	Q	6.5
Electric Air-Conditioning	1,578	1,009	1,183	2,673	3,434	4.4
Central Air-Conditioning	1,701	749	1,276	2,669	3,398	6.2
Room/Wall Air-Conditioning	1,274	1,106	881	2,693	4,022	7.3

See footnotes at end of table.

Table CE3-7c. Electric Air-Conditioning Energy Consumption in U.S. Households by Four Most Populated States, 2001 - Preliminary Data (Continued)

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.4	1.0	1.6	1.3	1.3	
Cooled Square Footage (CSF) per Household³						
Cooled Square Footage per Household						
Electric Air-Conditioning	1,724	1,149	1,374	1,697	1,682	6.7
Central Air-Conditioning	2,032	1,852	1,640	1,856	1,732	8.8
Room/Wall Air-Conditioning	967	886	512	889	Q	6.9
Air-Conditioning Intensity³ [kWh÷(CDD×(CSF÷1000))]						
Air-Conditioning Intensity						
Electric Air-Conditioning	0.83	0.60	0.59	0.96	0.80	3.6
Central Air-Conditioning	0.81	0.69	0.55	0.96	0.81	5.0
Room/Wall Air-Conditioning	0.77	0.61	0.75	0.98	0.59	9.1

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

³ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

(*) = Value rounds to zero in the units displayed.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-8c. Electric Air-Conditioning Energy Consumption in U.S. Households by Urban/Rural Location, 2001 - Preliminary Data

	Total	Urban/Rural Location ¹				RSE Row Factors
		City	Town	Suburbs	Rural	
RSE Column Factor:	0.6	0.8	1.3	1.2	1.4	
Million Households						
Total U.S. Households	107.0	49.9	18.0	21.2	17.9	4.2
No/Don't Use Air-Conditioning	26.2	14.3	4.6	2.7	4.6	7.8
Electric Air-Conditioning ²	80.8	35.6	13.4	18.6	13.3	4.3
Central Air-Conditioning ³	57.5	23.6	8.6	15.8	9.4	5.1
Room/Wall Air-Conditioning	23.3	12.0	4.8	2.7	3.9	7.4
Quadrillion Btu						
Electric Air-Conditioning Btu Consumption						
Total	0.62	0.26	0.08	0.17	0.11	6.1
Central Air-Conditioning	0.55	0.22	0.07	0.16	0.10	6.5
Room/Wall Air-Conditioning	0.08	0.04	0.02	0.01	0.01	10.3
Billion kWh						
Electric Air-Conditioning kWh Consumption						
Total	183	76	25	50	32	6.1
Central Air-Conditioning	161	64	20	48	28	6.5
Room/Wall Air-Conditioning	22	11	5	2	4	10.3
Million Btu per Household⁴						
Electric Air-Conditioning Btu Consumption per Household						
Electric Air-Conditioning	7.7	7.2	6.3	9.3	8.3	4.2
Central Air-Conditioning	9.6	9.3	8.0	10.4	10.3	4.1
Room/Wall Air-Conditioning	3.2	3.2	3.4	2.6	3.6	7.0
kWh per Household⁴						
Electric Air-Conditioning kWh Consumption per Household						
Electric Air-Conditioning	2,265	2,124	1,856	2,713	2,431	4.2
Central Air-Conditioning	2,802	2,727	2,337	3,044	3,007	4.1
Room/Wall Air-Conditioning	943	932	985	774	1,046	7.0
2001 Cooling Degree-Days (CDD) per Household⁴						
2001 Cooling Degree-Days per Household						
Total U.S. Households	1,407	1,482	1,234	1,489	1,277	3.2
No/Don't Use Air-Conditioning	883	908	852	800	885	6.9
Electric Air-Conditioning	1,578	1,713	1,366	1,588	1,413	3.3
Central Air-Conditioning	1,701	1,890	1,494	1,648	1,504	3.6
Room/Wall Air-Conditioning	1,274	1,364	1,134	1,240	1,195	4.8

See footnotes at end of table.

Table CE3-8c. Electric Air-Conditioning Energy Consumption in U.S. Households by Urban/Rural Location, 2001 - Preliminary Data (Continued)

	Total	Urban/Rural Location ¹				RSE Row Factors
		City	Town	Suburbs	Rural	
RSE Column Factor:	0.6	0.8	1.3	1.2	1.4	
Cooled Square Footage (CSF) per Household⁴						
Cooled Square Footage per Household						
Electric Air-Conditioning	1,724	1,480	1,671	2,144	1,847	3.3
Central Air-Conditioning	2,032	1,771	2,027	2,335	2,182	3.5
Room/Wall Air-Conditioning	967	905	1,026	1,027	1,043	5.5
Air-Conditioning Intensity⁴ [kWh÷(CDD×(CSF÷1000))]						
Air-Conditioning Intensity						
Electric Air-Conditioning	0.83	0.84	0.81	0.80	0.93	2.5
Central Air-Conditioning	0.81	0.81	0.77	0.79	0.92	2.7
Room/Wall Air-Conditioning	0.77	0.76	0.85	0.61	0.84	5.6

¹ Based on the household respondent's description rather than the Federal Government definition.

² The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

³ The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

⁴ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-9c. Electric Air-Conditioning Energy Consumption in U.S. Households by Northeast Census Region, 2001 - Preliminary Data

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
	0.5	0.9	1.0	1.9	
RSE Column Factor:					
Million Households					
Total U.S. Households	107.0	20.3	14.8	5.4	NF
No/Don't Use Air-Conditioning	26.2	6.0	3.8	2.3	8.0
Electric Air-Conditioning ¹	80.8	14.2	11.1	3.2	3.4
Central Air-Conditioning ²	57.5	5.7	4.9	0.8	8.9
Room/Wall Air-Conditioning	23.3	8.5	6.1	2.4	5.6
Quadrillion Btu					
Electric Air-Conditioning Btu Consumption					
Total	0.62	0.05	0.04	0.01	8.4
Central Air-Conditioning	0.55	0.03	0.02	(*)	12.6
Room/Wall Air-Conditioning	0.08	0.02	0.01	(*)	7.1
Billion kWh					
Electric Air-Conditioning kWh Consumption					
Total	183	13	11	2	8.4
Central Air-Conditioning	161	8	7	1	12.6
Room/Wall Air-Conditioning	22	5	4	1	7.1
Million Btu per Household³					
Electric Air-Conditioning Btu Consumption per Household					
Electric Air-Conditioning	7.7	3.2	3.4	2.7	7.0
Central Air-Conditioning	9.6	5.0	4.9	5.7	7.0
Room/Wall Air-Conditioning	3.2	2.0	2.2	1.7	4.9
kWh per Household³					
Electric Air-Conditioning kWh Consumption per Household					
Electric Air-Conditioning	2,265	941	987	779	7.0
Central Air-Conditioning	2,802	1,457	1,424	1,674	7.0
Room/Wall Air-Conditioning	943	596	637	492	4.9
2001 Cooling Degree-Days (CDD) per Household³					
2001 Cooling Degree-Days per Household					
Total U.S. Households	1,407	888	947	726	2.4
No/Don't Use Air-Conditioning	883	820	916	659	5.0
Electric Air-Conditioning	1,578	917	958	773	1.7
Central Air-Conditioning	1,701	835	842	789	2.8
Room/Wall Air-Conditioning	1,274	971	1,050	768	2.2

See footnotes at end of table.

Table CE3-9c. Electric Air-Conditioning Energy Consumption in U.S. Households by Northeast Census Region, 2001 - Preliminary Data (Continued)

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.5	0.9	1.0	1.9	
Cooled Square Footage (CSF) per Household³					
Cooled Square Footage per Household					
Electric Air-Conditioning	1,724	1,505	1,497	1,533	5.5
Central Air-Conditioning	2,032	2,306	2,207	2,944	6.2
Room/Wall Air-Conditioning	967	971	928	1,081	3.9
Air-Conditioning Intensity³ [kWh÷{CDD×(CSF÷1000)}]					
Air-Conditioning Intensity					
Electric Air-Conditioning	0.83	0.68	0.69	0.66	3.5
Central Air-Conditioning	0.81	0.76	0.77	0.72	5.2
Room/Wall Air-Conditioning	0.77	0.63	0.65	0.59	3.6

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

³ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

(*) = Value rounds to zero in the units displayed.

NF = No applicable RSE row factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-10c. Electric Air-Conditioning Energy Consumption in U.S. Households by Midwest Census Region, 2001 - Preliminary Data

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
	0.6	0.9	1.1	1.7	
RSE Column Factor:					
Million Households					
Total U.S. Households	107.0	24.5	17.1	7.4	NF
No/Don't Use Air-Conditioning	26.2	4.3	3.7	0.7	10.9
Electric Air-Conditioning ¹	80.8	20.2	13.4	6.7	2.3
Central Air-Conditioning ²	57.5	14.3	9.5	4.8	3.8
Room/Wall Air-Conditioning	23.3	5.8	3.9	1.9	7.1
Quadrillion Btu					
Electric Air-Conditioning Btu Consumption					
Total	0.62	0.10	0.06	0.04	5.2
Central Air-Conditioning	0.55	0.09	0.05	0.04	6.2
Room/Wall Air-Conditioning	0.08	0.02	0.01	0.01	9.4
Billion kWh					
Electric Air-Conditioning kWh Consumption					
Total	183	31	18	12	5.2
Central Air-Conditioning	161	26	16	10	6.2
Room/Wall Air-Conditioning	22	4	3	2	9.4
Million Btu per Household³					
Electric Air-Conditioning Btu Consumption per Household					
Electric Air-Conditioning	7.7	5.2	4.7	6.2	4.5
Central Air-Conditioning	9.6	6.2	5.7	7.3	4.0
Room/Wall Air-Conditioning	3.2	2.6	2.3	3.2	6.7
kWh per Household³					
Electric Air-Conditioning kWh Consumption per Household					
Electric Air-Conditioning	2,265	1,515	1,368	1,809	4.5
Central Air-Conditioning	2,802	1,825	1,658	2,153	4.0
Room/Wall Air-Conditioning	943	756	665	944	6.7
2001 Cooling Degree-Days (CDD) per Household³					
2001 Cooling Degree-Days per Household					
Total U.S. Households	1,407	921	856	1,071	3.5
No/Don't Use Air-Conditioning	883	792	781	851	3.7
Electric Air-Conditioning	1,578	949	877	1,093	3.7
Central Air-Conditioning	1,701	967	883	1,131	3.8
Room/Wall Air-Conditioning	1,274	906	861	997	4.4

See footnotes at end of table.

Table CE3-10c. Electric Air-Conditioning Energy Consumption in U.S. Households by Midwest Census Region, 2001 - Preliminary Data (Continued)

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
RSE Column Factor:	0.6	0.9	1.1	1.7	
Cooled Square Footage (CSF) per Household³					
Cooled Square Footage per Household					
Electric Air-Conditioning	1,724	2,021	2,031	2,003	3.1
Central Air-Conditioning	2,032	2,378	2,438	2,261	3.1
Room/Wall Air-Conditioning	967	1,146	1,045	1,354	6.5
Air-Conditioning Intensity³ [kWh÷{CDD×(CSF÷1000)}]					
Air-Conditioning Intensity					
Electric Air-Conditioning	0.83	0.79	0.77	0.83	2.3
Central Air-Conditioning	0.81	0.79	0.77	0.84	2.2
Room/Wall Air-Conditioning	0.77	0.73	0.74	0.70	6.4

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

³ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

NF = No applicable RSE row factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-11c. Electric Air-Conditioning Energy Consumption in U.S. Households by South Census Region, - Preliminary Data

	Total U.S.	South Census Region			RSE Row Factors	
		Total	Census Division			
			South Atlantic	East South Central		West south Central
RSE Column Factor:	0.6	0.8	1.2	1.2	1.5	
Million Households						
Total U.S. Households	107.0	38.9	20.3	6.8	11.8	NF
No/Don't Use Air-Conditioning	26.2	2.1	1.3	0.4	0.4	16.1
Electric Air-Conditioning ¹	80.8	36.9	19.0	6.4	11.5	1.6
Central Air-Conditioning ²	57.5	30.4	16.1	5.0	9.2	2.8
Room/Wall Air-Conditioning	23.3	6.4	2.9	1.3	2.2	9.0
Quadrillion Btu						
Electric Air-Conditioning Btu Consumption						
Total	0.62	0.42	0.20	0.06	0.16	4.1
Central Air-Conditioning	0.55	0.39	0.19	0.06	0.14	4.0
Room/Wall Air-Conditioning	0.08	0.04	0.01	0.01	0.02	13.2
Billion kWh						
Electric Air-Conditioning kWh Consumption						
Total	183	124	59	19	46	4.1
Central Air-Conditioning	161	113	55	16	41	4.0
Room/Wall Air-Conditioning	22	11	4	3	5	13.2
Million Btu per Household³						
Electric Air-Conditioning Btu Consumption per Household						
Electric Air-Conditioning	7.7	11.5	10.6	10.1	13.8	3.5
Central Air-Conditioning	9.6	12.7	11.6	11.1	15.3	3.5
Room/Wall Air-Conditioning	3.2	5.9	4.6	6.5	7.3	8.2
kWh per Household³						
Electric Air-Conditioning kWh Consumption per Household						
Electric Air-Conditioning	2,265	3,366	3,098	2,972	4,031	3.5
Central Air-Conditioning	2,802	3,714	3,413	3,259	4,487	3.5
Room/Wall Air-Conditioning	943	1,725	1,338	1,900	2,125	8.2
2001 Cooling Degree-Days (CDD) per Household³						
2001 Cooling Degree-Days per Household						
Total U.S. Households	1,407	2,153	2,071	1,690	2,560	3.6
No/Don't Use Air-Conditioning	883	1,905	1,933	1,573	2,225	7.6
Electric Air-Conditioning	1,578	2,167	2,081	1,698	2,570	3.6
Central Air-Conditioning	1,701	2,192	2,135	1,679	2,570	3.6
Room/Wall Air-Conditioning	1,274	2,047	1,775	1,769	2,571	5.5

See footnotes at end of table.

Table CE3-11c. Electric Air-Conditioning Energy Consumption in U.S. Households by South Census Region, - Preliminary Data (Continued)

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			Total	
		South Atlantic	East South Central	West south Central		
RSE Column Factor:	0.6	0.8	1.2	1.2	1.5	
Cooled Square Footage (CSF) per Household³						
Cooled Square Footage per Household						
Electric Air-Conditioning	1,724	1,732	1,737	1,891	1,636	4.5
Central Air-Conditioning	2,032	1,904	1,896	2,086	1,819	4.5
Room/Wall Air-Conditioning	967	923	852	1,162	872	7.5
Air-Conditioning Intensity³ [kWh÷{CDD×(CSF÷1000)}]						
Air-Conditioning Intensity						
Electric Air-Conditioning	0.83	0.90	0.86	0.93	0.96	2.1
Central Air-Conditioning	0.81	0.89	0.84	0.93	0.96	2.4
Room/Wall Air-Conditioning	0.77	0.91	0.88	0.92	0.95	5.8

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

³ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

NF = No applicable RSE row factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-12c. Electric Air-Conditioning Energy Consumption in U.S. Households by West Census Region, 2001 - Preliminary Data

	West Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	Mountain	Pacific	
RSE Column Factor:	0.3	1.2	2.0	1.3	
Million Households					
Total U.S. Households	107.0	23.3	6.7	16.6	NF
No/Don't Use Air-Conditioning	26.2	13.8	3.5	10.2	7.6
Electric Air-Conditioning ¹	80.8	9.6	3.2	6.3	7.2
Central Air-Conditioning ²	57.5	7.1	2.6	4.5	8.5
Room/Wall Air-Conditioning	23.3	2.5	0.6	1.9	10.1
Quadrillion Btu					
Electric Air-Conditioning Btu Consumption					
Total	0.62	0.05	0.03	0.02	9.5
Central Air-Conditioning	0.55	0.05	0.03	0.02	9.7
Room/Wall Air-Conditioning	0.08	(*)	(*)	(*)	14.9
Billion kWh					
Electric Air-Conditioning kWh Consumption					
Total	183	15	9	6	9.5
Central Air-Conditioning	161	14	9	5	9.7
Room/Wall Air-Conditioning	22	1	(*)	1	14.9
Million Btu per Household³					
Electric Air-Conditioning Btu Consumption per Household					
Electric Air-Conditioning	7.7	5.4	9.6	3.2	7.3
Central Air-Conditioning	9.6	6.6	11.4	3.9	7.8
Room/Wall Air-Conditioning	3.2	1.9	2.5	1.7	10.3
kWh per Household³					
Electric Air-Conditioning kWh Consumption per Household					
Electric Air-Conditioning	2,265	1,572	2,810	946	7.3
Central Air-Conditioning	2,802	1,935	3,327	1,137	7.8
Room/Wall Air-Conditioning	943	548	729	487	10.3
2001 Cooling Degree-Days (CDD) per Household³					
2001 Cooling Degree-Days per Household					
Total U.S. Households	1,407	1,125	1,917	804	6.2
No/Don't Use Air-Conditioning	883	784	1,361	586	6.5
Electric Air-Conditioning	1,578	1,615	2,527	1,155	7.7
Central Air-Conditioning	1,701	1,771	2,821	1,170	8.1
Room/Wall Air-Conditioning	1,274	1,176	1,342	1,119	9.8

See footnotes at end of table.

Table CE3-12c. Electric Air-Conditioning Energy Consumption in U.S. Households by West Census Region, 2001 - Preliminary Data (Continued)

	West Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Mountain	Pacific	
RSE Column Factor:	0.3	1.2	2.0	1.3	
Cooled Square Footage (CSF) per Household³					
Cooled Square Footage per Household					
Electric Air-Conditioning	1,724	1,394	1,383	1,399	5.7
Central Air-Conditioning	2,032	1,660	1,568	1,713	6.4
Room/Wall Air-Conditioning	967	643	640	644	6.7
Air-Conditioning Intensity³ [kWh÷{CDD×(CSF÷1000)}]					
Air-Conditioning Intensity					
Electric Air-Conditioning	0.83	0.70	0.80	0.59	3.5
Central Air-Conditioning	0.81	0.66	0.75	0.57	4.2
Room/Wall Air-Conditioning	0.77	0.72	0.85	0.67	9.4

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

³ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

(*) = Value rounds to zero in the units displayed.

NF = No applicable RSE row factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Residential Energy Consumption Surveys

2001 Consumption and Expenditures Tables

Electric Air-Conditioning Consumption Tables

(26 pages, 112 kb)

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These data are from the 2001 Residential Energy Consumption Survey (RECS) which provides information on the use of energy in residential housing units in the United States. The RECS is a national statistical survey that collects energy-related data for occupied primary housing units. RECS was first conducted in 1978; the eleventh and most recent survey was conducted in 2001. In the 2001 RECS, data were collected from a sample of 4,822 households in housing units statistically selected to represent the 107.0 million housing units in the United States. The RECS data are available for the four Census regions, the nine Census divisions, and for the four most populous States--California, Florida, New York, and Texas.

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World Wide Web: <http://www.eia.doe.gov/emeu/consumption>

Table CE3-1c. Electric Air-Conditioning Energy Consumption in U.S. Households by Climate Zone, 2001

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.4	1.6	1.0	0.9	1.5	1.0	
Million Households							
Total U.S. Households	107.0	9.2	28.6	24.0	21.0	24.1	8.1
No/Don't Use Air-Conditioning	26.2	4.0	8.1	4.2	7.6	2.3	11.3
Electric Air-Conditioning ²	80.8	5.3	20.5	19.9	13.4	21.8	8.2
Central Air-Conditioning ³	57.5	3.1	12.9	12.7	10.5	18.2	9.2
Room/Wall Air-Conditioning	23.3	2.2	7.6	7.2	2.9	3.6	11.3
Quadrillion Btu^a							
Electric Air-Conditioning Btu Consumption							
Total	0.62	0.02	0.08	0.11	0.11	0.30	10.3
Central Air-Conditioning	0.55	0.01	0.07	0.09	0.09	0.28	10.6
Room/Wall Air-Conditioning	0.08	(*)	0.02	0.02	0.01	0.02	14.7
Billion kWh^a							
Electric Air-Conditioning kWh Consumption							
Total	183	6	25	33	31	88	10.3
Central Air-Conditioning	161	4	20	27	28	82	10.6
Room/Wall Air-Conditioning	22	1	5	6	3	6	14.7
Million Btu per Household^{4,a}							
Electric Air-Conditioning Btu Consumption per Household							
Electric Air-Conditioning	7.7	3.6	4.1	5.7	7.9	13.8	4.9
Central Air-Conditioning	9.5	4.7	5.3	7.1	9.0	15.4	4.6
Room/Wall Air-Conditioning	3.2	2.1	2.2	3.0	4.0	6.0	8.0
kWh per Household^{4,a}							
Electric Air-Conditioning kWh Consumption per Household							
Electric Air-Conditioning	2,263	1,069	1,208	1,660	2,322	4,058	4.9
Central Air-Conditioning	2,796	1,372	1,542	2,094	2,638	4,510	4.6
Room/Wall Air-Conditioning	950	630	639	890	1,161	1,752	8.0
2001 Cooling Degree-Days (CDD) per Household⁴							
2001 Cooling Degree-Days per Household							
Total U.S. Households	1,407	665	777	1,147	1,236	2,852	3.8
No/Don't Use Air-Conditioning	883	603	639	860	738	2,752	8.2
Electric Air-Conditioning	1,578	712	832	1,207	1,520	2,863	3.0
Central Air-Conditioning	1,701	732	848	1,221	1,561	2,887	3.2
Room/Wall Air-Conditioning	1,274	681	804	1,181	1,368	2,742	3.4

See footnotes at end of table.

Table CE3-1c. Electric Air-Conditioning Energy Consumption in U.S. Households by Climate Zone, 2001 (Continued)

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.4	1.6	1.0	0.9	1.5	1.0	
Cooled Square Footage (CSF) per Household⁴							
Cooled Square Footage per Household							
Electric Air-Conditioning	1,724	1,867	1,863	1,697	1,732	1,579	4.1
Central Air-Conditioning	2,032	2,405	2,336	2,101	1,989	1,729	4.1
Room/Wall Air-Conditioning	967	1,090	1,058	981	790	811	6.2
Air-Conditioning Intensity^{4,a} [kWh÷{CDD×(CSF÷1000)}]							
Air-Conditioning Intensity							
Electric Air-Conditioning	0.83	0.80	0.78	0.81	0.88	0.90	2.5
Central Air-Conditioning	0.81	0.78	0.78	0.82	0.85	0.90	2.7
Room/Wall Air-Conditioning	0.77	0.85	0.75	0.77	1.07	0.79	5.6

¹ One of five climatically distinct areas, determined according to the 30-year average (1961-1990) of the annual heating and cooling degree-days. For this report, the heating or cooling degree-days are a measure of how cold or how hot a location is over a period of one year, relative to a base temperature of 65 degrees Fahrenheit. A household is assigned to a climate zone according to the 30-year average annual degree-days for an appropriate nearby weather station.

² The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

³ The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

⁴ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

(*) = Value rounds to zero in the units displayed.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-2c. Electric Air-Conditioning Energy Consumption in U.S. Households by Year of Construction, 2001

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.8	1.1	1.1	1.2	1.1	0.8	
Million Households								
Total U.S. Households	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.2
No/Don't Use Air-Conditioning	26.2	2.1	2.5	4.6	3.6	4.0	9.5	8.7
Electric Air-Conditioning ²	80.8	13.4	15.8	14.2	10.1	10.2	17.1	4.7
Central Air-Conditioning ³	57.5	12.6	13.7	11.0	7.1	6.6	6.4	5.9
Room/Wall Air-Conditioning	23.3	0.8	2.1	3.1	3.1	3.5	10.8	8.7
Quadrillion Btu^a								
Electric Air-Conditioning Btu Consumption								
Total	0.62	0.13	0.14	0.13	0.07	0.07	0.09	7.0
Central Air-Conditioning	0.55	0.13	0.14	0.12	0.06	0.05	0.05	7.9
Room/Wall Air-Conditioning	0.08	(*)	0.01	0.01	0.01	0.01	0.03	12.2
Billion kWh^a								
Electric Air-Conditioning kWh Consumption								
Total	183	38	42	37	20	20	26	7.0
Central Air-Conditioning	161	37	40	34	17	16	16	7.9
Room/Wall Air-Conditioning	22	1	2	3	3	4	10	12.2
Million Btu per Household^{4,a}								
Electric Air-Conditioning Btu Consumption per Household								
Electric Air-Conditioning	7.7	9.7	9.0	8.9	6.9	6.7	5.1	5.2
Central Air-Conditioning	9.5	10.1	9.9	10.6	8.3	8.2	8.5	5.5
Room/Wall Air-Conditioning	3.2	3.4	2.8	2.9	3.5	3.8	3.2	8.7
kWh per Household^{4,a}								
Electric Air-Conditioning kWh Consumption per Household								
Electric Air-Conditioning	2,263	2,854	2,640	2,602	2,011	1,956	1,503	5.2
Central Air-Conditioning	2,796	2,967	2,911	3,103	2,430	2,405	2,488	5.5
Room/Wall Air-Conditioning	950	1,010	829	847	1,039	1,103	924	8.7
2001 Cooling Degree-Days (CDD) per Household⁴								
2001 Cooling Degree-Days per Household								
Total U.S. Households	1,407	1,455	1,648	1,586	1,376	1,352	1,135	3.4
No/Don't Use Air-Conditioning	883	583	1,032	841	932	971	874	8.2
Electric Air-Conditioning	1,578	1,590	1,744	1,826	1,536	1,502	1,279	3.5
Central Air-Conditioning	1,701	1,608	1,838	1,957	1,606	1,544	1,412	4.1
Room/Wall Air-Conditioning	1,274	1,299	1,114	1,367	1,373	1,422	1,200	6.2

See footnotes at end of table.

Table CE3-2c. Electric Air-Conditioning Energy Consumption in U.S. Households by Year of Construction, 2001 (Continued)

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.8	1.1	1.1	1.2	1.1	0.8	
Cooled Square Footage (CSF) per Household⁴								
Cooled Square Footage per Household								
Electric Air-Conditioning	1,724	2,297	1,785	1,562	1,616	1,667	1,454	3.7
Central Air-Conditioning	2,032	2,376	1,937	1,804	1,912	2,012	2,106	3.8
Room/Wall Air-Conditioning	967	1,005	773	714	929	1,013	1,070	6.6
Air-Conditioning Intensity^{4,a} [kWh÷(CDD×(CSF÷1000))]								
Air-Conditioning Intensity								
Electric Air-Conditioning	0.83	0.78	0.85	0.91	0.81	0.78	0.81	3.2
Central Air-Conditioning	0.81	0.78	0.82	0.88	0.79	0.77	0.84	3.3
Room/Wall Air-Conditioning	0.77	0.77	0.96	0.87	0.81	0.77	0.72	7.8

¹ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

² The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

³ The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

⁴ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

(*) = Value rounds to zero in the units displayed.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-3c. Electric Air-Conditioning Energy Consumption in U.S. Households by Household Income, 2001

	Total	2001 Household Income				Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.6	1.0	1.0	0.8	1.4	0.9	
Million Households								
Total U.S. Households	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.3
No/Don't Use Air-Conditioning	26.2	4.2	8.8	6.1	7.1	5.9	11.3	6.9
Electric Air-Conditioning ²	80.8	6.9	21.7	21.0	31.2	9.1	22.6	3.9
Central Air-Conditioning ³	57.5	3.2	13.7	15.2	25.3	4.5	12.4	5.5
Room/Wall Air-Conditioning	23.3	3.7	8.0	5.8	5.9	4.7	10.1	5.9
Quadrillion Btu^a								
Electric Air-Conditioning Btu Consumption								
Total	0.62	0.04	0.13	0.15	0.31	0.05	0.13	5.9
Central Air-Conditioning	0.55	0.02	0.10	0.13	0.29	0.04	0.10	6.9
Room/Wall Air-Conditioning	0.08	0.01	0.03	0.02	0.02	0.02	0.03	8.4
Billion kWh^a								
Electric Air-Conditioning kWh Consumption								
Total	183	10	38	44	91	16	39	5.9
Central Air-Conditioning	161	7	30	39	85	11	29	6.9
Room/Wall Air-Conditioning	22	4	8	5	6	5	10	8.4
Million Btu per Household^{4,a}								
Electric Air-Conditioning Btu Consumption per Household								
Electric Air-Conditioning	7.7	5.1	5.9	7.2	9.9	5.8	5.8	4.0
Central Air-Conditioning	9.5	7.1	7.5	8.7	11.5	8.2	7.9	4.4
Room/Wall Air-Conditioning	3.2	3.4	3.2	3.1	3.3	3.6	3.3	6.2
kWh per Household^{4,a}								
Electric Air-Conditioning kWh Consumption per Household								
Electric Air-Conditioning	2,263	1,501	1,728	2,100	2,913	1,710	1,711	4.0
Central Air-Conditioning	2,796	2,091	2,187	2,553	3,360	2,390	2,316	4.4
Room/Wall Air-Conditioning	950	993	940	904	981	1,059	967	6.2
2001 Cooling Degree-Days (CDD) per Household⁴								
2001 Cooling Degree-Days per Household								
Total U.S. Households	1,407	1,423	1,444	1,396	1,381	1,435	1,372	3.1
No/Don't Use Air-Conditioning	883	974	994	896	682	1,029	972	5.2
Electric Air-Conditioning	1,578	1,696	1,627	1,542	1,541	1,696	1,572	3.1
Central Air-Conditioning	1,701	1,920	1,779	1,687	1,638	1,915	1,741	3.6
Room/Wall Air-Conditioning	1,274	1,502	1,366	1,157	1,121	1,486	1,365	4.4

See footnotes at end of table.

Table CE3-3c. Electric Air-Conditioning Energy Consumption in U.S. Households by Household Income, 2001 (Continued)

	Total	2001 Household Income				Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.6	1.0	1.0	0.8	1.4	0.9	
Cooled Square Footage (CSF) per Household⁴								
Cooled Square Footage per Household								
Electric Air-Conditioning	1,724	967	1,203	1,585	2,349	1,017	1,164	2.9
Central Air-Conditioning	2,032	1,289	1,404	1,778	2,618	1,317	1,448	3.4
Room/Wall Air-Conditioning	967	689	857	1,074	1,185	730	813	4.8
Air-Conditioning Intensity^{4,a} [kWh÷(CDD×(CSF÷1000))]								
Air-Conditioning Intensity								
Electric Air-Conditioning	0.83	0.92	0.88	0.86	0.80	0.99	0.94	2.7
Central Air-Conditioning	0.81	0.84	0.88	0.85	0.78	0.95	0.92	3.2
Room/Wall Air-Conditioning	0.77	0.96	0.80	0.73	0.74	0.98	0.87	6.0

¹ Below 150 percent of poverty line or 60 percent of median State income.

² The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

³ The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

⁴ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-4c. Electric Air-Conditioning Energy Consumption in U.S. Households by Type of Housing Unit, 2001

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Apartments in Buildings With		Mobile Homes	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.5	1.5	1.5	1.8	
Million Households						
Total U.S. Households	107.0	73.7	9.5	17.0	6.8	4.3
No/Don't Use Air-Conditioning	26.2	16.1	3.2	5.2	1.7	8.4
Electric Air-Conditioning ¹	80.8	57.6	6.3	11.8	5.1	4.9
Central Air-Conditioning ²	57.5	43.6	3.2	7.1	3.5	6.7
Room/Wall Air-Conditioning	23.3	13.9	3.1	4.7	1.6	7.7
Quadrillion Btu^a						
Electric Air-Conditioning Btu Consumption						
Total	0.62	0.50	0.03	0.05	0.04	7.9
Central Air-Conditioning	0.55	0.45	0.02	0.05	0.03	9.0
Room/Wall Air-Conditioning	0.08	0.05	0.01	0.01	0.01	10.8
Billion kWh^a						
Electric Air-Conditioning kWh Consumption						
Total	183	146	9	16	11	7.9
Central Air-Conditioning	161	131	7	13	9	9.0
Room/Wall Air-Conditioning	22	15	2	3	2	10.8
Million Btu per Household^{3,a}						
Electric Air-Conditioning Btu Consumption per Household						
Electric Air-Conditioning	7.7	8.7	5.0	4.6	7.4	5.5
Central Air-Conditioning	9.5	10.3	7.4	6.4	8.9	5.9
Room/Wall Air-Conditioning	3.2	3.7	2.6	1.9	4.0	6.9
kWh per Household^{3,a}						
Electric Air-Conditioning kWh Consumption per Household						
Electric Air-Conditioning	2,263	2,545	1,477	1,350	2,157	5.5
Central Air-Conditioning	2,796	3,008	2,161	1,870	2,611	5.9
Room/Wall Air-Conditioning	950	1,094	774	557	1,175	6.9
2001 Cooling Degree-Days (CDD) per Household³						
2001 Cooling Degree-Days per Household						
Total U.S. Households	1,407	1,421	1,282	1,389	1,485	4.2
No/Don't Use Air-Conditioning	883	919	825	751	1,059	7.4
Electric Air-Conditioning	1,578	1,561	1,511	1,673	1,623	4.3
Central Air-Conditioning	1,701	1,646	1,952	1,957	1,627	5.0
Room/Wall Air-Conditioning	1,274	1,295	1,058	1,240	1,613	5.4

See footnotes at end of table.

Table CE3-4c. Electric Air-Conditioning Energy Consumption in U.S. Households by Type of Housing Unit, 2001 (Continued)

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Apartments in Buildings With		Mobile Homes	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.5	1.5	1.5	1.8	
Cooled Square Footage (CSF) per Household³						
Cooled Square Footage per Household						
Electric Air-Conditioning	1,724	2,061	1,029	787	958	3.3
Central Air-Conditioning	2,032	2,348	1,181	924	1,128	3.4
Room/Wall Air-Conditioning	967	1,161	874	578	591	4.6
Air-Conditioning Intensity^{3,a} [kWh÷(CDD×(CSF÷1000))]						
Air-Conditioning Intensity						
Electric Air-Conditioning	0.83	0.79	0.95	1.03	1.39	2.9
Central Air-Conditioning	0.81	0.78	0.94	1.03	1.42	3.1
Room/Wall Air-Conditioning	0.77	0.73	0.84	0.78	1.23	6.6

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

³ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-5.1u. Electric Air-Conditioning Energy Consumption and Expenditures by Household Member and Demographics, 2001

Household Demographics	Electric Air-Conditioning Energy								RSE Row Factors
	Households (millions)	Total ^a		Per Household ^a			Per Household Member ^a		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	0.9	1.4	1.4	1.0	1.0	0.5	1.0	1.0	
Total Households Using Air-Conditioning¹	80.8	0.62	15.94	7.7	197	2.5	3.0	77	2.2
Household Size									
1 Person	20.1	0.10	2.65	5.0	132	1.0	5.0	132	4.8
2 Persons	27.7	0.20	5.04	7.1	182	2.0	3.6	91	3.2
3 Persons	13.1	0.11	2.77	8.5	212	3.0	2.8	71	4.7
4 Persons	12.2	0.13	3.31	10.6	271	4.0	2.7	68	5.5
5 Persons	5.3	0.06	1.51	11.3	286	5.0	2.3	57	8.5
6 or More Persons	2.4	0.03	0.66	10.3	269	6.5	1.6	41	9.4
2001 Household Income Category									
Less than \$9,999	6.9	0.04	0.88	5.1	129	1.8	2.8	70	7.1
\$10,000 to \$14,999	5.0	0.03	0.68	5.5	135	2.1	2.6	65	7.9
\$15,000 to \$19,999	6.4	0.04	1.03	6.4	162	2.1	3.0	76	7.4
\$20,000 to \$29,999	10.4	0.06	1.51	5.8	146	2.3	2.5	64	6.0
\$30,000 to \$39,999	10.6	0.07	1.84	6.9	174	2.5	2.7	69	4.6
\$40,000 to \$49,999	10.4	0.08	1.98	7.5	191	2.6	2.9	73	6.1
\$50,000 to \$74,999	17.4	0.16	4.10	9.2	235	2.9	3.1	81	4.6
\$75,000 to \$99,999	6.6	0.06	1.59	9.3	239	3.0	3.1	81	5.9
\$100,000 or More	7.1	0.09	2.34	12.4	328	3.0	4.1	108	7.4
Income Relative to Poverty Line									
Below 100 Percent	9.1	0.05	1.32	5.8	145	2.5	2.4	59	6.0
100 to 150 Percent	7.8	0.05	1.31	6.7	167	2.7	2.5	63	6.8
Above 150 Percent	63.8	0.52	13.31	8.1	209	2.5	3.2	82	2.3
Eligible for Federal Assistance²									
Yes	22.6	0.13	3.31	5.8	147	2.6	2.3	57	4.3
No	58.2	0.49	12.63	8.4	217	2.5	3.3	86	2.4
Age of Householder									
Under 25 Years	4.2	0.03	0.70	6.8	166	2.6	2.6	64	8.1
25 to 34 Years	12.6	0.10	2.42	7.6	192	3.0	2.5	64	4.9
35 to 44 Years	17.2	0.15	3.92	8.8	229	3.3	2.7	69	4.5
45 to 54 Years	15.4	0.15	3.73	9.6	242	2.7	3.5	89	4.9
55 to 64 Years	11.4	0.09	2.41	8.3	212	2.1	3.9	100	5.0
65 to 74 Years	9.9	0.05	1.38	5.3	139	1.8	2.9	77	6.6
75 Years or More	8.2	0.04	0.94	4.4	114	1.5	3.0	79	5.4
No answer/refused	1.9	0.02	0.44	8.2	228	2.3	3.5	97	11.6
Race of Householder									
Non-Hispanic	74.7	0.58	14.67	7.7	196	2.5	3.1	79	2.4
Non-Hispanic White	61.6	0.48	12.03	7.8	195	2.4	3.2	81	2.7
Non-Hispanic Black	9.4	0.08	1.98	8.2	212	2.7	3.1	80	6.2
Multi-racial ³	0.6	(*)	0.09	5.8	158	3.0	1.9	53	21.9
Other ⁴	3.1	0.02	0.56	6.2	180	3.3	1.9	54	10.5
Hispanic	6.1	0.05	1.28	7.7	208	3.3	2.3	63	8.1

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² Below 150 percent of poverty line or 60 percent of median State income.

³ Respondents could select one or more race categories to describe themselves.

⁴ Includes Native American, Native Alaskan, Asian, and Pacific Islander households.

^a The column factor in this section is underestimated because it contains no error for estimating the end-use.

(*) = Value rounds to zero in the units displayed.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-5.2u. Electric Air-Conditioning Energy Consumption and Expenditures by Square Feet and Household Demographics, 2001

Household Demographics	Electric Air-Conditioning Energy								RSE Row Factors
	Households (millions)	Total ^a		Per Household ^a			Per Square Feet ^a		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Cooled Square Feet	Consumption (1000 Btu)	Expenditures (dollars)	
RSE Column Factor:	0.9	1.4	1.4	1.0	1.0	0.7	0.9	1.0	
Total Households Using Air-Conditioning¹	80.8	0.62	15.94	7.7	197	1,724	4.5	0.11	2.4
Household Size									
1 Person	20.1	0.10	2.65	5.0	132	1,218	4.1	0.11	5.0
2 Persons	27.7	0.20	5.04	7.1	182	1,768	4.0	0.10	3.4
3 Persons	13.1	0.11	2.77	8.5	212	1,827	4.7	0.12	5.1
4 Persons	12.2	0.13	3.31	10.6	271	2,138	5.0	0.13	5.4
5 Persons	5.3	0.06	1.51	11.3	286	2,039	5.6	0.14	8.8
6 or More Persons	2.4	0.03	0.66	10.3	269	2,091	4.9	0.13	11.4
2001 Household Income Category									
Less than \$9,999	6.9	0.04	0.88	5.1	129	967	5.3	0.13	6.8
\$10,000 to \$14,999	5.0	0.03	0.68	5.5	135	1,084	5.1	0.12	7.7
\$15,000 to \$19,999	6.4	0.04	1.03	6.4	162	1,207	5.3	0.13	7.6
\$20,000 to \$29,999	10.4	0.06	1.51	5.8	146	1,258	4.6	0.12	5.9
\$30,000 to \$39,999	10.6	0.07	1.84	6.9	174	1,412	4.9	0.12	4.9
\$40,000 to \$49,999	10.4	0.08	1.98	7.5	191	1,762	4.2	0.11	6.2
\$50,000 to \$74,999	17.4	0.16	4.10	9.2	235	2,073	4.4	0.11	4.8
\$75,000 to \$99,999	6.6	0.06	1.59	9.3	239	2,434	3.8	0.10	6.4
\$100,000 or More	7.1	0.09	2.34	12.4	328	2,944	4.2	0.11	7.6
Income Relative to Poverty Line									
Below 100 Percent	9.1	0.05	1.32	5.8	145	1,017	5.7	0.14	5.8
100 to 150 Percent	7.8	0.05	1.31	6.7	167	1,185	5.7	0.14	6.9
Above 150 Percent	63.8	0.52	13.31	8.1	209	1,892	4.3	0.11	2.5
Eligible for Federal Assistance²									
Yes	22.6	0.13	3.31	5.8	147	1,164	5.0	0.13	4.3
No	58.2	0.49	12.63	8.4	217	1,942	4.4	0.11	2.6
Age of Householder									
Under 25 Years	4.2	0.03	0.70	6.8	166	971	7.0	0.17	8.0
25 to 34 Years	12.6	0.10	2.42	7.6	192	1,500	5.1	0.13	5.0
35 to 44 Years	17.2	0.15	3.92	8.8	229	1,892	4.7	0.12	4.7
45 to 54 Years	15.4	0.15	3.73	9.6	242	2,004	4.8	0.12	5.1
55 to 64 Years	11.4	0.09	2.41	8.3	212	1,873	4.4	0.11	5.1
65 to 74 Years	9.9	0.05	1.38	5.3	139	1,620	3.3	0.09	6.8
75 Years or More	8.2	0.04	0.94	4.4	114	1,478	3.0	0.08	5.9
No answer/refused	1.9	0.02	0.44	8.2	228	1,811	4.5	0.13	12.9
Race of Householder									
Non-Hispanic	74.7	0.58	14.67	7.7	196	1,766	4.4	0.11	2.5
Non-Hispanic White	61.6	0.48	12.03	7.8	195	1,822	4.3	0.11	2.9
Non-Hispanic Black	9.4	0.08	1.98	8.2	212	1,491	5.5	0.14	7.5
Multi-racial ³	0.6	(*)	0.09	5.8	158	1,379	4.2	0.11	22.0
Other ⁴	3.1	0.02	0.56	6.2	180	1,549	4.0	0.12	11.1
Hispanic	6.1	0.05	1.28	7.7	208	1,220	6.3	0.17	8.9

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² Below 150 percent of poverty line or 60 percent of median State income.

³ Respondents could select one or more race categories to describe themselves.

⁴ Includes Native American, Native Alaskan, Asian, and Pacific Islander households.

^a The column factor in this section is underestimated because it contains no error for estimating the end-use.

(*) = Value rounds to zero in the units displayed.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-6.1u. Electric Air-Conditioning Energy Consumption and Expenditures by Household Member and Usage Indicators, 2001

Usage Indicators	Electric Air-Conditioning Energy								RSE Row Factors
	Households (millions)	Total ^a		Per Household ^a			Per Household Member ^a		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (million Btu)	Expenditures (dollars)	
	RSE Column Factor:	1.0	1.4	1.5	1.0	1.0	0.5	1.0	
Total Households Using Air-Conditioning¹	80.8	0.62	15.94	7.7	197	2.5	3.0	77	2.2
Central Air-Conditioning²									
Have Equipment ³	57.5	0.55	13.81	9.5	240	2.6	3.7	93	2.5
Use of Equipment									
Only a Few Times	16.8	0.07	1.82	4.0	109	2.4	1.7	46	4.0
Quite a Bit	12.1	0.11	2.93	9.4	242	2.7	3.5	90	4.6
All Summer	28.4	0.37	9.03	12.9	318	2.7	4.8	119	3.1
Room Air-Conditioning									
Have Equipment	23.3	0.08	2.13	3.2	91	2.5	1.3	37	3.8
Use of Equipment									
Only a Few Times	13.6	0.02	0.76	1.8	56	2.4	0.8	23	4.0
Quite a Bit	5.0	0.02	0.48	3.5	97	2.5	1.4	38	6.8
All Summer	4.7	0.03	0.89	7.1	187	2.6	2.7	72	6.8
Weekday Home Activities									
Home Used for Business									
Yes	5.9	0.05	1.35	8.9	226	2.9	3.1	79	7.5
No/Don't Know	74.8	0.57	14.60	7.6	195	2.5	3.0	77	2.4
Energy-Intensive Activity									
Yes	1.3	0.01	0.26	7.5	199	2.8	2.7	71	16.2
No/Don't Know	79.5	0.61	15.69	7.7	197	2.5	3.0	78	2.2
Someone Home All Day									
Yes	39.9	0.30	7.78	7.6	195	2.6	2.9	74	3.4
No/Don't Know	40.8	0.32	8.16	7.8	200	2.5	3.2	81	2.3
Cooled Floorspace Category (square feet)									
Fewer than 500	9.2	0.02	0.63	2.4	69	2.3	1.1	30	6.9
500 to 999	17.4	0.09	2.32	5.1	134	2.2	2.4	62	4.6
1,000 to 1,499	17.2	0.13	3.26	7.4	189	2.4	3.0	77	4.2
1,500 to 1,999	12.0	0.10	2.65	8.6	221	2.7	3.2	82	5.0
2,000 to 2,499	8.5	0.08	1.99	9.5	235	2.7	3.5	88	5.3
2,500 to 2,999	5.6	0.05	1.35	9.6	241	2.7	3.5	89	9.1
3,000 to 3,499	3.7	0.04	1.10	11.8	298	3.2	3.7	93	6.6
3,500 to 3,999	2.2	0.03	0.80	14.0	364	3.4	4.1	106	14.2
4,000 or More	5.0	0.07	1.84	14.7	366	3.1	4.7	118	6.5
Year of Construction									
1939 or Before	11.9	0.06	1.47	4.7	123	2.5	1.9	49	5.4
1940 to 1949	5.2	0.03	0.83	6.2	160	2.7	2.3	60	9.5
1950 to 1959	10.2	0.07	1.75	6.7	172	2.4	2.8	72	5.4
1960 to 1969	10.1	0.07	1.84	6.9	181	2.4	2.9	76	6.4
1970 to 1979	14.2	0.13	3.17	8.9	224	2.4	3.6	92	5.4
1980 to 1989	15.8	0.14	3.56	9.0	225	2.5	3.6	90	5.3
1990 to 1999	12.6	0.12	3.12	9.8	248	3.0	3.3	84	8.6
2000 to 2001 ⁴	0.8	0.01	0.21	9.3	256	3.5	2.7	74	19.4
Housing Unit Type and Number of Bedrooms									
Mobile Homes	5.1	0.04	0.88	7.4	171	2.6	2.8	65	9.9
Less than 3 Bedrooms	2.7	0.02	0.40	6.0	145	2.1	2.9	71	11.9
3 or More Bedrooms	2.4	0.02	0.48	8.9	201	3.3	2.7	61	11.5

See footnotes at end of table.

Table CE3-6.1u. Electric Air-Conditioning Energy Consumption and Expenditures by Household Member and Usage Indicators, 2001

(Continued)

Usage Indicators	Electric Air-Conditioning Energy								RSE Row Factors
	Households (millions)	Total ^a		Per Household ^a			Per Household Member ^a		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (million Btu)	Expenditures (dollars)	
	RSE Column Factor:	1.0	1.4	1.5	1.0	1.0	0.5	1.0	
Single-Family Detached	49.3	0.45	11.29	9.1	229	2.7	3.4	85	2.9
Less than 3 Bedrooms	8.8	0.05	1.35	6.0	153	2.0	3.1	78	5.0
3 Bedrooms	27.0	0.22	5.56	8.3	206	2.6	3.2	79	3.8
4 Bedrooms	11.2	0.14	3.58	12.6	321	3.3	3.8	98	5.4
5 or More Bedrooms	2.3	0.03	0.80	13.3	349	3.8	3.5	93	12.8
Single-Family Attached	8.3	0.05	1.41	6.4	171	2.6	2.5	66	9.3
Less than 3 Bedrooms	2.9	0.01	0.36	4.7	126	2.0	2.4	64	12.0
3 Bedrooms	3.6	0.02	0.66	6.7	183	2.5	2.6	72	11.0
4 or More Bedrooms	1.8	0.01	0.38	8.5	218	3.7	2.3	58	16.9
Apartments in Buildings									
With 2 to 4 Units	6.3	0.03	0.85	5.0	135	2.2	2.3	62	8.5
Less than 2 Bedrooms	1.6	0.01	0.15	3.4	93	1.6	2.1	57	12.7
2 Bedrooms	3.6	0.02	0.53	5.7	147	2.0	2.8	72	9.4
3 or More Bedrooms	1.1	0.01	0.18	5.4	157	3.4	1.6	47	21.9
Apartments in Buildings									
With 5 or More Units	11.8	0.05	1.51	4.6	128	2.0	2.3	63	9.0
Less than 2 Bedrooms	5.6	0.02	0.53	3.4	95	1.6	2.2	61	10.1
2 Bedrooms	5.2	0.03	0.73	5.0	141	2.3	2.2	61	13.4
3 or More Bedrooms	1.0	0.01	0.24	9.4	248	3.3	2.8	74	17.8

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

³ If a household has both a central and room air-conditioner then the usage and age of the equipment is presented only for the central unit.

⁴ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

^a The column factor in this section is underestimated because it contains no error for estimating the end-use.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-6.2u. Electric Air-Conditioning Energy Consumption and Expenditures by Square Feet and Usage Indicators, 2001

Usage Indicators	Electric Air-Conditioning Energy								RSE Row Factors
	Households (million)	Total ^a		Per Household ^a			Per Square Feet ^a		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Cooled Square Feet	Consumption (1000 Btu)	Expenditures (dollars)	
RSE Column Factor:	1.0	1.4	1.4	0.9	1.0	0.6	0.9	1.0	
Total Households Using Air-Conditioning¹	80.8	0.62	15.94	7.7	197	1,724	4.5	0.11	2.4
Central Air-Conditioning²									
Have Equipment ³	57.5	0.55	13.81	9.5	240	2,032	4.7	0.12	2.6
Use of Equipment									
Only a Few Times	16.8	0.07	1.82	4.0	109	1,933	2.0	0.06	4.2
Quite a Bit	12.1	0.11	2.93	9.4	242	2,049	4.6	0.12	4.6
All Summer	28.4	0.37	9.03	12.9	318	2,092	6.2	0.15	3.3
Room Air-Conditioning									
Have Equipment	23.3	0.08	2.13	3.2	91	967	3.4	0.09	3.9
Use of Equipment									
Only a Few Times	13.6	0.02	0.76	1.8	56	911	2.0	0.06	4.1
Quite a Bit	5.0	0.02	0.48	3.5	97	1,062	3.3	0.09	6.7
All Summer	4.7	0.03	0.89	7.1	187	1,026	6.9	0.18	6.7
Weekday Home Activities									
Home Used for Business									
Yes	5.9	0.05	1.35	8.9	226	2,179	4.1	0.10	8.2
No/Don't Know	74.8	0.57	14.60	7.6	195	1,688	4.5	0.12	2.6
Energy-Intensive Activity									
Yes	1.3	0.01	0.26	7.5	199	2,163	3.5	0.09	16.8
No/Don't Know	79.5	0.61	15.69	7.7	197	1,717	4.5	0.11	2.4
Someone Home All Day									
Yes	39.9	0.30	7.78	7.6	195	1,789	4.3	0.11	3.5
No/Don't Know	40.8	0.32	8.16	7.8	200	1,662	4.7	0.12	2.7
Cooled Floorspace Category (square feet)									
Fewer than 500	9.2	0.02	0.63	2.4	69	338	7.2	0.20	6.3
500 to 999	17.4	0.09	2.32	5.1	134	763	6.7	0.18	4.4
1,000 to 1,499	17.2	0.13	3.26	7.4	189	1,234	6.0	0.15	4.2
1,500 to 1,999	12.0	0.10	2.65	8.6	221	1,741	4.9	0.13	5.2
2,000 to 2,499	8.5	0.08	1.99	9.5	235	2,223	4.3	0.11	5.6
2,500 to 2,999	5.6	0.05	1.35	9.6	241	2,741	3.5	0.09	10.0
3,000 to 3,499	3.7	0.04	1.10	11.8	298	3,237	3.6	0.09	6.6
3,500 to 3,999	2.2	0.03	0.80	14.0	364	3,700	3.8	0.10	16.4
4,000 or More	5.0	0.07	1.84	14.7	366	5,280	2.8	0.07	6.3
Year of Construction									
1939 or Before	11.9	0.06	1.47	4.7	123	1,463	3.2	0.08	5.5
1940 to 1949	5.2	0.03	0.83	6.2	160	1,432	4.3	0.11	9.4
1950 to 1959	10.2	0.07	1.75	6.7	172	1,667	4.0	0.10	5.7
1960 to 1969	10.1	0.07	1.84	6.9	181	1,616	4.2	0.11	6.5
1970 to 1979	14.2	0.13	3.17	8.9	224	1,562	5.7	0.14	5.6
1980 to 1989	15.8	0.14	3.56	9.0	225	1,785	5.0	0.13	5.6
1990 to 1999	12.6	0.12	3.12	9.8	248	2,245	4.3	0.11	9.3
2000 to 2001 ⁴	0.8	0.01	0.21	9.3	256	3,111	3.0	0.08	20.7
Housing Unit Type and Number of Bedrooms									
Mobile Homes	5.1	0.04	0.88	7.4	171	958	7.7	0.18	10.3
Less than 3 Bedrooms	2.7	0.02	0.40	6.0	145	722	8.3	0.20	11.4
3 or More Bedrooms	2.4	0.02	0.48	8.9	201	1,228	7.3	0.16	12.2

See footnotes at end of table.

Table CE3-6.2u. Electric Air-Conditioning Energy Consumption and Expenditures by Square Feet and Usage Indicators, 2001 (Continued)

Usage Indicators	Electric Air-Conditioning Energy								RSE Row Factors
	Households (million)	Total ^a		Per Household ^a			Per Square Feet ^a		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Cooled Square Feet	Consumption (1000 Btu)	Expenditures (dollars)	
	RSE Column Factor:	1.0	1.4	1.4	0.9	1.0	0.6	0.9	
Single-Family Detached	49.3	0.45	11.29	9.1	229	2,078	4.4	0.11	3.0
Less than 3 Bedrooms	8.8	0.05	1.35	6.0	153	1,408	4.3	0.11	5.1
3 Bedrooms	27.0	0.22	5.56	8.3	206	1,932	4.3	0.11	4.0
4 Bedrooms	11.2	0.14	3.58	12.6	321	2,694	4.7	0.12	5.6
5 or More Bedrooms	2.3	0.03	0.80	13.3	349	3,390	3.9	0.10	13.8
Single-Family Attached	8.3	0.05	1.41	6.4	171	1,957	3.3	0.09	9.5
Less than 3 Bedrooms	2.9	0.01	0.36	4.7	126	1,355	3.5	0.09	11.9
3 Bedrooms	3.6	0.02	0.66	6.7	183	2,036	3.3	0.09	11.0
4 or More Bedrooms	1.8	0.01	0.38	8.5	218	2,777	3.1	0.08	16.6
Apartments in Buildings									
With 2 to 4 Units	6.3	0.03	0.85	5.0	135	1,029	4.9	0.13	8.9
Less than 2 Bedrooms	1.6	0.01	0.15	3.4	93	716	4.8	0.13	13.9
2 Bedrooms	3.6	0.02	0.53	5.7	147	1,082	5.2	0.14	10.3
3 or More Bedrooms	1.1	0.01	0.18	5.4	157	1,305	4.1	0.12	23.7
With 5 or More Units	11.8	0.05	1.51	4.6	128	787	5.9	0.16	8.8
Less than 2 Bedrooms	5.6	0.02	0.53	3.4	95	597	5.7	0.16	9.2
2 Bedrooms	5.2	0.03	0.73	5.0	141	907	5.5	0.16	12.8
3 or More Bedrooms	1.0	0.01	0.24	9.4	248	1,229	7.6	0.20	17.7

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

³ If a household has both a central and room air-conditioner then the usage and age of the equipment is presented only for the central unit.

⁴ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

^a The column factor in this section is underestimated because it contains no error for estimating the end-use.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-7c. Electric Air-Conditioning Energy Consumption in U.S. Households by Four Most Populated States, 2001

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.4	1.0	1.6	1.3	1.4	
Million Households						
Total U.S. Households	107.0	7.1	12.3	7.7	6.3	NE
No/Don't Use Air-Conditioning	26.2	2.4	7.2	0.3	Q	9.7
Electric Air-Conditioning ¹	80.8	4.7	5.2	7.4	6.1	2.6
Central Air-Conditioning ²	57.5	1.3	3.9	6.2	5.7	6.7
Room/Wall Air-Conditioning	23.3	3.4	1.2	1.2	0.3	13.6
Quadrillion Btu^a						
Electric Air-Conditioning Btu Consumption						
Total	0.62	0.01	0.02	0.11	0.10	8.1
Central Air-Conditioning	0.55	(*)	0.02	0.10	0.10	9.7
Room/Wall Air-Conditioning	0.08	0.01	(*)	0.01	(*)	16.9
Billion kWh^a						
Electric Air-Conditioning kWh Consumption						
Total	183	3	5	32	29	8.1
Central Air-Conditioning	161	1	5	29	29	9.7
Room/Wall Air-Conditioning	22	2	(*)	3	1	16.9
Million Btu per Household^{3,a}						
Electric Air-Conditioning Btu Consumption per Household						
Electric Air-Conditioning	7.7	2.4	3.3	14.8	16.6	6.5
Central Air-Conditioning	9.5	3.2	3.9	16.2	17.3	7.6
Room/Wall Air-Conditioning	3.2	2.1	1.2	7.3	5.3	12.9
kWh per Household^{3,a}						
Electric Air-Conditioning kWh Consumption per Household						
Electric Air-Conditioning	2,263	703	967	4,327	4,855	6.5
Central Air-Conditioning	2,796	935	1,154	4,755	5,057	7.6
Room/Wall Air-Conditioning	950	617	360	2,141	1,558	12.9
2001 Cooling Degree-Days (CDD) per Household³						
2001 Cooling Degree-Days per Household						
Total U.S. Households	1,407	988	860	2,653	3,452	4.5
No/Don't Use Air-Conditioning	883	946	627	2,186	Q	6.6
Electric Air-Conditioning	1,578	1,009	1,183	2,673	3,434	4.4
Central Air-Conditioning	1,701	749	1,276	2,669	3,398	6.2
Room/Wall Air-Conditioning	1,274	1,106	881	2,693	4,022	7.3

See footnotes at end of table.

Table CE3-7c. Electric Air-Conditioning Energy Consumption in U.S. Households by Four Most Populated States, 2001 (Continued)

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.4	1.0	1.6	1.3	1.4	
Cooled Square Footage (CSF) per Household³						
Cooled Square Footage per Household						
Electric Air-Conditioning	1,724	1,149	1,374	1,697	1,682	6.7
Central Air-Conditioning	2,032	1,852	1,640	1,856	1,732	8.8
Room/Wall Air-Conditioning	967	886	512	889	Q	6.9
Air-Conditioning Intensity^{3,a} [kWh÷{CDD×(CSF÷1000)}]						
Air-Conditioning Intensity						
Electric Air-Conditioning	0.83	0.61	0.60	0.95	0.84	3.8
Central Air-Conditioning	0.81	0.67	0.55	0.96	0.86	5.2
Room/Wall Air-Conditioning	0.77	0.63	0.80	0.89	0.44	8.4

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

³ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

(*) = Value rounds to zero in the units displayed.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-8c. Electric Air-Conditioning Energy Consumption in U.S. Households by Urban/Rural Location, 2001

	Total	Urban/Rural Location ¹				RSE Row Factors
		City	Town	Suburbs	Rural	
RSE Column Factor:	0.6	0.8	1.3	1.3	1.3	
Million Households						
Total U.S. Households	107.0	49.9	18.0	21.2	17.9	4.2
No/Don't Use Air-Conditioning	26.2	14.3	4.6	2.7	4.6	7.8
Electric Air-Conditioning ²	80.8	35.6	13.4	18.6	13.3	4.3
Central Air-Conditioning ³	57.5	23.6	8.6	15.8	9.4	5.1
Room/Wall Air-Conditioning	23.3	12.0	4.8	2.7	3.9	7.4
Quadrillion Btu^a						
Electric Air-Conditioning Btu Consumption						
Total	0.62	0.26	0.09	0.17	0.11	5.9
Central Air-Conditioning	0.55	0.22	0.07	0.16	0.09	6.3
Room/Wall Air-Conditioning	0.08	0.04	0.02	0.01	0.01	9.7
Billion kWh^a						
Electric Air-Conditioning kWh Consumption						
Total	183	76	25	50	31	5.9
Central Air-Conditioning	161	65	20	48	27	6.3
Room/Wall Air-Conditioning	22	11	5	2	4	9.7
Million Btu per Household^{4,a}						
Electric Air-Conditioning Btu Consumption per Household						
Electric Air-Conditioning	7.7	7.3	6.4	9.3	8.0	4.0
Central Air-Conditioning	9.5	9.4	8.1	10.4	9.8	4.0
Room/Wall Air-Conditioning	3.2	3.1	3.5	2.7	3.6	6.4
kWh per Household^{4,a}						
Electric Air-Conditioning kWh Consumption per Household						
Electric Air-Conditioning	2,263	2,143	1,884	2,713	2,335	4.0
Central Air-Conditioning	2,796	2,762	2,363	3,041	2,864	4.0
Room/Wall Air-Conditioning	950	921	1,018	797	1,061	6.4
2001 Cooling Degree-Days (CDD) per Household⁴						
2001 Cooling Degree-Days per Household						
Total U.S. Households	1,407	1,482	1,234	1,489	1,277	3.2
No/Don't Use Air-Conditioning	883	908	852	800	885	6.9
Electric Air-Conditioning	1,578	1,713	1,366	1,588	1,413	3.3
Central Air-Conditioning	1,701	1,890	1,494	1,648	1,504	3.6
Room/Wall Air-Conditioning	1,274	1,364	1,134	1,240	1,195	4.8

See footnotes at end of table.

Table CE3-8c. Electric Air-Conditioning Energy Consumption in U.S. Households by Urban/Rural Location, 2001 (Continued)

	Urban/Rural Location ¹					RSE Row Factors
	Total	City	Town	Suburbs	Rural	
	0.6	0.8	1.3	1.3	1.3	
Cooled Square Footage (CSF) per Household⁴						
Cooled Square Footage per Household						
Electric Air-Conditioning	1,724	1,480	1,671	2,144	1,847	3.3
Central Air-Conditioning	2,032	1,771	2,027	2,335	2,182	3.5
Room/Wall Air-Conditioning	967	905	1,026	1,027	1,043	5.5
Air-Conditioning Intensity^{4,a} [kWh÷{CDD×(CSF÷1000)}]						
Air-Conditioning Intensity						
Electric Air-Conditioning	0.83	0.85	0.83	0.80	0.89	2.4
Central Air-Conditioning	0.81	0.83	0.78	0.79	0.87	2.5
Room/Wall Air-Conditioning	0.77	0.75	0.88	0.63	0.85	5.7

¹ Based on the household respondent's description rather than the Federal Government definition.

² The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

³ The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

⁴ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-9c. Electric Air-Conditioning Energy Consumption in U.S. Households by Northeast Census Region, 2001

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.5	1.0	1.1	1.7	
Million Households					
Total U.S. Households	107.0	20.3	14.8	5.4	NE
No/Don't Use Air-Conditioning	26.2	6.0	3.8	2.3	8.0
Electric Air-Conditioning ¹	80.8	14.2	11.1	3.2	3.4
Central Air-Conditioning ²	57.5	5.7	4.9	0.8	8.9
Room/Wall Air-Conditioning	23.3	8.5	6.1	2.4	5.6
Quadrillion Btu^a					
Electric Air-Conditioning Btu Consumption					
Total	0.62	0.05	0.04	0.01	8.1
Central Air-Conditioning	0.55	0.03	0.02	(*)	12.5
Room/Wall Air-Conditioning	0.08	0.02	0.01	(*)	6.7
Billion kWh^a					
Electric Air-Conditioning kWh Consumption					
Total	183	14	11	3	8.1
Central Air-Conditioning	161	8	7	1	12.5
Room/Wall Air-Conditioning	22	5	4	1	6.7
Million Btu per Household^{3,a}					
Electric Air-Conditioning Btu Consumption per Household					
Electric Air-Conditioning	7.7	3.3	3.4	2.7	6.7
Central Air-Conditioning	9.5	4.8	4.8	5.4	7.3
Room/Wall Air-Conditioning	3.2	2.2	2.3	1.9	4.0
kWh per Household^{3,a}					
Electric Air-Conditioning kWh Consumption per Household					
Electric Air-Conditioning	2,263	953	995	805	6.7
Central Air-Conditioning	2,796	1,420	1,393	1,595	7.3
Room/Wall Air-Conditioning	950	642	677	552	4.0
2001 Cooling Degree-Days (CDD) per Household³					
2001 Cooling Degree-Days per Household					
Total U.S. Households	1,407	888	947	726	2.4
No/Don't Use Air-Conditioning	883	820	916	659	5.0
Electric Air-Conditioning	1,578	917	958	773	1.7
Central Air-Conditioning	1,701	835	842	789	2.8
Room/Wall Air-Conditioning	1,274	971	1,050	768	2.2

See footnotes at end of table.

Table CE3-9c. Electric Air-Conditioning Energy Consumption in U.S. Households by Northeast Census Region, 2001 (Continued)

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.5	1.0	1.1	1.7	
Cooled Square Footage (CSF) per Household³					
Cooled Square Footage per Household					
Electric Air-Conditioning	1,724	1,505	1,497	1,533	5.5
Central Air-Conditioning	2,032	2,306	2,207	2,944	6.2
Room/Wall Air-Conditioning	967	971	928	1,081	3.9
Air-Conditioning Intensity^{3,a} [kWh÷(CDD×(CSF÷1000))]					
Air-Conditioning Intensity					
Electric Air-Conditioning	0.83	0.69	0.69	0.68	3.1
Central Air-Conditioning	0.81	0.74	0.75	0.69	5.0
Room/Wall Air-Conditioning	0.77	0.68	0.69	0.66	3.9

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

³ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

(*) = Value rounds to zero in the units displayed.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-10c. Electric Air-Conditioning Energy Consumption in U.S. Households by Midwest Census Region, 2001

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
	0.6	0.9	1.1	1.7	
RSE Column Factor:					
Million Households					
Total U.S. Households	107.0	24.5	17.1	7.4	NE
No/Don't Use Air-Conditioning	26.2	4.3	3.7	0.7	10.9
Electric Air-Conditioning ¹	80.8	20.2	13.4	6.7	2.3
Central Air-Conditioning ²	57.5	14.3	9.5	4.8	3.8
Room/Wall Air-Conditioning	23.3	5.8	3.9	1.9	7.1
Quadrillion Btu^a					
Electric Air-Conditioning Btu Consumption					
Total	0.62	0.10	0.06	0.04	5.2
Central Air-Conditioning	0.55	0.09	0.05	0.03	6.2
Room/Wall Air-Conditioning	0.08	0.02	0.01	0.01	9.2
Billion kWh^a					
Electric Air-Conditioning kWh Consumption					
Total	183	30	18	12	5.2
Central Air-Conditioning	161	25	15	10	6.2
Room/Wall Air-Conditioning	22	5	3	2	9.2
Million Btu per Household^{3,a}					
Electric Air-Conditioning Btu Consumption per Household					
Electric Air-Conditioning	7.7	5.1	4.6	6.0	4.3
Central Air-Conditioning	9.5	6.0	5.5	7.1	4.0
Room/Wall Air-Conditioning	3.2	2.8	2.4	3.4	6.6
kWh per Household^{3,a}					
Electric Air-Conditioning kWh Consumption per Household					
Electric Air-Conditioning	2,263	1,493	1,355	1,768	4.3
Central Air-Conditioning	2,796	1,772	1,621	2,071	4.0
Room/Wall Air-Conditioning	950	808	712	1,004	6.6
2001 Cooling Degree-Days (CDD) per Household³					
2001 Cooling Degree-Days per Household					
Total U.S. Households	1,407	921	856	1,071	3.5
No/Don't Use Air-Conditioning	883	792	781	851	3.7
Electric Air-Conditioning	1,578	949	877	1,093	3.7
Central Air-Conditioning	1,701	967	883	1,131	3.8
Room/Wall Air-Conditioning	1,274	906	861	997	4.4

See footnotes at end of table.

Table CE3-10c. Electric Air-Conditioning Energy Consumption in U.S. Households by Midwest Census Region, 2001 (Continued)

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
RSE Column Factor:	0.6	0.9	1.1	1.7	
Cooled Square Footage (CSF) per Household³					
Cooled Square Footage per Household					
Electric Air-Conditioning	1,724	2,021	2,031	2,003	3.1
Central Air-Conditioning	2,032	2,378	2,438	2,261	3.1
Room/Wall Air-Conditioning	967	1,146	1,045	1,354	6.5
Air-Conditioning Intensity^{3,a} [kWh÷(CDD×(CSF÷1000))]					
Air-Conditioning Intensity					
Electric Air-Conditioning	0.83	0.78	0.76	0.81	2.4
Central Air-Conditioning	0.81	0.77	0.75	0.81	2.2
Room/Wall Air-Conditioning	0.77	0.78	0.79	0.74	7.3

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

³ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-11c. Electric Air-Conditioning Energy Consumption in U.S. Households by South Census Region, 2001

	Total U.S.	South Census Region			RSE Row Factors	
		Total	Census Division			
			South Atlantic	East South Central		West south Central
RSE Column Factor:	0.6	0.8	1.2	1.2	1.5	
Million Households						
Total U.S. Households	107.0	38.9	20.3	6.8	11.8	NE
No/Don't Use Air-Conditioning	26.2	2.1	1.3	0.4	0.4	16.1
Electric Air-Conditioning ¹	80.8	36.9	19.0	6.4	11.5	1.6
Central Air-Conditioning ²	57.5	30.4	16.1	5.0	9.2	2.8
Room/Wall Air-Conditioning	23.3	6.4	2.9	1.3	2.2	9.0
Quadrillion Btu^a						
Electric Air-Conditioning Btu Consumption						
Total	0.62	0.42	0.20	0.06	0.16	4.2
Central Air-Conditioning	0.55	0.39	0.19	0.05	0.14	4.2
Room/Wall Air-Conditioning	0.08	0.04	0.01	0.01	0.02	11.9
Billion kWh^a						
Electric Air-Conditioning kWh Consumption						
Total	183	124	60	18	46	4.2
Central Air-Conditioning	161	113	56	16	42	4.2
Room/Wall Air-Conditioning	22	11	4	2	4	11.9
Million Btu per Household^{3,a}						
Electric Air-Conditioning Btu Consumption per Household						
Electric Air-Conditioning	7.7	11.5	10.7	9.9	13.7	3.5
Central Air-Conditioning	9.5	12.7	11.8	10.8	15.3	3.4
Room/Wall Air-Conditioning	3.2	5.6	4.4	6.2	6.8	7.8
kWh per Household^{3,a}						
Electric Air-Conditioning kWh Consumption per Household						
Electric Air-Conditioning	2,263	3,366	3,137	2,888	4,012	3.5
Central Air-Conditioning	2,796	3,731	3,467	3,173	4,494	3.4
Room/Wall Air-Conditioning	950	1,648	1,297	1,825	1,998	7.8
2001 Cooling Degree-Days (CDD) per Household³						
2001 Cooling Degree-Days per Household						
Total U.S. Households	1,407	2,153	2,071	1,690	2,560	3.6
No/Don't Use Air-Conditioning	883	1,905	1,933	1,573	2,225	7.6
Electric Air-Conditioning	1,578	2,167	2,081	1,698	2,570	3.6
Central Air-Conditioning	1,701	2,192	2,135	1,679	2,570	3.6
Room/Wall Air-Conditioning	1,274	2,047	1,775	1,769	2,571	5.5

See footnotes at end of table.

Table CE3-11c. Electric Air-Conditioning Energy Consumption in U.S. Households by South Census Region, 2001 (Continued)

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			RSE Row Factors	
		Total	South Atlantic	East South Central		
RSE Column Factor:	0.6	0.8	1.2	1.2	1.5	
Cooled Square Footage (CSF) per Household³						
Cooled Square Footage per Household						
Electric Air-Conditioning	1,724	1,732	1,737	1,891	1,636	4.5
Central Air-Conditioning	2,032	1,904	1,896	2,086	1,819	4.5
Room/Wall Air-Conditioning	967	923	852	1,162	872	7.5
Air-Conditioning Intensity^{3,a} [kWh÷(CDD×(CSF÷1000))]						
Air-Conditioning Intensity						
Electric Air-Conditioning	0.83	0.90	0.87	0.90	0.95	2.1
Central Air-Conditioning	0.81	0.89	0.86	0.91	0.96	2.2
Room/Wall Air-Conditioning	0.77	0.87	0.86	0.89	0.89	6.6

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

³ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-12c. Electric Air-Conditioning Energy Consumption in U.S. Households by West Census Region, 2001

	Total U.S.	West Census Region			RSE Row Factors
		Total	Census Division		
			Mountain	Pacific	
RSE Column Factor:	0.4	1.1	1.9	1.3	
Million Households					
Total U.S. Households	107.0	23.3	6.7	16.6	NE
No/Don't Use Air-Conditioning	26.2	13.8	3.5	10.2	7.6
Electric Air-Conditioning ¹	80.8	9.6	3.2	6.3	7.2
Central Air-Conditioning ²	57.5	7.1	2.6	4.5	8.5
Room/Wall Air-Conditioning	23.3	2.5	0.6	1.9	10.1
Quadrillion Btu^a					
Electric Air-Conditioning Btu Consumption					
Total	0.62	0.05	0.03	0.02	8.5
Central Air-Conditioning	0.55	0.05	0.03	0.02	8.7
Room/Wall Air-Conditioning	0.08	(*)	(*)	(*)	14.3
Billion kWh^a					
Electric Air-Conditioning kWh Consumption					
Total	183	15	9	6	8.5
Central Air-Conditioning	161	14	9	5	8.7
Room/Wall Air-Conditioning	22	1	(*)	1	14.3
Million Btu per Household^{3,a}					
Electric Air-Conditioning Btu Consumption per Household					
Electric Air-Conditioning	7.7	5.4	9.7	3.2	6.5
Central Air-Conditioning	9.5	6.7	11.6	3.8	7.1
Room/Wall Air-Conditioning	3.2	1.8	2.3	1.7	9.1
kWh per Household^{3,a}					
Electric Air-Conditioning kWh Consumption per Household					
Electric Air-Conditioning	2,263	1,580	2,850	938	6.5
Central Air-Conditioning	2,796	1,952	3,392	1,126	7.1
Room/Wall Air-Conditioning	950	533	665	488	9.1
2001 Cooling Degree-Days (CDD) per Household³					
2001 Cooling Degree-Days per Household					
Total U.S. Households	1,407	1,125	1,917	804	6.2
No/Don't Use Air-Conditioning	883	784	1,361	586	6.5
Electric Air-Conditioning	1,578	1,615	2,527	1,155	7.7
Central Air-Conditioning	1,701	1,771	2,821	1,170	8.1
Room/Wall Air-Conditioning	1,274	1,176	1,342	1,119	9.8

See footnotes at end of table.

Table CE3-12c. Electric Air-Conditioning Energy Consumption in U.S. Households by West Census Region, 2001 (Continued)

	West Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Mountain	Pacific	
RSE Column Factor:	0.4	1.1	1.9	1.3	
Cooled Square Footage (CSF) per Household³					
Cooled Square Footage per Household					
Electric Air-Conditioning	1,724	1,394	1,383	1,399	5.7
Central Air-Conditioning	2,032	1,660	1,568	1,713	6.4
Room/Wall Air-Conditioning	967	643	640	644	6.7
Air-Conditioning Intensity^{3,a} [kWh÷(CDD×(CSF÷1000))]					
Air-Conditioning Intensity					
Electric Air-Conditioning	0.83	0.70	0.82	0.58	3.8
Central Air-Conditioning	0.81	0.66	0.77	0.56	4.1
Room/Wall Air-Conditioning	0.77	0.70	0.77	0.68	9.5

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

³ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

(*) = Value rounds to zero in the units displayed.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

2001 Consumption and Expenditures Tables

Electric Air-Conditioning Expenditures Tables

(20 pages, 58 kb)

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These data are from the 2001 Residential Energy Consumption Survey (RECS) which provides information on the use of energy in residential housing units in the United States. The RECS is a national statistical survey that collects energy-related data for occupied primary housing units. RECS was first conducted in 1978; the twelfth and most recent survey was conducted in 2001. In the 2001 RECS, data were collected from a sample of 4,822 households in housing units statistically selected to represent the 107.0 million housing units in the United States. The RECS data are available for the four Census regions, the nine Census divisions, and for the four most populous States--California, Florida, New York, and Texas.

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World Wide Web: <http://www.eia.doe.gov/emeu/consumption>

Table CE3-1e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Climate Zone, 2001 - Preliminary Data

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
		0.5	1.5	1.0	0.9	1.5	
Million Households							
Total U.S. Households	107.0	9.2	28.6	24.0	21.0	24.1	8.2
No/Don't Use Air-Conditioning	26.2	4.0	8.1	4.2	7.6	2.3	11.3
Electric Air-Conditioning ²	80.8	5.3	20.5	19.9	13.4	21.8	8.2
Central Air-Conditioning ³	57.5	3.1	12.9	12.7	10.5	18.2	9.2
Room/Wall Air-Conditioning	23.3	2.2	7.6	7.2	2.9	3.6	11.3
Billion Dollars							
Electric Air-Conditioning Expenditures							
Total	15.92	0.45	2.20	2.87	2.71	7.68	9.7
Central Air-Conditioning	13.81	0.35	1.77	2.20	2.43	7.05	10.2
Room/Wall Air-Conditioning	2.11	0.10	0.43	0.66	0.28	0.63	13.7
Dollars per Household⁴							
Electric Air-Conditioning Expenditures per Household							
Electric Air-Conditioning	197	86	107	144	202	353	4.7
Central Air-Conditioning	240	112	137	173	231	387	4.6
Room/Wall Air-Conditioning	91	49	57	93	97	177	7.2
2001 Cooling Degree-Days (CDD) per Household⁴							
2001 Cooling Degree-Days per Household							
Total U.S. Households	1,407	665	777	1,147	1,236	2,852	3.8
No/Don't Use Air-Conditioning	883	603	639	860	738	2,752	8.2
Electric Air-Conditioning	1,578	712	832	1,207	1,520	2,863	3.0
Central Air-Conditioning	1,701	732	848	1,221	1,561	2,887	3.2
Room/Wall Air-Conditioning	1,274	681	804	1,181	1,368	2,742	3.4
Cooled Square Footage (CSF) per Household⁴							
Cooled Square Footage per Household							
Electric Air-Conditioning	1,724	1,867	1,863	1,697	1,732	1,579	4.1
Central Air-Conditioning	2,032	2,405	2,336	2,101	1,989	1,729	4.1
Room/Wall Air-Conditioning	967	1,090	1,058	981	790	811	6.2

See footnotes at end of table.

Table CE3-1e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Climate Zone, 2001 - Preliminary Data (Continued)

	Total	Climate Zone ¹					RSE Row Factors
		Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.5	1.5	1.0	0.9	1.5	1.0	

Air-Conditioning Intensity⁴ [Cents÷{CDD×(CSF÷1000)}]

Air-Conditioning Intensity							
Electric Air-Conditioning	7.24	6.49	6.93	7.05	7.69	7.81	3.2
Central Air-Conditioning	6.95	6.37	6.92	6.76	7.44	7.76	3.5
Room/Wall Air-Conditioning	7.35	6.53	6.68	8.01	9.02	7.97	5.9

¹ One of five climatically distinct areas, determined according to the 30-year average (1961-1990) of the annual heating and cooling degree-days. For this report, the heating or cooling degree-days are a measure of how cold or how hot a location is over a period of one year, relative to a base temperature of 65 degrees Fahrenheit. A household is assigned to a climate zone according to the 30-year average annual degree-days for an appropriate nearby weather station.

² The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

³ The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

⁴ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-2e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Year of Construction, 2001 - Preliminary Data

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.9	1.1	1.1	1.1	1.0	0.8	
Million Households								
Total U.S. Households	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
No/Don't Use Air-Conditioning	26.2	2.1	2.5	4.6	3.6	4.0	9.5	8.7
Electric Air-Conditioning ²	80.8	13.4	15.8	14.2	10.1	10.2	17.1	4.7
Central Air-Conditioning ³	57.5	12.6	13.7	11.0	7.1	6.6	6.4	5.9
Room/Wall Air-Conditioning	23.3	0.8	2.1	3.1	3.1	3.5	10.8	8.7
Billion Dollars								
Electric Air-Conditioning Expenditures								
Total	15.92	3.53	3.56	3.11	1.79	1.66	2.26	7.2
Central Air-Conditioning	13.81	3.46	3.39	2.87	1.48	1.31	1.29	8.2
Room/Wall Air-Conditioning	2.11	0.07	0.17	0.25	0.30	0.36	0.97	12.3
Dollars per Household⁴								
Electric Air-Conditioning Expenditures per Household								
Electric Air-Conditioning	197	264	226	220	176	164	132	5.4
Central Air-Conditioning	240	274	247	260	210	197	204	5.8
Room/Wall Air-Conditioning	91	89	81	79	99	101	90	8.8
2001 Cooling Degree-Days (CDD) per Household⁴								
2001 Cooling Degree-Days per Household								
Total U.S. Households	1,407	1,455	1,648	1,586	1,376	1,352	1,135	3.4
No/Don't Use Air-Conditioning	883	583	1,032	841	932	971	874	8.2
Electric Air-Conditioning	1,578	1,590	1,744	1,826	1,536	1,502	1,279	3.5
Central Air-Conditioning	1,701	1,608	1,838	1,957	1,606	1,544	1,412	4.1
Room/Wall Air-Conditioning	1,274	1,299	1,114	1,367	1,373	1,422	1,200	6.2
Cooled Square Footage (CSF) per Household⁴								
Cooled Square Footage per Household								
Electric Air-Conditioning	1,724	2,297	1,785	1,562	1,616	1,667	1,454	3.7
Central Air-Conditioning	2,032	2,376	1,937	1,804	1,912	2,012	2,106	3.8
Room/Wall Air-Conditioning	967	1,005	773	714	929	1,013	1,070	6.6

See footnotes at end of table.

Table CE3-2e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Year of Construction, 2001 - Preliminary Data (Continued)

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.9	1.1	1.1	1.1	1.0	0.8	

Air-Conditioning Intensity⁴ [Cents÷(CDD×(CSF÷1000))]

Air-Conditioning Intensity								
Electric Air-Conditioning	7.24	7.22	7.24	7.70	7.11	6.55	7.10	3.6
Central Air-Conditioning	6.95	7.18	6.94	7.36	6.82	6.34	6.85	3.8
Room/Wall Air-Conditioning	7.35	6.84	9.39	8.10	7.80	7.04	6.99	7.8

¹ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

² The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

³ The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

⁴ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-3e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Household Income, 2001 - Preliminary Data

	Total	2001 Household Income				Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.7	1.0	0.9	0.8	1.4	0.9	
Million Households								
Total U.S. Households	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.3
No/Don't Use Air-Conditioning	26.2	4.2	8.8	6.1	7.1	5.9	11.3	6.9
Electric Air-Conditioning ²	80.8	6.9	21.7	21.0	31.2	9.1	22.6	3.9
Central Air-Conditioning ³	57.5	3.2	13.7	15.2	25.3	4.5	12.4	5.5
Room/Wall Air-Conditioning	23.3	3.7	8.0	5.8	5.9	4.7	10.1	5.9
Billion Dollars								
Electric Air-Conditioning Expenditures								
Total	15.92	0.88	3.25	3.71	8.08	1.33	3.36	6.1
Central Air-Conditioning	13.81	0.56	2.54	3.24	7.47	0.89	2.46	7.2
Room/Wall Air-Conditioning	2.11	0.32	0.71	0.47	0.61	0.44	0.91	8.3
Dollars per Household⁴								
Electric Air-Conditioning Expenditures per Household								
Electric Air-Conditioning	197	128	150	177	259	146	149	4.3
Central Air-Conditioning	240	175	185	213	295	201	197	4.7
Room/Wall Air-Conditioning	91	87	89	82	104	94	90	6.3
2001 Cooling Degree-Days (CDD) per Household⁴								
2001 Cooling Degree-Days per Household								
Total U.S. Households	1,407	1,423	1,444	1,396	1,381	1,435	1,372	3.1
No/Don't Use Air-Conditioning	883	974	994	896	682	1,029	972	5.2
Electric Air-Conditioning	1,578	1,696	1,627	1,542	1,541	1,696	1,572	3.1
Central Air-Conditioning	1,701	1,920	1,779	1,687	1,638	1,915	1,741	3.6
Room/Wall Air-Conditioning	1,274	1,502	1,366	1,157	1,121	1,486	1,365	4.4
Cooled Square Footage (CSF) per Household⁴								
Cooled Square Footage per Household								
Electric Air-Conditioning	1,724	967	1,203	1,585	2,349	1,017	1,164	2.9
Central Air-Conditioning	2,032	1,289	1,404	1,778	2,618	1,317	1,448	3.4
Room/Wall Air-Conditioning	967	689	857	1,074	1,185	730	813	4.8

See footnotes at end of table.

Table CE3-3e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Household Income, 2001 - Preliminary Data (Continued)

	Total	2001 Household Income				Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.7	1.0	0.9	0.8	1.4	0.9	

Air-Conditioning Intensity⁴ [Cents÷{CDD×(CSF÷1000)}]

Air-Conditioning Intensity	Total	Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More	Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
Electric Air-Conditioning	7.24	7.78	7.65	7.23	7.16	8.47	8.15	3.1
Central Air-Conditioning	6.95	7.07	7.41	7.09	6.87	7.95	7.83	3.6
Room/Wall Air-Conditioning	7.35	8.37	7.58	6.56	7.85	8.68	8.06	6.3

¹ Below 150 percent of poverty line or 60 percent of median State income.

² The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

³ The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

⁴ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-4e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Type of Housing Unit, 2001 - Preliminary Data

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Multifamily		Mobile Home	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.5	1.5	1.4	1.8	
Million Households						
Total U.S. Households	107.0	73.7	9.5	17.0	6.8	4.4
No/Don't Use Air-Conditioning	26.2	16.1	3.2	5.2	1.7	8.4
Electric Air-Conditioning ¹	80.8	57.6	6.3	11.8	5.1	4.9
Central Air-Conditioning ²	57.5	43.6	3.2	7.1	3.5	6.7
Room/Wall Air-Conditioning	23.3	13.9	3.1	4.7	1.6	7.7
Billion Dollars						
Electric Air-Conditioning Expenditures						
Total	15.92	12.44	0.79	1.46	1.23	8.1
Central Air-Conditioning	13.81	11.10	0.54	1.16	1.01	9.3
Room/Wall Air-Conditioning	2.11	1.34	0.25	0.30	0.23	11.1
Dollars per Household³						
Electric Air-Conditioning Expenditures per Household						
Electric Air-Conditioning	197	216	125	124	240	5.7
Central Air-Conditioning	240	254	170	163	286	6.2
Room/Wall Air-Conditioning	91	96	79	64	139	7.3
2001 Cooling Degree-Days (CDD) per Household³						
2001 Cooling Degree-Days per Household						
Total U.S. Households	1,407	1,421	1,282	1,389	1,485	4.2
No/Don't Use Air-Conditioning	883	919	825	751	1,059	7.4
Electric Air-Conditioning	1,578	1,561	1,511	1,673	1,623	4.3
Central Air-Conditioning	1,701	1,646	1,952	1,957	1,627	5.0
Room/Wall Air-Conditioning	1,274	1,295	1,058	1,240	1,613	5.4
Cooled Square Footage (CSF) per Household³						
Cooled Square Footage per Household						
Electric Air-Conditioning	1,724	2,061	1,029	787	958	3.3
Central Air-Conditioning	2,032	2,348	1,181	924	1,128	3.4
Room/Wall Air-Conditioning	967	1,161	874	578	591	4.6

See footnotes at end of table.

Table CE3-4e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Type of Housing Unit, 2001 - Preliminary Data (Continued)

	Total	Type of Housing Unit			Mobile Home	RSE Row Factors
		Single-Family	Multifamily			
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.5	1.5	1.4	1.8	

Air-Conditioning Intensity³ [Cents÷{CDD×(CSF÷1000)}]

Air-Conditioning Intensity	Total	Single-Family	Two to Four Units	Five or More Units	Mobile Home	RSE Row Factors
Electric Air-Conditioning	7.24	6.72	8.04	9.41	15.41	3.2
Central Air-Conditioning	6.95	6.58	7.36	9.01	15.60	3.3
Room/Wall Air-Conditioning	7.35	6.39	8.59	8.99	14.54	6.4

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

³ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-7e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Four Most Populated States, 2001 - Preliminary Data

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.4	0.9	1.6	1.6	1.3	
Million Households						
Total U.S. Households	107.0	7.1	12.3	12.3	6.3	NF
No/Don't Use Air-Conditioning	26.2	2.4	7.2	7.2	Q	6.3
Electric Air-Conditioning ¹	80.8	4.7	5.2	5.2	6.1	3.7
Central Air-Conditioning ²	57.5	1.3	3.9	3.9	5.7	8.1
Room/Wall Air-Conditioning	23.3	3.4	1.2	1.2	0.3	13.5
Billion Dollars						
Electric Air-Conditioning Expenditures						
Total	15.92	0.51	0.64	0.64	2.51	8.9
Central Air-Conditioning	13.81	0.18	0.60	0.60	2.44	11.0
Room/Wall Air-Conditioning	2.11	0.33	0.05	0.05	0.07	17.9
Dollars per Household³						
Electric Air-Conditioning Expenditures per Household						
Electric Air-Conditioning	197	107	124	124	414	7.0
Central Air-Conditioning	240	138	151	151	427	9.1
Room/Wall Air-Conditioning	91	96	38	38	197	9.4
2001 Cooling Degree-Days (CDD) per Household³						
2001 Cooling Degree-Days per Household						
Total U.S. Households	1,407	988	860	860	3,452	5.0
No/Don't Use Air-Conditioning	883	946	627	627	Q	4.9
Electric Air-Conditioning	1,578	1,009	1,183	1,183	3,434	5.0
Central Air-Conditioning	1,701	749	1,276	1,276	3,398	7.2
Room/Wall Air-Conditioning	1,274	1,106	881	881	4,022	8.3
Cooled Square Footage (CSF) per Household³						
Cooled Square Footage per Household						
Electric Air-Conditioning	1,724	1,149	1,374	1,374	1,682	6.7
Central Air-Conditioning	2,032	1,852	1,640	1,640	1,732	9.0
Room/Wall Air-Conditioning	967	886	512	512	Q	6.5

See footnotes at end of table.

Table CE3-7e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Four Most Populated States, 2001 - Preliminary Data (Continued)

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.4	0.9	1.6	1.6	1.3	
Air-Conditioning Intensity³ [Cents÷{CDD×(CSF÷1000)}]						
Air-Conditioning Intensity						
Electric Air-Conditioning	7.24	9.26	7.65	7.65	7.17	4.8
Central Air-Conditioning	6.95	9.93	7.21	7.21	7.26	6.0
Room/Wall Air-Conditioning	7.35	9.79	8.50	8.50	5.57	8.5

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

³ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-8e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Urban/Rural Location, 2001 - Preliminary Data

	Total	Urban/Rural Location ¹				RSE Row Factors
		City	Town	Suburbs	Rural	
RSE Column Factor:	0.6	0.8	1.3	1.2	1.3	
Million Households						
Total U.S. Households	107.0	49.9	18.0	21.2	17.9	4.2
No/Don't Use Air-Conditioning	26.2	14.3	4.6	2.7	4.6	7.8
Electric Air-Conditioning ²	80.8	35.6	13.4	18.6	13.3	4.3
Central Air-Conditioning ³	57.5	23.6	8.6	15.8	9.4	5.1
Room/Wall Air-Conditioning	23.3	12.0	4.8	2.7	3.9	7.4
Billion Dollars						
Electric Air-Conditioning Expenditures						
Total	15.92	6.75	2.11	4.53	2.53	6.3
Central Air-Conditioning	13.81	5.63	1.69	4.30	2.19	6.7
Room/Wall Air-Conditioning	2.11	1.12	0.42	0.23	0.34	9.7
Dollars per Household⁴						
Electric Air-Conditioning Expenditures per Household						
Electric Air-Conditioning	197	190	157	244	191	4.4
Central Air-Conditioning	240	238	196	271	234	4.4
Room/Wall Air-Conditioning	91	94	88	85	87	6.7
2001 Cooling Degree-Days (CDD) per Household⁴						
2001 Cooling Degree-Days per Household						
Total U.S. Households	1,407	1,482	1,234	1,489	1,277	3.2
No/Don't Use Air-Conditioning	883	908	852	800	885	6.9
Electric Air-Conditioning	1,578	1,713	1,366	1,588	1,413	3.3
Central Air-Conditioning	1,701	1,890	1,494	1,648	1,504	3.6
Room/Wall Air-Conditioning	1,274	1,364	1,134	1,240	1,195	4.8
Cooled Square Footage (CSF) per Household⁴						
Cooled Square Footage per Household						
Electric Air-Conditioning	1,724	1,480	1,671	2,144	1,847	3.3
Central Air-Conditioning	2,032	1,771	2,027	2,335	2,182	3.5
Room/Wall Air-Conditioning	967	905	1,026	1,027	1,043	5.5

See footnotes at end of table.

Table CE3-8e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Urban/Rural Location, 2001 - Preliminary Data (Continued)

	Total	Urban/Rural Location ¹				RSE Row Factors
		City	Town	Suburbs	Rural	
		0.6	0.8	1.3	1.2	
RSE Column Factor:						
Air-Conditioning Intensity⁴ [Cents÷(CDD×(CSF÷1000))]						
Air-Conditioning Intensity						
Electric Air-Conditioning	7.24	7.49	6.90	7.17	7.30	2.8
Central Air-Conditioning	6.95	7.12	6.47	7.05	7.12	2.9
Room/Wall Air-Conditioning	7.35	7.62	7.53	6.67	7.00	5.9

¹ Based on the household respondent's description rather than the Federal Government definition.

² The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

³ The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

⁴ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-9e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Northeast Census Region, 2001 - Preliminary Data

	Total U.S.	Northeast Census Region			RSE Row Factors
		Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.6	0.9	1.0	1.9	
Million Households					
Total U.S. Households	107.0	20.3	14.8	5.4	NF
No/Don't Use Air-Conditioning	26.2	6.0	3.8	2.3	8.0
Electric Air-Conditioning ¹	80.8	14.2	11.1	3.2	3.4
Central Air-Conditioning ²	57.5	5.7	4.9	0.8	8.9
Room/Wall Air-Conditioning	23.3	8.5	6.1	2.4	5.6
Billion Dollars					
Electric Air-Conditioning Expenditures					
Total	15.92	1.56	1.28	0.28	7.4
Central Air-Conditioning	13.81	0.89	0.75	0.14	11.5
Room/Wall Air-Conditioning	2.11	0.67	0.53	0.14	7.0
Dollars per Household³					
Electric Air-Conditioning Expenditures per Household					
Electric Air-Conditioning	197	110	116	88	5.8
Central Air-Conditioning	240	157	153	183	6.0
Room/Wall Air-Conditioning	91	78	86	58	4.8
2001 Cooling Degree-Days (CDD) per Household³					
2001 Cooling Degree-Days per Household					
Total U.S. Households	1,407	888	947	726	2.4
No/Don't Use Air-Conditioning	883	820	916	659	5.0
Electric Air-Conditioning	1,578	917	958	773	1.7
Central Air-Conditioning	1,701	835	842	789	2.8
Room/Wall Air-Conditioning	1,274	971	1,050	768	2.2
Cooled Square Footage (CSF) per Household³					
Cooled Square Footage per Household					
Electric Air-Conditioning	1,724	1,505	1,497	1,533	5.5
Central Air-Conditioning	2,032	2,306	2,207	2,944	6.2
Room/Wall Air-Conditioning	967	971	928	1,081	3.9

See footnotes at end of table.

Table CE3-9e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Northeast Census Region, 2001 - Preliminary Data (Continued)

	Total U.S.	Northeast Census Region			RSE Row Factors
		Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.6	0.9	1.0	1.9	

Air-Conditioning Intensity³ [Cents÷(CDD×(CSF÷1000))]

Air-Conditioning Intensity	Total U.S.	Total	Middle Atlantic	New England	RSE Row Factors
Electric Air-Conditioning	7.24	7.94	8.07	7.44	3.5
Central Air-Conditioning	6.95	8.14	8.22	7.87	4.9
Room/Wall Air-Conditioning	7.35	8.29	8.83	6.97	4.0

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

³ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

NF = No applicable RSE row factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-10e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Midwest Census Region, 2001 - Preliminary Data

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
RSE Column Factor:	0.6	0.9	1.1	1.6	
Million Households					
Total U.S. Households	107.0	24.5	17.1	7.4	NF
No/Don't Use Air-Conditioning	26.2	4.3	3.7	0.7	10.9
Electric Air-Conditioning ¹	80.8	20.2	13.4	6.7	2.3
Central Air-Conditioning ²	57.5	14.3	9.5	4.8	3.8
Room/Wall Air-Conditioning	23.3	5.8	3.9	1.9	7.1
Billion Dollars					
Electric Air-Conditioning Expenditures					
Total	15.92	2.52	1.59	0.93	5.2
Central Air-Conditioning	13.81	2.14	1.35	0.79	6.4
Room/Wall Air-Conditioning	2.11	0.38	0.23	0.15	9.2
Dollars per Household³					
Electric Air-Conditioning Expenditures per Household					
Electric Air-Conditioning	197	125	118	138	4.8
Central Air-Conditioning	240	149	142	163	4.6
Room/Wall Air-Conditioning	91	65	60	77	6.6
2001 Cooling Degree-Days (CDD) per Household³					
2001 Cooling Degree-Days per Household					
Total U.S. Households	1,407	921	856	1,071	3.5
No/Don't Use Air-Conditioning	883	792	781	851	3.7
Electric Air-Conditioning	1,578	949	877	1,093	3.7
Central Air-Conditioning	1,701	967	883	1,131	3.8
Room/Wall Air-Conditioning	1,274	906	861	997	4.4
Cooled Square Footage (CSF) per Household³					
Cooled Square Footage per Household					
Electric Air-Conditioning	1,724	2,021	2,031	2,003	3.1
Central Air-Conditioning	2,032	2,378	2,438	2,261	3.1
Room/Wall Air-Conditioning	967	1,146	1,045	1,354	6.5

See footnotes at end of table.

Table CE3-10e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Midwest Census Region, 2001 - Preliminary Data (Continued)

	Total U.S.	Midwest Census Region			RSE Row Factors
		Total	Census Division		
			East North Central	West North Central	
RSE Column Factor:	0.6	0.9	1.1	1.6	

Air-Conditioning Intensity³ [Cents÷(CDD×(CSF÷1000))]

Air-Conditioning Intensity	Total U.S.	Total	East North Central	West North Central	RSE Row Factors
Electric Air-Conditioning	7.24	6.51	6.63	6.33	2.8
Central Air-Conditioning	6.95	6.49	6.61	6.38	2.8
Room/Wall Air-Conditioning	7.35	6.27	6.62	5.67	7.0

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

³ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

NF = No applicable RSE row factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-11e. Electric Air-Conditioning Energy Expenditures in U.S. Households by South Census Region, 2001 - Preliminary Data

	Total U.S.	South Census Region			RSE Row Factors	
		Total	Census Division			
			South Atlantic	East South Central		West south Central
RSE Column Factor:	0.6	0.8	1.1	1.3	1.4	
Million Households						
Total U.S. Households	107.0	38.9	20.3	6.8	11.8	NF
No/Don't Use Air-Conditioning	26.2	2.1	1.3	0.4	0.4	16.1
Electric Air-Conditioning ¹	80.8	36.9	19.0	6.4	11.5	1.6
Central Air-Conditioning ²	57.5	30.4	16.1	5.0	9.2	2.8
Room/Wall Air-Conditioning	23.3	6.4	2.9	1.3	2.2	9.0
Billion Dollars						
Electric Air-Conditioning Expenditures						
Total	15.92	10.35	5.06	1.28	4.01	4.2
Central Air-Conditioning	13.81	9.42	4.73	1.10	3.59	4.6
Room/Wall Air-Conditioning	2.11	0.93	0.33	0.18	0.42	13.2
Dollars per Household³						
Electric Air-Conditioning Expenditures per Household						
Electric Air-Conditioning	197	281	266	200	350	3.5
Central Air-Conditioning	240	310	293	218	389	4.1
Room/Wall Air-Conditioning	91	144	115	134	188	8.4
2001 Cooling Degree-Days (CDD) per Household³						
2001 Cooling Degree-Days per Household						
Total U.S. Households	1,407	2,153	2,071	1,690	2,560	3.6
No/Don't Use Air-Conditioning	883	1,905	1,933	1,573	2,225	7.6
Electric Air-Conditioning	1,578	2,167	2,081	1,698	2,570	3.6
Central Air-Conditioning	1,701	2,192	2,135	1,679	2,570	3.6
Room/Wall Air-Conditioning	1,274	2,047	1,775	1,769	2,571	5.5
Cooled Square Footage (CSF) per Household³						
Cooled Square Footage per Household						
Electric Air-Conditioning	1,724	1,732	1,737	1,891	1,636	4.5
Central Air-Conditioning	2,032	1,904	1,896	2,086	1,819	4.5
Room/Wall Air-Conditioning	967	923	852	1,162	872	7.5

See footnotes at end of table.

Table CE3-11e. Electric Air-Conditioning Energy Expenditures in U.S. Households by South Census Region, 2001 - Preliminary Data (Continued)

	Total U.S.	South Census Region				RSE Row Factors
		Total	Census Division			
			South Atlantic	East South Central	West south Central	
RSE Column Factor:	0.6	0.8	1.1	1.3	1.4	

Air-Conditioning Intensity³ [Cents÷{CDD×(CSF÷1000)}]

Air-Conditioning Intensity	Total U.S.	Total	South Atlantic	East South Central	West south Central	RSE Row Factors
Electric Air-Conditioning	7.24	7.48	7.36	6.23	8.33	2.7
Central Air-Conditioning	6.95	7.42	7.24	6.22	8.32	2.7
Room/Wall Air-Conditioning	7.35	7.62	7.63	6.51	8.38	7.4

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

³ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

NF = No applicable RSE row factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-12e. Electric Air-Conditioning Energy Expenditures in U.S. Households by West Census Region, 2001 - Preliminary Data

	Total U.S.	West Census Region			RSE Row Factors
		Total	Census Division		
			Mountain	Pacific	
RSE Column Factor:	0.4	1.1	2.0	1.3	
Million Households					
Total U.S. Households	107.0	23.3	6.7	16.6	NF
No/Don't Use Air-Conditioning	26.2	13.8	3.5	10.2	7.6
Electric Air-Conditioning ¹	80.8	9.6	3.2	6.3	7.2
Central Air-Conditioning ²	57.5	7.1	2.6	4.5	8.5
Room/Wall Air-Conditioning	23.3	2.5	0.6	1.9	10.1
Billion Dollars					
Electric Air-Conditioning Expenditures					
Total	15.92	1.49	0.77	0.73	9.6
Central Air-Conditioning	13.81	1.36	0.73	0.63	9.7
Room/Wall Air-Conditioning	2.11	0.13	0.04	0.10	14.6
Dollars per Household³					
Electric Air-Conditioning Expenditures per Household					
Electric Air-Conditioning	197	156	239	114	7.9
Central Air-Conditioning	240	193	284	140	8.6
Room/Wall Air-Conditioning	91	54	59	52	10.5
2001 Cooling Degree-Days (CDD) per Household³					
2001 Cooling Degree-Days per Household					
Total U.S. Households	1,407	1,125	1,917	804	6.2
No/Don't Use Air-Conditioning	883	784	1,361	586	6.5
Electric Air-Conditioning	1,578	1,615	2,527	1,155	7.7
Central Air-Conditioning	1,701	1,771	2,821	1,170	8.1
Room/Wall Air-Conditioning	1,274	1,176	1,342	1,119	9.8
Cooled Square Footage (CSF) per Household³					
Cooled Square Footage per Household					
Electric Air-Conditioning	1,724	1,394	1,383	1,399	5.7
Central Air-Conditioning	2,032	1,660	1,568	1,713	6.4
Room/Wall Air-Conditioning	967	643	640	644	6.7

See footnotes at end of table.

Table CE3-12e. Electric Air-Conditioning Energy Expenditures in U.S. Households by West Census Region, 2001 - Preliminary Data (Continued)

	Total U.S.	West Census Region			RSE Row Factors
		Total	Census Division		
			Mountain	Pacific	
RSE Column Factor:	0.4	1.1	2.0	1.3	

Air-Conditioning Intensity³ [Cents÷(CDD×(CSF÷1000))]

Air-Conditioning Intensity	Total U.S.	West Census Region Total	Mountain	Pacific	RSE Row Factors
Electric Air-Conditioning	7.24	6.94	6.85	7.08	3.8
Central Air-Conditioning	6.95	6.55	6.42	7.01	4.2
Room/Wall Air-Conditioning	7.35	7.08	6.87	7.17	10.0

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

³ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

NF = No applicable RSE row factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

2001 Consumption and Expenditures Tables

Electric Air-Conditioning Expenditures Tables

(20 pages, 82 kb)

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These data are from the 2001 Residential Energy Consumption Survey (RECS) which provides information on the use of energy in residential housing units in the United States. The RECS is a national statistical survey that collects energy-related data for occupied primary housing units. RECS was first conducted in 1978; the twelfth and most recent survey was conducted in 2001. In the 2001 RECS, data were collected from a sample of 4,822 households in housing units statistically selected to represent the 107.0 million housing units in the United States. The RECS data are available for the four Census regions, the nine Census divisions, and for the four most populous States--California, Florida, New York, and Texas.

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World Wide Web: <http://www.eia.doe.gov/emeu/consumption>

Table CE3-1e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Climate Zone, 2001

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
		0.5	1.6	1.0	0.9		
RSE Column Factor:							
Million Households							
Total U.S. Households	107.0	9.2	28.6	24.0	21.0	24.1	8.1
No/Don't Use Air-Conditioning	26.2	4.0	8.1	4.2	7.6	2.3	11.3
Electric Air-Conditioning ²	80.8	5.3	20.5	19.9	13.4	21.8	8.2
Central Air-Conditioning ³	57.5	3.1	12.9	12.7	10.5	18.2	9.2
Room/Wall Air-Conditioning	23.3	2.2	7.6	7.2	2.9	3.6	11.3
Billion Dollars^a							
Electric Air-Conditioning Expenditures							
Total	15.94	0.45	2.19	2.85	2.68	7.78	9.7
Central Air-Conditioning	13.81	0.34	1.72	2.14	2.39	7.22	10.2
Room/Wall Air-Conditioning	2.13	0.12	0.47	0.70	0.29	0.56	13.4
Dollars per Household^{4,a}							
Electric Air-Conditioning Expenditures per Household							
Electric Air-Conditioning	197	86	107	143	200	357	4.7
Central Air-Conditioning	240	108	133	168	228	397	4.4
Room/Wall Air-Conditioning	91	54	62	98	100	156	7.2
2001 Cooling Degree-Days (CDD) per Household⁴							
2001 Cooling Degree-Days per Household							
Total U.S. Households	1,407	665	777	1,147	1,236	2,852	3.8
No/Don't Use Air-Conditioning	883	603	639	860	738	2,752	8.2
Electric Air-Conditioning	1,578	712	832	1,207	1,520	2,863	3.0
Central Air-Conditioning	1,701	732	848	1,221	1,561	2,887	3.2
Room/Wall Air-Conditioning	1,274	681	804	1,181	1,368	2,742	3.4
Cooled Square Footage (CSF) per Household⁴							
Cooled Square Footage per Household							
Electric Air-Conditioning	1,724	1,867	1,863	1,697	1,732	1,579	4.1
Central Air-Conditioning	2,032	2,405	2,336	2,101	1,989	1,729	4.1
Room/Wall Air-Conditioning	967	1,090	1,058	981	790	811	6.2

See footnotes at end of table.

Table CE3-1e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Climate Zone, 2001 (Continued)

	Total	Climate Zone ¹					RSE Row Factors
		Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.5	1.6	1.0	0.9	1.5	1.0	
Air-Conditioning Intensity^{4,a} [Cents÷{CDD×(CSF÷1000)}]							
Air-Conditioning Intensity							
Electric Air-Conditioning	7.26	6.48	6.89	6.99	7.61	7.90	3.2
Central Air-Conditioning	6.96	6.13	6.73	6.57	7.33	7.94	3.3
Room/Wall Air-Conditioning	7.42	7.33	7.25	8.48	9.23	7.04	6.5

¹ One of five climatically distinct areas, determined according to the 30-year average (1961-1990) of the annual heating and cooling degree-days. For this report, the heating or cooling degree-days are a measure of how cold or how hot a location is over a period of one year, relative to a base temperature of 65 degrees Fahrenheit. A household is assigned to a climate zone according to the 30-year average annual degree-days for an appropriate nearby weather station.

² The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

³ The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

⁴ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-2e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Year of Construction, 2001

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.9	1.1	1.1	1.1	1.0	0.8	
Million Households								
Total U.S. Households	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.2
No/Don't Use Air-Conditioning	26.2	2.1	2.5	4.6	3.6	4.0	9.5	8.7
Electric Air-Conditioning ²	80.8	13.4	15.8	14.2	10.1	10.2	17.1	4.7
Central Air-Conditioning ³	57.5	12.6	13.7	11.0	7.1	6.6	6.4	5.9
Room/Wall Air-Conditioning	23.3	0.8	2.1	3.1	3.1	3.5	10.8	8.7
Billion Dollars^a								
Electric Air-Conditioning Expenditures								
Total	15.94	3.33	3.56	3.17	1.84	1.75	2.30	7.2
Central Air-Conditioning	13.81	3.26	3.41	2.94	1.52	1.38	1.30	8.3
Room/Wall Air-Conditioning	2.13	0.07	0.15	0.23	0.31	0.37	1.00	11.6
Dollars per Household^{4,a}								
Electric Air-Conditioning Expenditures per Household								
Electric Air-Conditioning	197	249	225	224	181	172	134	5.4
Central Air-Conditioning	240	259	248	266	215	208	204	5.9
Room/Wall Air-Conditioning	91	84	73	74	103	105	93	8.0
2001 Cooling Degree-Days (CDD) per Household⁴								
2001 Cooling Degree-Days per Household								
Total U.S. Households	1,407	1,455	1,648	1,586	1,376	1,352	1,135	3.4
No/Don't Use Air-Conditioning	883	583	1,032	841	932	971	874	8.2
Electric Air-Conditioning	1,578	1,590	1,744	1,826	1,536	1,502	1,279	3.5
Central Air-Conditioning	1,701	1,608	1,838	1,957	1,606	1,544	1,412	4.1
Room/Wall Air-Conditioning	1,274	1,299	1,114	1,367	1,373	1,422	1,200	6.2
Cooled Square Footage (CSF) per Household⁴								
Cooled Square Footage per Household								
Electric Air-Conditioning	1,724	2,297	1,785	1,562	1,616	1,667	1,454	3.7
Central Air-Conditioning	2,032	2,376	1,937	1,804	1,912	2,012	2,106	3.8
Room/Wall Air-Conditioning	967	1,005	773	714	929	1,013	1,070	6.6

See footnotes at end of table.

Table CE3-2e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Year of Construction, 2001 (Continued)

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.9	1.1	1.1	1.1	1.0	0.8	
Air-Conditioning Intensity^{4,a} [Cents÷(CDD×(CSF÷1000))]								
Air-Conditioning Intensity								
Electric Air-Conditioning	7.26	6.81	7.24	7.84	7.30	6.88	7.22	3.5
Central Air-Conditioning	6.96	6.77	6.97	7.55	6.99	6.69	6.87	3.6
Room/Wall Air-Conditioning	7.42	6.47	8.48	7.53	8.08	7.27	7.25	7.7

¹ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

² The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

³ The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

⁴ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-3e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Household Income, 2001

	Total	2001 Household Income				Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.7	1.0	1.0	0.8	1.4	0.9	
Million Households								
Total U.S. Households	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.3
No/Don't Use Air-Conditioning	26.2	4.2	8.8	6.1	7.1	5.9	11.3	6.9
Electric Air-Conditioning ²	80.8	6.9	21.7	21.0	31.2	9.1	22.6	3.9
Central Air-Conditioning ³	57.5	3.2	13.7	15.2	25.3	4.5	12.4	5.5
Room/Wall Air-Conditioning	23.3	3.7	8.0	5.8	5.9	4.7	10.1	5.9
Billion Dollars^a								
Electric Air-Conditioning Expenditures								
Total	15.94	0.88	3.22	3.82	8.02	1.32	3.31	5.9
Central Air-Conditioning	13.81	0.56	2.53	3.33	7.40	0.88	2.41	7.0
Room/Wall Air-Conditioning	2.13	0.33	0.69	0.49	0.62	0.44	0.91	8.0
Dollars per Household^{4,a}								
Electric Air-Conditioning Expenditures per Household								
Electric Air-Conditioning	197	129	148	182	257	145	147	4.1
Central Air-Conditioning	240	175	184	219	292	197	194	4.6
Room/Wall Air-Conditioning	91	89	86	86	106	95	90	5.9
2001 Cooling Degree-Days (CDD) per Household⁴								
2001 Cooling Degree-Days per Household								
Total U.S. Households	1,407	1,423	1,444	1,396	1,381	1,435	1,372	3.1
No/Don't Use Air-Conditioning	883	974	994	896	682	1,029	972	5.2
Electric Air-Conditioning	1,578	1,696	1,627	1,542	1,541	1,696	1,572	3.1
Central Air-Conditioning	1,701	1,920	1,779	1,687	1,638	1,915	1,741	3.6
Room/Wall Air-Conditioning	1,274	1,502	1,366	1,157	1,121	1,486	1,365	4.4
Cooled Square Footage (CSF) per Household⁴								
Cooled Square Footage per Household								
Electric Air-Conditioning	1,724	967	1,203	1,585	2,349	1,017	1,164	2.9
Central Air-Conditioning	2,032	1,289	1,404	1,778	2,618	1,317	1,448	3.4
Room/Wall Air-Conditioning	967	689	857	1,074	1,185	730	813	4.8

See footnotes at end of table.

Table CE3-3e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Household Income, 2001 (Continued)

	Total	2001 Household Income				Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.7	1.0	1.0	0.8	1.4	0.9	
Air-Conditioning Intensity^{4,a} [Cents÷(CDD×(CSF÷1000))]								
Air-Conditioning Intensity								
Electric Air-Conditioning	7.26	7.84	7.56	7.45	7.11	8.39	8.03	2.9
Central Air-Conditioning	6.96	7.06	7.37	7.28	6.81	7.81	7.68	3.2
Room/Wall Air-Conditioning	7.42	8.59	7.34	6.88	8.01	8.74	8.07	6.4

¹ Below 150 percent of poverty line or 60 percent of median State income.

² The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

³ The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

⁴ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-4e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Type of Housing Unit, 2001

	Total	Type of Housing Unit			Mobile Homes	RSE Row Factors
		Single-Family	Apartments in Buildings With			
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.5	1.5	1.4	1.8	
Million Households						
Total U.S. Households	107.0	73.7	9.5	17.0	6.8	4.4
No/Don't Use Air-Conditioning	26.2	16.1	3.2	5.2	1.7	8.4
Electric Air-Conditioning ¹	80.8	57.6	6.3	11.8	5.1	4.9
Central Air-Conditioning ²	57.5	43.6	3.2	7.1	3.5	6.7
Room/Wall Air-Conditioning	23.3	13.9	3.1	4.7	1.6	7.7
Billion Dollars^a						
Electric Air-Conditioning Expenditures						
Total	15.94	12.70	0.85	1.51	0.88	8.0
Central Air-Conditioning	13.81	11.29	0.59	1.20	0.72	9.2
Room/Wall Air-Conditioning	2.13	1.41	0.26	0.30	0.16	10.5
Dollars per Household^{3,a}						
Electric Air-Conditioning Expenditures per Household						
Electric Air-Conditioning	197	221	135	128	171	5.7
Central Air-Conditioning	240	259	185	169	205	6.2
Room/Wall Air-Conditioning	91	101	84	65	98	6.6
2001 Cooling Degree-Days (CDD) per Household³						
2001 Cooling Degree-Days per Household						
Total U.S. Households	1,407	1,421	1,282	1,389	1,485	4.2
No/Don't Use Air-Conditioning	883	919	825	751	1,059	7.4
Electric Air-Conditioning	1,578	1,561	1,511	1,673	1,623	4.3
Central Air-Conditioning	1,701	1,646	1,952	1,957	1,627	5.0
Room/Wall Air-Conditioning	1,274	1,295	1,058	1,240	1,613	5.4
Cooled Square Footage (CSF) per Household³						
Cooled Square Footage per Household						
Electric Air-Conditioning	1,724	2,061	1,029	787	958	3.3
Central Air-Conditioning	2,032	2,348	1,181	924	1,128	3.4
Room/Wall Air-Conditioning	967	1,161	874	578	591	4.6

See footnotes at end of table.

Table CE3-4e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Type of Housing Unit, 2001 (Continued)

	Total	Type of Housing Unit			Mobile Homes	RSE Row Factors
		Single-Family	Apartments in Buildings With			
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.5	1.5	1.4	1.8	
Air-Conditioning Intensity^{3,a} [Cents÷{CDD×{CSF÷1000}}]						
Air-Conditioning Intensity						
Electric Air-Conditioning	7.26	6.86	8.70	9.73	11.02	3.2
Central Air-Conditioning	6.96	6.70	8.02	9.37	11.19	3.2
Room/Wall Air-Conditioning	7.42	6.73	9.13	9.07	10.25	6.8

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

³ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-7e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Four Most Populated States, 2001

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.4	0.9	1.5	1.5	1.3	
Million Households						
Total U.S. Households	107.0	7.1	12.3	12.3	6.3	NE
No/Don't Use Air-Conditioning	26.2	2.4	7.2	7.2	Q	6.3
Electric Air-Conditioning ¹	80.8	4.7	5.2	5.2	6.1	3.7
Central Air-Conditioning ²	57.5	1.3	3.9	3.9	5.7	8.1
Room/Wall Air-Conditioning	23.3	3.4	1.2	1.2	0.3	13.5
Billion Dollars^a						
Electric Air-Conditioning Expenditures						
Total	15.94	0.51	0.64	0.64	2.64	9.1
Central Air-Conditioning	13.81	0.17	0.59	0.59	2.59	11.2
Room/Wall Air-Conditioning	2.13	0.34	0.05	0.05	0.05	17.4
Dollars per Household^{3,a}						
Electric Air-Conditioning Expenditures per Household						
Electric Air-Conditioning	197	109	125	125	436	6.7
Central Air-Conditioning	240	134	150	150	454	8.8
Room/Wall Air-Conditioning	91	100	41	41	146	11.5
2001 Cooling Degree-Days (CDD) per Household³						
2001 Cooling Degree-Days per Household						
Total U.S. Households	1,407	988	860	860	3,452	5.0
No/Don't Use Air-Conditioning	883	946	627	627	Q	4.9
Electric Air-Conditioning	1,578	1,009	1,183	1,183	3,434	5.0
Central Air-Conditioning	1,701	749	1,276	1,276	3,398	7.2
Room/Wall Air-Conditioning	1,274	1,106	881	881	4,022	8.4
Cooled Square Footage (CSF) per Household³						
Cooled Square Footage per Household						
Electric Air-Conditioning	1,724	1,149	1,374	1,374	1,682	6.7
Central Air-Conditioning	2,032	1,852	1,640	1,640	1,732	9.0
Room/Wall Air-Conditioning	967	886	512	512	Q	6.5

See footnotes at end of table.

Table CE3-7e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Four Most Populated States, 2001 (Continued)

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
	RSE Column Factor:	0.4	0.9	1.5	1.5	
Air-Conditioning Intensity^{3,a} [Cents÷{CDD×(CSF÷1000)}]						
Air-Conditioning Intensity						
Electric Air-Conditioning	7.26	9.39	7.67	7.67	7.55	4.7
Central Air-Conditioning	6.96	9.64	7.19	7.19	7.71	6.0
Room/Wall Air-Conditioning	7.42	10.17	9.05	9.05	4.12	7.7

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

³ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-8e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Urban/Rural Location, 2001

	Total	Urban/Rural Location ¹				RSE Row Factors
		City	Town	Suburbs	Rural	
RSE Column Factor:	0.6	0.8	1.3	1.2	1.3	
Million Households						
Total U.S. Households	107.0	49.9	18.0	21.2	17.9	4.2
No/Don't Use Air-Conditioning	26.2	14.3	4.6	2.7	4.6	7.8
Electric Air-Conditioning ²	80.8	35.6	13.4	18.6	13.3	4.3
Central Air-Conditioning ³	57.5	23.6	8.6	15.8	9.4	5.1
Room/Wall Air-Conditioning	23.3	12.0	4.8	2.7	3.9	7.4
Billion Dollars^a						
Electric Air-Conditioning Expenditures						
Total	15.94	6.83	2.15	4.53	2.44	6.1
Central Air-Conditioning	13.81	5.71	1.72	4.29	2.09	6.5
Room/Wall Air-Conditioning	2.13	1.12	0.43	0.24	0.35	9.1
Dollars per Household^{4,a}						
Electric Air-Conditioning Expenditures per Household						
Electric Air-Conditioning	197	192	160	244	184	4.2
Central Air-Conditioning	240	242	199	271	223	4.3
Room/Wall Air-Conditioning	91	94	90	88	89	6.1
2001 Cooling Degree-Days (CDD) per Household⁴						
2001 Cooling Degree-Days per Household						
Total U.S. Households	1,407	1,482	1,234	1,489	1,277	3.2
No/Don't Use Air-Conditioning	883	908	852	800	885	6.9
Electric Air-Conditioning	1,578	1,713	1,366	1,588	1,413	3.3
Central Air-Conditioning	1,701	1,890	1,494	1,648	1,504	3.6
Room/Wall Air-Conditioning	1,274	1,364	1,134	1,240	1,195	4.8
Cooled Square Footage (CSF) per Household⁴						
Cooled Square Footage per Household						
Electric Air-Conditioning	1,724	1,480	1,671	2,144	1,847	3.3
Central Air-Conditioning	2,032	1,771	2,027	2,335	2,182	3.5
Room/Wall Air-Conditioning	967	905	1,026	1,027	1,043	5.5

See footnotes at end of table.

Table CE3-8e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Urban/Rural Location, 2001 (Continued)

	Total	Urban/Rural Location ¹				RSE Row Factors
		City	Town	Suburbs	Rural	
RSE Column Factor:	0.6	0.8	1.3	1.2	1.3	
Air-Conditioning Intensity^{4,a} [Cents÷{CDD×(CSF÷1000)}]						
Air-Conditioning Intensity						
Electric Air-Conditioning	7.26	7.57	7.02	7.17	7.05	2.6
Central Air-Conditioning	6.96	7.22	6.57	7.04	6.81	2.6
Room/Wall Air-Conditioning	7.42	7.58	7.75	6.87	7.17	6.0

¹ Based on the household respondent's description rather than the Federal Government definition.

² The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

³ The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

⁴ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-9e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Northeast Census Region, 2001

	Total U.S.	Northeast Census Region			RSE Row Factors
		Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.6	0.9	1.1	1.7	
Million Households					
Total U.S. Households	107.0	20.3	14.8	5.4	NE
No/Don't Use Air-Conditioning	26.2	6.0	3.8	2.3	8.0
Electric Air-Conditioning ¹	80.8	14.2	11.1	3.2	3.4
Central Air-Conditioning ²	57.5	5.7	4.9	0.8	8.9
Room/Wall Air-Conditioning	23.3	8.5	6.1	2.4	5.6
Billion Dollars^a					
Electric Air-Conditioning Expenditures					
Total	15.94	1.58	1.29	0.29	7.1
Central Air-Conditioning	13.81	0.87	0.73	0.13	11.4
Room/Wall Air-Conditioning	2.13	0.71	0.56	0.15	6.6
Dollars per Household^{3,a}					
Electric Air-Conditioning Expenditures per Household					
Electric Air-Conditioning	197	111	117	92	5.6
Central Air-Conditioning	240	153	149	176	6.2
Room/Wall Air-Conditioning	91	84	91	65	4.1
2001 Cooling Degree-Days (CDD) per Household³					
2001 Cooling Degree-Days per Household					
Total U.S. Households	1,407	888	947	726	2.4
No/Don't Use Air-Conditioning	883	820	916	659	5.0
Electric Air-Conditioning	1,578	917	958	773	1.7
Central Air-Conditioning	1,701	835	842	789	2.8
Room/Wall Air-Conditioning	1,274	971	1,050	768	2.2
Cooled Square Footage (CSF) per Household³					
Cooled Square Footage per Household					
Electric Air-Conditioning	1,724	1,505	1,497	1,533	5.5
Central Air-Conditioning	2,032	2,306	2,207	2,944	6.2
Room/Wall Air-Conditioning	967	971	928	1,081	3.9

See footnotes at end of table.

Table CE3-9e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Northeast Census Region, 2001 (Continued)

	Total U.S.	Northeast Census Region			RSE Row Factors
		Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.6	0.9	1.1	1.7	
Air-Conditioning Intensity^{3,a} [Cents÷{CDD×(CSF÷1000)}]					
Air-Conditioning Intensity					
Electric Air-Conditioning	7.26	8.06	8.15	7.74	3.1
Central Air-Conditioning	6.96	7.92	8.01	7.58	4.5
Room/Wall Air-Conditioning	7.42	8.88	9.35	7.80	4.1

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).
² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.
³ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.
^a The row factor in this section is underestimated because it contains no error for estimating the end-use.
NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.
Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-10e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Midwest Census Region, 2001

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
	0.6	0.9	1.1	1.6	
RSE Column Factor:					
Million Households					
Total U.S. Households	107.0	24.5	17.1	7.4	NE
No/Don't Use Air-Conditioning	26.2	4.3	3.7	0.7	10.9
Electric Air-Conditioning ¹	80.8	20.2	13.4	6.7	2.3
Central Air-Conditioning ²	57.5	14.3	9.5	4.8	3.8
Room/Wall Air-Conditioning	23.3	5.8	3.9	1.9	7.1
Billion Dollars^a					
Electric Air-Conditioning Expenditures					
Total	15.94	2.49	1.58	0.91	5.1
Central Air-Conditioning	13.81	2.08	1.33	0.76	6.4
Room/Wall Air-Conditioning	2.13	0.41	0.25	0.16	9.1
Dollars per Household^{3,a}					
Electric Air-Conditioning Expenditures per Household					
Electric Air-Conditioning	197	123	117	135	4.6
Central Air-Conditioning	240	145	140	157	4.5
Room/Wall Air-Conditioning	91	70	64	82	6.5
2001 Cooling Degree-Days (CDD) per Household³					
2001 Cooling Degree-Days per Household					
Total U.S. Households	1,407	921	856	1,071	3.5
No/Don't Use Air-Conditioning	883	792	781	851	3.7
Electric Air-Conditioning	1,578	949	877	1,093	3.7
Central Air-Conditioning	1,701	967	883	1,131	3.8
Room/Wall Air-Conditioning	1,274	906	861	997	4.4
Cooled Square Footage (CSF) per Household³					
Cooled Square Footage per Household					
Electric Air-Conditioning	1,724	2,021	2,031	2,003	3.1
Central Air-Conditioning	2,032	2,378	2,438	2,261	3.1
Room/Wall Air-Conditioning	967	1,146	1,045	1,354	6.5

See footnotes at end of table.

Table CE3-10e. Electric Air-Conditioning Energy Expenditures in U.S. Households by Midwest Census Region, 2001 (Continued)

	Total U.S.	Midwest Census Region			RSE Row Factors
		Total	Census Division		
			East North Central	West North Central	
RSE Column Factor:	0.6	0.9	1.1	1.6	
Air-Conditioning Intensity^{3,a} [Cents÷{CDD×(CSF÷1000)}]					
Air-Conditioning Intensity					
Electric Air-Conditioning	7.26	6.44	6.60	6.19	2.8
Central Air-Conditioning	6.96	6.32	6.49	6.13	2.8
Room/Wall Air-Conditioning	7.42	6.72	7.09	6.07	7.8

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).
² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.
³ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.
^a The row factor in this section is underestimated because it contains no error for estimating the end-use.
NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.
Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-11e. Electric Air-Conditioning Energy Expenditures in U.S. Households by South Census Region, 2001

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			West south Central	
		Total	South Atlantic	East South Central		
RSE Column Factor:	0.5	0.8	1.2	1.3	1.4	
Million Households						
Total U.S. Households	107.0	38.9	20.3	6.8	11.8	NE
No/Don't Use Air-Conditioning	26.2	2.1	1.3	0.4	0.4	16.1
Electric Air-Conditioning ¹	80.8	36.9	19.0	6.4	11.5	1.6
Central Air-Conditioning ²	57.5	30.4	16.1	5.0	9.2	2.8
Room/Wall Air-Conditioning	23.3	6.4	2.9	1.3	2.2	9.0
Billion Dollars^a						
Electric Air-Conditioning Expenditures						
Total	15.94	10.37	5.15	1.24	3.99	4.3
Central Air-Conditioning	13.81	9.49	4.82	1.07	3.60	4.7
Room/Wall Air-Conditioning	2.13	0.88	0.32	0.17	0.39	11.7
Dollars per Household^{3,a}						
Electric Air-Conditioning Expenditures per Household						
Electric Air-Conditioning	197	282	271	195	348	3.7
Central Air-Conditioning	240	312	299	213	389	3.9
Room/Wall Air-Conditioning	91	137	111	128	176	7.7
2001 Cooling Degree-Days (CDD) per Household³						
2001 Cooling Degree-Days per Household						
Total U.S. Households	1,407	2,153	2,071	1,690	2,560	3.6
No/Don't Use Air-Conditioning	883	1,905	1,933	1,573	2,225	7.6
Electric Air-Conditioning	1,578	2,167	2,081	1,698	2,570	3.6
Central Air-Conditioning	1,701	2,192	2,135	1,679	2,570	3.6
Room/Wall Air-Conditioning	1,274	2,047	1,775	1,769	2,571	5.5
Cooled Square Footage (CSF) per Household³						
Cooled Square Footage per Household						
Electric Air-Conditioning	1,724	1,732	1,737	1,891	1,636	4.5
Central Air-Conditioning	2,032	1,904	1,896	2,086	1,819	4.5
Room/Wall Air-Conditioning	967	923	852	1,162	872	7.5

See footnotes at end of table.

Table CE3-11e. Electric Air-Conditioning Energy Expenditures in U.S. Households by South Census Region, 2001 (Continued)

	Total U.S.	South Census Region				RSE Row Factors
		Total	Census Division			
			South Atlantic	East South Central	West south Central	
RSE Column Factor:	0.5	0.8	1.2	1.3	1.4	
Air-Conditioning Intensity^{3,a} [Cents÷{CDD×(CSF÷1000)}]						
Air-Conditioning Intensity						
Electric Air-Conditioning	7.26	7.50	7.48	6.07	8.28	2.6
Central Air-Conditioning	6.96	7.48	7.39	6.08	8.33	2.5
Room/Wall Air-Conditioning	7.42	7.25	7.37	6.22	7.86	8.0

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

³ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE3-12e. Electric Air-Conditioning Energy Expenditures in U.S. Households by West Census Region, 2001

	Total U.S.	West Census Region			RSE Row Factors
		Total	Census Division		
			Mountain	Pacific	
RSE Column Factor:	0.4	1.1	1.9	1.3	
Million Households					
Total U.S. Households	107.0	23.3	6.7	16.6	NE
No/Don't Use Air-Conditioning	26.2	13.8	3.5	10.2	7.6
Electric Air-Conditioning ¹	80.8	9.6	3.2	6.3	7.2
Central Air-Conditioning ²	57.5	7.1	2.6	4.5	8.5
Room/Wall Air-Conditioning	23.3	2.5	0.6	1.9	10.1
Billion Dollars^a					
Electric Air-Conditioning Expenditures					
Total	15.94	1.50	0.78	0.72	8.7
Central Air-Conditioning	13.81	1.37	0.75	0.62	8.8
Room/Wall Air-Conditioning	2.13	0.13	0.03	0.09	14.3
Dollars per Household^{3,a}					
Electric Air-Conditioning Expenditures per Household					
Electric Air-Conditioning	197	157	244	113	7.2
Central Air-Conditioning	240	195	291	139	7.9
Room/Wall Air-Conditioning	91	50	54	49	9.6
2001 Cooling Degree-Days (CDD) per Household³					
2001 Cooling Degree-Days per Household					
Total U.S. Households	1,407	1,125	1,917	804	6.2
No/Don't Use Air-Conditioning	883	784	1,361	586	6.5
Electric Air-Conditioning	1,578	1,615	2,527	1,155	7.7
Central Air-Conditioning	1,701	1,771	2,821	1,170	8.1
Room/Wall Air-Conditioning	1,274	1,176	1,342	1,119	9.8
Cooled Square Footage (CSF) per Household³					
Cooled Square Footage per Household					
Electric Air-Conditioning	1,724	1,394	1,383	1,399	5.7
Central Air-Conditioning	2,032	1,660	1,568	1,713	6.4
Room/Wall Air-Conditioning	967	643	640	644	6.7

See footnotes at end of table.

Table CE3-12e. Electric Air-Conditioning Energy Expenditures in U.S. Households by West Census Region, 2001 (Continued)

	Total U.S.	West Census Region			RSE Row Factors
		Total	Census Division		
			Mountain	Pacific	
RSE Column Factor:	0.4	1.1	1.9	1.3	
Air-Conditioning Intensity^{3,a} [Cents÷{CDD×(CSF÷1000)}]					
Air-Conditioning Intensity					
Electric Air-Conditioning	7.26	6.97	6.98	6.98	4.0
Central Air-Conditioning	6.96	6.62	6.58	6.95	4.2
Room/Wall Air-Conditioning	7.42	6.67	6.27	6.84	10.0

¹ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (2.1 million).

² The 2001 RECS reported 800,000 households having both central air-conditioning and room/wall air-conditioners, with 600,000 households using both central air-conditioning and 200,000 households using only room/wall air-conditioners. These room/wall air-conditioners are not included in the count of 23.3 million households using room/wall air-conditioners. Note: This applies to all occurrences of central air-conditioning.

³ Averages are for those households using any electric air-conditioning, central air-conditioning, or room/wall air-conditioning, as applicable.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

2001 Consumption and Expenditures Tables

Appliances Consumption Tables

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These data are from the 2001 Residential Energy Consumption Survey (RECS) which provides information on the use of energy in residential housing units in the United States. The RECS is a national statistical survey that collects energy-related data for occupied primary housing units. RECS was first conducted in 1978; the twelfth and most recent survey was conducted in 2001. In the 2001 RECS, data were collected from a sample of 4,822 households in housing units statistically selected to represent the 107.0 million housing units in the United States. The RECS data are available for the four Census regions, the nine Census divisions, and for the four most populous States--California, Florida, New York, and Texas.

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World Wide Web: <http://www.eia.doe.gov/emeu/consumption>

Table CE5-1c. Appliances¹ Energy Consumption in U.S. Households by Climate Zone, 2001 - Preliminary Data

	Climate Zone ²						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.4	1.7	1.0	1.2	1.2	1.0	
Million Households							
Total U.S. Households	107.0	9.2	28.6	24.0	21.0	24.1	7.9
Number of Households With Appliances, Fuels Used (more than one may apply):							
Electricity for:							
Refrigerators	106.8	9.2	28.6	24.0	20.9	24.1	7.9
Other Appliances and Lighting	107.0	9.2	28.6	24.0	21.0	24.1	7.9
Natural Gas	42.6	2.3	13.1	10.1	9.2	7.8	9.4
LPG	5.6	1.1	1.3	1.2	1.0	1.0	21.1
Quadrillion Btu							
Appliances Btu Consumption, Fuels Used:							
Electricity for:							
Refrigerators	0.55	0.05	0.14	0.12	0.10	0.14	7.4
Other Appliances and Lighting	1.95	0.17	0.51	0.42	0.36	0.48	7.6
Natural Gas	0.37	0.02	0.11	0.08	0.09	0.07	11.2
LPG	0.05	0.01	Q	0.01	0.01	0.01	25.0
Total ³	2.92	0.24	0.78	0.63	0.56	0.70	7.3
Physical Units							
Physical Units of Appliances Consumption, Fuels Used:							
Electricity for:							
Refrigerators (billion kWh)	160	13	41	34	30	42	7.4
Other Appliances and Lighting (billion kWh)	572	51	150	124	106	141	7.6
Natural Gas (billion cf)	362	16	111	81	87	66	11.2
LPG (million gallons)	500	71	Q	114	66	92	25.0
Million Btu per Household⁴							
Appliances Btu Consumption per Household, Fuels Used:							
Electricity for:							
Refrigerators	5.1	4.9	4.9	4.8	4.9	6.0	2.7
Other Appliances and Lighting	18.2	18.6	17.9	17.6	17.3	19.9	2.8
Natural Gas	8.7	7.1	8.7	8.3	9.7	8.7	5.4
LPG	8.2	5.9	Q	9.0	6.0	8.4	24.8
Total ³	27.3	26.0	27.2	26.4	26.7	29.1	2.5

See footnotes at end of table.

Table CE5-1c. Appliances¹ Energy Consumption in U.S. Households by Climate Zone, 2001 - Preliminary Data (Continued)

RSE Column Factor:	Climate Zone ²						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
0.4	1.7	1.0	1.2	1.2	1.0		
Physical Units per Household⁴							
Physical Units of Appliances Consumption per Household, Fuels Used:							
Electricity for:							
Refrigerators (kWh)	1,500	1,440	1,425	1,414	1,437	1,752	2.7
Other Appliances and Lighting (kWh)	5,346	5,466	5,245	5,168	5,065	5,841	2.8
Natural Gas (thousand cf)	8	7	8	8	9	8	5.4
LPG (gallons)	89	65	Q	99	66	92	24.8

¹ Includes energy consumption for refrigeration and lighting.

² One of five climatically distinct areas, determined according to the 30-year average (1961-1990) of the annual heating and cooling degree-days. For this report, the heating or cooling degree-days are a measure of how cold or how hot a location is over a period of one year, relative to a base temperature of 65 degrees Fahrenheit. A household is assigned to a climate zone according to the 30-year average annual degree-days for an appropriate nearby weather station.

³ Includes a small amount of fuel oil and kerosene.

⁴ Averages are for those households using each of the fuels for appliances.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-2c. Appliances¹ Energy Consumption in U.S. Households by Year of Construction - Preliminary Data, 2001

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ²	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.6	1.1	1.1	1.1	1.0	1.0	
Million Households								
Total U.S. Households	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
Number of Households With Appliances, Fuels Used (more than one may apply):								
Electricity for:								
Refrigerators	106.8	15.5	18.2	18.7	13.8	14.1	26.5	4.2
Other Appliances and Lighting	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
Natural Gas	42.6	5.3	4.7	5.2	5.8	6.7	14.9	7.2
LPG	5.6	0.7	1.0	1.0	0.7	0.7	1.5	16.3
Quadrillion Btu								
Appliances Btu Consumption, Fuels Used:								
Electricity for:								
Refrigerators	0.55	0.08	0.10	0.10	0.07	0.07	0.12	4.4
Other Appliances and Lighting	1.95	0.34	0.35	0.34	0.24	0.25	0.43	4.4
Natural Gas	0.37	0.06	0.05	0.04	0.05	0.06	0.12	9.6
LPG	0.05	0.01	0.01	0.01	(*)	0.01	0.02	29.1
Total ³	2.92	0.49	0.50	0.50	0.35	0.38	0.70	4.5
Physical Units								
Physical Units of Appliances Consumption, Fuels Used:								
Electricity for:								
Refrigerators (billion kWh)	160	24	29	30	20	21	37	4.4
Other Appliances and Lighting (billion kWh)	572	99	104	101	69	72	127	4.4
Natural Gas (billion cf)	362	58	45	43	44	54	117	9.6
LPG (million gallons)	500	61	70	79	42	58	190	29.1
Million Btu per Household⁴								
Appliances Btu Consumption per Household, Fuels Used:								
Electricity for:								
Refrigerators	5.1	5.3	5.4	5.4	4.9	5.2	4.7	2.5
Other Appliances and Lighting	18.2	21.9	19.4	18.3	17.1	17.4	16.3	2.5
Natural Gas	8.7	11.3	9.9	8.6	7.8	8.4	8.1	5.8
LPG	8.2	8.3	6.7	7.1	5.4	7.8	11.2	24.2
Total ³	27.3	31.4	27.7	26.5	25.6	26.9	26.2	2.5

See footnotes at end of table.

Table CE5-2c. Appliances¹ Energy Consumption in U.S. Households by Year of Construction - Preliminary Data, 2001 (Continued)

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ²	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.6	1.1	1.1	1.1	1.0	1.0	
Physical Units per Household⁴								
Physical Units of Appliances Consumption per Household, Fuels Used:								
Electricity for:								
Refrigerators (kWh)	1,500	1,546	1,584	1,574	1,441	1,519	1,382	2.5
Other Appliances and Lighting (kWh)	5,346	6,414	5,680	5,376	5,017	5,096	4,777	2.5
Natural Gas (thousand cf)	8	11	10	8	8	8	8	5.8
LPG (gallons)	89	90	73	77	59	85	123	24.2

¹ Includes energy consumption for refrigeration and lighting.

² New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

³ Includes a small amount of fuel oil and kerosene.

⁴ Averages are for those households using each of the fuels for appliances.

(*) = Value rounds to zero in the units displayed.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-3c. Appliances¹ Energy Consumption in U.S. Households by Household Income, 2001 - Preliminary Data

	Total	2001 Household Income				Below Poverty Line	Eli-gible for Fed-eral Assist-ance ²	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.6	0.8	0.9	1.1	1.4	0.8	
Million Households								
Total U.S. Households	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.4
Number of Households With Appliances, Fuels Used (more than one may apply):								
Electricity for:								
Refrigerators	106.8	11.0	30.5	27.1	38.3	14.9	33.7	3.4
Other Appliances and Lighting	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.4
Natural Gas	42.6	4.7	11.7	10.4	15.8	6.6	14.3	6.3
LPG	5.6	0.5	1.9	1.5	1.7	0.7	2.1	14.5
Quadrillion Btu								
Appliances Btu Consumption, Fuels Used:								
Electricity for:								
Refrigerators	0.55	0.05	0.14	0.13	0.22	0.06	0.15	3.5
Other Appliances and Lighting	1.95	0.12	0.45	0.49	0.89	0.20	0.50	3.7
Natural Gas	0.37	0.03	0.08	0.09	0.17	0.05	0.11	7.5
LPG	0.05	(*)	0.01	0.01	0.03	(*)	0.01	20.6
Total ³	2.92	0.20	0.68	0.71	1.31	0.31	0.78	3.7
Physical Units								
Physical Units of Appliances Consumption, Fuels Used:								
Electricity for:								
Refrigerators (billion kWh)	160	14	42	39	66	19	45	3.5
Other Appliances and Lighting (billion kWh)	572	36	131	143	261	58	147	3.7
Natural Gas (billion cf)	362	32	81	83	167	48	109	7.5
LPG (million gallons)	500	17	118	80	284	44	136	20.6
Million Btu per Household⁴								
Appliances Btu Consumption per Household, Fuels Used:								
Electricity for:								
Refrigerators	5.1	4.3	4.7	4.9	5.9	4.3	4.6	1.9
Other Appliances and Lighting	18.2	11.2	14.7	18.0	23.3	13.1	14.9	2.1
Natural Gas	8.7	6.9	7.1	8.2	10.8	7.5	7.8	3.5
LPG	8.2	3.2	5.7	4.8	15.4	5.5	6.0	13.4
Total ³	27.3	18.5	22.4	26.4	34.3	21.0	23.1	2.0

See footnotes at end of table.

Table CE5-3c. Appliances¹ Energy Consumption in U.S. Households by Household Income, 2001 - Preliminary Data (Continued)

	Total	2001 Household Income				Below Poverty Line	Eli-gible for Fed-eral Assist-ance ²	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.6	0.8	0.9	1.1	1.4	0.8	

Physical Units per Household⁴

Physical Units of Appliances Consumption per Household, Fuels Used:

Electricity for:								
Refrigerators (kWh)	1,500	1,254	1,368	1,439	1,717	1,266	1,335	1.9
Other Appliances and Lighting (kWh)	5,346	3,280	4,295	5,279	6,827	3,842	4,360	2.1
Natural Gas (thousand cf)	8	7	7	8	11	7	8	3.5
LPG (gallons)	89	35	63	53	169	60	65	13.4

¹ Includes energy consumption for refrigeration and lighting.

² Below 150 percent of poverty line or 60 percent of median State income.

³ Includes a small amount of fuel oil and kerosene.

⁴ Averages are for those households using each of the fuels for appliances.

(*) = Value rounds to zero in the units displayed.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE5-4c. Appliances¹ Energy Consumption in U.S. Households
by Type of Housing Unit, 2001 - Preliminary Data**

	Total	Type of Housing Unit			Mobile Home	RSE Row Factors
		Single-Family	Multifamily			
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.6	1.5	1.3	1.7	
Million Households						
Total U.S. Households	107.0	73.7	9.5	17.0	6.8	4.4
Number of Households With Appliances, Fuels Used (more than one may apply):						
Electricity for:						
Refrigerators	106.8	73.6	9.5	16.9	6.8	4.4
Other Appliances and Lighting	107.0	73.7	9.5	17.0	6.8	4.4
Natural Gas	42.6	30.5	4.3	5.9	1.9	7.4
LPG	5.6	4.2	Q	Q	1.3	15.5
Quadrillion Btu						
Appliances Btu Consumption, Fuels Used:						
Electricity for:						
Refrigerators	0.55	0.42	0.04	0.06	0.03	4.5
Other Appliances and Lighting	1.95	1.57	0.11	0.15	0.12	4.6
Natural Gas	0.37	0.29	0.03	0.04	0.01	9.4
LPG	0.05	0.04	Q	Q	0.01	26.6
Total ²	2.92	2.32	0.18	0.25	0.17	4.5
Physical Units						
Physical Units of Appliances Consumption, Fuels Used:						
Electricity for:						
Refrigerators (billion kWh)	160	123	10	17	9	4.5
Other Appliances and Lighting (billion kWh)	572	460	33	44	35	4.6
Natural Gas (billion cf)	362	285	29	34	13	9.4
LPG (million gallons)	500	419	Q	Q	76	26.6
Million Btu per Household³						
Appliances Btu Consumption per Household, Fuels Used:						
Electricity for:						
Refrigerators	5.1	5.7	3.8	3.5	4.7	2.2
Other Appliances and Lighting	18.2	21.3	11.7	8.9	17.5	2.5
Natural Gas	8.7	9.6	7.0	6.0	7.3	4.6
LPG	8.2	9.2	Q	Q	5.5	21.9
Total ²	27.3	31.5	18.6	14.5	25.3	2.3

See footnotes at end of table.

**Table CE5-4c. Appliances¹ Energy Consumption in U.S. Households
by Type of Housing Unit, 2001 - Preliminary Data (Continued)**

	Total	Type of Housing Unit			Mobile Home	RSE Row Factors
		Single-Family	Multifamily			
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.6	1.5	1.3	1.7	

Physical Units per Household³

**Physical Units of Appliances Consumption
per Household, Fuels Used:**

	Total	Single-Family	Two to Four Units	Five or More Units	Mobile Home	RSE Row Factors
Electricity for:						
Refrigerators (kWh)	1,500	1,670	1,101	1,023	1,392	2.2
Other Appliances and Lighting (kWh)	5,346	6,245	3,433	2,606	5,118	2.5
Natural Gas (thousand cf)	8	9	7	6	7	4.6
LPG (gallons)	89	100	Q	Q	60	21.9

¹ Includes energy consumption for refrigeration and lighting.

² Includes a small amount of fuel oil and kerosene.

³ Averages are for those households using each of the fuels for appliances.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-5.1u. Appliances¹ Energy Consumption and Expenditures by Household Member and Demographics, 2001 - Preliminary Data

Household Demographics	Appliances Energy								RSE Row Factors
	Households (millions)	Total		Per Household			Per Household Member		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	1.3	1.5	1.5	0.8	0.8	0.7	0.8	0.8	
Total	107.0	2.92	71.18	27.3	665	2.6	10.6	260	1.3
Household Size									
1 Person	28.2	0.46	11.85	16.3	421	1.0	16.3	421	1.8
2 Persons	35.1	0.94	22.86	26.6	651	2.0	13.3	325	2.0
3 Persons	17.0	0.52	12.59	30.5	740	3.0	10.2	247	2.6
4 Persons	15.6	0.54	12.99	34.9	834	4.0	8.7	209	2.8
5 Persons	7.1	0.29	6.91	41.1	971	5.0	8.2	194	5.8
6 or More Persons	4.0	0.17	3.98	41.8	996	6.7	6.2	148	4.6
2001 Household Income Category									
Less than \$9,999	11.0	0.20	4.92	18.5	446	1.9	9.9	238	4.5
\$10,000 to \$14,999	7.7	0.16	3.72	20.3	485	2.1	9.5	228	4.9
\$15,000 to \$19,999	8.9	0.20	4.87	22.1	546	2.3	9.7	239	4.2
\$20,000 to \$29,999	14.0	0.33	7.95	23.7	569	2.3	10.1	243	3.4
\$30,000 to \$39,999	13.9	0.35	8.46	25.1	608	2.6	9.8	238	3.0
\$40,000 to \$49,999	13.2	0.36	8.90	27.6	674	2.7	10.2	250	3.6
\$50,000 to \$74,999	21.7	0.66	16.56	30.6	764	2.9	10.5	262	2.6
\$75,000 to \$99,999	8.1	0.27	6.75	33.7	835	2.9	11.5	286	4.4
\$100,000 or More	8.6	0.38	9.05	44.3	1,058	3.0	14.5	347	5.1
Income Relative to Poverty Line									
Below 100 Percent	15.0	0.31	7.50	21.0	501	2.6	8.2	195	3.6
100 to 150 Percent	11.5	0.28	6.60	24.4	575	2.7	9.0	212	4.0
Above 150 Percent	80.5	2.32	57.09	28.8	709	2.5	11.3	279	1.4
Eligible for Federal Assistance²									
Yes	33.8	0.78	18.83	23.1	557	2.7	8.7	210	2.2
No	73.2	2.14	52.35	29.2	715	2.5	11.6	284	1.5
Age of Householder									
Under 25 Years	6.1	0.13	3.13	21.0	510	2.6	7.9	193	4.9
25 to 34 Years	16.8	0.42	10.26	24.9	610	3.0	8.2	201	2.7
35 to 44 Years	22.3	0.69	16.58	31.0	742	3.3	9.4	225	2.8
45 to 54 Years	20.7	0.66	15.86	31.8	766	2.8	11.6	278	3.0
55 to 64 Years	14.5	0.41	10.20	28.1	702	2.1	13.2	329	3.2
65 to 74 Years	12.6	0.32	7.87	25.4	625	1.8	14.2	350	3.5
75 Years or More	13.8	0.29	7.28	20.8	526	1.7	12.6	319	3.4
Race of Householder									
Non-Hispanic	96.8	2.69	65.28	27.7	674	2.5	11.2	271	1.4
Non-Hispanic White	78.7	2.21	53.46	28.1	679	2.4	11.7	282	1.6
Non-Hispanic Black	12.7	0.36	8.59	28.0	675	2.7	10.4	252	4.0
Multi-racial ³	0.9	0.02	0.57	25.0	653	2.8	8.9	232	13.6
Other ⁴	4.5	0.10	2.66	21.9	590	3.3	6.6	179	6.8
Hispanic	10.2	0.23	5.90	22.7	580	3.3	6.9	177	4.8

¹ These consumption and expenditures amounts cover the total energy used for all appliances (including refrigerators and lighting) and any of the three fuels (electricity, natural gas, and LPG) used in the housing unit. They do not only cover the energy used for the appliance listed.

² Below 150 percent of poverty line or 60 percent of median State income.
³ Respondents could select one or more race categories to describe themselves.

⁴ Includes Native American, Native Alaskan, Asian, and Pacific Islander households.
 Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C of the 2001 Residential Energy Consumption Survey.

Table CE5-5.2u. Appliances¹ Energy Consumption and Expenditures by Square Feet and Household Demographics, 2001 - Preliminary Data

Household Demographics	Appliances Energy								RSE Row Factors
	Households (millions)	Total		Per Household			Per Square Feet		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Square Feet	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	1.2	1.4	1.4	0.8	0.8	0.9	0.8	0.9	
Total Households	107.0	2.92	71.18	27.3	665	1,975	13.8	0.34	1.4
Household Size									
1 Person	28.2	0.46	11.85	16.3	421	1,433	11.4	0.29	2.1
2 Persons	35.1	0.94	22.86	26.6	651	2,079	12.8	0.31	2.1
3 Persons	17.0	0.52	12.59	30.5	740	2,100	14.5	0.35	2.9
4 Persons	15.6	0.54	12.99	34.9	834	2,343	14.9	0.36	3.2
5 Persons	7.1	0.29	6.91	41.1	971	2,317	17.7	0.42	5.7
6 or More Persons	4.0	0.17	3.98	41.8	996	2,308	18.1	0.43	5.5
2001 Household Income Category									
Less than \$9,999	11.0	0.20	4.92	18.5	446	1,168	15.9	0.38	4.4
\$10,000 to \$14,999	7.7	0.16	3.72	20.3	485	1,328	15.3	0.37	4.8
\$15,000 to \$19,999	8.9	0.20	4.87	22.1	546	1,494	14.8	0.37	4.2
\$20,000 to \$29,999	14.0	0.33	7.95	23.7	569	1,555	15.2	0.37	3.3
\$30,000 to \$39,999	13.9	0.35	8.46	25.1	608	1,725	14.6	0.35	3.3
\$40,000 to \$49,999	13.2	0.36	8.90	27.6	674	2,068	13.4	0.33	3.7
\$50,000 to \$74,999	21.7	0.66	16.56	30.6	764	2,360	13.0	0.32	2.7
\$75,000 to \$99,999	8.1	0.27	6.75	33.7	835	2,690	12.5	0.31	4.5
\$100,000 or More	8.6	0.38	9.05	44.3	1,058	3,395	13.0	0.31	5.0
Income Relative to Poverty Line									
Below 100 Percent	15.0	0.31	7.50	21.0	501	1,227	17.1	0.41	3.6
100 to 150 Percent	11.5	0.28	6.60	24.4	575	1,494	16.4	0.38	3.9
Above 150 Percent	80.5	2.32	57.09	28.8	709	2,183	13.2	0.32	1.5
Eligible for Federal Assistance²									
Yes	33.8	0.78	18.83	23.1	557	1,435	16.1	0.39	2.4
No	73.2	2.14	52.35	29.2	715	2,225	13.1	0.32	1.6
Age of Householder									
Under 25 Years	6.1	0.13	3.13	21.0	510	1,154	18.2	0.44	4.7
25 to 34 Years	16.8	0.42	10.26	24.9	610	1,673	14.9	0.36	3.0
35 to 44 Years	22.3	0.69	16.58	31.0	742	2,096	14.8	0.35	2.9
45 to 54 Years	20.7	0.66	15.86	31.8	766	2,307	13.8	0.33	3.1
55 to 64 Years	14.5	0.41	10.20	28.1	702	2,207	12.7	0.32	3.5
65 to 74 Years	12.6	0.32	7.87	25.4	625	1,932	13.1	0.32	3.8
75 Years or More	13.8	0.29	7.28	20.8	526	1,808	11.5	0.29	3.7
Race of Householder									
Non-Hispanic	96.8	2.69	65.28	27.7	674	2,035	13.6	0.33	1.5
Non-Hispanic White	78.7	2.21	53.46	28.1	679	2,087	13.5	0.33	1.7
Non-Hispanic Black	12.7	0.36	8.59	28.0	675	1,827	15.3	0.37	4.5
Multi-racial ³	0.9	0.02	0.57	25.0	653	1,526	16.4	0.43	14.1
Other ⁴	4.5	0.10	2.66	21.9	590	1,808	12.1	0.33	7.1
Hispanic	10.2	0.23	5.90	22.7	580	1,407	16.1	0.41	4.8

¹ These consumption and expenditures amounts cover the total energy used for all appliances (including refrigerators and lighting) and any of the three fuels (electricity, natural gas, and LPG) used in the housing unit. They do not only cover the energy used for the appliance listed.

² Below 150 percent of poverty line or 60 percent of median State income.

³ Respondents could select one or more race categories to describe themselves.

⁴ Includes Native American, Native Alaskan, Asian, and Pacific Islander households.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C of the 2001 Residential Energy Consumption Survey.

Table CE5-6.1u. Appliances¹ Energy Consumption and Expenditures by Household Member and Usage Indicators, 2001 - Preliminary Data

Usage Indicators	Appliances Energy								RSE Row Factors
	Households (millions)	Total		Per Household			Per Household Member		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (million Btu)	Expenditures (dollars)	
	RSE Column Factor:	1.4	1.6	1.6	0.7	0.8	0.7	0.8	
Total Households	107.0	2.92	71.18	27.3	665	2.6	10.6	260	1.3
Weekday Home Activities									
Home Used for Business									
Yes	7.6	0.26	6.42	35.0	849	2.9	11.9	290	4.4
No/Don't Know	99.4	2.65	64.77	26.7	651	2.5	10.5	257	1.5
Energy-Intensive Activity									
Yes	1.7	0.06	1.53	35.8	898	2.8	13.0	326	9.6
No/Don't Know	105.3	2.86	69.66	27.1	662	2.6	10.6	258	1.3
Someone Home All Day									
Yes	53.0	1.53	37.32	28.9	704	2.7	10.6	259	1.9
No/Don't Know	54.0	1.38	33.87	25.6	627	2.4	10.6	260	1.7
Total Floorspace Category² (square feet)									
Fewer than 500	3.9	0.05	1.47	13.5	378	1.8	7.5	211	6.4
500 to 999	21.8	0.38	9.47	17.5	435	2.1	8.5	210	2.8
1,000 to 1,499	22.7	0.55	13.27	24.2	585	2.5	9.7	235	2.6
1,500 to 1,999	16.6	0.47	11.39	28.1	685	2.7	10.5	255	2.8
2,000 to 2,499	13.5	0.41	10.05	30.4	743	2.7	11.2	274	3.2
2,500 to 2,999	9.3	0.29	7.16	31.1	768	2.7	11.5	283	3.9
3,000 to 3,499	6.9	0.25	6.04	35.9	878	3.1	11.4	280	5.2
3,500 to 3,999	4.1	0.16	3.98	39.6	981	3.2	12.4	308	5.7
4,000 or More	8.2	0.36	8.34	43.7	1,017	3.0	14.7	341	5.3
Year of Construction									
1939 or Before	19.0	0.49	12.35	26.0	652	2.5	10.5	263	3.5
1940 to 1949	7.6	0.20	5.01	26.7	655	2.7	10.1	247	4.7
1950 to 1959	14.2	0.38	9.50	26.9	670	2.5	10.7	268	2.9
1960 to 1969	13.8	0.35	8.98	25.6	652	2.4	10.6	268	3.4
1970 to 1979	18.8	0.50	11.93	26.5	636	2.5	10.6	254	3.2
1980 to 1989	18.2	0.50	12.00	27.7	658	2.5	11.1	263	3.5
1990 to 1999	14.5	0.46	10.67	31.3	734	2.9	10.7	251	5.4
2000 to 2001 ³	0.9	0.03	0.74	33.1	819	3.4	9.8	243	15.1
Housing Unit Type and Number of Bedrooms									
Mobile Home	6.8	0.17	3.83	25.3	563	2.6	9.8	218	5.7
Less than 3 Bedrooms	3.7	0.08	1.88	21.9	506	2.0	10.9	251	6.2
3 or More Bedrooms	3.1	0.09	1.96	29.3	632	3.3	9.0	194	7.6
Single-Family Detached	63.1	2.04	48.86	32.4	774	2.7	11.8	283	1.8
Less than 3 Bedrooms	12.3	0.30	7.11	24.4	580	2.0	12.4	294	3.1
3 Bedrooms	33.5	1.03	24.38	30.6	727	2.7	11.5	273	2.2
4 Bedrooms	14.4	0.56	13.57	38.7	945	3.3	11.6	283	3.5
5 or More Bedrooms	3.0	0.16	3.80	54.9	1,283	3.8	14.4	336	9.2
Single-Family Attached	10.6	0.28	6.88	26.4	650	2.7	9.9	243	5.1
Less than 3 Bedrooms	3.9	0.08	2.01	21.2	514	2.1	10.2	247	7.5
3 Bedrooms	4.6	0.13	3.16	27.7	690	2.7	10.3	255	6.8
4 or More Bedrooms	2.1	0.07	1.71	33.2	816	3.7	8.9	218	10.0
Apartments (2 to 4 units) ...	9.5	0.18	4.78	18.6	503	2.3	8.2	221	4.8
Less than 2 Bedrooms	2.6	0.03	0.92	13.3	353	1.7	7.8	207	10.1
2 Bedrooms	5.0	0.10	2.59	19.1	513	2.1	8.9	240	5.6
3 or More Bedrooms	1.8	0.05	1.27	24.9	688	3.4	7.2	200	9.1

See footnotes at end of table.

Table CE5-6.1u. Appliances¹ Energy Consumption and Expenditures by Household Member and Usage Indicators, 2001 - Preliminary Data (Continued)

Usage Indicators	Appliances Energy								RSE Row Factors
	Households (millions)	Total		Per Household			Per Household Member		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (million Btu)	Expenditures (dollars)	
	RSE Column Factor:	1.4	1.6	1.6	0.7	0.8	0.7	0.8	
Apartments (5 or more units)	17.0	0.25	6.83	14.5	402	2.0	7.2	201	4.0
Less than 2 Bedrooms	8.5	0.10	2.73	11.4	321	1.5	7.4	209	4.6
2 Bedrooms	7.0	0.12	3.15	16.4	450	2.3	7.2	197	6.3
3 or More Bedrooms	1.5	0.03	0.95	22.9	647	3.3	6.9	194	12.2

¹ These consumption and expenditures amounts cover the total energy used for all appliances (including refrigerators and lighting) and any of the three fuels (electricity, natural gas, and LPG) used in the housing unit. They do not only cover the energy used for the appliance listed.

² Does **not** include floorspace for unheated garages.

³ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-6.2u. Appliances¹ Energy Consumption and Expenditures by Square Feet and Usage Indicators, 2001 - Preliminary Data

Usage Indicators	Appliances Energy								RSE Row Factors
	Households (millions)	Total		Per Household			Per Square Feet		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Square Feet	Consumption (million Btu)	Expenditures (dollars)	
	RSE Column Factor:	1.5	1.6	1.6	0.7	0.8	0.7	0.8	
Total Households	107.0	2.92	71.18	27.3	665	1,975	13.8	0.34	1.4
Weekday Home Activities									
Home Used for Business									
Yes	7.6	0.26	6.42	35.0	849	2,586	13.5	0.33	4.5
No/Don't Know	99.4	2.65	64.77	26.7	651	1,929	13.8	0.34	1.6
Energy-Intensive Activity									
Yes	1.7	0.06	1.53	35.8	898	2,529	14.2	0.36	9.4
No/Don't Know	105.3	2.86	69.66	27.1	662	1,966	13.8	0.34	1.4
Someone Home All Day									
Yes	53.0	1.53	37.32	28.9	704	2,065	14.0	0.34	2.0
No/Don't Know	54.0	1.38	33.87	25.6	627	1,887	13.6	0.33	1.8
Total Floorspace Category² (square feet)									
Fewer than 500	3.9	0.05	1.47	13.5	378	402	33.6	0.94	5.4
500 to 999	21.8	0.38	9.47	17.5	435	770	22.7	0.56	2.5
1,000 to 1,499	22.7	0.55	13.27	24.2	585	1,232	19.6	0.47	2.4
1,500 to 1,999	16.6	0.47	11.39	28.1	685	1,737	16.2	0.39	2.8
2,000 to 2,499	13.5	0.41	10.05	30.4	743	2,227	13.6	0.33	3.0
2,500 to 2,999	9.3	0.29	7.16	31.1	768	2,733	11.4	0.28	3.6
3,000 to 3,499	6.9	0.25	6.04	35.9	878	3,226	11.1	0.27	5.1
3,500 to 3,999	4.1	0.16	3.98	39.6	981	3,697	10.7	0.27	5.5
4,000 or More	8.2	0.36	8.34	43.7	1,017	5,280	8.3	0.19	5.0
Year of Construction									
1939 or Before	19.0	0.49	12.35	26.0	652	2,034	12.8	0.32	3.6
1940 to 1949	7.6	0.20	5.01	26.7	655	1,853	14.4	0.35	5.1
1950 to 1959	14.2	0.38	9.50	26.9	670	2,004	13.4	0.33	3.2
1960 to 1969	13.8	0.35	8.98	25.6	652	1,836	14.0	0.35	3.6
1970 to 1979	18.8	0.50	11.93	26.5	636	1,737	15.3	0.37	3.4
1980 to 1989	18.2	0.50	12.00	27.7	658	1,925	14.4	0.34	3.6
1990 to 1999	14.5	0.46	10.67	31.3	734	2,370	13.2	0.31	5.9
2000 to 2001 ³	0.9	0.03	0.74	33.1	819	3,036	10.9	0.27	17.4
Housing Unit Type and Number of Bedrooms									
Mobile Home	6.8	0.17	3.83	25.3	563	1,055	23.9	0.53	5.6
Less than 3 Bedrooms	3.7	0.08	1.88	21.9	506	835	26.2	0.61	5.9
3 or More Bedrooms	3.1	0.09	1.96	29.3	632	1,319	22.2	0.48	7.4
Single-Family Detached									
Less than 3 Bedrooms	63.1	2.04	48.86	32.4	774	2,428	13.3	0.32	1.9
3 Bedrooms	12.3	0.30	7.11	24.4	580	1,611	15.2	0.36	3.4
4 Bedrooms	33.5	1.03	24.38	30.6	727	2,288	13.4	0.32	2.3
5 or More Bedrooms	14.4	0.56	13.57	38.7	945	3,064	12.6	0.31	3.5
Single-Family Attached									
Less than 3 Bedrooms	3.0	0.16	3.80	54.9	1,283	4,305	12.8	0.30	8.7
3 Bedrooms	10.6	0.28	6.88	26.4	650	2,201	12.0	0.30	5.2
4 or More Bedrooms	3.9	0.08	2.01	21.2	514	1,548	13.7	0.33	6.8
Apartments (2 to 4 units)	4.6	0.13	3.16	27.7	690	2,304	12.0	0.30	6.9
Less than 2 Bedrooms	2.1	0.07	1.71	33.2	816	3,193	10.4	0.26	8.9
2 Bedrooms	9.5	0.18	4.78	18.6	503	1,393	13.4	0.36	4.9
3 or More Bedrooms	2.6	0.03	0.92	13.3	353	899	14.8	0.39	9.3
	5.0	0.10	2.59	19.1	513	1,403	13.6	0.37	6.2
	1.8	0.05	1.27	24.9	688	2,061	12.1	0.33	9.7

See footnotes at end of table.

Table CE5-6.2u. Appliances¹ Energy Consumption and Expenditures by Square Feet and Usage Indicators, 2001 - Preliminary Data (Continued)

Usage Indicators	Appliances Energy								RSE Row Factors
	Households (millions)	Total		Per Household			Per Square Feet		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Square Feet	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	1.5	1.6	1.6	0.7	0.8	0.7	0.8	0.8	
Apartments (5 or more units)	17.0	0.25	6.83	14.5	402	847	17.1	0.47	3.9
Less than 2 Bedrooms	8.5	0.10	2.73	11.4	321	637	17.9	0.50	4.1
2 Bedrooms	7.0	0.12	3.15	16.4	450	1,009	16.3	0.45	6.2
3 or More Bedrooms	1.5	0.03	0.95	22.9	647	1,294	17.7	0.50	11.6

¹ These consumption and expenditures amounts cover the total energy used for all appliances (including refrigerators and lighting) and any of the three fuels (electricity, natural gas, and LPG) used in the housing unit. They do not only cover the energy used for the appliance listed.

² Does **not** include floorspace for unheated garages.

³ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-7c. Appliances¹ Energy Consumption in U.S. Households by Four Most Populated States, 2001

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.4	1.1	1.0	1.2	2.0	
Million Households						
Total U.S. Households	106.9893	7.0811	12.3472	7.6690	6.3279	100.0
Number of Households With Appliances, Fuels Used (more than one may apply):						
Electricity for:						
Refrigerators	106.8027	7.0525	12.2666	7.6690	6.3279	100.0
Other Appliances and Lighting	106.9637	7.0811	12.3472	7.6690	6.3279	100.0
Natural Gas	42.5696	4.4546	7.8101	3.2628	0.6675	9.1
LPG	5.5891	0.4913	0.5621	Q	Q	26.5
Quadrillion Btu						
Appliances Btu Consumption, Fuels Used:						
Electricity for:						
Refrigerators	0.5465	0.0275	0.0475	0.0505	0.0375	3.7
Other Appliances and Lighting	1.9509	0.0911	0.1601	0.1697	0.1295	4.0
Natural Gas	0.3722	0.0346	0.0765	0.0284	0.0044	13.9
LPG	0.0457	0.0037	0.0049	Q	Q	39.8
Total ²	2.9173	0.1569	0.2892	0.2494	0.1734	3.0
Physical Units						
Physical Units of Appliances Consumption, Fuels Used:						
Electricity for:						
Refrigerators (billion kWh)	160,160	8,051	13,933	14,805	10,990	3.7
Other Appliances and Lighting (billion kWh)	571,783	26,697	46,916	49,727	37,949	4.0
Natural Gas (billion cf)	361,751	33,668	74,297	27,640	4,296	13.9
LPG (million gallons)	499,775	40,810	53,967	Q	Q	39.8
Million Btu per Household³						
Appliances Btu Consumption per Household, Fuels Used:						
Electricity for:						
Refrigerators	5.1166	3.8953	3.8756	6.5867	5.9258	3.6
Other Appliances and Lighting	18.2391	12.8637	12.9647	22.1239	20.4617	4.0
Natural Gas	8.7444	7.7777	9.7887	8.7165	6.6237	5.9
LPG	8.1685	Q	8.7717	Q	Q	46.1
Total ²	27.2673	22.1623	23.4201	32.5251	27.4014	3.0

See footnotes at end of table.

Table CE5-7c. Appliances¹ Energy Consumption in U.S. Households by Four Most Populated States, 2001 (Continued)

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.4	1.1	1.0	1.2	2.0	

Physical Units per Household³

Physical Units of Appliances Consumption per Household, Fuels Used:

Electricity for:						
Refrigerators (kWh)	1,499.5833	1,141.6435	1,135.8693	1,930.4567	1,736.7470	3.6
Other Appliances and Lighting (kWh)	5,345.5792	3,770.1374	3,799.7342	6,484.1390	5,996.9831	4.0
Natural Gas (thousand cf)	8.4979	7.5581	9.5130	8.4715	6.4353	5.9
LPG (gallons)	89.4191	Q	96.0116	Q	Q	46.1

¹ Includes energy consumption for refrigeration and lighting.

² Includes a small amount of fuel oil and kerosene.

³ Averages are for those households using each of the fuels for appliances.

(*) = Value rounds to zero in the units displayed.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE5-8c. Appliances¹ Energy Consumption in U.S. Households
by Urban/Rural Location, 2001 - Preliminary Data**

	Urban/Rural Location ²					RSE Row Factors
	Total	City	Town	Suburbs	Rural	
	0.5	0.8	1.5	1.3	1.2	
Million Households						
Total U.S. Households	107.0	49.9	18.0	21.2	17.9	4.2
Number of Households With Appliances, Fuels Used (more than one may apply):						
Electricity for:						
Refrigerators	106.8	49.7	18.0	21.2	17.8	4.2
Other Appliances and Lighting	107.0	49.9	18.0	21.2	17.9	4.2
Natural Gas	42.6	24.6	6.4	9.1	2.4	6.9
LPG	5.6	0.5	0.8	0.5	3.7	16.3
Quadrillion Btu						
Appliances Btu Consumption, Fuels Used:						
Electricity for:						
Refrigerators	0.55	0.23	0.09	0.12	0.10	4.2
Other Appliances and Lighting	1.95	0.77	0.33	0.43	0.41	4.3
Natural Gas	0.37	0.20	0.06	0.09	0.02	9.1
LPG	0.05	(*)	0.01	Q	0.02	22.9
Total ³	2.92	1.21	0.49	0.66	0.55	4.2
Physical Units						
Physical Units of Appliances Consumption, Fuels Used:						
Electricity for:						
Refrigerators (billion kWh)	160	68	27	35	30	4.2
Other Appliances and Lighting (billion kWh)	572	226	97	127	121	4.3
Natural Gas (billion cf)	362	197	61	87	17	9.1
LPG (million gallons)	500	41	61	Q	229	22.9
Million Btu per Household⁴						
Appliances Btu Consumption per Household, Fuels Used:						
Electricity for:						
Refrigerators	5.1	4.7	5.1	5.6	5.7	2.2
Other Appliances and Lighting	18.2	15.5	18.4	20.5	23.1	2.2
Natural Gas	8.7	8.2	9.8	9.8	7.2	5.5
LPG	8.2	7.0	6.7	Q	5.7	18.6
Total ³	27.3	24.3	27.3	31.0	30.9	2.2

See footnotes at end of table.

Table CE5-8c. Appliances¹ Energy Consumption in U.S. Households by Urban/Rural Location, 2001 - Preliminary Data (Continued)

	Total	Urban/Rural Location ²				RSE Row Factors
		City	Town	Suburbs	Rural	
RSE Column Factor:	0.5	0.8	1.5	1.3	1.2	
Physical Units per Household⁴						
Physical Units of Appliances Consumption per Household, Fuels Used:						
Electricity for:						
Refrigerators (kWh)	1,500	1,373	1,503	1,645	1,674	2.2
Other Appliances and Lighting (kWh)	5,346	4,540	5,396	6,006	6,759	2.2
Natural Gas (thousand cf)	8	8	9	10	7	5.5
LPG (gallons)	89	76	73	Q	62	18.6

1 Includes energy consumption for refrigeration and lighting.
 2 Based on the household respondent's description rather than the Federal Government definition.
 3 Includes a small amount of fuel oil and kerosene.
 4 Averages are for those households using each of the fuels for appliances.
 (*) = Value rounds to zero in the units displayed.
 Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.
 Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.
 • See "Glossary" for definition of terms used in this report.
 Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-9c. Appliances¹ Energy Consumption in U.S. Households by Northeast Census Region, 2001 - Preliminary Data

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.4	1.0	1.0	2.2	
Million Households					
Total U.S. Households	107.0	20.3	14.8	5.4	NF
Number of Households With Appliances, Fuels Used (more than one may apply):					
Electricity for:					
Refrigerators	106.8	20.2	14.8	5.4	NF
Other Appliances and Lighting	107.0	20.3	14.8	5.4	NF
Natural Gas	42.6	9.8	8.1	1.7	9.7
LPG	5.6	1.5	0.9	0.6	16.7
Quadrillion Btu					
Appliances Btu Consumption, Fuels Used:					
Electricity for:					
Refrigerators	0.55	0.09	0.07	0.02	2.4
Other Appliances and Lighting	1.95	0.30	0.22	0.08	3.5
Natural Gas	0.37	0.08	0.06	0.01	11.5
LPG	0.05	0.02	0.01	Q	43.8
Total ²	2.92	0.49	0.36	0.13	3.4
Physical Units					
Physical Units of Appliances Consumption, Fuels Used:					
Electricity for:					
Refrigerators (billion kWh)	160	26	20	7	2.4
Other Appliances and Lighting (billion kWh)	572	89	65	23	3.5
Natural Gas (billion cf)	362	76	63	12	11.5
LPG (million gallons)	500	214	98	Q	43.8
Million Btu per Household³					
Appliances Btu Consumption per Household, Fuels Used:					
Electricity for:					
Refrigerators	5.1	4.4	4.5	4.1	2.4
Other Appliances and Lighting	18.2	15.0	15.0	14.8	3.5
Natural Gas	8.7	7.9	8.0	7.6	4.4
LPG	8.2	13.3	10.3	Q	41.8
Total ²	27.3	24.2	24.5	23.3	3.4
Physical Units per Household³					
Physical Units of Appliances Consumption per Household, Fuels Used:					
Electricity for:					
Refrigerators (kWh)	1,500	1,289	1,317	1,212	2.4
Other Appliances and Lighting (kWh)	5,346	4,387	4,404	4,341	3.5
Natural Gas (thousand cf)	8	8	8	7	4.4
LPG (gallons)	89	145	112	Q	41.7

¹ Includes energy consumption for refrigeration and lighting.

² Includes a small amount of fuel oil and kerosene.

³ Averages are for those households using each of the fuels for appliances.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-10c. Appliances¹ Energy Consumption in U.S. Households by Midwest Census Region, 2001 - Preliminary Data

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
	0.7	0.9	1.3	1.2	
RSE Column Factor:					
Million Households					
Total U.S. Households	107.0	24.5	17.1	7.4	NF
Number of Households With Appliances, Fuels Used (more than one may apply):					
Electricity for:					
Refrigerators	106.8	24.5	17.1	7.4	NF
Other Appliances and Lighting	107.0	24.5	17.1	7.4	NF
Natural Gas	42.6	11.3	8.8	2.5	6.4
LPG	5.6	1.2	0.5	0.7	24.5
Quadrillion Btu					
Appliances Btu Consumption, Fuels Used:					
Electricity for:					
Refrigerators	0.55	0.13	0.09	0.04	2.1
Other Appliances and Lighting	1.95	0.47	0.32	0.15	1.9
Natural Gas	0.37	0.10	0.08	0.02	8.7
LPG	0.05	0.01	(*)	(*)	30.6
Total ²	2.92	0.70	0.49	0.21	1.9
Physical Units					
Physical Units of Appliances Consumption, Fuels Used:					
Electricity for:					
Refrigerators (billion kWh)	160	37	25	12	2.1
Other Appliances and Lighting (billion kWh)	572	138	93	45	1.9
Natural Gas (billion cf)	362	94	78	16	8.7
LPG (million gallons)	500	58	25	33	30.6
Million Btu per Household³					
Appliances Btu Consumption per Household, Fuels Used:					
Electricity for:					
Refrigerators	5.1	5.2	5.1	5.5	2.1
Other Appliances and Lighting	18.2	19.2	18.6	20.5	1.9
Natural Gas	8.7	8.6	9.1	6.6	4.9
LPG	8.2	4.4	4.4	4.4	8.2
Total ²	27.3	28.5	28.5	28.7	1.9

See footnotes at end of table.

**Table CE5-10c. Appliances¹ Energy Consumption in U.S. Households
by Midwest Census Region, 2001 - Preliminary Data (Continued)**

	Total U.S.	Midwest Census Region			RSE Row Factors
		Total	Census Division		
			East North Central	West North Central	
RSE Column Factor:	0.7	0.9	1.3	1.2	
Physical Units per Household³					
Physical Units of Appliances Consumption per Household, Fuels Used:					
Electricity for:					
Refrigerators (kWh)	1,500	1,524	1,480	1,624	2.1
Other Appliances and Lighting (kWh)	5,346	5,617	5,445	6,014	1.9
Natural Gas (thousand cf)	8	8	9	6	4.9
LPG (gallons)	89	48	48	48	8.2

¹ Includes energy consumption for refrigeration and lighting.

² Includes a small amount of fuel oil and kerosene.

³ Averages are for those households using each of the fuels for appliances.

(*) = Value rounds to zero in the units displayed.

NF = No applicable RSE row factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-11c. Appliances¹ Energy Consumption in U.S. Households by South Census Region, 2001 - Preliminary Data

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			Total	
		South Atlantic	East South Central	West South Central		
RSE Column Factor:	0.5	0.8	1.3	1.5	1.3	
Million Households						
Total U.S. Households	107.0	38.9	20.3	6.8	11.8	NF
Number of Households With Appliances, Fuels Used (more than one may apply):						
Electricity for:						
Refrigerators	106.8	38.9	20.3	6.8	11.8	NF
Other Appliances and Lighting	107.0	38.9	20.3	6.8	11.8	NF
Natural Gas	42.6	11.5	4.9	1.3	5.3	9.2
LPG	5.6	1.9	1.0	0.6	0.3	18.7
Quadrillion Btu						
Appliances Btu Consumption, Fuels Used:						
Electricity for:						
Refrigerators	0.55	0.23	0.11	0.04	0.08	2.9
Other Appliances and Lighting	1.95	0.82	0.41	0.15	0.25	2.5
Natural Gas	0.37	0.10	0.05	0.01	0.05	13.1
LPG	0.05	0.01	0.01	(*)	(*)	25.2
Total ²	2.92	1.16	0.58	0.21	0.37	2.2
Physical Units						
Physical Units of Appliances Consumption, Fuels Used:						
Electricity for:						
Refrigerators (billion kWh)	160	67	33	12	22	2.9
Other Appliances and Lighting (billion kWh)	572	240	121	45	74	2.5
Natural Gas (billion cf)	362	100	45	11	45	13.1
LPG (million gallons)	500	132	75	41	16	25.2
Million Btu per Household³						
Appliances Btu Consumption per Household, Fuels Used:						
Electricity for:						
Refrigerators	5.1	5.9	5.5	6.0	6.4	2.9
Other Appliances and Lighting	18.2	21.0	20.3	22.5	21.3	2.5
Natural Gas	8.7	9.0	9.3	8.9	8.7	6.3
LPG	8.2	6.4	7.0	6.2	4.7	18.8
Total ²	27.3	29.8	28.5	30.8	31.7	2.2

See footnotes at end of table.

**Table CE5-11c. Appliances¹ Energy Consumption in U.S. Households
by South Census Region, 2001 - Preliminary Data (Continued)**

	Total U.S.	South Census Region				RSE Row Factors
		Total	Census Division			
			South Atlantic	East South Central	West South Central	
RSE Column Factor:	0.5	0.8	1.3	1.5	1.3	

Physical Units per Household³

**Physical Units of Appliances Consumption
per Household, Fuels Used:**

Electricity for:						
Refrigerators (kWh)	1,500	1,715	1,617	1,751	1,864	2.9
Other Appliances and Lighting (kWh)	5,346	6,158	5,961	6,609	6,237	2.5
Natural Gas (thousand cf)	8	9	9	9	8	6.3
LPG (gallons)	89	70	77	68	52	18.8

¹ Includes energy consumption for refrigeration and lighting.

² Includes a small amount of fuel oil and kerosene.

³ Averages are for those households using each of the fuels for appliances.

(*) = Value rounds to zero in the units displayed.

NF = No applicable RSE row factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE5-12c. Appliances¹ Energy Consumption in U.S. Households
by West Census Region, 2001 - Preliminary Data**

	West Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	Mountain	Pacific	
RSE Column Factor:	0.5	1.0	1.6	1.2	
Million Households					
Total U.S. Households	107.0	23.3	6.7	16.6	NF
Number of Households With Appliances, Fuels Used (more than one may apply):					
Electricity for:					
Refrigerators	106.8	23.2	6.7	16.5	NF
Other Appliances and Lighting	107.0	23.3	6.7	16.6	NF
Natural Gas	42.6	10.0	1.8	8.1	4.8
LPG	5.6	1.0	Q	0.7	18.5
Quadrillion Btu					
Appliances Btu Consumption, Fuels Used:					
Electricity for:					
Refrigerators	0.55	0.10	0.03	0.07	2.6
Other Appliances and Lighting	1.95	0.36	0.12	0.24	2.7
Natural Gas	0.37	0.09	0.02	0.08	8.9
LPG	0.05	0.01	(*)	0.01	27.5
Total ²	2.92	0.57	0.17	0.39	2.6
Physical Units					
Physical Units of Appliances Consumption, Fuels Used:					
Electricity for:					
Refrigerators (billion kWh)	160	30	10	20	2.6
Other Appliances and Lighting (billion kWh)	572	106	36	70	2.7
Natural Gas (billion cf)	362	92	15	77	8.9
LPG (million gallons)	500	96	30	66	27.5
Million Btu per Household³					
Appliances Btu Consumption per Household, Fuels Used:					
Electricity for:					
Refrigerators	5.1	4.4	5.1	4.2	2.5
Other Appliances and Lighting	18.2	15.5	18.1	14.4	2.7
Natural Gas	8.7	9.5	8.4	9.7	6.4
LPG	8.2	8.6	Q	8.6	29.2
Total ²	27.3	24.3	25.9	23.7	2.6

See footnotes at end of table.

**Table CE5-12c. Appliances¹ Energy Consumption in U.S. Households
by West Census Region, 2001 - Preliminary Data (Continued)**

	West Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	Mountain	Pacific	
RSE Column Factor:	0.5	1.0	1.6	1.2	
Physical Units per Household³					
Physical Units of Appliances Consumption per Household, Fuels Used:					
Electricity for:					
Refrigerators (kWh)	1,500	1,296	1,481	1,221	2.5
Other Appliances and Lighting (kWh)	5,346	4,537	5,319	4,220	2.7
Natural Gas (thousand cf)	8	9	8	9	6.4
LPG (gallons)	89	94	Q	94	29.2

¹ Includes energy consumption for refrigeration and lighting.

² Includes a small amount of fuel oil and kerosene.

³ Averages are for those households using each of the fuels for appliances.

(*) = Value rounds to zero in the units displayed.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

2001 Consumption and Expenditures Tables

Appliances Consumption Tables

(25 pages, 76 kb)

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These data are from the 2001 Residential Energy Consumption Survey (RECS) which provides information on the use of energy in residential housing units in the United States. The RECS is a national statistical survey that collects energy-related data for occupied primary housing units. RECS was first conducted in 1978; the twelfth and most recent survey was conducted in 2001. In the 2001 RECS, data were collected from a sample of 4,822 households in housing units statistically selected to represent the 107.0 million housing units in the United States. The RECS data are available for the four Census regions, the nine Census divisions, and for the four most populous States--California, Florida, New York, and Texas.

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World Wide Web: <http://www.eia.doe.gov/emeu/consumption>

Table CE5-1c. Appliances¹ Energy Consumption in U.S. Households by Climate Zone, 2001

	Climate Zone ²						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
		0.4	1.7	1.0	1.2		
RSE Column Factor:							
Million Households							
Total U.S. Households	107.0	9.2	28.6	24.0	21.0	24.1	7.9
Number of Households With Appliances, Fuels Used (more than one may apply):							
Electricity for:							
Refrigerators	106.8	9.2	28.6	24.0	20.9	24.1	7.9
Other Appliances and Lighting	107.0	9.2	28.6	24.0	21.0	24.1	7.9
Natural Gas	42.6	2.3	13.1	10.1	9.2	7.8	9.4
LPG	5.6	1.1	1.3	1.2	1.0	1.0	21.1
Quadrillion Btu^a							
Appliances Btu Consumption, Fuels Used:							
Electricity for:							
Refrigerators	0.53	0.04	0.13	0.11	0.10	0.15	7.6
Other Appliances and Lighting	1.98	0.18	0.52	0.43	0.37	0.48	7.7
Natural Gas	0.37	0.02	0.11	0.08	0.09	0.07	11.2
LPG	0.05	0.01	Q	0.01	0.01	0.01	24.5
Total ³	2.94	0.24	0.78	0.64	0.56	0.71	7.3
Physical Units^a							
Physical Units of Appliances Consumption, Fuels Used:							
Electricity for:							
Refrigerators (billion kWh)	156	12	38	33	29	44	7.6
Other Appliances and Lighting (billion kWh)	581	52	154	127	108	142	7.7
Natural Gas (billion cf)	362	16	111	81	87	66	11.2
LPG (million gallons)	509	75	Q	107	71	92	24.5
Million Btu per Household^{4,a}							
Appliances Btu Consumption per Household, Fuels Used:							
Electricity for:							
Refrigerators	5.0	4.6	4.6	4.6	4.7	6.2	2.9
Other Appliances and Lighting	18.5	19.2	18.3	18.0	17.5	20.1	2.9
Natural Gas	8.7	7.1	8.7	8.3	9.7	8.7	5.4
LPG	8.3	6.3	Q	8.5	6.4	8.4	23.2
Total ³	27.5	26.3	27.4	26.6	26.8	29.5	2.6

See footnotes at end of table.

Table CE5-1c. Appliances¹ Energy Consumption in U.S. Households by Climate Zone, 2001 (Continued)

RSE Column Factor:	Climate Zone ²						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
0.4	1.7	1.0	1.2	1.1	1.0		

Physical Units per Household^{4,a}

Physical Units of Appliances Consumption per Household, Fuels Used:

Electricity for:							
Refrigerators (kWh)	1,462	1,347	1,334	1,358	1,385	1,827	2.9
Other Appliances and Lighting (kWh)	5,435	5,622	5,362	5,270	5,129	5,880	2.9
Natural Gas (thousand cf)	8	7	8	8	9	8	5.4
LPG (gallons)	91	69	Q	93	70	92	23.2

¹ Includes energy consumption for refrigeration and lighting.

² One of five climatically distinct areas, determined according to the 30-year average (1961-1990) of the annual heating and cooling degree-days. For this report, the heating or cooling degree-days are a measure of how cold or how hot a location is over a period of one year, relative to a base temperature of 65 degrees Fahrenheit. A household is assigned to a climate zone according to the 30-year average annual degree-days for an appropriate nearby weather station.

³ Includes a small amount of fuel oil and kerosene.

⁴ Averages are for those households using each of the fuels for appliances.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-2c. Appliances¹ Energy Consumption in U.S. Households by Year of Construction, 2001

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ²	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.6	1.1	1.1	1.1	1.1	1.0	
Million Households								
Total U.S. Households	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
Number of Households With Appliances, Fuels Used (more than one may apply):								
Electricity for:								
Refrigerators	106.8	15.5	18.2	18.7	13.8	14.1	26.5	4.2
Other Appliances and Lighting	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
Natural Gas	42.6	5.3	4.7	5.2	5.8	6.7	14.9	7.2
LPG	5.6	0.7	1.0	1.0	0.7	0.7	1.5	16.3
Quadrillion Btu^a								
Appliances Btu Consumption, Fuels Used:								
Electricity for:								
Refrigerators	0.53	0.08	0.10	0.10	0.07	0.07	0.12	4.5
Other Appliances and Lighting	1.98	0.35	0.36	0.35	0.24	0.25	0.44	4.5
Natural Gas	0.37	0.06	0.05	0.04	0.05	0.06	0.12	9.6
LPG	0.05	0.01	0.01	0.01	(*)	0.01	0.02	27.7
Total ³	2.94	0.49	0.51	0.50	0.35	0.39	0.70	4.5
Physical Units^a								
Physical Units of Appliances Consumption, Fuels Used:								
Electricity for:								
Refrigerators (billion kWh)	156	23	28	29	19	21	35	4.5
Other Appliances and Lighting (billion kWh)	581	102	106	102	70	74	128	4.5
Natural Gas (billion cf)	362	58	45	43	44	54	117	9.6
LPG (million gallons)	509	60	73	79	42	58	196	27.7
Million Btu per Household^{4,a}								
Appliances Btu Consumption per Household, Fuels Used:								
Electricity for:								
Refrigerators	5.0	5.1	5.3	5.3	4.8	5.1	4.5	2.6
Other Appliances and Lighting	18.5	22.4	19.8	18.6	17.3	17.8	16.4	2.6
Natural Gas	8.7	11.3	9.9	8.6	7.8	8.4	8.1	5.8
LPG	8.3	8.2	6.9	7.1	5.5	7.7	11.6	22.3
Total ³	27.5	31.7	28.0	26.6	25.7	27.3	26.2	2.5

See footnotes at end of table.

Table CE5-2c. Appliances¹ Energy Consumption in U.S. Households by Year of Construction, 2001 (Continued)

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ²	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.6	1.1	1.1	1.1	1.1	1.0	

Physical Units per Household^{4,a}

Physical Units of Appliances Consumption per Household, Fuels Used:

Electricity for:								
Refrigerators (kWh)	1,462	1,485	1,559	1,549	1,401	1,504	1,330	2.6
Other Appliances and Lighting (kWh)	5,435	6,576	5,800	5,444	5,074	5,230	4,810	2.6
Natural Gas (thousand cf)	8	11	10	8	8	8	8	5.8
LPG (gallons)	91	90	76	78	60	85	127	22.3

¹ Includes energy consumption for refrigeration and lighting.

² New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

³ Includes a small amount of fuel oil and kerosene.

⁴ Averages are for those households using each of the fuels for appliances.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

(*) = Value rounds to zero in the units displayed.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-3c. Appliances¹ Energy Consumption in U.S. Households by Household Income, 2001

	Total	2001 Household Income				Below Poverty Line	Eligible for Federal Assistance ²	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.6	0.8	0.9	1.1	1.4	0.8	
Million Households								
Total U.S. Households	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.4
Number of Households With Appliances, Fuels Used (more than one may apply):								
Electricity for:								
Refrigerators	106.8	11.0	30.5	27.1	38.3	14.9	33.7	3.4
Other Appliances and Lighting	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.4
Natural Gas	42.6	4.7	11.7	10.4	15.8	6.6	14.3	6.3
LPG	5.6	0.5	1.9	1.5	1.7	0.7	2.1	14.5
Quadrillion Btu^a								
Appliances Btu Consumption, Fuels Used:								
Electricity for:								
Refrigerators	0.53	0.05	0.14	0.13	0.22	0.06	0.15	3.6
Other Appliances and Lighting	1.98	0.12	0.45	0.50	0.91	0.20	0.51	3.7
Natural Gas	0.37	0.03	0.08	0.09	0.17	0.05	0.11	7.5
LPG	0.05	(*)	0.01	0.01	0.03	(*)	0.01	20.6
Total ³	2.94	0.20	0.69	0.72	1.33	0.32	0.78	3.7
Physical Units^a								
Physical Units of Appliances Consumption, Fuels Used:								
Electricity for:								
Refrigerators (billion kWh)	156	13	41	38	64	18	44	3.6
Other Appliances and Lighting (billion kWh)	581	36	132	145	268	58	148	3.7
Natural Gas (billion cf)	362	32	81	83	167	48	109	7.5
LPG (million gallons)	509	18	124	86	281	45	143	20.6
Million Btu per Household^{4,a}								
Appliances Btu Consumption per Household, Fuels Used:								
Electricity for:								
Refrigerators	5.0	4.2	4.6	4.8	5.7	4.2	4.4	2.0
Other Appliances and Lighting	18.5	11.1	14.8	18.3	23.9	13.3	15.0	2.2
Natural Gas	8.7	6.9	7.1	8.2	10.8	7.5	7.8	3.5
LPG	8.3	3.3	6.0	5.2	15.2	5.5	6.3	13.3
Total ³	27.5	18.3	22.5	26.5	34.7	21.0	23.1	2.0

See footnotes at end of table.

Table CE5-3c. Appliances¹ Energy Consumption in U.S. Households by Household Income, 2001 (Continued)

	Total	2001 Household Income				Below Poverty Line	Eli-gible for Fed-eral Assist-ance ²	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.6	0.8	0.9	1.1	1.4	0.8	
Physical Units per Household^{4,a}								
Physical Units of Appliances Consumption per Household, Fuels Used:								
Electricity for:								
Refrigerators (kWh)	1,462	1,218	1,344	1,410	1,663	1,238	1,304	2.0
Other Appliances and Lighting (kWh)	5,435	3,239	4,335	5,360	6,998	3,889	4,391	2.2
Natural Gas (thousand cf)	8	7	7	8	11	7	8	3.5
LPG (gallons)	91	36	66	56	167	60	69	13.3

¹ Includes energy consumption for refrigeration and lighting.

² Below 150 percent of poverty line or 60 percent of median State income.

³ Includes a small amount of fuel oil and kerosene.

⁴ Averages are for those households using each of the fuels for appliances.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

(*) = Value rounds to zero in the units displayed.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE5-4c. Appliances¹ Energy Consumption in U.S. Households
by Type of Housing Unit, 2001**

	Total	Type of Housing Unit			Mobile Homes	RSE Row Factors
		Single-Family	Apartments in Buildings With			
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.6	1.5	1.3	1.7	
Million Households						
Total U.S. Households	107.0	73.7	9.5	17.0	6.8	4.4
Number of Households With Appliances, Fuels Used (more than one may apply):						
Electricity for:						
Refrigerators	106.8	73.6	9.5	16.9	6.8	4.4
Other Appliances and Lighting	107.0	73.7	9.5	17.0	6.8	4.4
Natural Gas	42.6	30.5	4.3	5.9	1.9	7.4
LPG	5.6	4.2	Q	Q	1.3	15.4
Quadrillion Btu^a						
Appliances Btu Consumption, Fuels Used:						
Electricity for:						
Refrigerators	0.53	0.41	0.03	0.05	0.03	4.6
Other Appliances and Lighting	1.98	1.60	0.11	0.14	0.13	4.7
Natural Gas	0.37	0.29	0.03	0.04	0.01	9.4
LPG	0.05	0.04	Q	Q	0.01	25.9
Total ²	2.94	2.34	0.18	0.23	0.18	4.5
Physical Units^a						
Physical Units of Appliances Consumption, Fuels Used:						
Electricity for:						
Refrigerators (billion kWh)	156	120	10	16	10	4.6
Other Appliances and Lighting (billion kWh)	581	469	33	42	38	4.7
Natural Gas (billion cf)	362	285	29	34	13	9.4
LPG (million gallons)	509	424	Q	Q	79	25.9
Million Btu per Household^{3,a}						
Appliances Btu Consumption per Household, Fuels Used:						
Electricity for:						
Refrigerators	5.0	5.6	3.7	3.2	5.1	2.3
Other Appliances and Lighting	18.5	21.7	11.9	8.5	18.8	2.5
Natural Gas	8.7	9.6	7.0	6.0	7.3	4.6
LPG	8.3	9.3	Q	Q	5.7	21.2
Total ²	27.5	31.8	18.8	13.7	27.0	2.2

See footnotes at end of table.

**Table CE5-4c. Appliances¹ Energy Consumption in U.S. Households
by Type of Housing Unit, 2001 (Continued)**

	Total	Type of Housing Unit			Mobile Homes	RSE Row Factors
		Single-Family	Apartments in Buildings With			
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.6	1.5	1.3	1.7	

Physical Units per Household^{3,a}

**Physical Units of Appliances Consumption
per Household, Fuels Used:**

Electricity for:						
Refrigerators (kWh)	1,462	1,629	1,085	932	1,498	2.3
Other Appliances and Lighting (kWh)	5,435	6,360	3,484	2,480	5,521	2.5
Natural Gas (thousand cf)	8	9	7	6	7	4.6
LPG (gallons)	91	102	Q	Q	62	21.2

¹ Includes energy consumption for refrigeration and lighting.

² Includes a small amount of fuel oil and kerosene.

³ Averages are for those households using each of the fuels for appliances.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-5.1u. Appliances¹ Energy Consumption and Expenditures by Household Member and Demographics, 2001

Household Demographics	Appliances Energy								RSE Row Factors
	Households (millions)	Total ^a		Per Household ^a			Per Household Member ^a		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	1.3	1.5	1.5	0.8	0.8	0.7	0.8	0.8	
Total	107.0	2.94	71.66	27.5	670	2.6	10.7	261	1.3
Household Size									
1 Person	28.2	0.46	11.85	16.3	421	1.0	16.3	421	1.8
2 Persons	35.1	0.94	22.86	26.7	651	2.0	13.3	326	2.0
3 Persons	17.0	0.52	12.65	30.6	743	3.0	10.2	248	2.7
4 Persons	15.6	0.55	13.29	35.5	853	4.0	8.9	213	2.8
5 Persons	7.1	0.30	7.00	41.9	984	5.0	8.4	197	5.8
6 or More Persons	4.0	0.17	4.01	42.2	1,004	6.7	6.3	149	4.6
2001 Household Income Category									
Less than \$9,999	11.0	0.20	4.85	18.3	440	1.9	9.7	234	4.6
\$10,000 to \$14,999	7.7	0.15	3.70	20.2	483	2.1	9.5	227	4.9
\$15,000 to \$19,999	8.9	0.20	4.97	22.5	557	2.3	9.9	244	4.3
\$20,000 to \$29,999	14.0	0.33	7.90	23.6	566	2.3	10.1	241	3.4
\$30,000 to \$39,999	13.9	0.36	8.62	25.6	620	2.6	10.0	243	3.0
\$40,000 to \$49,999	13.2	0.36	8.93	27.6	677	2.7	10.2	251	3.5
\$50,000 to \$74,999	21.7	0.68	16.83	31.2	777	2.9	10.7	266	2.7
\$75,000 to \$99,999	8.1	0.27	6.75	33.8	835	2.9	11.5	285	4.4
\$100,000 or More	8.6	0.38	9.12	44.6	1,066	3.0	14.6	350	5.3
Income Relative to Poverty Line									
Below 100 Percent	15.0	0.32	7.52	21.0	502	2.6	8.2	196	3.6
100 to 150 Percent	11.5	0.28	6.56	24.3	572	2.7	9.0	211	3.9
Above 150 Percent	80.5	2.34	57.58	29.1	715	2.5	11.4	281	1.4
Eligible for Federal Assistance²									
Yes	33.8	0.78	18.85	23.1	558	2.7	8.7	210	2.2
No	73.2	2.16	52.81	29.5	722	2.5	11.7	286	1.5
Age of Householder									
Under 25 Years	6.1	0.13	3.13	21.0	510	2.6	7.9	193	4.8
25 to 34 Years	16.8	0.42	10.29	25.1	611	3.0	8.3	201	2.8
35 to 44 Years	22.3	0.70	16.87	31.5	755	3.3	9.6	229	2.9
45 to 54 Years	20.7	0.67	16.12	32.3	778	2.8	11.7	283	3.0
55 to 64 Years	14.5	0.41	10.21	28.3	703	2.1	13.3	330	3.2
65 to 74 Years	12.6	0.32	7.86	25.3	624	1.8	14.2	350	3.5
75 Years or More	11.2	0.22	5.49	19.5	488	1.5	13.0	325	4.2
No answer/refused	2.6	0.06	1.69	24.7	660	2.3	10.7	285	7.9
Race of Householder									
Non-Hispanic	96.8	2.71	65.78	28.0	679	2.5	11.2	273	1.4
Non-Hispanic White	78.7	2.23	53.98	28.3	686	2.4	11.8	285	1.6
Non-Hispanic Black	12.7	0.35	8.48	27.7	667	2.7	10.3	248	4.0
Multi-racial ³	0.9	0.02	0.56	24.8	648	2.8	8.8	230	13.7
Other ⁴	4.5	0.10	2.76	22.4	611	3.3	6.8	186	6.7
Hispanic	10.2	0.23	5.88	22.6	578	3.3	6.9	176	4.8

¹ These consumption and expenditures amounts cover the total energy used for all appliances (including refrigerators and lighting) and any of the three fuels (electricity, natural gas, and LPG) used in the housing unit. They do not only cover the energy used for the appliance listed.

² Below 150 percent of poverty line or 60 percent of median State income.

³ Respondents could select one or more race categories to describe themselves.

⁴ Includes Native American, Native Alaskan, Asian, and Pacific Islander households.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C of the 2001 Residential Energy Consumption Survey.

Table CE5-5.2u. Appliances¹ Energy Consumption and Expenditures by Square Feet and Household Demographics, 2001

Household Demographics	Appliances Energy								RSE Row Factors
	Households (millions)	Total ^a		Per Household ^a			Per Square Feet ^a		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Square Feet	Consumption (1000 Btu)	Expenditures (dollars)	
RSE Column Factor:	1.2	1.4	1.4	0.8	0.8	0.9	0.8	0.9	
Total Households	107.0	2.94	71.66	27.5	670	1,975	13.9	0.34	1.4
Household Size									
1 Person	28.2	0.46	11.85	16.3	421	1,433	11.4	0.29	2.1
2 Persons	35.1	0.94	22.86	26.7	651	2,079	12.8	0.31	2.2
3 Persons	17.0	0.52	12.65	30.6	743	2,100	14.6	0.35	3.0
4 Persons	15.6	0.55	13.29	35.5	853	2,343	15.2	0.36	3.2
5 Persons	7.1	0.30	7.00	41.9	984	2,317	18.1	0.42	5.7
6 or More Persons	4.0	0.17	4.01	42.2	1,004	2,308	18.3	0.43	5.5
2001 Household Income Category									
Less than \$9,999	11.0	0.20	4.85	18.3	440	1,168	15.6	0.38	4.5
\$10,000 to \$14,999	7.7	0.15	3.70	20.2	483	1,328	15.2	0.36	4.8
\$15,000 to \$19,999	8.9	0.20	4.97	22.5	557	1,494	15.1	0.37	4.3
\$20,000 to \$29,999	14.0	0.33	7.90	23.6	566	1,555	15.2	0.36	3.4
\$30,000 to \$39,999	13.9	0.36	8.62	25.6	620	1,725	14.8	0.36	3.3
\$40,000 to \$49,999	13.2	0.36	8.93	27.6	677	2,068	13.3	0.33	3.7
\$50,000 to \$74,999	21.7	0.68	16.83	31.2	777	2,360	13.2	0.33	2.8
\$75,000 to \$99,999	8.1	0.27	6.75	33.8	835	2,690	12.5	0.31	4.5
\$100,000 or More	8.6	0.38	9.12	44.6	1,066	3,395	13.1	0.31	5.1
Income Relative to Poverty Line									
Below 100 Percent	15.0	0.32	7.52	21.0	502	1,227	17.2	0.41	3.6
100 to 150 Percent	11.5	0.28	6.56	24.3	572	1,494	16.3	0.38	3.9
Above 150 Percent	80.5	2.34	57.58	29.1	715	2,183	13.3	0.33	1.5
Eligible for Federal Assistance²									
Yes	33.8	0.78	18.85	23.1	558	1,435	16.1	0.39	2.3
No	73.2	2.16	52.81	29.5	722	2,225	13.2	0.32	1.7
Age of Householder									
Under 25 Years	6.1	0.13	3.13	21.0	510	1,154	18.2	0.44	4.8
25 to 34 Years	16.8	0.42	10.29	25.1	611	1,673	15.0	0.37	3.1
35 to 44 Years	22.3	0.70	16.87	31.5	755	2,096	15.0	0.36	3.0
45 to 54 Years	20.7	0.67	16.12	32.3	778	2,307	14.0	0.34	3.1
55 to 64 Years	14.5	0.41	10.21	28.3	703	2,207	12.8	0.32	3.5
65 to 74 Years	12.6	0.32	7.86	25.3	624	1,932	13.1	0.32	3.8
75 Years or More	11.2	0.22	5.49	19.5	488	1,773	11.0	0.28	4.4
No answer/refused	2.6	0.06	1.69	24.7	660	1,977	12.5	0.33	8.3
Race of Householder									
Non-Hispanic	96.8	2.71	65.78	28.0	679	2,035	13.7	0.33	1.5
Non-Hispanic White	78.7	2.23	53.98	28.3	686	2,087	13.6	0.33	1.7
Non-Hispanic Black	12.7	0.35	8.48	27.7	667	1,827	15.2	0.36	4.5
Multi-racial ³	0.9	0.02	0.56	24.8	648	1,526	16.2	0.42	14.0
Other ⁴	4.5	0.10	2.76	22.4	611	1,808	12.4	0.34	7.1
Hispanic	10.2	0.23	5.88	22.6	578	1,407	16.1	0.41	4.8

¹ These consumption and expenditures amounts cover the total energy used for all appliances (including refrigerators and lighting) and any of the three fuels (electricity, natural gas, and LPG) used in the housing unit. They do not only cover the energy used for the appliance listed.

² Below 150 percent of poverty line or 60 percent of median State income.

³ Respondents could select one or more race categories to describe themselves.

⁴ Includes Native American, Native Alaskan, Asian, and Pacific Islander households.

^a The column factor in this section is underestimated because it contains no error for estimating the end-use.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C of the 2001 Residential Energy Consumption Survey.

Table CE5-6.1u. Appliances¹ Energy Consumption and Expenditures by Household Member and Usage Indicators, 2001

Usage Indicators	Appliances Energy								RSE Row Factors
	Households (millions)	Total ^a		Per Household ^a			Per Household Member ^a		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (million Btu)	Expenditures (dollars)	
	RSE Column Factor:	1.4	1.6	1.6	0.7	0.8	0.7	0.8	
Total Households	107.0	2.94	71.66	27.5	670	2.6	10.7	261	1.3
Weekday Home Activities									
Home Used for Business									
Yes	7.6	0.27	6.44	35.3	852	2.9	12.1	291	4.3
No/Don't Know	99.4	2.67	65.21	26.9	656	2.5	10.6	259	1.5
Energy-Intensive Activity									
Yes	1.7	0.06	1.55	36.3	909	2.8	13.2	329	9.9
No/Don't Know	105.3	2.88	70.11	27.3	666	2.6	10.7	260	1.3
Someone Home All Day									
Yes	53.0	1.54	37.56	29.1	709	2.7	10.7	261	1.9
No/Don't Know	54.0	1.39	34.10	25.8	632	2.4	10.7	262	1.7
Total Floorspace Category² (square feet)									
Fewer than 500	3.9	0.05	1.44	13.2	368	1.8	7.3	205	6.4
500 to 999	21.8	0.38	9.42	17.5	433	2.1	8.4	209	3.0
1,000 to 1,499	22.7	0.55	13.34	24.3	588	2.5	9.8	236	2.6
1,500 to 1,999	16.6	0.47	11.48	28.3	690	2.7	10.6	257	2.8
2,000 to 2,499	13.5	0.42	10.17	30.7	752	2.7	11.3	277	3.2
2,500 to 2,999	9.3	0.29	7.17	31.2	768	2.7	11.5	283	3.8
3,000 to 3,499	6.9	0.25	6.12	36.3	889	3.1	11.6	284	5.2
3,500 to 3,999	4.1	0.16	4.05	40.3	1,000	3.2	12.6	313	5.7
4,000 or More	8.2	0.36	8.48	44.4	1,033	3.0	14.9	346	5.2
Year of Construction									
1939 or Before	19.0	0.49	12.28	25.8	648	2.5	10.4	261	3.6
1940 to 1949	7.6	0.21	5.04	26.9	660	2.7	10.1	248	4.8
1950 to 1959	14.2	0.39	9.67	27.3	682	2.5	10.9	273	3.0
1960 to 1969	13.8	0.35	9.02	25.7	655	2.4	10.6	270	3.5
1970 to 1979	18.8	0.50	11.95	26.6	637	2.5	10.7	255	3.2
1980 to 1989	18.2	0.51	12.14	28.0	666	2.5	11.2	266	3.6
1990 to 1999	14.5	0.46	10.79	31.6	742	2.9	10.8	254	5.3
2000 to 2001 ³	0.9	0.03	0.77	33.9	844	3.4	10.1	250	15.2
Housing Unit Type and Number of Bedrooms									
Mobile Homes	6.8	0.18	4.11	27.0	604	2.6	10.5	234	5.7
Less than 3 Bedrooms	3.7	0.09	2.00	23.2	538	2.0	11.5	267	6.1
3 or More Bedrooms	3.1	0.10	2.11	31.6	683	3.3	9.7	209	7.8
Single-Family Detached	63.1	2.06	49.31	32.7	782	2.7	11.9	286	1.8
Less than 3 Bedrooms	12.3	0.30	7.07	24.3	577	2.0	12.3	292	3.1
3 Bedrooms	33.5	1.03	24.56	30.7	732	2.7	11.5	275	2.2
4 Bedrooms	14.4	0.57	13.79	39.4	961	3.3	11.8	288	3.4
5 or More Bedrooms	3.0	0.17	3.90	56.3	1,317	3.8	14.7	345	9.1
Single-Family Attached	10.6	0.28	6.92	26.5	654	2.7	9.9	244	5.1
Less than 3 Bedrooms	3.9	0.08	1.94	20.6	496	2.1	9.9	239	7.7
3 Bedrooms	4.6	0.13	3.22	28.2	704	2.7	10.4	260	6.9
4 or More Bedrooms	2.1	0.07	1.76	33.9	839	3.7	9.1	224	10.0
Apartments in Buildings									
With 2 to 4 Units	9.5	0.18	4.82	18.8	508	2.3	8.2	223	4.7
Less than 2 Bedrooms	2.6	0.04	0.94	13.5	360	1.7	7.9	211	10.1
2 Bedrooms	5.0	0.10	2.59	19.2	515	2.1	8.9	240	5.5
3 or More Bedrooms	1.8	0.05	1.29	25.1	696	3.4	7.3	202	8.9

See footnotes at end of table.

Table CE5-6.1u. Appliances¹ Energy Consumption and Expenditures by Household Member and Usage Indicators, 2001 (Continued)

Usage Indicators	Appliances Energy								RSE Row Factors
	Households (millions)	Total ^a		Per Household ^a			Per Household Member ^a		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	1.4	1.6	1.6	0.7	0.8	0.7	0.8	0.8	
Apartments in Buildings									
With 5 or More Units	17.0	0.23	6.49	13.7	382	2.0	6.9	191	3.9
Less than 2 Bedrooms	8.5	0.09	2.58	10.8	303	1.5	7.0	198	4.8
2 Bedrooms	7.0	0.11	2.98	15.4	424	2.3	6.8	186	6.5
3 or More Bedrooms	1.5	0.03	0.93	22.8	636	3.3	6.8	191	11.8

¹ These consumption and expenditures amounts cover the total energy used for all appliances (including refrigerators and lighting) and any of the three fuels (electricity, natural gas, and LPG) used in the housing unit. They do not only cover the energy used for the appliance listed.

² Does **not** include floorspace for unheated garages.

³ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

^a The column factor in this section is underestimated because it contains no error for estimating the end-use.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-6.2u. Appliances¹ Energy Consumption and Expenditures by Square Feet and Usage Indicators, 2001

Usage Indicators	Appliances Energy								RSE Row Factors
	Households (millions)	Total ^a		Per Household ^a			Per Square Feet ^a		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Square Feet	Consumption (1000 Btu)	Expenditures (dollars)	
RSE Column Factor:	1.4	1.6	1.6	0.7	0.8	0.7	0.8	0.8	
Total Households	107.0	2.94	71.66	27.5	670	1,975	13.9	0.34	1.4
Weekday Home Activities									
Home Used for Business									
Yes	7.6	0.27	6.44	35.3	852	2,586	13.6	0.33	4.5
No/Don't Know	99.4	2.67	65.21	26.9	656	1,929	13.9	0.34	1.6
Energy-Intensive Activity									
Yes	1.7	0.06	1.55	36.3	909	2,529	14.4	0.36	9.6
No/Don't Know	105.3	2.88	70.11	27.3	666	1,966	13.9	0.34	1.4
Someone Home All Day									
Yes	53.0	1.54	37.56	29.1	709	2,065	14.1	0.34	2.0
No/Don't Know	54.0	1.39	34.10	25.8	632	1,887	13.7	0.33	1.7
Total Floorspace Category² (square feet)									
Fewer than 500	3.9	0.05	1.44	13.2	368	402	32.7	0.92	5.6
500 to 999	21.8	0.38	9.42	17.5	433	770	22.7	0.56	2.7
1,000 to 1,499	22.7	0.55	13.34	24.3	588	1,232	19.7	0.48	2.4
1,500 to 1,999	16.6	0.47	11.48	28.3	690	1,737	16.3	0.40	2.8
2,000 to 2,499	13.5	0.42	10.17	30.7	752	2,227	13.8	0.34	3.0
2,500 to 2,999	9.3	0.29	7.17	31.2	768	2,733	11.4	0.28	3.5
3,000 to 3,499	6.9	0.25	6.12	36.3	889	3,226	11.2	0.28	5.0
3,500 to 3,999	4.1	0.16	4.05	40.3	1,000	3,697	10.9	0.27	5.5
4,000 or More	8.2	0.36	8.48	44.4	1,033	5,280	8.4	0.20	4.9
Year of Construction									
1939 or Before	19.0	0.49	12.28	25.8	648	2,034	12.7	0.32	3.6
1940 to 1949	7.6	0.21	5.04	26.9	660	1,853	14.5	0.36	5.2
1950 to 1959	14.2	0.39	9.67	27.3	682	2,004	13.6	0.34	3.2
1960 to 1969	13.8	0.35	9.02	25.7	655	1,836	14.0	0.36	3.7
1970 to 1979	18.8	0.50	11.95	26.6	637	1,737	15.3	0.37	3.4
1980 to 1989	18.2	0.51	12.14	28.0	666	1,925	14.5	0.35	3.6
1990 to 1999	14.5	0.46	10.79	31.6	742	2,370	13.3	0.31	5.8
2000 to 2001 ³	0.9	0.03	0.77	33.9	844	3,036	11.2	0.28	17.5
Housing Unit Type and Number of Bedrooms									
Mobile Homes	6.8	0.18	4.11	27.0	604	1,055	25.6	0.57	5.7
Less than 3 Bedrooms	3.7	0.09	2.00	23.2	538	835	27.8	0.65	5.9
3 or More Bedrooms	3.1	0.10	2.11	31.6	683	1,319	23.9	0.52	7.5
Single-Family Detached	63.1	2.06	49.31	32.7	782	2,428	13.5	0.32	1.9
Less than 3 Bedrooms	12.3	0.30	7.07	24.3	577	1,611	15.1	0.36	3.4
3 Bedrooms	33.5	1.03	24.56	30.7	732	2,288	13.4	0.32	2.4
4 Bedrooms	14.4	0.57	13.79	39.4	961	3,064	12.9	0.31	3.4
5 or More Bedrooms	3.0	0.17	3.90	56.3	1,317	4,305	13.1	0.31	8.8
Single-Family Attached	10.6	0.28	6.92	26.5	654	2,201	12.1	0.30	5.3
Less than 3 Bedrooms	3.9	0.08	1.94	20.6	496	1,548	13.3	0.32	7.2
3 Bedrooms	4.6	0.13	3.22	28.2	704	2,304	12.2	0.31	7.1
4 or More Bedrooms	2.1	0.07	1.76	33.9	839	3,193	10.6	0.26	8.9
Apartments in Buildings									
With 2 to 4 Units	9.5	0.18	4.82	18.8	508	1,393	13.5	0.36	4.8
Less than 2 Bedrooms	2.6	0.04	0.94	13.5	360	899	15.0	0.40	9.2
2 Bedrooms	5.0	0.10	2.59	19.2	515	1,403	13.7	0.37	5.9
3 or More Bedrooms	1.8	0.05	1.29	25.1	696	2,061	12.2	0.34	9.3

See footnotes at end of table.

Table CE5-6.2u. Appliances¹ Energy Consumption and Expenditures by Square Feet and Usage Indicators, 2001 (Continued)

Usage Indicators	Appliances Energy								RSE Row Factors
	Households (millions)	Total ^a		Per Household ^a			Per Square Feet ^a		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Square Feet	Consumption (1000 Btu)	Expenditures (dollars)	
	RSE Column Factor:	1.4	1.6	1.6	0.7	0.8	0.7	0.8	
Apartments in Buildings									
With 5 or More Units	17.0	0.23	6.49	13.7	382	847	16.2	0.45	3.8
Less than 2 Bedrooms	8.5	0.09	2.58	10.8	303	637	16.9	0.48	4.2
2 Bedrooms	7.0	0.11	2.98	15.4	424	1,009	15.3	0.42	6.5
3 or More Bedrooms	1.5	0.03	0.93	22.8	636	1,294	17.6	0.49	11.0

¹ These consumption and expenditures amounts cover the total energy used for all appliances (including refrigerators and lighting) and any of the three fuels (electricity, natural gas, and LPG) used in the housing unit. They do not only cover the energy used for the appliance listed.

² Does **not** include floorspace for unheated garages.

³ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

^a The column factor in this section is underestimated because it contains no error for estimating the end-use.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-7c. Appliances¹ Energy Consumption in U.S. Households by Four Most Populated States, 2001

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.4	1.1	0.9	1.3	2.0	
Million Households						
Total U.S. Households	107.0	7.1	12.3	7.7	6.3	NE
Number of Households With Appliances, Fuels Used (more than one may apply):						
Electricity for:						
Refrigerators	106.8	7.1	12.3	7.7	6.3	NE
Other Appliances and Lighting	107.0	7.1	12.3	7.7	6.3	NE
Natural Gas	42.6	4.5	7.8	3.3	0.7	9.1
LPG	5.6	0.5	0.6	Q	Q	26.7
Quadrillion Btu^a						
Appliances Btu Consumption, Fuels Used:						
Electricity for:						
Refrigerators	0.53	0.03	0.04	0.05	0.04	4.0
Other Appliances and Lighting	1.98	0.09	0.16	0.17	0.13	4.1
Natural Gas	0.37	0.03	0.08	0.03	(*)	13.9
LPG	0.05	(*)	(*)	Q	Q	39.8
Total ²	2.94	0.16	0.29	0.25	0.18	3.0
Physical Units^a						
Physical Units of Appliances Consumption, Fuels Used:						
Electricity for:						
Refrigerators (billion kWh)	156	8	13	15	12	4.0
Other Appliances and Lighting (billion kWh)	581	27	48	50	38	4.1
Natural Gas (billion cf)	362	34	74	28	4	13.9
LPG (million gallons)	509	42	54	Q	Q	39.8
Million Btu per Household^{3,a}						
Appliances Btu Consumption per Household, Fuels Used:						
Electricity for:						
Refrigerators	5.0	3.7	3.5	6.7	6.3	3.9
Other Appliances and Lighting	18.5	12.9	13.1	22.0	20.4	4.1
Natural Gas	8.7	7.8	9.8	8.7	6.6	5.9
LPG	8.3	Q	8.7	Q	Q	45.0
Total ²	27.5	22.0	23.3	32.6	27.7	3.0

See footnotes at end of table.

Table CE5-7c. Appliances¹ Energy Consumption in U.S. Households by Four Most Populated States, 2001 (Continued)

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.4	1.1	0.9	1.3	2.0	

Physical Units per Household^{3,a}

Physical Units of Appliances Consumption per Household, Fuels Used:

Electricity for:						
Refrigerators (kWh)	1,462	1,080	1,039	1,969	1,836	3.9
Other Appliances and Lighting (kWh)	5,435	3,793	3,850	6,460	5,990	4.1
Natural Gas (thousand cf)	8	8	10	8	6	5.9
LPG (gallons)	91	Q	95	Q	Q	45.0

¹ Includes energy consumption for refrigeration and lighting.

² Includes a small amount of fuel oil and kerosene.

³ Averages are for those households using each of the fuels for appliances.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

(*) = Value rounds to zero in the units displayed.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE5-8c. Appliances¹ Energy Consumption in U.S. Households
by Urban/Rural Location, 2001**

	Total	Urban/Rural Location ²				RSE Row Factors
		City	Town	Suburbs	Rural	
		0.5	0.8	1.5	1.3	
RSE Column Factor:						
Million Households						
Total U.S. Households	107.0	49.9	18.0	21.2	17.9	4.2
Number of Households With Appliances, Fuels Used (more than one may apply):						
Electricity for:						
Refrigerators	106.8	49.7	18.0	21.2	17.8	4.2
Other Appliances and Lighting	107.0	49.9	18.0	21.2	17.9	4.2
Natural Gas	42.6	24.6	6.4	9.1	2.4	6.9
LPG	5.6	0.5	0.8	0.5	3.7	16.3
Quadrillion Btu^a						
Appliances Btu Consumption, Fuels Used:						
Electricity for:						
Refrigerators	0.53	0.22	0.09	0.12	0.10	4.2
Other Appliances and Lighting	1.98	0.78	0.34	0.45	0.42	4.3
Natural Gas	0.37	0.20	0.06	0.09	0.02	9.1
LPG	0.05	(*)	0.01	Q	0.02	22.6
Total ³	2.94	1.21	0.50	0.67	0.57	4.2
Physical Units^a						
Physical Units of Appliances Consumption, Fuels Used:						
Electricity for:						
Refrigerators (billion kWh)	156	66	26	34	30	4.2
Other Appliances and Lighting (billion kWh)	581	227	99	131	124	4.3
Natural Gas (billion cf)	362	197	61	87	17	9.1
LPG (million gallons)	509	42	62	Q	238	22.6
Million Btu per Household^{4,a}						
Appliances Btu Consumption per Household, Fuels Used:						
Electricity for:						
Refrigerators	5.0	4.5	5.0	5.5	5.8	2.1
Other Appliances and Lighting	18.5	15.5	18.8	21.0	23.7	2.2
Natural Gas	8.7	8.2	9.8	9.8	7.2	5.5
LPG	8.3	7.2	6.8	Q	5.9	17.5
Total ³	27.5	24.2	27.5	31.4	31.7	2.2

See footnotes at end of table.

Table CE5-8c. Appliances¹ Energy Consumption in U.S. Households by Urban/Rural Location, 2001 (Continued)

	Total	Urban/Rural Location ²				RSE Row Factors
		City	Town	Suburbs	Rural	
RSE Column Factor:	0.5	0.8	1.5	1.3	1.2	
Physical Units per Household^{4,a}						
Physical Units of Appliances Consumption per Household, Fuels Used:						
Electricity for:						
Refrigerators (kWh)	1,462	1,323	1,454	1,599	1,695	2.1
Other Appliances and Lighting (kWh)	5,435	4,556	5,509	6,162	6,949	2.2
Natural Gas (thousand cf)	8	8	9	10	7	5.5
LPG (gallons)	91	79	75	Q	65	17.5

¹ Includes energy consumption for refrigeration and lighting.
² Based on the household respondent's description rather than the Federal Government definition.
³ Includes a small amount of fuel oil and kerosene.
⁴ Averages are for those households using each of the fuels for appliances.
^a The row factor in this section is underestimated because it contains no error for estimating the end-use.
(*) = Value rounds to zero in the units displayed.
Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.
Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.
• See "Glossary" for definition of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-9c. Appliances¹ Energy Consumption in U.S. Households by Northeast Census Region, 2001

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.4	1.0	1.1	2.1	
Million Households					
Total U.S. Households	107.0	20.3	14.8	5.4	NE
Number of Households With Appliances, Fuels Used (more than one may apply):					
Electricity for:					
Refrigerators	106.8	20.2	14.8	5.4	NE
Other Appliances and Lighting	107.0	20.3	14.8	5.4	NE
Natural Gas	42.6	9.8	8.1	1.7	9.7
LPG	5.6	1.5	0.9	0.6	16.7
Quadrillion Btu^a					
Appliances Btu Consumption, Fuels Used:					
Electricity for:					
Refrigerators	0.53	0.08	0.06	0.02	2.6
Other Appliances and Lighting	1.98	0.31	0.23	0.08	3.7
Natural Gas	0.37	0.08	0.06	0.01	11.5
LPG	0.05	0.02	0.01	Q	40.6
Total ²	2.94	0.49	0.36	0.13	3.5
Physical Units^a					
Physical Units of Appliances Consumption, Fuels Used:					
Electricity for:					
Refrigerators (billion kWh)	156	25	19	6	2.6
Other Appliances and Lighting (billion kWh)	581	91	67	24	3.7
Natural Gas (billion cf)	362	76	63	12	11.5
LPG (million gallons)	509	213	97	Q	40.5
Million Btu per Household^{3,a}					
Appliances Btu Consumption per Household, Fuels Used:					
Electricity for:					
Refrigerators	5.0	4.2	4.3	3.9	2.5
Other Appliances and Lighting	18.5	15.3	15.3	15.3	3.7
Natural Gas	8.7	7.9	8.0	7.6	4.4
LPG	8.3	13.2	10.1	Q	38.5
Total ²	27.5	24.3	24.5	23.5	3.5

See footnotes at end of table.

Table CE5-9c. Appliances¹ Energy Consumption in U.S. Households by Northeast Census Region, 2001 (Continued)

	Total U.S.	Northeast Census Region			RSE Row Factors
		Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.4	1.0	1.1	2.1	

Physical Units per Household^{3,a}

Physical Units of Appliances Consumption per Household, Fuels Used:					
Electricity for:					
Refrigerators (kWh)	1,462	1,230	1,258	1,152	2.5
Other Appliances and Lighting (kWh)	5,435	4,480	4,480	4,480	3.7
Natural Gas (thousand cf)	8	8	8	7	4.4
LPG (gallons)	91	145	111	Q	38.5

¹ Includes energy consumption for refrigeration and lighting.

² Includes a small amount of fuel oil and kerosene.

³ Averages are for those households using each of the fuels for appliances.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-10c. Appliances¹ Energy Consumption in U.S. Households by Midwest Census Region, 2001

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
	0.7	0.9	1.2	1.3	
RSE Column Factor:					
Million Households					
Total U.S. Households	107.0	24.5	17.1	7.4	NE
Number of Households With Appliances, Fuels Used (more than one may apply):					
Electricity for:					
Refrigerators	106.8	24.5	17.1	7.4	NE
Other Appliances and Lighting	107.0	24.5	17.1	7.4	NE
Natural Gas	42.6	11.3	8.8	2.5	6.4
LPG	5.6	1.2	0.5	0.7	24.5
Quadrillion Btu^a					
Appliances Btu Consumption, Fuels Used:					
Electricity for:					
Refrigerators	0.53	0.12	0.08	0.04	2.1
Other Appliances and Lighting	1.98	0.48	0.33	0.15	2.0
Natural Gas	0.37	0.10	0.08	0.02	8.7
LPG	0.05	0.01	(*)	(*)	30.0
Total ²	2.94	0.70	0.49	0.21	1.9
Physical Units^a					
Physical Units of Appliances Consumption, Fuels Used:					
Electricity for:					
Refrigerators (billion kWh)	156	35	24	11	2.1
Other Appliances and Lighting (billion kWh)	581	140	95	45	2.0
Natural Gas (billion cf)	362	94	78	16	8.7
LPG (million gallons)	509	66	29	37	30.0
Million Btu per Household^{3,a}					
Appliances Btu Consumption per Household, Fuels Used:					
Electricity for:					
Refrigerators	5.0	4.9	4.8	5.2	2.1
Other Appliances and Lighting	18.5	19.5	19.1	20.7	2.0
Natural Gas	8.7	8.6	9.1	6.6	4.9
LPG	8.3	5.0	5.1	4.9	10.2
Total ²	27.5	28.6	28.7	28.6	1.9

See footnotes at end of table.

Table CE5-10c. Appliances¹ Energy Consumption in U.S. Households by Midwest Census Region, 2001 (Continued)

	Total U.S.	Midwest Census Region			RSE Row Factors
		Total	Census Division		
			East North Central	West North Central	
RSE Column Factor:	0.7	0.9	1.2	1.3	
Physical Units per Household^{3,a}					
Physical Units of Appliances Consumption per Household, Fuels Used:					
Electricity for:					
Refrigerators (kWh)	1,462	1,438	1,398	1,531	2.1
Other Appliances and Lighting (kWh)	5,435	5,727	5,585	6,056	2.0
Natural Gas (thousand cf)	8	8	9	6	4.9
LPG (gallons)	91	54	56	53	10.2

¹ Includes energy consumption for refrigeration and lighting.

² Includes a small amount of fuel oil and kerosene.

³ Averages are for those households using each of the fuels for appliances.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

(*) = Value rounds to zero in the units displayed.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-11c. Appliances¹ Energy Consumption in U.S. Households by South Census Region, 2001

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			Total	
		South Atlantic	East South Central	West South Central		
RSE Column Factor:	0.5	0.8	1.3	1.3	1.4	
Million Households						
Total U.S. Households	107.0	38.9	20.3	6.8	11.8	NE
Number of Households With Appliances, Fuels Used (more than one may apply):						
Electricity for:						
Refrigerators	106.8	38.9	20.3	6.8	11.8	NE
Other Appliances and Lighting	107.0	38.9	20.3	6.8	11.8	NE
Natural Gas	42.6	11.5	4.9	1.3	5.3	9.2
LPG	5.6	1.9	1.0	0.6	0.3	18.7
Quadrillion Btu^a						
Appliances Btu Consumption, Fuels Used:						
Electricity for:						
Refrigerators	0.53	0.23	0.11	0.04	0.08	2.9
Other Appliances and Lighting	1.98	0.83	0.42	0.16	0.25	2.5
Natural Gas	0.37	0.10	0.05	0.01	0.05	13.1
LPG	0.05	0.01	0.01	(*)	(*)	22.5
Total ²	2.94	1.18	0.59	0.21	0.38	2.1
Physical Units^a						
Physical Units of Appliances Consumption, Fuels Used:						
Electricity for:						
Refrigerators (billion kWh)	156	68	33	12	23	2.9
Other Appliances and Lighting (billion kWh)	581	242	123	46	74	2.5
Natural Gas (billion cf)	362	100	45	11	45	13.1
LPG (million gallons)	509	135	77	39	19	22.5
Million Btu per Household^{3,a}						
Appliances Btu Consumption per Household, Fuels Used:						
Electricity for:						
Refrigerators	5.0	6.0	5.6	6.0	6.6	2.9
Other Appliances and Lighting	18.5	21.3	20.6	22.9	21.4	2.5
Natural Gas	8.7	9.0	9.3	8.9	8.7	6.3
LPG	8.3	6.5	7.2	5.8	5.6	15.9
Total ²	27.5	30.2	28.8	31.1	32.0	2.1

See footnotes at end of table.

Table CE5-11c. Appliances¹ Energy Consumption in U.S. Households by South Census Region, 2001 (Continued)

	Total U.S.	South Census Region				RSE Row Factors
		Total	Census Division			
			South Atlantic	East South Central	West South Central	
RSE Column Factor:	0.5	0.8	1.3	1.3	1.4	

Physical Units per Household^{3,a}

Physical Units of Appliances Consumption per Household, Fuels Used:

	Total U.S.	Total	South Atlantic	East South Central	West South Central	RSE Row Factors
Electricity for:						
Refrigerators (kWh)	1,462	1,746	1,638	1,760	1,923	2.9
Other Appliances and Lighting (kWh)	5,435	6,232	6,039	6,714	6,284	2.5
Natural Gas (thousand cf)	8	9	9	9	8	6.3
LPG (gallons)	91	71	79	64	62	15.9

1 Includes energy consumption for refrigeration and lighting.
 2 Includes a small amount of fuel oil and kerosene.
 3 Averages are for those households using each of the fuels for appliances.
 a The row factor in this section is underestimated because it contains no error for estimating the end-use.
 (*) = Value rounds to zero in the units displayed.
 NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.
 Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.
 • See "Glossary" for definition of terms used in this report.
 Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE5-12c. Appliances¹ Energy Consumption in U.S. Households
by West Census Region, 2001**

	West Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Mountain	Pacific	
	0.5	1.0	1.7	1.2	
RSE Column Factor:					
Million Households					
Total U.S. Households	107.0	23.3	6.7	16.6	NE
Number of Households With Appliances, Fuels Used (more than one may apply):					
Electricity for:					
Refrigerators	106.8	23.2	6.7	16.5	NE
Other Appliances and Lighting	107.0	23.3	6.7	16.6	NE
Natural Gas	42.6	10.0	1.8	8.1	4.8
LPG	5.6	1.0	Q	0.7	18.7
Quadrillion Btu^a					
Appliances Btu Consumption, Fuels Used:					
Electricity for:					
Refrigerators	0.53	0.10	0.03	0.06	2.7
Other Appliances and Lighting	1.98	0.37	0.12	0.24	3.1
Natural Gas	0.37	0.09	0.02	0.08	8.9
LPG	0.05	0.01	(*)	0.01	27.6
Total ²	2.94	0.57	0.18	0.39	2.8
Physical Units^a					
Physical Units of Appliances Consumption, Fuels Used:					
Electricity for:					
Refrigerators (billion kWh)	156	28	10	18	2.7
Other Appliances and Lighting (billion kWh)	581	108	36	71	3.1
Natural Gas (billion cf)	362	92	15	77	8.9
LPG (million gallons)	509	96	30	66	27.6
Million Btu per Household^{3,a}					
Appliances Btu Consumption per Household, Fuels Used:					
Electricity for:					
Refrigerators	5.0	4.1	5.0	3.8	2.7
Other Appliances and Lighting	18.5	15.8	18.5	14.7	3.1
Natural Gas	8.7	9.5	8.4	9.7	6.4
LPG	8.3	8.6	Q	8.5	28.3
Total ²	27.5	24.4	26.1	23.6	2.8

See footnotes at end of table.

Table CE5-12c. Appliances¹ Energy Consumption in U.S. Households by West Census Region, 2001 (Continued)

	Total U.S.	West Census Region			RSE Row Factors
		Total	Census Division		
			Mountain	Pacific	
RSE Column Factor:	0.5	1.0	1.7	1.2	

Physical Units per Household^{3,a}

Physical Units of Appliances Consumption per Household, Fuels Used:					
Electricity for:					
Refrigerators (kWh)	1,462	1,213	1,455	1,115	2.7
Other Appliances and Lighting (kWh)	5,435	4,626	5,425	4,302	3.1
Natural Gas (thousand cf)	8	9	8	9	6.4
LPG (gallons)	91	94	Q	93	28.3

¹ Includes energy consumption for refrigeration and lighting.

² Includes a small amount of fuel oil and kerosene.

³ Averages are for those households using each of the fuels for appliances.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

(*) = Value rounds to zero in the units displayed.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

2001 Consumption and Expenditures Tables

Appliances Expenditures Tables

(11 pages, 75 kb)

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These data are from the 2001 Residential Energy Consumption Survey (RECS) which provides information on the use of energy in residential housing units in the United States. The RECS is a national statistical survey that collects energy-related data for occupied primary housing units. RECS was first conducted in 1978; the twelfth and most recent survey was conducted in 2001. In the 2001 RECS, data were collected from a sample of 4,822 households in housing units statistically selected to represent the 107.0 million housing units in the United States. The RECS data are available for the four Census regions, the nine Census divisions, and for the four most populous States--California, Florida, New York, and Texas.

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World Wide Web: <http://www.eia.doe.gov/emeu/consumption>

Table CE5-1e. Appliances¹ Energy Expenditures in U.S. Households by Climate Zone, 2001 - Preliminary Data

RSE Column Factor:	Climate Zone ²						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
		0.4	1.7	1.0	1.1		
Million Households							
Total U.S. Households	107.0	9.2	28.6	24.0	21.0	24.1	8.0
Number of Households With Appliances, Fuels Used (more than one may apply):							
Electricity for:							
Refrigerators	106.8	9.2	28.6	24.0	20.9	24.1	8.0
Other Appliances and Lighting	107.0	9.2	28.6	24.0	21.0	24.1	8.0
Natural Gas	42.6	2.3	13.1	10.1	9.2	7.8	9.4
LPG	5.6	1.1	1.3	1.2	1.0	1.0	21.1
Billion Dollars							
Appliances Expenditures, Fuels Used:							
Electricity for:							
Refrigerators	14.78	1.13	3.73	3.22	2.91	3.79	6.8
Other Appliances and Lighting	51.70	4.33	13.50	11.17	10.20	12.51	7.0
Natural Gas	3.83	0.14	1.07	0.97	0.96	0.68	11.3
LPG	0.85	0.12	Q	0.19	0.13	0.17	22.5
Total ³	71.18	5.72	18.54	15.57	14.21	17.14	6.8
Dollars per Household⁴							
Appliances Expenditures per Household, Fuels Used:							
Electricity for:							
Refrigerators	138	123	130	134	139	157	2.8
Other Appliances and Lighting	483	468	471	465	486	519	2.7
Natural Gas	90	62	82	96	104	87	5.4
LPG	152	108	Q	167	129	167	24.2
Total ³	665	619	647	648	677	712	2.6

¹ Includes energy expenditures for refrigeration and lighting.

² One of five climatically distinct areas, determined according to the 30-year average (1961-1990) of the annual heating and cooling degree-days. For this report, the heating or cooling degree-days are a measure of how cold or how hot a location is over a period of one year, relative to a base temperature of 65 degrees Fahrenheit. A household is assigned to a climate zone according to the 30-year average annual degree-days for an appropriate nearby weather station.

³ Includes a small amount of fuel oil and kerosene.

⁴ Averages are for those households using each of the fuels for appliances.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-2e. Appliances¹ Energy Expenditures in U.S. Households by Year of Construction, 2001 - Preliminary Data

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ²	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.8	1.1	1.1	1.0	1.0	0.9	
Million Households								
Total U.S. Households	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
Number of Households With Appliances, Fuels Used (more than one may apply):								
Electricity for:								
Refrigerators	106.8	15.5	18.2	18.7	13.8	14.1	26.5	4.3
Other Appliances and Lighting	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
Natural Gas	42.6	5.3	4.7	5.2	5.8	6.7	14.9	7.2
LPG	5.6	0.7	1.0	1.0	0.7	0.7	1.5	16.3
Billion Dollars								
Appliances Expenditures, Fuels Used:								
Electricity for:								
Refrigerators	14.78	2.10	2.52	2.59	1.92	2.04	3.61	4.5
Other Appliances and Lighting	51.70	8.61	8.92	8.75	6.50	6.78	12.14	4.5
Natural Gas	3.83	0.62	0.45	0.45	0.46	0.56	1.30	9.6
LPG	0.85	0.09	0.11	0.14	0.08	0.12	0.30	27.8
Total ³	71.18	11.41	12.00	11.93	8.98	9.50	17.36	4.4
Dollars per Household⁴								
Appliances Expenditures per Household, Fuels Used:								
Electricity for:								
Refrigerators	138	136	138	138	140	144	136	2.7
Other Appliances and Lighting	483	557	489	466	472	479	457	2.6
Natural Gas	90	116	97	86	80	83	87	5.7
LPG	152	132	116	137	120	182	194	23.3
Total ³	665	739	658	636	652	670	653	2.5

¹ Includes energy expenditures for refrigeration and lighting.

² New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

³ Includes a small amount of fuel oil and kerosene.

⁴ Averages are for those households using each of the fuels for appliances.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-3e. Appliances¹ Energy Expenditures in U.S. Households by Household Income, 2001 - Preliminary Data

	Total	2001 Household Income				Below Poverty Line	Eligible for Federal Assistance ²	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.7	0.9	0.9	1.0	1.3	0.9	
Million Households								
Total U.S. Households	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.4
Number of Households With Appliances, Fuels Used (more than one may apply):								
Electricity for:								
Refrigerators	106.8	11.0	30.5	27.1	38.3	14.9	33.7	3.4
Other Appliances and Lighting	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.4
Natural Gas	42.6	4.7	11.7	10.4	15.8	6.6	14.3	6.3
LPG	5.6	0.5	1.9	1.5	1.7	0.7	2.1	14.5
Billion Dollars								
Appliances Expenditures, Fuels Used:								
Electricity for:								
Refrigerators	14.78	1.26	3.82	3.56	6.13	1.72	4.16	3.4
Other Appliances and Lighting	51.70	3.27	11.65	12.76	24.02	5.17	13.26	3.6
Natural Gas	3.83	0.35	0.85	0.89	1.73	0.53	1.16	7.7
LPG	0.85	0.03	0.22	0.13	0.46	0.08	0.25	20.9
Total ³	71.18	4.92	16.54	17.35	32.36	7.50	18.83	3.5
Dollars per Household⁴								
Appliances Expenditures per Household, Fuels Used:								
Electricity for:								
Refrigerators	138	115	125	131	160	116	123	1.9
Other Appliances and Lighting	483	296	381	471	627	345	392	2.1
Natural Gas	90	76	73	86	109	80	81	3.6
LPG	152	70	114	89	276	106	119	15.6
Total ³	665	446	541	640	845	501	557	1.9

¹ Includes energy expenditures for refrigeration and lighting.

² Below 150 percent of poverty line or 60 percent of median State income.

³ Includes a small amount of fuel oil and kerosene.

⁴ Averages are for those households using each of the fuels for appliances.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE5-4e. Appliances¹ Energy Expenditures in U.S. Households
by Type of Housing Unit, 2001 - Preliminary Data**

	Total	Type of Housing Unit			Mobile Home	RSE Row Factors
		Single-Family	Multifamily			
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.6	1.6	1.3	1.7	
Million Households						
Total U.S. Households	107.0	73.7	9.5	17.0	6.8	4.4
Number of Households With Appliances, Fuels Used (more than one may apply):						
Electricity for:						
Refrigerators	106.8	73.6	9.5	16.9	6.8	4.4
Other Appliances and Lighting	107.0	73.7	9.5	17.0	6.8	4.4
Natural Gas	42.6	30.5	4.3	5.9	1.9	7.4
LPG	5.6	4.2	Q	Q	1.3	15.7
Billion Dollars						
Appliances Expenditures, Fuels Used:						
Electricity for:						
Refrigerators	14.78	11.10	1.09	1.80	0.79	4.6
Other Appliances and Lighting	51.70	40.99	3.35	4.58	2.79	4.8
Natural Gas	3.83	2.91	0.34	0.45	0.13	9.6
LPG	0.85	0.72	Q	Q	0.12	25.1
Total ²	71.18	55.74	4.78	6.83	3.83	4.6
Dollars per Household³						
Appliances Expenditures per Household, Fuels Used:						
Electricity for:						
Refrigerators	138	151	115	106	116	2.5
Other Appliances and Lighting	483	556	353	269	410	2.7
Natural Gas	90	95	79	77	69	4.8
LPG	152	172	Q	Q	96	21.9
Total ²	665	756	503	402	563	2.5

¹ Includes energy expenditures for refrigeration and lighting.

² Includes a small amount of fuel oil and kerosene.

³ Averages are for those households using each of the fuels for appliances.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE5-7e. Appliances¹ Energy Expenditures in U.S. Households
by Four Most Populated States, 2001 - Preliminary Data**

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.4	0.7	1.0	1.7	2.2	
Million Households						
Total U.S. Households	107.0	7.1	12.3	7.7	6.3	NF
Number of Households With Appliances, Fuels Used (more than one may apply):						
Electricity for:						
Refrigerators	106.8	7.1	12.3	7.7	6.3	NF
Other Appliances and Lighting	107.0	7.1	12.3	7.7	6.3	NF
Natural Gas	42.6	4.5	7.8	3.3	0.7	9.1
LPG	5.6	0.5	0.6	Q	Q	30.2
Billion Dollars						
Appliances Expenditures, Fuels Used:						
Electricity for:						
Refrigerators	14.78	1.24	1.68	1.29	0.99	3.8
Other Appliances and Lighting	51.70	3.88	5.72	4.33	3.38	3.9
Natural Gas	3.83	0.48	0.78	0.25	Q	12.8
LPG	0.85	0.08	0.10	Q	Q	37.6
Total ²	71.18	5.68	8.28	5.89	4.51	3.3
Dollars per Household³						
Appliances Expenditures per Household, Fuels Used:						
Electricity for:						
Refrigerators	138	176	137	168	157	3.7
Other Appliances and Lighting	483	547	463	565	534	3.9
Natural Gas	90	107	99	77	117	6.5
LPG	152	173	172	Q	Q	46.7
Total ²	665	802	670	768	712	3.3

¹ Includes energy expenditures for refrigeration and lighting.

² Includes a small amount of fuel oil and kerosene.

³ Averages are for those households using each of the fuels for appliances.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-8e. Appliances¹ Energy Expenditures in U.S. Households by Urban/Rural Location, 2001 - Preliminary Data

	Urban/Rural Location ²					RSE Row Factors
	Total	City	Town	Suburbs	Rural	
	0.5	0.8	1.4	1.4	1.2	
Million Households						
Total U.S. Households	107.0	49.9	18.0	21.2	17.9	4.2
Number of Households With Appliances, Fuels Used (more than one may apply):						
Electricity for:						
Refrigerators	106.8	49.7	18.0	21.2	17.8	4.2
Other Appliances and Lighting	107.0	49.9	18.0	21.2	17.9	4.2
Natural Gas	42.6	24.6	6.4	9.1	2.4	6.9
LPG	5.6	0.5	0.8	0.5	3.7	16.3
Billion Dollars						
Appliances Expenditures, Fuels Used:						
Electricity for:						
Refrigerators	14.78	6.62	2.44	3.26	2.45	4.1
Other Appliances and Lighting	51.70	21.47	8.67	11.76	9.82	4.3
Natural Gas	3.83	2.13	0.61	0.91	0.18	9.1
LPG	0.85	0.09	0.10	Q	0.39	22.5
Total ³	71.18	30.32	11.82	16.20	12.85	4.2
Dollars per Household⁴						
Appliances Expenditures per Household, Fuels Used:						
Electricity for:						
Refrigerators	138	133	135	154	138	2.2
Other Appliances and Lighting	483	431	481	554	550	2.2
Natural Gas	90	87	95	100	74	5.7
LPG	152	172	123	501	105	21.7
Total ³	665	608	656	763	719	2.1

¹ Includes energy expenditures for refrigeration and lighting.

² Based on the household respondent's description rather than the Federal Government definition.

³ Includes a small amount of fuel oil and kerosene.

⁴ Averages are for those households using each of the fuels for appliances.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-9e. Appliances¹ Energy Expenditures in U.S. Households by Northeast Census Region, 2001 - Preliminary Data

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.5	0.9	1.0	1.9	
Million Households					
Total U.S. Households	107.0	20.3	14.8	5.4	NF
Number of Households With Appliances, Fuels Used (more than one may apply):					
Electricity for:					
Refrigerators	106.8	20.2	14.8	5.4	NF
Other Appliances and Lighting	107.0	20.3	14.8	5.4	NF
Natural Gas	42.6	9.8	8.1	1.7	9.7
LPG	5.6	1.5	0.9	0.6	16.7
Billion Dollars					
Appliances Expenditures, Fuels Used:					
Electricity for:					
Refrigerators	14.78	3.17	2.38	0.79	1.9
Other Appliances and Lighting	51.70	10.48	7.65	2.83	2.8
Natural Gas	3.83	0.99	0.81	0.18	11.2
LPG	0.85	0.37	0.18	Q	36.0
Total ²	71.18	15.01	11.02	3.99	2.6
Dollars per Household³					
Appliances Expenditures per Household, Fuels Used:					
Electricity for:					
Refrigerators	138	157	160	147	1.8
Other Appliances and Lighting	483	517	515	523	2.8
Natural Gas	90	101	99	105	3.4
LPG	152	252	206	Q	33.2
Total ²	665	741	742	738	2.6

¹ Includes energy expenditures for refrigeration and lighting.

² Includes a small amount of fuel oil and kerosene.

³ Averages are for those households using each of the fuels for appliances.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE5-10e. Appliances¹ Energy Expenditures in U.S. Households
by Midwest Census Region, 2001 - Preliminary Data**

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
	0.6	1.0	1.2	1.4	
RSE Column Factor:					
Million Households					
Total U.S. Households	107.0	24.5	17.1	7.4	NF
Number of Households With Appliances, Fuels Used (more than one may apply):					
Electricity for:					
Refrigerators	106.8	24.5	17.1	7.4	NF
Other Appliances and Lighting	107.0	24.5	17.1	7.4	NF
Natural Gas	42.6	11.3	8.8	2.5	6.4
LPG	5.6	1.2	0.5	0.7	24.5
Billion Dollars					
Appliances Expenditures, Fuels Used:					
Electricity for:					
Refrigerators	14.78	3.17	2.22	0.95	2.1
Other Appliances and Lighting	51.70	11.57	8.07	3.50	2.5
Natural Gas	3.83	0.81	0.66	0.15	9.1
LPG	0.85	0.07	0.03	0.04	30.8
Total ²	71.18	15.62	10.98	4.64	2.1
Dollars per Household³					
Appliances Expenditures per Household, Fuels Used:					
Electricity for:					
Refrigerators	138	129	130	129	2.1
Other Appliances and Lighting	483	472	472	473	2.5
Natural Gas	90	71	75	60	5.7
LPG	152	58	56	59	9.7
Total ²	665	638	642	627	2.1

¹ Includes energy expenditures for refrigeration and lighting.

² Includes a small amount of fuel oil and kerosene.

³ Averages are for those households using each of the fuels for appliances.

NF = No applicable RSE row factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE5-11e. Appliances¹ Energy Expenditures in U.S. Households
by South Census Region, 2001 - Preliminary Data**

	South Census Region					RSE Row Factors
	Total U.S.	Census Division				
		Total	South Atlantic	East South Central		
RSE Column Factor:	0.5	0.8	1.3	1.3	1.5	
Million Households						
Total U.S. Households	107.0	38.9	20.3	6.8	11.8	NE
Number of Households With Appliances, Fuels Used (more than one may apply):						
Electricity for:						
Refrigerators	106.8	38.9	20.3	6.8	11.8	NE
Other Appliances and Lighting	107.0	38.9	20.3	6.8	11.8	NE
Natural Gas	42.6	11.5	4.9	1.3	5.3	9.2
LPG	5.6	1.9	1.0	0.6	0.3	18.7
Billion Dollars						
Appliances Expenditures, Fuels Used:						
Electricity for:						
Refrigerators	14.78	5.50	2.80	0.81	1.89	3.5
Other Appliances and Lighting	51.70	19.49	10.20	2.99	6.29	2.8
Natural Gas	3.83	1.10	0.55	0.11	0.43	12.6
LPG	0.85	0.26	0.16	0.06	Q	21.6
Total ²	71.18	26.35	13.73	3.98	8.65	2.6
Dollars per Household³						
Appliances Expenditures per Household, Fuels Used:						
Electricity for:						
Refrigerators	138	141	138	118	160	3.5
Other Appliances and Lighting	483	501	503	439	533	2.8
Natural Gas	90	95	112	88	82	6.1
LPG	152	134	168	104	89	17.6
Total ²	665	677	676	583	733	2.6

¹ Includes energy expenditures for refrigeration and lighting.

² Includes a small amount of fuel oil and kerosene.

³ Averages are for those households using each of the fuels for appliances.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE5-12e. Appliances¹ Energy Expenditures in U.S. Households
by West Census Region, 2001 - Preliminary Data**

	Total U.S.	West Census Region			RSE Row Factors
		Total	Census Division		
			Mountain	Pacific	
RSE Column Factor:	0.5	1.0	1.8	1.1	
Million Households					
Total U.S. Households	107.0	23.3	6.7	16.6	NF
Number of Households With Appliances, Fuels Used (more than one may apply):					
Electricity for:					
Refrigerators	106.8	23.2	6.7	16.5	NF
Other Appliances and Lighting	107.0	23.3	6.7	16.6	NF
Natural Gas	42.6	10.0	1.8	8.1	4.8
LPG	5.6	1.0	Q	0.7	19.1
Billion Dollars					
Appliances Expenditures, Fuels Used:					
Electricity for:					
Refrigerators	14.78	2.94	0.82	2.12	3.0
Other Appliances and Lighting	51.70	10.17	2.89	7.28	3.3
Natural Gas	3.83	0.94	0.14	0.80	9.2
LPG	0.85	0.15	0.04	0.12	25.1
Total ²	71.18	14.21	3.89	10.32	3.2
Dollars per Household³					
Appliances Expenditures per Household, Fuels Used:					
Electricity for:					
Refrigerators	138	127	123	128	3.0
Other Appliances and Lighting	483	436	430	439	3.3
Natural Gas	90	94	76	98	6.0
LPG	152	152	Q	167	28.2
Total ²	665	610	578	622	3.2

¹ Includes energy expenditures for refrigeration and lighting.

² Includes a small amount of fuel oil and kerosene.

³ Averages are for those households using each of the fuels for appliances.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

2001 Consumption and Expenditures Tables

Appliances Expenditures Tables

(10 pages, 57 kb)

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These data are from the 2001 Residential Energy Consumption Survey (RECS) which provides information on the use of energy in residential housing units in the United States. The RECS is a national statistical survey that collects energy-related data for occupied primary housing units. RECS was first conducted in 1978; the twelfth and most recent survey was conducted in 2001. In the 2001 RECS, data were collected from a sample of 4,822 households in housing units statistically selected to represent the 107.0 million housing units in the United States. The RECS data are available for the four Census regions, the nine Census divisions, and for the four most populous States--California, Florida, New York, and Texas.

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World Wide Web: <http://www.eia.doe.gov/emeu/consumption>

Table CE5-1e. Appliances¹ Energy Expenditures in U.S. Households by Climate Zone, 2001

	Climate Zone ²						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.4	1.7	1.1	1.1	1.2	1.0	
Million Households							
Total U.S. Households	107.0	9.2	28.6	24.0	21.0	24.1	7.9
Number of Households With Appliances, Fuels Used (more than one may apply):							
Electricity for:							
Refrigerators	106.8	9.2	28.6	24.0	20.9	24.1	7.9
Other Appliances and Lighting	107.0	9.2	28.6	24.0	21.0	24.1	7.9
Natural Gas	42.6	2.3	13.1	10.1	9.2	7.8	9.4
LPG	5.6	1.1	1.3	1.2	1.0	1.0	21.1
Billion Dollars^a							
Appliances Expenditures, Fuels Used:							
Electricity for:							
Refrigerators	14.38	1.06	3.50	3.09	2.78	3.94	6.9
Other Appliances and Lighting	52.56	4.45	13.81	11.37	10.35	12.58	7.0
Natural Gas	3.83	0.14	1.07	0.97	0.96	0.68	11.3
LPG	0.86	0.12	0.25	0.18	0.14	0.17	25.5
Total ³	71.66	5.78	18.64	15.64	14.23	17.37	6.8
Dollars per Household^{4,a}							
Appliances Expenditures per Household, Fuels Used:							
Electricity for:							
Refrigerators	135	115	122	129	133	164	2.8
Other Appliances and Lighting	491	481	482	474	493	523	2.8
Natural Gas	90	62	82	96	104	87	5.4
LPG	154	113	Q	159	138	166	23.5
Total ³	670	625	651	651	678	722	2.7

¹ Includes energy expenditures for refrigeration and lighting.

² One of five climatically distinct areas, determined according to the 30-year average (1961-1990) of the annual heating and cooling degree-days. For this report, the heating or cooling degree-days are a measure of how cold or how hot a location is over a period of one year, relative to a base temperature of 65 degrees Fahrenheit. A household is assigned to a climate zone according to the 30-year average annual degree-days for an appropriate nearby weather station.

³ Includes a small amount of fuel oil and kerosene.

⁴ Averages are for those households using each of the fuels for appliances.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-2e. Appliances¹ Energy Expenditures in U.S. Households by Year of Construction, 2001

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ²	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.7	1.1	1.1	1.1	1.0	0.9	
Million Households								
Total U.S. Households	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
Number of Households With Appliances, Fuels Used (more than one may apply):								
Electricity for:								
Refrigerators	106.8	15.5	18.2	18.7	13.8	14.1	26.5	4.3
Other Appliances and Lighting	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
Natural Gas	42.6	5.3	4.7	5.2	5.8	6.7	14.9	7.2
LPG	5.6	0.7	1.0	1.0	0.7	0.7	1.5	16.3
Billion Dollars^a								
Appliances Expenditures, Fuels Used:								
Electricity for:								
Refrigerators	14.38	2.01	2.47	2.54	1.88	2.01	3.48	4.6
Other Appliances and Lighting	52.56	8.84	9.11	8.82	6.59	6.97	12.22	4.5
Natural Gas	3.83	0.62	0.45	0.45	0.46	0.56	1.30	9.6
LPG	0.86	0.09	0.11	0.14	0.09	0.12	0.31	26.8
Total ³	71.66	11.56	12.14	11.95	9.02	9.67	17.32	4.4
Dollars per Household^{4,a}								
Appliances Expenditures per Household, Fuels Used:								
Electricity for:								
Refrigerators	135	130	136	135	136	142	131	2.8
Other Appliances and Lighting	491	572	499	470	478	492	460	2.6
Natural Gas	90	116	97	86	80	83	87	5.7
LPG	154	135	118	138	123	181	199	21.9
Total ³	670	748	666	637	655	682	651	2.5

¹ Includes energy expenditures for refrigeration and lighting.

² New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

³ Includes a small amount of fuel oil and kerosene.

⁴ Averages are for those households using each of the fuels for appliances.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-3e. Appliances¹ Energy Expenditures in U.S. Households by Household Income, 2001

	Total	2001 Household Income				Below Poverty Line	Eli-gible for Fed-eral Assist-ance ²	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.7	0.9	0.9	1.0	1.3	0.9	
Million Households								
Total U.S. Households	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.4
Number of Households With Appliances, Fuels Used (more than one may apply):								
Electricity for:								
Refrigerators	106.8	11.0	30.5	27.1	38.3	14.9	33.7	3.4
Other Appliances and Lighting	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.4
Natural Gas	42.6	4.7	11.7	10.4	15.8	6.6	14.3	6.3
LPG	5.6	0.5	1.9	1.5	1.7	0.7	2.1	14.5
Billion Dollars								
Appliances Expenditures, Fuels Used:								
Electricity for:								
Refrigerators	14.38	1.23	3.74	3.50	5.92	1.68	4.07	3.5
Other Appliances and Lighting	52.56	3.23	11.75	13.01	24.57	5.23	13.37	3.7
Natural Gas	3.83	0.35	0.85	0.89	1.73	0.53	1.16	7.7
LPG	0.86	0.03	0.22	0.14	0.46	0.08	0.26	20.7
Total ³	71.66	4.85	16.57	17.54	32.69	7.52	18.85	3.6
Dollars per Household⁴								
Appliances Expenditures per Household, Fuels Used:								
Electricity for:								
Refrigerators	135	112	123	129	155	113	121	2.0
Other Appliances and Lighting	491	293	385	480	642	349	395	2.2
Natural Gas	90	76	73	86	109	80	81	3.6
LPG	154	71	118	94	274	107	125	15.2
Total ³	670	440	542	647	854	502	558	2.0

¹ Includes energy expenditures for refrigeration and lighting.

² Below 150 percent of poverty line or 60 percent of median State income.

³ Includes a small amount of fuel oil and kerosene.

⁴ Averages are for those households using each of the fuels for appliances.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE5-4e. Appliances¹ Energy Expenditures in U.S. Households
by Type of Housing Unit, 2001**

	Total	Type of Housing Unit				RSE Row Factors
		Single-Family	Apartments in Buildings With		Mobile Homes	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.6	1.6	1.3	1.7	
Million Households						
Total U.S. Households	107.0	73.7	9.5	17.0	6.8	4.4
Number of Households With Appliances, Fuels Used (more than one may apply):						
Electricity for:						
Refrigerators	106.8	73.6	9.5	16.9	6.8	4.4
Other Appliances and Lighting	107.0	73.7	9.5	17.0	6.8	4.4
Natural Gas	42.6	30.5	4.3	5.9	1.9	7.4
LPG	5.6	4.2	Q	Q	1.3	15.6
Billion Dollars^a						
Appliances Expenditures, Fuels Used:						
Electricity for:						
Refrigerators	14.38	10.82	1.07	1.65	0.85	4.6
Other Appliances and Lighting	52.56	41.76	3.41	4.38	3.01	4.8
Natural Gas	3.83	2.91	0.34	0.45	0.13	9.6
LPG	0.86	0.73	Q	Q	0.12	24.6
Total ²	71.66	56.24	4.82	6.49	4.11	4.6
Dollars per Household^{3,a}						
Appliances Expenditures per Household, Fuels Used:						
Electricity for:						
Refrigerators	135	147	113	98	124	2.5
Other Appliances and Lighting	491	567	359	257	442	2.7
Natural Gas	90	95	79	77	69	4.8
LPG	154	174	Q	Q	98	21.1
Total ²	670	763	508	382	604	2.5

¹ Includes energy expenditures for refrigeration and lighting.

² Includes a small amount of fuel oil and kerosene.

³ Averages are for those households using each of the fuels for appliances.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-7e. Appliances¹ Energy Expenditures in U.S. Households by Four Most Populated States, 2001

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.4	0.8	1.0	1.6	2.1	
Million Households						
Total U.S. Households	107.0	7.1	12.3	7.7	6.3	NE
Number of Households With Appliances, Fuels Used (more than one may apply):						
Electricity for:						
Refrigerators	106.8	7.1	12.3	7.7	6.3	NE
Other Appliances and Lighting	107.0	7.1	12.3	7.7	6.3	NE
Natural Gas	42.6	4.5	7.8	3.3	0.7	9.1
LPG	5.6	0.5	0.6	Q	Q	29.6
Billion Dollars^a						
Appliances Expenditures, Fuels Used:						
Electricity for:						
Refrigerators	14.38	1.18	1.53	1.31	1.05	4.1
Other Appliances and Lighting	52.56	3.90	5.81	4.31	3.38	3.9
Natural Gas	3.83	0.48	0.78	0.25	Q	12.7
LPG	0.86	0.09	0.10	Q	Q	37.5
Total ²	71.66	5.64	8.22	5.89	4.56	3.4
Dollars per Household^{3,a}						
Appliances Expenditures per Household, Fuels Used:						
Electricity for:						
Refrigerators	135	167	125	171	166	4.0
Other Appliances and Lighting	491	550	471	562	533	3.9
Natural Gas	90	107	99	77	117	6.5
LPG	154	176	171	Q	Q	44.8
Total ²	670	796	666	768	720	3.4

¹ Includes energy expenditures for refrigeration and lighting.

² Includes a small amount of fuel oil and kerosene.

³ Averages are for those households using each of the fuels for appliances.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-8e. Appliances¹ Energy Expenditures in U.S. Households by Urban/Rural Location, 2001

	Total	Urban/Rural Location ²				RSE Row Factors
		City	Town	Suburbs	Rural	
RSE Column Factor:	0.5	0.8	1.4	1.4	1.2	
Million Households						
Total U.S. Households	107.0	49.9	18.0	21.2	17.9	4.2
Number of Households With Appliances, Fuels Used (more than one may apply):						
Electricity for:						
Refrigerators	106.8	49.7	18.0	21.2	17.8	4.2
Other Appliances and Lighting	107.0	49.9	18.0	21.2	17.9	4.2
Natural Gas	42.6	24.6	6.4	9.1	2.4	6.9
LPG	5.6	0.5	0.8	0.5	3.7	16.3
Billion Dollars^a						
Appliances Expenditures, Fuels Used:						
Electricity for:						
Refrigerators	14.38	6.38	2.36	3.16	2.48	4.1
Other Appliances and Lighting	52.56	21.57	8.86	12.06	10.06	4.3
Natural Gas	3.83	2.13	0.61	0.91	0.18	9.1
LPG	0.86	0.09	0.10	Q	0.40	22.4
Total ³	71.66	30.19	11.93	16.40	13.14	4.1
Dollars per Household^{4,a}						
Appliances Expenditures per Household, Fuels Used:						
Electricity for:						
Refrigerators	135	128	131	149	139	2.2
Other Appliances and Lighting	491	433	491	568	564	2.2
Natural Gas	90	87	95	100	74	5.7
LPG	154	176	125	497	108	21.1
Total ³	670	605	662	773	735	2.1

¹ Includes energy expenditures for refrigeration and lighting.

² Based on the household respondent's description rather than the Federal Government definition.

³ Includes a small amount of fuel oil and kerosene.

⁴ Averages are for those households using each of the fuels for appliances.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-9e. Appliances¹ Energy Expenditures in U.S. Households by Northeast Census Region, 2001

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.5	0.9	1.1	1.8	
Million Households					
Total U.S. Households	107.0	20.3	14.8	5.4	NE
Number of Households With Appliances, Fuels Used (more than one may apply):					
Electricity for:					
Refrigerators	106.8	20.2	14.8	5.4	NE
Other Appliances and Lighting	107.0	20.3	14.8	5.4	NE
Natural Gas	42.6	9.8	8.1	1.7	9.7
LPG	5.6	1.5	0.9	0.6	16.7
Billion Dollars^a					
Appliances Expenditures, Fuels Used:					
Electricity for:					
Refrigerators	14.38	3.02	2.27	0.76	1.8
Other Appliances and Lighting	52.56	10.68	7.76	2.92	2.9
Natural Gas	3.83	0.99	0.81	0.18	11.2
LPG	0.86	0.37	0.18	Q	33.7
Total ²	71.66	15.06	11.02	4.05	2.7
Dollars per Household^{3,a}					
Appliances Expenditures per Household, Fuels Used:					
Electricity for:					
Refrigerators	135	150	153	140	1.8
Other Appliances and Lighting	491	527	523	540	3.0
Natural Gas	90	101	99	105	3.4
LPG	154	252	205	Q	30.6
Total ²	670	744	742	748	2.7

¹ Includes energy expenditures for refrigeration and lighting.

² Includes a small amount of fuel oil and kerosene.

³ Averages are for those households using each of the fuels for appliances.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-10e. Appliances¹ Energy Expenditures in U.S. Households by Midwest Census Region, 2001

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
	0.6	1.0	1.3	1.4	
RSE Column Factor:					
Million Households					
Total U.S. Households	107.0	24.5	17.1	7.4	NE
Number of Households With Appliances, Fuels Used (more than one may apply):					
Electricity for:					
Refrigerators	106.8	24.5	17.1	7.4	NE
Other Appliances and Lighting	107.0	24.5	17.1	7.4	NE
Natural Gas	42.6	11.3	8.8	2.5	6.4
LPG	5.6	1.2	0.5	0.7	24.5
Billion Dollars^a					
Appliances Expenditures, Fuels Used:					
Electricity for:					
Refrigerators	14.38	2.99	2.10	0.89	2.0
Other Appliances and Lighting	52.56	11.81	8.29	3.52	2.6
Natural Gas	3.83	0.81	0.66	0.15	9.1
LPG	0.86	0.08	0.03	0.04	30.1
Total ²	71.66	15.69	11.08	4.61	2.2
Dollars per Household^{3,a}					
Appliances Expenditures per Household, Fuels Used:					
Electricity for:					
Refrigerators	135	122	123	121	2.0
Other Appliances and Lighting	491	482	485	475	2.6
Natural Gas	90	71	75	60	5.7
LPG	154	65	65	65	10.8
Total ²	670	641	648	623	2.2

¹ Includes energy expenditures for refrigeration and lighting.

² Includes a small amount of fuel oil and kerosene.

³ Averages are for those households using each of the fuels for appliances.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-11e. Appliances¹ Energy Expenditures in U.S. Households by South Census Region, 2001

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			West South Central	
		Total	South Atlantic	East South Central		
RSE Column Factor:	0.5	0.8	1.2	1.2	1.5	
Million Households						
Total U.S. Households	107.0	38.9	20.3	6.8	11.8	NE
Number of Households With Appliances, Fuels Used (more than one may apply):						
Electricity for:						
Refrigerators	106.8	38.9	20.3	6.8	11.8	NE
Other Appliances and Lighting	107.0	38.9	20.3	6.8	11.8	NE
Natural Gas	42.6	11.5	4.9	1.3	5.3	9.2
LPG	5.6	1.9	1.0	0.6	0.3	18.7
Billion Dollars^a						
Appliances Expenditures, Fuels Used:						
Electricity for:						
Refrigerators	14.38	5.60	2.84	0.82	1.94	3.4
Other Appliances and Lighting	52.56	19.70	10.33	3.04	6.33	2.7
Natural Gas	3.83	1.10	0.55	0.11	0.43	12.6
LPG	0.86	0.26	0.17	0.06	0.03	21.7
Total ²	71.66	26.67	13.90	4.04	8.74	2.5
Dollars per Household^{3,a}						
Appliances Expenditures per Household, Fuels Used:						
Electricity for:						
Refrigerators	135	144	140	120	165	3.4
Other Appliances and Lighting	491	506	509	446	536	2.7
Natural Gas	90	95	112	88	82	6.1
LPG	154	138	171	103	103	17.0
Total ²	670	685	684	592	740	2.5

¹ Includes energy expenditures for refrigeration and lighting.

² Includes a small amount of fuel oil and kerosene.

³ Averages are for those households using each of the fuels for appliances.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE5-12e. Appliances¹ Energy Expenditures in U.S. Households by West Census Region, 2001

	Total U.S.	West Census Region			RSE Row Factors
		Total	Census Division		
			Mountain	Pacific	
RSE Column Factor:	0.5	1.0	1.9	1.1	
Million Households					
Total U.S. Households	107.0	23.3	6.7	16.6	NE
Number of Households With Appliances, Fuels Used (more than one may apply):					
Electricity for:					
Refrigerators	106.8	23.2	6.7	16.5	NE
Other Appliances and Lighting	107.0	23.3	6.7	16.6	NE
Natural Gas	42.6	10.0	1.8	8.1	4.8
LPG	5.6	1.0	Q	0.7	19.3
Billion Dollars^a					
Appliances Expenditures, Fuels Used:					
Electricity for:					
Refrigerators	14.38	2.76	0.81	1.95	3.0
Other Appliances and Lighting	52.56	10.37	2.94	7.43	3.6
Natural Gas	3.83	0.94	0.14	0.80	9.2
LPG	0.86	0.15	0.04	0.12	25.7
Total ²	71.66	14.23	3.93	10.30	3.3
Dollars per Household^{3,a}					
Appliances Expenditures per Household, Fuels Used:					
Electricity for:					
Refrigerators	135	119	122	118	3.0
Other Appliances and Lighting	491	445	437	448	3.6
Natural Gas	90	94	76	98	6.0
LPG	154	151	Q	166	27.9
Total ²	670	611	585	621	3.3

¹ Includes energy expenditures for refrigeration and lighting.

² Includes a small amount of fuel oil and kerosene.

³ Averages are for those households using each of the fuels for appliances.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Residential Energy Consumption Surveys

2001 Consumption and Expenditures Tables

Total Consumption Tables

(26 pages, 95 kb)

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These data are from the 2001 Residential Energy Consumption Survey (RECS) which provides information on the use of energy in residential housing units in the United States. The RECS is a national statistical survey that collects energy-related data for occupied primary housing units. RECS was first conducted in 1978; the twelfth and most recent survey was conducted in 2001. In the 2001 RECS, data were collected from a sample of 4,822 households in housing units statistically selected to represent the 107.0 million housing units in the United States. The RECS data are available for the four Census regions, the nine Census divisions, and for the four most populous States--California, Florida, New York, and Texas.

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World Wide Web: <http://www.eia.doe.gov/emeu/consumption>

Table CE1-1c. Total Energy Consumption in U.S. Households by Climate Zone, 2001 - Preliminary Data

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
		0.4	1.7	1.1	1.1	1.3	
RSE Column Factor:							
Million Households							
Total U.S. Households	107.0	9.2	28.6	24.0	21.0	24.1	7.9
Number of Households, Fuels Used (more than one may apply):							
Electricity ²	107.0	9.2	28.6	24.0	21.0	24.1	7.9
Natural Gas	66.9	4.9	21.2	14.9	13.8	12.1	8.6
Fuel Oil	8.7	1.8	2.9	3.7	Q	Q	17.1
Kerosene	2.9	0.4	0.7	0.7	0.8	0.3	21.6
LPG	9.4	1.6	2.2	1.9	2.1	1.5	20.9
Wood	14.5	2.0	3.1	2.9	3.4	3.0	13.1
Quadrillion Btu							
Total Btu Consumption, Fuels Used:							
Electricity							
Primary	11.56	0.91	2.63	2.52	2.16	3.35	7.9
Site	3.87	0.30	0.88	0.84	0.72	1.12	7.9
Natural Gas	4.84	0.43	1.99	1.09	0.73	0.60	10.1
Fuel Oil	0.71	0.17	0.26	0.26	Q	Q	19.5
Kerosene	0.05	0.01	0.01	0.01	0.01	(*)	31.6
LPG	0.37	0.07	0.11	0.08	0.07	0.04	25.9
Wood	0.37	0.13	0.09	0.07	0.06	0.03	20.0
Total (excludes primary electricity and wood)	9.84	0.98	3.26	2.28	1.55	1.77	7.4
Physical Units							
Physical Units of Total Consumption, Fuels Used:							
Electricity (billion kWh)	1,134	89	258	247	212	328	7.9
Natural Gas (billion cf)	4,708	416	1,936	1,055	713	587	10.1
Fuel Oil (million gallons)	5,105	1,217	1,909	1,903	Q	Q	19.5
Kerosene (million gallons)	351	75	82	81	95	19	31.6
LPG (million gallons)	4,093	762	1,247	873	719	491	25.9
Wood (million cords)	18.7	6.3	4.3	3.5	2.9	1.7	20.0
Million Btu per Household³							
Total Btu Consumption per Household, Fuels Used:							
Electricity							
Primary	108.1	98.1	91.7	104.9	103.1	139.0	3.5
Site	36.2	32.8	30.7	35.1	34.5	46.5	3.5
Natural Gas	72.4	87.0	94.0	72.8	53.1	50.0	3.6
Fuel Oil	81.7	91.5	92.8	72.1	35.3	Q	8.1
Kerosene	16.2	24.8	16.9	14.9	15.9	8.0	24.2
LPG	39.9	44.8	51.2	40.9	31.0	29.4	11.9
Wood	25.9	61.9	27.9	24.1	17.2	11.0	12.9
Total (excludes primary electricity and wood)	92.0	105.9	113.8	95.0	73.7	73.6	2.7

See footnotes at end of table.

Table CE1-1c. Total Energy Consumption in U.S. Households by Climate Zone, 2001 - Preliminary Data (Continued)

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.4	1.7	1.1	1.1	1.3	1.0	
Physical Units per Household³							
Physical Units of Total Consumption per Household, Fuels Used:							
Electricity (kWh)	10,598	9,613	8,993	10,287	10,106	13,627	3.5
Natural Gas (thousand cf)	70	85	91	71	52	49	3.6
Fuel Oil (gallons)	589	661	670	520	254	Q	8.1
Kerosene (gallons)	120	184	125	111	118	59	24.2
LPG (gallons)	437	491	561	448	340	322	11.9
Wood (cords)	1.3	3.1	1.4	1.2	0.9	0.5	12.9
Million Households							
Number of Households, Where the End Use Is:							
Space Heating ⁴	105.3	9.1	28.5	23.7	20.4	23.5	8.0
Electric Air-Conditioning ⁵	80.8	5.3	20.5	19.9	13.4	21.8	8.2
Water Heating ⁶	106.7	9.2	28.6	24.0	20.9	24.0	7.9
Refrigerators	106.8	9.2	28.6	24.0	20.9	24.1	7.9
Appliances	107.0	9.2	28.6	24.0	21.0	24.1	7.9
Quadrillion Btu							
Total Btu Consumption, Where the End Use Is:							
Space Heating	4.60	0.57	1.88	1.15	0.56	0.44	8.9
Electric Air-Conditioning	0.62	0.02	0.09	0.11	0.11	0.30	10.3
Water Heating	1.70	0.14	0.51	0.39	0.32	0.33	6.9
Refrigerators	0.55	0.05	0.14	0.12	0.10	0.14	7.4
Other Appliances and Lighting	2.37	0.20	0.64	0.52	0.46	0.56	7.4
Million Btu per Household³							
Total Btu Consumption per Household, Where the End Use Is:							
Space Heating	43.7	63.1	66.0	48.3	27.3	18.7	4.5
Electric Air-Conditioning	7.7	3.7	4.2	5.7	8.0	13.7	5.0
Water Heating	15.9	15.8	18.0	16.2	15.4	13.9	2.8
Refrigerators	5.1	4.9	4.9	4.8	4.9	6.0	2.7
Other Appliances and Lighting	22.2	21.1	22.4	21.6	21.8	23.1	2.7

¹ One of five climatically distinct areas, determined according to the 30-year average (1961-1990) of the annual heating and cooling degree-days. For this report, the heating or cooling degree-days are a measure of how cold or how hot a location is over a period of one year, relative to a base temperature of 65 degrees Fahrenheit. A household is assigned to a climate zone according to the 30-year average annual degree-days for an appropriate nearby weather station.

² The RECS cannot be used to accurately estimate the number of households that do not use electricity.

³ The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

⁴ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

⁵ The number of households, where the end use is electric air-conditioning, does not include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

⁶ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

(*) = Value rounds to zero in the units displayed.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE1-2c. Total Energy Consumption in U.S. Households
by Year of Construction, 2001 - Preliminary Data**

	Total	Year of Construction					1949 or Before	RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959		
RSE Column Factor:	0.5	1.6	1.1	1.0	1.1	1.1	0.9	
Million Households								
Total U.S. Households	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
Number of Households, Fuels Used (more than one may apply):								
Electricity ²	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
Natural Gas	66.9	9.4	8.8	9.0	9.5	10.3	20.0	5.9
Fuel Oil	8.7	0.3	0.5	0.9	1.3	1.8	3.9	15.5
Kerosene	2.9	0.4	0.3	0.7	0.4	0.3	0.8	20.8
LPG	9.4	1.4	1.5	1.7	1.1	1.0	2.6	13.9
Wood	14.5	2.0	3.0	3.2	2.0	1.7	2.5	9.9
Quadrillion Btu								
Total Btu Consumption, Fuels Used:								
Electricity								
Primary	11.56	2.03	2.31	2.27	1.34	1.35	2.26	4.6
Site	3.87	0.68	0.77	0.76	0.45	0.45	0.76	4.6
Natural Gas	4.84	0.66	0.57	0.57	0.61	0.75	1.68	6.9
Fuel Oil	0.71	0.02	0.04	0.07	0.09	0.14	0.34	17.8
Kerosene	0.05	0.01	(*)	0.02	Q	(*)	0.01	31.8
LPG	0.37	0.06	0.06	0.06	0.04	0.03	0.13	17.4
Wood	0.37	0.03	0.06	0.07	0.04	0.05	0.12	18.1
Total (excludes primary electricity and wood)	9.84	1.43	1.45	1.47	1.19	1.38	2.92	4.5
Physical Units								
Physical Units of Total Consumption, Fuels Used:								
Electricity (billion kWh)	1,134	199	227	222	131	132	222	4.6
Natural Gas (billion cf)	4,708	645	551	551	594	732	1,635	6.9
Fuel Oil (million gallons)	5,105	173	321	486	630	1,034	2,461	17.8
Kerosene (million gallons)	351	66	34	123	Q	25	67	31.8
LPG (million gallons)	4,093	616	620	699	420	295	1,444	17.4
Wood (million cords)	18.7	1.5	3.0	3.7	2.1	2.4	6.0	18.1
Million Btu per Household³								
Total Btu Consumption per Household, Fuels Used:								
Electricity								
Primary	108.1	131.5	126.9	120.9	97.3	95.2	85.1	2.8
Site	36.2	44.0	42.4	40.4	32.5	31.8	28.5	2.8
Natural Gas	72.4	70.9	64.3	63.0	64.6	72.9	84.3	3.5
Fuel Oil	81.7	77.8	91.4	77.3	68.3	79.0	87.5	7.2
Kerosene	16.2	21.3	13.5	23.6	Q	11.4	11.4	25.8
LPG	39.9	40.8	36.6	36.5	34.2	27.1	51.2	10.7
Wood	25.9	14.8	20.0	23.0	21.1	27.6	48.5	14.9
Total (excludes primary electricity and wood)	92.0	92.7	79.3	78.5	86.4	97.3	109.8	2.4

See footnotes at end of table.

**Table CE1-2c. Total Energy Consumption in U.S. Households
by Year of Construction, 2001 - Preliminary Data (Continued)**

	Year of Construction							RSE Row Factors
	Total	1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.6	1.1	1.0	1.1	1.1	0.9	
Physical Units per Household³								
Physical Units of Total Consumption per Household, Fuels Used:								
Electricity (kWh)	10,598	12,894	12,438	11,852	9,535	9,334	8,342	2.8
Natural Gas (thousand cf)	70	69	63	61	63	71	82	3.5
Fuel Oil (gallons)	589	561	659	557	493	570	631	7.2
Kerosene (gallons)	120	157	100	175	Q	84	85	25.8
LPG (gallons)	437	447	401	399	374	297	560	10.7
Wood (cords)	1.3	0.7	1.0	1.2	1.1	1.4	2.4	14.9
Million Households								
Number of Households, Where the End Use Is:								
Space Heating ⁴	105.3	15.4	18.1	18.5	13.4	13.8	26.2	4.3
Electric Air-Conditioning ⁵	80.8	13.4	15.8	14.2	10.1	10.2	17.1	4.7
Water Heating ⁶	106.7	15.4	18.2	18.7	13.7	14.2	26.4	4.3
Refrigerators	106.8	15.5	18.2	18.7	13.8	14.1	26.5	4.2
Appliances	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
Quadrillion Btu								
Total Btu Consumption, Where the End Use Is:								
Space Heating	4.60	0.54	0.53	0.59	0.55	0.69	1.70	5.3
Electric Air-Conditioning	0.62	0.14	0.14	0.12	0.07	0.06	0.09	6.9
Water Heating	1.70	0.27	0.27	0.26	0.22	0.24	0.44	4.6
Refrigerators	0.55	0.08	0.10	0.10	0.07	0.07	0.12	4.4
Other Appliances and Lighting	2.37	0.40	0.41	0.40	0.29	0.31	0.57	4.6
Million Btu per Household³								
Total Btu Consumption per Household, Where the End Use Is:								
Space Heating	43.7	35.1	29.1	32.1	41.1	50.3	64.8	3.6
Electric Air-Conditioning	7.7	10.4	9.0	8.7	6.7	6.3	5.1	5.1
Water Heating	15.9	17.5	15.0	13.9	15.8	16.9	16.7	2.6
Refrigerators	5.1	5.3	5.4	5.4	4.9	5.2	4.7	2.5
Other Appliances and Lighting	22.2	26.1	22.3	21.1	20.7	21.7	21.5	2.7

¹ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

² The RECS cannot be used to accurately estimate the number of households that do not use electricity.

³ The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

⁴ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

⁵ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

⁶ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

(*) = Value rounds to zero in the units displayed.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-3c. Total Energy Consumption in U.S. Households by Household Income, 2001 - Preliminary Data

	Total	2001 Household Income				Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.5	1.7	0.9	1.0	0.9	1.4	0.9	
Million Households								
Total U.S. Households	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.3
Number of Households, Fuels Used (more than one may apply):								
Electricity ²	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.3
Natural Gas	66.9	6.8	18.2	16.4	25.5	9.3	20.7	4.8
Fuel Oil	8.7	0.6	2.2	2.5	3.4	0.8	2.4	12.7
Kerosene	2.9	0.4	0.8	0.9	0.8	0.7	1.2	17.0
LPG	9.4	0.9	2.9	2.6	3.0	1.2	3.0	12.7
Wood	14.5	0.4	2.5	3.6	8.0	0.7	2.3	10.1
Quadrillion Btu								
Total Btu Consumption, Fuels Used:								
Electricity								
Primary	11.56	0.81	2.76	2.89	5.10	1.23	3.05	3.9
Site	3.87	0.27	0.92	0.97	1.71	0.41	1.02	3.9
Natural Gas	4.84	0.38	1.19	1.15	2.13	0.54	1.36	5.8
Fuel Oil	0.71	0.04	0.16	0.19	0.31	0.05	0.18	14.2
Kerosene	0.05	0.01	0.02	0.01	0.01	0.01	0.03	26.5
LPG	0.37	0.03	0.12	0.11	0.13	0.04	0.11	17.1
Wood	0.37	0.03	0.09	0.11	0.14	0.04	0.09	21.0
Total (excludes primary electricity and wood)	9.84	0.72	2.41	2.42	4.29	1.06	2.70	3.6
Physical Units								
Physical Units of Total Consumption, Fuels Used:								
Electricity (billion kWh)	1,134	79	270	284	500	121	299	3.9
Natural Gas (billion cf)	4,708	366	1,153	1,114	2,075	523	1,320	5.8
Fuel Oil (million gallons)	5,105	271	1,184	1,391	2,259	356	1,299	14.1
Kerosene (million gallons)	351	75	131	86	60	110	195	26.5
LPG (million gallons)	4,093	279	1,283	1,157	1,374	452	1,248	17.1
Wood (million cords)	18.7	1.5	4.7	5.4	7.2	1.8	4.7	21.0
Million Btu per Household³								
Total Btu Consumption per Household, Fuels Used:								
Electricity								
Primary	108.1	73.4	90.3	106.8	133.3	82.4	90.1	2.4
Site	36.2	24.5	30.2	35.7	44.6	27.6	30.1	2.4
Natural Gas	72.4	55.8	65.1	69.8	83.6	57.9	65.5	3.0
Fuel Oil	81.7	68.2	73.0	77.9	92.5	65.3	76.6	5.7
Kerosene	16.2	22.5	21.5	13.3	10.4	22.8	21.2	20.3
LPG	39.9	28.6	40.1	41.1	42.1	33.1	37.4	9.4
Wood	25.9	70.0	37.3	30.2	18.0	48.2	41.8	18.4
Total (excludes primary electricity and wood)	92.0	65.3	78.8	89.4	112.0	70.6	79.8	2.2

See footnotes at end of table.

Table CE1-3c. Total Energy Consumption in U.S. Households by Household Income, 2001 - Preliminary Data (Continued)

	2001 Household Income					Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
	Total	Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.5	1.7	0.9	1.0	0.9	1.4	0.9	
Physical Units per Household³								
Physical Units of Total Consumption per Household, Fuels Used:								
Electricity (kWh)	10,598	7,195	8,853	10,466	13,067	8,081	8,832	2.4
Natural Gas (thousand cf)	70	54	63	68	81	56	64	3.0
Fuel Oil (gallons)	589	492	527	562	667	471	553	5.7
Kerosene (gallons)	120	166	159	99	77	169	157	20.3
LPG (gallons)	437	313	439	450	461	363	410	9.4
Wood (cords)	1.3	3.5	1.9	1.5	0.9	2.4	2.1	18.4
Million Households								
Number of Households, Where the End Use Is:								
Space Heating ⁴	105.3	10.8	30.2	26.5	37.8	14.6	33.2	3.4
Electric Air-Conditioning ⁵	80.8	6.9	21.7	21.0	31.2	9.1	22.6	3.9
Water Heating ⁶	106.7	11.0	30.5	27.0	38.2	14.9	33.7	3.3
Refrigerators	106.8	11.0	30.5	27.1	38.3	14.9	33.7	3.3
Appliances	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.3
Quadrillion Btu								
Total Btu Consumption, Where the End Use Is:								
Space Heating	4.60	0.35	1.19	1.14	1.92	0.49	1.30	4.5
Electric Air-Conditioning	0.62	0.03	0.13	0.15	0.31	0.05	0.13	6.1
Water Heating	1.70	0.13	0.41	0.43	0.74	0.20	0.48	3.6
Refrigerators	0.55	0.05	0.14	0.13	0.22	0.06	0.15	3.5
Other Appliances and Lighting	2.37	0.16	0.54	0.58	1.09	0.25	0.63	3.8
Million Btu per Household³								
Total Btu Consumption per Household, Where the End Use Is:								
Space Heating	43.7	32.6	39.3	42.9	50.8	33.7	39.3	3.5
Electric Air-Conditioning	7.7	5.1	6.0	7.0	10.0	5.9	6.0	4.3
Water Heating	15.9	11.8	13.4	15.8	19.3	13.2	14.2	2.2
Refrigerators	5.1	4.3	4.7	4.9	5.9	4.3	4.6	1.9
Other Appliances and Lighting	22.2	14.3	17.7	21.4	28.5	16.7	18.5	2.2

¹ Below 150 percent of poverty line or 60 percent of median State income.

² The RECS cannot be used to accurately estimate the number of households that do not use electricity.

³ The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

⁴ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

⁵ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

⁶ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE1-4c. Total Energy Consumption in U.S. Households
by Type of Housing Unit, 2001 - Preliminary Data**

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Multifamily		Mobile Home	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.5	1.6	1.4	1.8	
Million Households						
Total U.S. Households	107.0	73.7	9.5	17.0	6.8	4.3
Number of Households, Fuels Used (more than one may apply):						
Electricity ¹	107.0	73.7	9.5	17.0	6.8	4.3
Natural Gas	66.9	48.5	6.2	9.9	2.3	6.0
Fuel Oil	8.7	6.4	0.6	1.4	0.2	16.8
Kerosene	2.9	2.2	Q	Q	0.6	16.8
LPG	9.4	7.6	Q	Q	1.6	15.1
Wood	14.5	13.2	0.4	0.3	0.6	16.2
Quadrillion Btu						
Total Btu Consumption, Fuels Used:						
Electricity						
Primary	11.56	8.95	0.69	1.05	0.87	5.1
Site	3.87	2.99	0.23	0.35	0.29	5.1
Natural Gas	4.84	3.98	0.45	0.28	0.14	7.5
Fuel Oil	0.71	0.59	0.06	0.05	0.01	18.7
Kerosene	0.05	0.03	Q	Q	0.02	28.4
LPG	0.37	0.31	Q	Q	0.06	19.5
Wood	0.37	0.36	Q	Q	0.01	20.2
Total (excludes primary electricity and wood)	9.84	7.90	0.74	0.69	0.52	4.4
Physical Units						
Physical Units of Total Consumption, Fuels Used:						
Electricity (billion kWh)	1,134	878	68	103	85	5.1
Natural Gas (billion cf)	4,708	3,864	434	274	135	7.5
Fuel Oil (million gallons)	5,105	4,221	422	397	65	18.7
Kerosene (million gallons)	351	199	Q	Q	146	28.4
LPG (million gallons)	4,093	3,441	Q	Q	626	19.5
Wood (million cords)	18.7	17.8	Q	Q	0.6	20.2
Million Btu per Household²						
Total Btu Consumption per Household, Fuels Used:						
Electricity						
Primary	108.1	121.5	72.9	61.8	127.5	3.0
Site	36.2	40.7	24.4	20.7	42.7	3.0
Natural Gas	72.4	82.0	71.7	28.4	60.1	3.6
Fuel Oil	81.7	91.1	94.4	39.5	40.0	6.5
Kerosene	16.2	12.2	Q	Q	32.8	19.5
LPG	39.9	41.6	Q	Q	35.2	9.8
Wood	25.9	26.9	Q	2.2	19.7	18.7
Total (excludes primary electricity and wood)	92.0	107.2	77.9	40.5	75.7	2.3

See footnotes at end of table.

Table CE1-4c. Total Energy Consumption in U.S. Households by Type of Housing Unit, 2001 - Preliminary Data (Continued)

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Multifamily		Mobile Home	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.5	1.6	1.4	1.8	
Physical Units per Household²						
Physical Units of Total Consumption per Household, Fuels Used:						
Electricity (kWh)	10,598	11,915	7,150	6,056	12,501	3.0
Natural Gas (thousand cf)	70	80	70	28	58	3.6
Fuel Oil (gallons)	589	657	680	285	288	6.5
Kerosene (gallons)	120	90	Q	Q	243	19.5
LPG (gallons)	437	455	Q	Q	385	9.8
Wood (cords)	1.3	1.3	Q	0.1	1.0	18.7
Million Households						
Number of Households, Where the End Use Is:						
Space Heating ³	105.3	72.8	9.4	16.3	6.8	4.4
Electric Air-Conditioning ⁴	80.8	57.6	6.3	11.8	5.1	4.9
Water Heating ⁵	106.7	73.5	9.5	16.9	6.8	4.3
Refrigerators	106.8	73.6	9.5	16.9	6.8	4.3
Appliances	107.0	73.7	9.5	17.0	6.8	4.3
Quadrillion Btu						
Total Btu Consumption, Where the End Use Is:						
Space Heating	4.60	3.76	0.41	0.21	0.21	5.4
Electric Air-Conditioning	0.62	0.49	0.03	0.05	0.05	7.9
Water Heating	1.70	1.32	0.12	0.18	0.08	4.5
Refrigerators	0.55	0.42	0.04	0.06	0.03	4.5
Other Appliances and Lighting	2.37	1.90	0.14	0.19	0.14	4.7
Million Btu per Household²						
Total Btu Consumption per Household, Where the End Use Is:						
Space Heating	43.7	51.6	44.2	13.1	30.7	4.1
Electric Air-Conditioning	7.7	8.5	4.7	4.5	10.3	5.6
Water Heating	15.9	18.0	12.5	10.5	12.1	2.6
Refrigerators	5.1	5.7	3.8	3.5	4.7	2.2
Other Appliances and Lighting	22.2	25.8	14.9	11.0	20.5	2.5

¹ The RECS cannot be used to accurately estimate the number of households that do not use electricity.

² The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

³ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

⁴ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

⁵ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-5.1u. Total Energy Consumption and Expenditures by Household Member and Demographics, 2001 - Preliminary Data

Household Demographics	Total End-Use Energy								RSE Row Factors
	Households (millions)	Total		Per Household			Per Household Member		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	1.3	1.5	1.5	0.9	0.7	0.7	0.9	0.8	
Total Households	107.0	9.84	159.15	92.0	1,488	2.6	35.9	580	1.2
Household Size									
1 Person	28.2	1.83	29.40	65.1	1,044	1.0	65.1	1,044	2.0
2 Persons	35.1	3.25	52.12	92.5	1,484	2.0	46.3	742	1.8
3 Persons	17.0	1.67	27.41	98.3	1,610	3.0	32.8	537	2.5
4 Persons	15.6	1.71	27.94	109.6	1,794	4.0	27.4	448	2.7
5 Persons	7.1	0.87	14.16	121.9	1,990	5.0	24.4	398	5.3
6 or More Persons	4.0	0.51	8.11	127.7	2,031	6.7	19.0	302	4.5
2001 Household Income Category									
Less than \$9,999	11.0	0.72	11.49	65.3	1,042	1.9	34.8	555	5.0
\$10,000 to \$14,999	7.7	0.53	8.58	69.6	1,118	2.1	32.7	525	4.9
\$15,000 to \$19,999	8.9	0.71	11.38	80.0	1,278	2.3	35.0	560	4.6
\$20,000 to \$29,999	14.0	1.16	18.37	83.2	1,315	2.3	35.5	560	3.3
\$30,000 to \$39,999	13.9	1.20	19.16	86.1	1,379	2.6	33.7	540	2.9
\$40,000 to \$49,999	13.2	1.23	19.99	92.9	1,515	2.7	34.4	561	3.5
\$50,000 to \$74,999	21.7	2.21	36.19	101.9	1,671	2.9	35.0	573	2.6
\$75,000 to \$99,999	8.1	0.91	14.79	112.6	1,830	2.9	38.5	626	4.3
\$100,000 or More	8.6	1.17	19.18	136.6	2,242	3.0	44.8	736	4.8
Income Relative to Poverty Line									
Below 100 Percent	15.0	1.06	16.99	70.6	1,135	2.6	27.5	442	4.1
100 to 150 Percent	11.5	0.95	15.17	83.0	1,322	2.7	30.6	488	3.9
Above 150 Percent	80.5	7.83	126.99	97.3	1,577	2.5	38.3	620	1.3
Eligible for Federal Assistance¹									
Yes	33.8	2.70	42.82	79.8	1,267	2.7	30.1	478	2.5
No	73.2	7.14	116.33	97.6	1,590	2.5	38.7	630	1.4
Age of Householder									
Under 25 Years	6.1	0.40	6.97	65.4	1,136	2.6	24.7	429	4.7
25 to 34 Years	16.8	1.39	23.03	82.3	1,368	3.0	27.1	451	2.8
35 to 44 Years	22.3	2.22	36.05	99.5	1,613	3.3	30.2	489	2.6
45 to 54 Years	20.7	2.16	34.64	104.3	1,672	2.8	37.9	608	2.9
55 to 64 Years	14.5	1.41	23.16	97.2	1,594	2.1	45.6	748	3.1
65 to 74 Years	12.6	1.11	17.56	88.5	1,393	1.8	49.6	782	3.5
75 Years or More	13.8	1.14	17.75	82.7	1,283	1.7	50.0	777	3.5
Race of Householder									
Non-Hispanic	96.8	9.13	146.95	94.3	1,518	2.5	37.9	610	1.3
Non-Hispanic White	78.7	7.47	120.11	94.9	1,526	2.4	39.4	634	1.5
Non-Hispanic Black	12.7	1.28	20.19	101.0	1,588	2.7	37.6	592	3.9
Multi-racial ²	0.9	0.07	1.18	75.6	1,351	2.8	26.8	480	13.5
Other ³	4.5	0.31	5.48	68.2	1,213	3.3	20.7	369	6.3
Hispanic	10.2	0.71	12.20	70.3	1,200	3.3	21.4	365	4.4

¹ Below 150 percent of poverty line or 60 percent of median State income.

² Respondents could select one or more race categories to describe themselves.

³ Includes Native American, Native Alaskan, Asian, and Pacific Islander households.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-5.2u. Total Energy Consumption and Expenditures by Square Feet and Household Demographics, 2001 - Preliminary Data

Household Demographics	Total End-Use Energy								RSE Row Factors
	Households (millions)	Total		Per Household			Per Square Feet		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Square Feet	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	1.3	1.5	1.4	0.8	0.7	0.9	0.8	0.8	
Total Households	107.0	9.84	159.15	92.0	1,488	1,975	46.6	0.75	1.3
Household Size									
1 Person	28.2	1.83	29.40	65.1	1,044	1,433	45.5	0.73	2.2
2 Persons	35.1	3.25	52.12	92.5	1,484	2,079	44.5	0.71	2.0
3 Persons	17.0	1.67	27.41	98.3	1,610	2,100	46.8	0.77	2.8
4 Persons	15.6	1.71	27.94	109.6	1,794	2,343	46.8	0.77	2.9
5 Persons	7.1	0.87	14.16	121.9	1,990	2,317	52.6	0.86	5.3
6 or More Persons	4.0	0.51	8.11	127.7	2,031	2,308	55.3	0.88	5.3
2001 Household Income Category									
Less than \$9,999	11.0	0.72	11.49	65.3	1,042	1,168	55.9	0.89	4.6
\$10,000 to \$14,999	7.7	0.53	8.58	69.6	1,118	1,328	52.4	0.84	4.4
\$15,000 to \$19,999	8.9	0.71	11.38	80.0	1,278	1,494	53.5	0.86	4.3
\$20,000 to \$29,999	14.0	1.16	18.37	83.2	1,315	1,555	53.5	0.85	3.1
\$30,000 to \$39,999	13.9	1.20	19.16	86.1	1,379	1,725	49.9	0.80	3.1
\$40,000 to \$49,999	13.2	1.23	19.99	92.9	1,515	2,068	44.9	0.73	3.6
\$50,000 to \$74,999	21.7	2.21	36.19	101.9	1,671	2,360	43.2	0.71	2.7
\$75,000 to \$99,999	8.1	0.91	14.79	112.6	1,830	2,690	41.9	0.68	4.2
\$100,000 or More	8.6	1.17	19.18	136.6	2,242	3,395	40.2	0.66	4.4
Income Relative to Poverty Line									
Below 100 Percent	15.0	1.06	16.99	70.6	1,135	1,227	57.5	0.92	3.8
100 to 150 Percent	11.5	0.95	15.17	83.0	1,322	1,494	55.6	0.89	3.7
Above 150 Percent	80.5	7.83	126.99	97.3	1,577	2,183	44.6	0.72	1.4
Eligible for Federal Assistance¹									
Yes	33.8	2.70	42.82	79.8	1,267	1,435	55.6	0.88	2.5
No	73.2	7.14	116.33	97.6	1,590	2,225	43.9	0.71	1.5
Age of Householder									
Under 25 Years	6.1	0.40	6.97	65.4	1,136	1,154	56.6	0.98	4.6
25 to 34 Years	16.8	1.39	23.03	82.3	1,368	1,673	49.2	0.82	2.9
35 to 44 Years	22.3	2.22	36.05	99.5	1,613	2,096	47.5	0.77	2.6
45 to 54 Years	20.7	2.16	34.64	104.3	1,672	2,307	45.2	0.72	2.9
55 to 64 Years	14.5	1.41	23.16	97.2	1,594	2,207	44.0	0.72	3.1
65 to 74 Years	12.6	1.11	17.56	88.5	1,393	1,932	45.8	0.72	3.6
75 Years or More	13.8	1.14	17.75	82.7	1,283	1,808	45.7	0.71	3.5
Race of Householder									
Non-Hispanic	96.8	9.13	146.95	94.3	1,518	2,035	46.3	0.75	1.4
Non-Hispanic White	78.7	7.47	120.11	94.9	1,526	2,087	45.5	0.73	1.6
Non-Hispanic Black	12.7	1.28	20.19	101.0	1,588	1,827	55.3	0.87	4.6
Multi-racial ²	0.9	0.07	1.18	75.6	1,351	1,526	49.6	0.89	13.1
Other ³	4.5	0.31	5.48	68.2	1,213	1,808	37.7	0.67	6.8
Hispanic	10.2	0.71	12.20	70.3	1,200	1,407	50.0	0.85	4.2

¹ Below 150 percent of poverty line or 60 percent of median State income.

² Respondents could select one or more race categories to describe themselves.

³ Includes Native American, Native Alaskan, Asian, and Pacific Islander households.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-6.1u. Total Energy Consumption and Expenditures by Household Member and Usage Indicators, 2001 - Preliminary Data

Usage Indicators	Total End-Use Energy								RSE Row Factors
	Households (millions)	Total		Per Household			Per Household Member		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (million Btu)	Expenditures (dollars)	
	RSE Column Factor:	1.5	1.6	1.6	0.7	0.7	0.7	0.9	
Total Households	107.0	9.84	159.15	92.0	1,488	2.6	35.9	580	1.2
Weekday Home Activities									
Home Used for Business									
Yes	7.6	0.86	14.05	114.3	1,858	2.9	39.1	635	4.4
No/Don't Know	99.4	8.98	145.10	90.3	1,459	2.5	35.6	576	1.4
Energy-Intensive Activity									
Yes	1.7	0.19	3.12	113.1	1,832	2.8	41.0	664	9.0
No/Don't Know	105.3	9.65	156.04	91.6	1,482	2.6	35.8	579	1.3
Someone Home All Day									
Yes	53.0	5.16	82.60	97.3	1,558	2.7	35.8	574	1.8
No/Don't Know	54.0	4.68	76.55	86.7	1,418	2.4	36.0	588	1.6
Total Floorspace Category¹ (square feet)									
Fewer than 500	3.9	0.15	2.93	38.7	752	1.8	21.6	419	6.5
500 to 999	21.8	1.19	20.86	54.6	958	2.1	26.3	462	3.0
1,000 to 1,499	22.7	1.70	29.26	75.1	1,290	2.5	30.2	519	2.7
1,500 to 1,999	16.6	1.55	25.20	93.1	1,515	2.7	34.7	565	2.7
2,000 to 2,499	13.5	1.44	22.59	106.8	1,670	2.7	39.3	615	3.1
2,500 to 2,999	9.3	1.08	16.44	116.0	1,763	2.7	42.7	650	3.4
3,000 to 3,499	6.9	0.87	13.63	126.3	1,980	3.1	40.3	632	4.7
3,500 to 3,999	4.1	0.58	8.98	143.4	2,216	3.2	45.0	695	5.4
4,000 or More	8.2	1.27	19.25	154.9	2,347	3.0	51.9	786	3.9
Year of Construction									
1939 or Before	19.0	2.16	30.61	113.9	1,615	2.5	46.0	652	3.4
1940 to 1949	7.6	0.76	11.58	99.7	1,515	2.7	37.5	570	4.9
1950 to 1959	14.2	1.38	20.99	97.3	1,482	2.5	38.9	592	3.1
1960 to 1969	13.8	1.19	19.39	86.4	1,407	2.4	35.6	580	3.4
1970 to 1979	18.8	1.47	25.86	78.5	1,379	2.5	31.4	551	3.2
1980 to 1989	18.2	1.45	26.06	79.3	1,429	2.5	31.7	572	3.4
1990 to 1999	14.5	1.33	22.98	91.5	1,580	2.9	31.3	540	5.4
2000 to 2001 ²	0.9	0.10	1.68	111.7	1,850	3.4	33.1	548	15.3
Housing Unit Type and Number of Bedrooms									
Mobile Home	6.8	0.52	9.09	75.7	1,335	2.6	29.3	517	5.5
Less than 3 Bedrooms	3.7	0.26	4.57	71.2	1,232	2.0	35.4	611	6.4
3 or More Bedrooms	3.1	0.25	4.52	81.1	1,459	3.3	24.9	447	7.0
Single-Family Detached	63.1	6.83	108.50	108.3	1,719	2.7	39.6	628	1.6
Less than 3 Bedrooms	12.3	1.04	16.45	85.2	1,343	2.0	43.1	679	3.2
3 Bedrooms	33.5	3.41	54.26	101.6	1,619	2.7	38.2	608	2.2
4 Bedrooms	14.4	1.86	29.74	129.8	2,072	3.3	38.9	621	3.2
5 or More Bedrooms	3.0	0.52	8.04	175.7	2,714	3.8	46.0	711	7.8
Single-Family Attached	10.6	1.06	16.18	100.3	1,528	2.7	37.5	571	5.0
Less than 3 Bedrooms	3.9	0.31	4.72	79.2	1,206	2.1	38.1	581	8.2
3 Bedrooms	4.6	0.46	7.36	100.8	1,608	2.7	37.2	594	6.2
4 or More Bedrooms	2.1	0.29	4.10	138.9	1,956	3.7	37.1	523	9.8
Apartments (2 to 4 units) ...	9.5	0.74	11.92	77.9	1,256	2.3	34.2	552	5.1
Less than 2 Bedrooms	2.6	0.15	2.33	57.5	895	1.7	33.8	526	10.8
2 Bedrooms	5.0	0.38	6.35	74.9	1,260	2.1	34.9	588	5.3
3 or More Bedrooms	1.8	0.21	3.24	114.8	1,753	3.4	33.3	509	10.0

See footnotes at end of table.

Table CE1-6.1u. Total Energy Consumption and Expenditures by Household Member and Usage Indicators, 2001 - Preliminary Data (Continued)

Usage Indicators	Total End-Use Energy								RSE Row Factors
	Households (millions)	Total		Per Household			Per Household Member		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	1.5	1.6	1.6	0.7	0.7	0.7	0.9	0.8	
Apartments (5 or more units)	17.0	0.69	13.46	40.5	792	2.0	20.3	396	4.3
Less than 2 Bedrooms	8.5	0.27	5.31	32.2	623	1.5	21.0	407	5.1
2 Bedrooms	7.0	0.33	6.38	47.3	909	2.3	20.7	398	6.9
3 or More Bedrooms	1.5	0.08	1.77	56.8	1,213	3.3	17.0	363	11.3

¹ Does **not** include floorspace for unheated garages.

² New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-6.2u. Total Energy Consumption and Expenditures by Square Feet and Usage Indicators, 2001 - Preliminary Data

Usage Indicators	Total End-Use Energy								RSE Row Factors
	Households (million)	Total		Per Household			Per Square Feet		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Square Feet	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	1.6	1.7	1.7	0.8	0.7	0.7	0.8	0.7	
Total Households	107.0	9.84	159.15	92.0	1,488	1,975	46.6	0.75	1.4
Weekday Home Activities									
Home Used for Business									
Yes	7.6	0.86	14.05	114.3	1,858	2,586	44.2	0.72	4.4
No/Don't Know	99.4	8.98	145.10	90.3	1,459	1,929	46.8	0.76	1.5
Energy-Intensive Activity									
Yes	1.7	0.19	3.12	113.1	1,832	2,529	44.7	0.72	8.2
No/Don't Know	105.3	9.65	156.04	91.6	1,482	1,966	46.6	0.75	1.4
Someone Home All Day									
Yes	53.0	5.16	82.60	97.3	1,558	2,065	47.1	0.75	1.9
No/Don't Know	54.0	4.68	76.55	86.7	1,418	1,887	46.0	0.75	1.7
Total Floorspace Category¹ (square feet)									
Fewer than 500	3.9	0.15	2.93	38.7	752	402	96.3	1.87	5.3
500 to 999	21.8	1.19	20.86	54.6	958	770	70.8	1.24	2.6
1,000 to 1,499	22.7	1.70	29.26	75.1	1,290	1,232	61.0	1.05	2.3
1,500 to 1,999	16.6	1.55	25.20	93.1	1,515	1,737	53.6	0.87	2.5
2,000 to 2,499	13.5	1.44	22.59	106.8	1,670	2,227	48.0	0.75	2.8
2,500 to 2,999	9.3	1.08	16.44	116.0	1,763	2,733	42.4	0.65	2.9
3,000 to 3,499	6.9	0.87	13.63	126.3	1,980	3,226	39.2	0.61	4.4
3,500 to 3,999	4.1	0.58	8.98	143.4	2,216	3,697	38.8	0.60	4.7
4,000 or More	8.2	1.27	19.25	154.9	2,347	5,280	29.3	0.44	3.6
Year of Construction									
1939 or Before	19.0	2.16	30.61	113.9	1,615	2,034	56.0	0.79	3.2
1940 to 1949	7.6	0.76	11.58	99.7	1,515	1,853	53.8	0.82	4.9
1950 to 1959	14.2	1.38	20.99	97.3	1,482	2,004	48.5	0.74	3.2
1960 to 1969	13.8	1.19	19.39	86.4	1,407	1,836	47.1	0.77	3.4
1970 to 1979	18.8	1.47	25.86	78.5	1,379	1,737	45.2	0.79	3.3
1980 to 1989	18.2	1.45	26.06	79.3	1,429	1,925	41.2	0.74	3.5
1990 to 1999	14.5	1.33	22.98	91.5	1,580	2,370	38.6	0.67	5.5
2000 to 2001 ²	0.9	0.10	1.68	111.7	1,850	3,036	36.8	0.61	16.2
Housing Unit Type and Number of Bedrooms									
Mobile Home	6.8	0.52	9.09	75.7	1,335	1,055	71.8	1.27	5.1
Less than 3 Bedrooms	3.7	0.26	4.57	71.2	1,232	835	85.4	1.48	5.7
3 or More Bedrooms	3.1	0.25	4.52	81.1	1,459	1,319	61.5	1.11	6.7
Single-Family Detached	63.1	6.83	108.50	108.3	1,719	2,428	44.6	0.71	1.7
Less than 3 Bedrooms	12.3	1.04	16.45	85.2	1,343	1,611	52.9	0.83	3.3
3 Bedrooms	33.5	3.41	54.26	101.6	1,619	2,288	44.4	0.71	2.3
4 Bedrooms	14.4	1.86	29.74	129.8	2,072	3,064	42.4	0.68	3.2
5 or More Bedrooms	3.0	0.52	8.04	175.7	2,714	4,305	40.8	0.63	7.2
Single-Family Attached	10.6	1.06	16.18	100.3	1,528	2,201	45.6	0.69	4.8
Less than 3 Bedrooms	3.9	0.31	4.72	79.2	1,206	1,548	51.2	0.78	7.5
3 Bedrooms	4.6	0.46	7.36	100.8	1,608	2,304	43.7	0.70	6.1
4 or More Bedrooms	2.1	0.29	4.10	138.9	1,956	3,193	43.5	0.61	7.8
Apartments (2 to 4 units) ...	9.5	0.74	11.92	77.9	1,256	1,393	55.9	0.90	4.7
Less than 2 Bedrooms	2.6	0.15	2.33	57.5	895	899	64.0	1.00	8.6
2 Bedrooms	5.0	0.38	6.35	74.9	1,260	1,403	53.4	0.90	5.3
3 or More Bedrooms	1.8	0.21	3.24	114.8	1,753	2,061	55.7	0.85	10.5

See footnotes at end of table.

Table CE1-6.2u. Total Energy Consumption and Expenditures by Square Feet and Usage Indicators, 2001 - Preliminary Data (Continued)

Usage Indicators	Total End-Use Energy								RSE Row Factors
	Households (million)	Total		Per Household			Per Square Feet		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Square Feet	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	1.6	1.7	1.7	0.8	0.7	0.7	0.8	0.7	
Apartments (5 or more units)	17.0	0.69	13.46	40.5	792	847	47.9	0.93	4.0
Less than 2 Bedrooms	8.5	0.27	5.31	32.2	623	637	50.5	0.98	4.4
2 Bedrooms	7.0	0.33	6.38	47.3	909	1,009	46.9	0.90	6.3
3 or More Bedrooms	1.5	0.08	1.77	56.8	1,213	1,294	43.9	0.94	10.5

¹ Does **not** include floorspace for unheated garages.

² New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-7c. Total Energy Consumption in U.S. Households by Four Most Populated States, 2001 - Preliminary Data

	Four Most Populated States					RSE Row Factors
	Total U.S.	New York	California	Texas	Florida	
	0.4	1.1	1.0	1.5	1.5	
Million Households						
Total U.S. Households	107.0	7.1	12.3	7.7	6.3	NF
Number of Households, Fuels Used (more than one may apply):						
Electricity ¹	107.0	7.1	12.3	7.7	6.3	NF
Natural Gas	66.9	5.4	10.5	4.9	1.3	4.1
Fuel Oil	8.7	2.2	Q	Q	Q	19.6
Kerosene	2.9	0.2	0.3	Q	Q	24.6
LPG	9.4	0.5	0.7	0.3	0.4	24.0
Wood	14.5	0.7	2.3	1.1	0.5	17.3
Quadrillion Btu						
Total Btu Consumption, Fuels Used:						
Electricity						
Primary	11.56	0.43	0.75	1.17	0.97	4.6
Site	3.87	0.14	0.25	0.39	0.33	4.6
Natural Gas	4.84	0.39	0.49	0.28	0.03	9.4
Fuel Oil	0.71	0.16	Q	Q	Q	22.6
Kerosene	0.05	(*)	0.01	Q	Q	31.6
LPG	0.37	0.01	0.02	0.01	(*)	29.5
Wood	0.37	0.06	0.04	0.01	(*)	21.8
Total (excludes primary electricity and wood)	9.84	0.70	0.77	0.68	0.36	3.1
Physical Units						
Physical Units of Total Consumption, Fuels Used:						
Electricity (billion kWh)	1,134	42	74	115	95	4.6
Natural Gas (billion cf)	4,708	378	475	271	33	9.4
Fuel Oil (million gallons)	5,105	1,123	Q	Q	Q	22.6
Kerosene (million gallons)	351	29	41	Q	Q	31.7
LPG (million gallons)	4,093	91	234	96	43	29.5
Wood (million cords)	18.7	2.8	1.8	0.6	0.2	21.8
Million Btu per Household²						
Total Btu Consumption per Household, Fuels Used:						
Electricity						
Primary	108.1	60.9	61.0	152.4	153.8	4.6
Site	36.2	20.4	20.4	51.0	51.4	4.6
Natural Gas	72.4	71.4	46.3	57.0	26.3	6.6
Fuel Oil	81.7	70.9	Q	Q	Q	5.4
Kerosene	16.2	22.0	20.5	Q	Q	31.9
LPG	39.9	Q	31.2	30.4	10.6	18.1
Wood	25.9	80.5	15.3	11.1	8.9	15.9
Total (excludes primary electricity and wood)	92.0	99.0	62.4	88.5	57.5	3.1

See footnotes at end of table.

Table CE1-7c. Total Energy Consumption in U.S. Households by Four Most Populated States, 2001 - Preliminary Data (Continued)

	Four Most Populated States					RSE Row Factors
	Total U.S.	New York	California	Texas	Florida	
RSE Column Factor:	0.4	1.1	1.0	1.5	1.5	
Physical Units per Household²						
Physical Units of Total Consumption per Household, Fuels Used:						
Electricity (kWh)	10,598	5,973	5,978	14,942	15,078	4.6
Natural Gas (thousand cf)	70	69	45	55	26	6.6
Fuel Oil (gallons)	589	511	Q	Q	Q	5.4
Kerosene (gallons)	120	163	151	Q	Q	32.0
LPG (gallons)	437	Q	342	333	116	18.1
Wood (cords)	1.3	4.0	0.8	0.6	0.4	15.9
Million Households						
Number of Households, Where the End Use Is:						
Space Heating ³	105.3	7.0	11.8	7.7	6.2	0.7
Electric Air-Conditioning ⁴	80.8	4.7	5.2	7.4	6.1	2.6
Water Heating ⁵	106.7	7.0	12.2	7.6	6.3	NF
Refrigerators	106.8	7.1	12.3	7.7	6.3	NF
Appliances	107.0	7.1	12.3	7.7	6.3	NF
Quadrillion Btu						
Total Btu Consumption, Where the End Use Is:						
Space Heating	4.60	0.41	0.26	0.20	0.03	6.8
Electric Air-Conditioning	0.62	0.01	0.02	0.11	0.10	8.2
Water Heating	1.70	0.13	0.20	0.12	0.06	3.5
Refrigerators	0.55	0.03	0.05	0.05	0.04	3.7
Other Appliances and Lighting	2.37	0.13	0.24	0.20	0.14	3.2
Million Btu per Household²						
Total Btu Consumption per Household, Where the End Use Is:						
Space Heating	43.7	58.3	22.4	25.5	5.0	6.9
Electric Air-Conditioning	7.7	2.4	3.3	14.9	15.7	6.7
Water Heating	15.9	18.1	16.3	16.2	10.2	3.5
Refrigerators	5.1	3.9	3.9	6.6	5.9	3.6
Other Appliances and Lighting	22.2	18.3	19.6	25.9	21.5	3.2

¹ The RECS cannot be used to accurately estimate the number of households that do not use electricity.
² The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.
³ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
⁴ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.
⁵ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
(*) = Value rounds to zero in the units displayed.
Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.
Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.
NF = No applicable RSE row factor.

**Table CE1-8c. Total Energy Consumption in U.S. Households
by Urban/Rural Location, 2001 - Preliminary Data**

	Urban/Rural Location ¹					RSE Row Factors
	Total	City	Town	Suburbs	Rural	
	0.5	0.9	1.4	1.3	1.2	
Million Households						
Total U.S. Households	107.0	49.9	18.0	21.2	17.9	4.2
Number of Households, Fuels Used (more than one may apply):						
Electricity ²	107.0	49.9	18.0	21.2	17.9	4.2
Natural Gas	66.9	37.4	11.2	14.4	3.9	5.5
Fuel Oil	8.7	2.6	2.1	1.4	2.6	13.3
Kerosene	2.9	0.5	0.6	0.4	1.4	20.1
LPG	9.4	0.9	1.6	0.8	6.1	14.9
Wood	14.5	3.9	2.4	3.2	5.1	9.4
Quadrillion Btu						
Total Btu Consumption, Fuels Used:						
Electricity						
Primary	11.56	4.51	1.90	2.58	2.57	4.4
Site	3.87	1.51	0.63	0.86	0.86	4.4
Natural Gas	4.84	2.51	0.87	1.15	0.31	6.8
Fuel Oil	0.71	0.18	0.19	0.12	0.22	14.6
Kerosene	0.05	(*)	0.01	Q	0.03	29.1
LPG	0.37	0.02	0.07	0.03	0.26	20.2
Wood	0.37	0.05	0.06	0.04	0.23	15.1
Total (excludes primary electricity and wood)	9.84	4.22	1.77	2.17	1.68	4.1
Physical Units						
Physical Units of Total Consumption, Fuels Used:						
Electricity (billion kWh)	1,134	443	186	253	252	4.4
Natural Gas (billion cf)	4,708	2,438	848	1,121	302	6.8
Fuel Oil (million gallons)	5,105	1,277	1,352	878	1,598	14.6
Kerosene (million gallons)	351	30	56	Q	238	29.1
LPG (million gallons)	4,093	259	726	311	2,796	20.2
Wood (million cords)	18.7	2.3	2.9	2.0	11.5	15.1
Million Btu per Household³						
Total Btu Consumption per Household, Fuels Used:						
Electricity						
Primary	108.1	90.5	105.1	121.8	143.9	2.4
Site	36.2	30.3	35.2	40.7	48.1	2.4
Natural Gas	72.4	67.1	77.6	80.2	79.0	3.2
Fuel Oil	81.7	68.3	88.5	88.1	86.2	5.4
Kerosene	16.2	7.7	13.7	Q	22.2	21.7
LPG	39.9	25.9	42.7	35.4	41.9	11.5
Wood	25.9	11.7	24.6	12.7	45.6	11.9
Total (excludes primary electricity and wood)	92.0	84.7	98.0	102.3	93.9	2.1

See footnotes at end of table.

Table CE1-8c. Total Energy Consumption in U.S. Households by Urban/Rural Location, 2001 - Preliminary Data (Continued)

	Urban/Rural Location ¹					RSE Row Factors
	Total	City	Town	Suburbs	Rural	
RSE Column Factor:	0.5	0.9	1.4	1.3	1.2	
Physical Units per Household³						
Physical Units of Total Consumption per Household, Fuels Used:						
Electricity (kWh)	10,598	8,877	10,307	11,936	14,111	2.4
Natural Gas (thousand cf)	70	65	75	78	77	3.2
Fuel Oil (gallons)	589	493	638	635	622	5.4
Kerosene (gallons)	120	57	102	Q	165	21.7
LPG (gallons)	437	284	468	387	459	11.5
Wood (cords)	1.3	0.6	1.2	0.6	2.3	11.9
Million Households						
Number of Households, Where the End Use Is:						
Space Heating ⁴	105.3	48.9	17.9	21.1	17.3	4.2
Electric Air-Conditioning ⁵	80.8	35.6	13.4	18.6	13.3	4.3
Water Heating ⁶	106.7	49.7	18.0	21.2	17.8	4.2
Refrigerators	106.8	49.7	18.0	21.2	17.8	4.2
Appliances	107.0	49.9	18.0	21.2	17.9	4.2
Quadrillion Btu						
Total Btu Consumption, Where the End Use Is:						
Space Heating	4.60	1.98	0.90	0.97	0.76	5.1
Electric Air-Conditioning	0.62	0.26	0.08	0.17	0.11	6.1
Water Heating	1.70	0.78	0.29	0.38	0.26	3.9
Refrigerators	0.55	0.23	0.09	0.12	0.10	4.2
Other Appliances and Lighting	2.37	0.98	0.40	0.54	0.45	4.4
Million Btu per Household³						
Total Btu Consumption per Household, Where the End Use Is:						
Space Heating	43.7	40.4	50.1	45.7	43.9	3.4
Electric Air-Conditioning	7.7	7.2	6.3	9.3	8.3	4.2
Water Heating	15.9	15.6	16.2	17.7	14.4	2.1
Refrigerators	5.1	4.7	5.1	5.6	5.7	2.2
Other Appliances and Lighting	22.2	19.7	22.2	25.4	25.3	2.4

¹ Based on the household respondent's description rather than the Federal Government definition.
² The RECS cannot be used to accurately estimate the number of households that do not use electricity.
³ The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.
⁴ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
⁵ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.
⁶ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
(*) = Value rounds to zero in the units displayed.
Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.
Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-9c. Total Energy Consumption in U.S. Households by Northeast Census Region, 2001 - Preliminary Data

	Northeast Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	Middle Atlantic	New England	
			0.5	1.0	
RSE Column Factor:					
Million Households					
Total U.S. Households	107.0	20.3	14.8	5.4	NF
Number of Households, Fuels Used (more than one may apply):					
Electricity ¹	107.0	20.3	14.8	5.4	NF
Natural Gas	66.9	12.5	10.3	2.3	7.5
Fuel Oil	8.7	6.6	3.9	2.7	12.4
Kerosene	2.9	0.7	0.4	Q	24.0
LPG	9.4	1.7	1.0	0.7	16.7
Wood	14.5	2.3	1.3	0.9	13.1
Quadrillion Btu					
Total Btu Consumption, Fuels Used:					
Electricity					
Primary	11.56	1.56	1.17	0.39	3.6
Site	3.87	0.52	0.39	0.13	3.6
Natural Gas	4.84	0.98	0.79	0.19	10.0
Fuel Oil	0.71	0.58	0.30	0.27	14.3
Kerosene	0.05	0.02	0.01	Q	32.5
LPG	0.37	0.05	0.03	0.02	22.2
Wood	0.37	0.10	0.08	0.03	17.0
Total (excludes primary electricity and wood)	9.84	2.15	1.53	0.62	2.4
Physical Units					
Physical Units of Total Consumption, Fuels Used:					
Electricity (billion kWh)	1,134	153	115	38	3.6
Natural Gas (billion cf)	4,708	954	772	181	10.0
Fuel Oil (million gallons)	5,105	4,166	2,196	1,969	14.3
Kerosene (million gallons)	351	155	100	Q	32.5
LPG (million gallons)	4,093	568	299	269	22.2
Wood (million cords)	18.7	5.1	3.8	1.3	17.0
Million Btu per Household²					
Total Btu Consumption per Household, Fuels Used:					
Electricity					
Primary	108.1	76.9	78.8	71.7	3.6
Site	36.2	25.7	26.4	24.0	3.6
Natural Gas	72.4	78.3	77.4	82.5	4.7
Fuel Oil	81.7	87.3	78.8	99.3	4.2
Kerosene	16.2	30.1	33.1	25.8	19.2
LPG	39.9	30.1	27.6	33.4	17.9
Wood	25.9	44.9	56.7	27.9	10.8
Total (excludes primary electricity and wood)	92.0	106.3	103.2	114.9	2.4

See footnotes at end of table.

Table CE1-9c. Total Energy Consumption in U.S. Households by Northeast Census Region, 2001 - Preliminary Data (Continued)

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.5	1.0	1.2	1.7	
Physical Units per Household²					
Physical Units of Total Consumption per Household, Fuels Used:					
Electricity (kWh)	10,598	7,539	7,723	7,034	3.6
Natural Gas (thousand cf)	70	76	75	80	4.7
Fuel Oil (gallons)	589	630	568	716	4.2
Kerosene (gallons)	120	223	245	191	19.2
LPG (gallons)	437	329	302	365	17.9
Wood (cords)	1.3	2.2	2.8	1.4	10.8
Million Households					
Number of Households, Where the End Use Is:					
Space Heating ³	105.3	19.9	14.6	5.3	NF
Electric Air-Conditioning ⁴	80.8	14.2	11.1	3.2	3.4
Water Heating ⁵	106.7	20.2	14.8	5.4	NF
Refrigerators	106.8	20.2	14.8	5.4	NF
Appliances	107.0	20.3	14.8	5.4	NF
Quadrillion Btu					
Total Btu Consumption, Where the End Use Is:					
Space Heating	4.60	1.25	0.87	0.38	3.0
Electric Air-Conditioning	0.62	0.05	0.04	0.01	8.4
Water Heating	1.70	0.37	0.26	0.11	2.5
Refrigerators	0.55	0.09	0.07	0.02	2.4
Other Appliances and Lighting	2.37	0.40	0.30	0.10	3.7
Million Btu per Household²					
Total Btu Consumption per Household, Where the End Use Is:					
Space Heating	43.7	62.9	59.8	71.3	3.0
Electric Air-Conditioning	7.7	3.2	3.4	2.7	7.0
Water Heating	15.9	18.1	17.5	19.7	2.6
Refrigerators	5.1	4.4	4.5	4.1	2.4
Other Appliances and Lighting	22.2	19.8	20.0	19.1	3.7

¹ The RECS cannot be used to accurately estimate the number of households that do not use electricity.
² The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.
³ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
⁴ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.
⁵ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
 NF = No applicable RSE row factor.
 Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.
 Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.
 Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-10c. Total Energy Consumption in U.S. Households by Midwest Census Region, 2001 - Preliminary Data

	Midwest Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	East North Central	West North Central	
			0.5	1.0	
RSE Column Factor:					
Million Households					
Total U.S. Households	107.0	24.5	17.1	7.4	NF
Number of Households, Fuels Used (more than one may apply):					
Electricity ¹	107.0	24.5	17.1	7.4	NF
Natural Gas	66.9	19.4	14.2	5.2	3.9
Fuel Oil	8.7	0.9	0.5	0.4	15.2
Kerosene	2.9	0.5	0.4	Q	14.6
LPG	9.4	2.3	1.1	1.2	22.0
Wood	14.5	2.5	1.4	1.1	13.1
Quadrillion Btu					
Total Btu Consumption, Fuels Used:					
Electricity					
Primary	11.56	2.43	1.59	0.84	2.4
Site	3.87	0.81	0.53	0.28	2.4
Natural Gas	4.84	1.84	1.39	0.44	5.0
Fuel Oil	0.71	0.06	0.03	0.03	18.8
Kerosene	0.05	(*)	Q	Q	35.3
LPG	0.37	0.15	0.07	0.08	23.1
Wood	0.37	0.09	0.06	0.03	27.7
Total (excludes primary electricity and wood)	9.84	2.86	2.03	0.83	2.2
Physical Units					
Physical Units of Total Consumption, Fuels Used:					
Electricity (billion kWh)	1,134	238	156	82	2.4
Natural Gas (billion cf)	4,708	1,784	1,352	432	5.0
Fuel Oil (million gallons)	5,105	437	234	203	18.9
Kerosene (million gallons)	351	23	Q	Q	35.3
LPG (million gallons)	4,093	1,588	740	847	23.1
Wood (million cords)	18.7	4.6	3.0	1.6	27.7
Million Btu per Household²					
Total Btu Consumption per Household, Fuels Used:					
Electricity					
Primary	108.1	99.1	93.2	112.9	2.4
Site	36.2	33.2	31.2	37.8	2.4
Natural Gas	72.4	94.7	98.2	85.0	2.8
Fuel Oil	81.7	68.4	63.3	75.4	11.0
Kerosene	16.2	6.5	Q	Q	29.9
LPG	39.9	62.9	61.2	64.5	7.1
Wood	25.9	36.7	42.3	29.3	18.4
Total (excludes primary electricity and wood)	92.0	116.6	118.6	112.2	2.2

See footnotes at end of table.

Table CE1-10c. Total Energy Consumption in U.S. Households by Midwest Census Region, 2001 - Preliminary Data (Continued)

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
RSE Column Factor:	0.5	1.0	1.2	1.5	
Physical Units per Household²					
Physical Units of Total Consumption per Household, Fuels Used:					
Electricity (kWh)	10,598	9,716	9,132	11,066	2.4
Natural Gas (thousand cf)	70	92	95	83	2.8
Fuel Oil (gallons)	589	494	456	546	11.0
Kerosene (gallons)	120	48	Q	Q	29.9
LPG (gallons)	437	689	670	706	7.1
Wood (cords)	1.3	1.8	2.1	1.5	18.4
Million Households					
Number of Households, Where the End Use Is:					
Space Heating ³	105.3	24.4	17.0	7.3	NF
Electric Air-Conditioning ⁴	80.8	20.2	13.4	6.7	2.3
Water Heating ⁵	106.7	24.5	17.1	7.4	NF
Refrigerators	106.8	24.5	17.1	7.4	NF
Appliances	107.0	24.5	17.1	7.4	NF
Quadrillion Btu					
Total Btu Consumption, Where the End Use Is:					
Space Heating	4.60	1.62	1.17	0.45	3.1
Electric Air-Conditioning	0.62	0.10	0.06	0.04	5.2
Water Heating	1.70	0.43	0.30	0.13	2.5
Refrigerators	0.55	0.13	0.09	0.04	2.1
Other Appliances and Lighting	2.37	0.57	0.40	0.17	2.0
Million Btu per Household²					
Total Btu Consumption per Household, Where the End Use Is:					
Space Heating	43.7	66.7	69.0	61.4	3.0
Electric Air-Conditioning	7.7	5.2	4.7	6.2	4.5
Water Heating	15.9	17.5	17.8	16.9	2.5
Refrigerators	5.1	5.2	5.1	5.5	2.1
Other Appliances and Lighting	22.2	23.3	23.4	23.2	2.0

¹ The RECS cannot be used to accurately estimate the number of households that do not use electricity.
² The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.
³ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
⁴ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.
⁵ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
 (*) = Value rounds to zero in the units displayed.
 NF = No applicable RSE row factor.
 Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.
 Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.
 Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE1-11c. Total Energy Consumption in U.S. Households
by South Census Region, 2001 - Preliminary Data**

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			West south Central	
		Total	South Atlantic	East South Central		
RSE Column Factor:	0.5	0.8	1.2	1.5	1.5	
Million Households						
Total U.S. Households	107.0	38.9	20.3	6.8	11.8	NF
Number of Households, Fuels Used (more than one may apply):						
Electricity ¹	107.0	38.9	20.3	6.8	11.8	NF
Natural Gas	66.9	18.7	8.0	2.9	7.8	7.0
Fuel Oil	8.7	0.9	0.9	Q	Q	30.6
Kerosene	2.9	1.4	1.0	0.3	Q	19.3
LPG	9.4	3.8	2.1	1.3	0.5	16.6
Wood	14.5	5.2	2.8	0.9	1.5	11.2
Quadrillion Btu						
Total Btu Consumption, Fuels Used:						
Electricity						
Primary	11.56	5.62	2.82	1.08	1.72	3.1
Site	3.87	1.88	0.94	0.36	0.57	3.1
Natural Gas	4.84	1.13	0.49	0.18	0.46	9.1
Fuel Oil	0.71	0.06	0.06	Q	Q	33.2
Kerosene	0.05	0.02	0.01	(*)	Q	32.8
LPG	0.37	0.12	0.06	0.04	0.02	22.7
Wood	0.37	0.09	0.05	0.02	0.02	20.7
Total (excludes primary electricity and wood)	9.84	3.20	1.56	0.59	1.05	3.1
Physical Units						
Physical Units of Total Consumption, Fuels Used:						
Electricity (billion kWh)	1,134	551	277	106	168	3.1
Natural Gas (billion cf)	4,708	1,096	476	175	445	9.1
Fuel Oil (million gallons)	5,105	419	398	Q	Q	33.2
Kerosene (million gallons)	351	129	93	36	Q	32.8
LPG (million gallons)	4,093	1,288	641	454	193	22.7
Wood (million cords)	18.7	4.3	2.3	1.0	1.0	20.7
Million Btu per Household²						
Total Btu Consumption per Household, Fuels Used:						
Electricity						
Primary	108.1	144.4	139.2	158.0	145.3	3.1
Site	36.2	48.3	46.6	52.9	48.6	3.1
Natural Gas	72.4	60.4	61.2	61.6	59.1	4.7
Fuel Oil	81.7	61.6	64.2	Q	Q	13.6
Kerosene	16.2	12.5	13.0	14.4	Q	23.2
LPG	39.9	30.6	28.4	31.5	37.3	12.8
Wood	25.9	16.7	16.6	22.8	13.3	14.4
Total (excludes primary electricity and wood)	92.0	82.2	76.8	86.5	89.0	3.1

See footnotes at end of table.

**Table CE1-11c. Total Energy Consumption in U.S. Households
by South Census Region, 2001 - Preliminary Data (Continued)**

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			RSE Row Factors	
		Total	South Atlantic	East South Central		
RSE Column Factor:	0.5	0.8	1.2	1.5	1.5	
Physical Units per Household²						
Physical Units of Total Consumption per Household, Fuels Used:						
Electricity (kWh)	10,598	14,153	13,647	15,492	14,247	3.1
Natural Gas (thousand cf)	70	59	59	60	57	4.7
Fuel Oil (gallons)	589	445	463	Q	Q	13.6
Kerosene (gallons)	120	93	96	107	Q	23.2
LPG (gallons)	437	335	311	345	408	12.8
Wood (cords)	1.3	0.8	0.8	1.1	0.7	14.4
Million Households						
Number of Households, Where the End Use Is:						
Space Heating ³	105.3	38.7	20.0	6.8	11.8	NF
Electric Air-Conditioning ⁴	80.8	36.9	19.0	6.4	11.5	1.6
Water Heating ⁵	106.7	38.9	20.3	6.8	11.8	NF
Refrigerators	106.8	38.9	20.3	6.8	11.8	NF
Appliances	107.0	38.9	20.3	6.8	11.8	NF
Quadrillion Btu						
Total Btu Consumption, Where the End Use Is:						
Space Heating	4.60	1.06	0.51	0.22	0.33	6.6
Electric Air-Conditioning	0.62	0.42	0.20	0.06	0.16	4.1
Water Heating	1.70	0.55	0.27	0.09	0.19	3.0
Refrigerators	0.55	0.23	0.11	0.04	0.08	2.9
Other Appliances and Lighting	2.37	0.93	0.47	0.17	0.30	2.3
Million Btu per Household²						
Total Btu Consumption per Household, Where the End Use Is:						
Space Heating	43.7	27.5	25.6	32.7	27.6	6.6
Electric Air-Conditioning	7.7	11.5	10.6	10.1	13.8	3.5
Water Heating	15.9	14.2	13.2	13.6	16.4	3.0
Refrigerators	5.1	5.9	5.5	6.0	6.4	2.9
Other Appliances and Lighting	22.2	24.0	23.0	24.8	25.3	2.3

¹ The RECS cannot be used to accurately estimate the number of households that do not use electricity.

² The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

³ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

⁴ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

⁵ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

(*) = Value rounds to zero in the units displayed.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE1-12c. Total Energy Consumption in U.S. Households
by West Census Region, 2001 - Preliminary Data**

	West Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	Mountain	Pacific	
			0.5	1.1	
RSE Column Factor:					
Million Households					
Total U.S. Households	107.0	23.3	6.7	16.6	NF
Number of Households, Fuels Used (more than one may apply):					
Electricity ¹	107.0	23.3	6.7	16.6	NF
Natural Gas	66.9	16.3	4.7	11.6	2.6
Fuel Oil	8.7	0.2	Q	0.2	23.7
Kerosene	2.9	0.4	Q	0.3	17.4
LPG	9.4	1.5	0.5	1.0	17.4
Wood	14.5	4.6	1.0	3.5	10.4
Quadrillion Btu					
Total Btu Consumption, Fuels Used:					
Electricity					
Primary	11.56	1.96	0.68	1.29	3.0
Site	3.87	0.66	0.23	0.43	3.0
Natural Gas	4.84	0.90	0.33	0.57	4.6
Fuel Oil	0.71	0.01	Q	0.01	31.2
Kerosene	0.05	0.01	Q	0.01	35.5
LPG	0.37	0.06	0.03	0.03	24.0
Wood	0.37	0.10	0.02	0.08	17.8
Total (excludes primary electricity and wood)	9.84	1.63	0.58	1.05	2.9
Physical Units					
Physical Units of Total Consumption, Fuels Used:					
Electricity (billion kWh)	1,134	192	66	126	3.0
Natural Gas (billion cf)	4,708	873	317	556	4.6
Fuel Oil (million gallons)	5,105	84	Q	72	31.2
Kerosene (million gallons)	351	45	Q	45	35.5
LPG (million gallons)	4,093	650	339	311	24.0
Wood (million cords)	18.7	4.8	1.0	3.8	17.8
Million Btu per Household²					
Total Btu Consumption per Household, Fuels Used:					
Electricity					
Primary	108.1	84.2	100.5	77.5	3.0
Site	36.2	28.2	33.6	25.9	3.0
Natural Gas	72.4	55.0	68.8	49.4	3.5
Fuel Oil	81.7	52.8	Q	50.8	14.1
Kerosene	16.2	16.7	Q	17.7	29.1
LPG	39.9	39.8	57.9	29.7	11.8
Wood	25.9	20.9	19.1	21.5	14.1
Total (excludes primary electricity and wood)	92.0	70.0	87.0	63.1	2.9

See footnotes at end of table.

Table CE1-12c. Total Energy Consumption in U.S. Households by West Census Region, 2001 - Preliminary Data (Continued)

	West Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	Mountain	Pacific	
RSE Column Factor:	0.5	1.1	1.5	1.3	
Physical Units per Household²					
Physical Units of Total Consumption per Household, Fuels Used:					
Electricity (kWh)	10,598	8,251	9,854	7,601	3.0
Natural Gas (thousand cf)	70	53	67	48	3.5
Fuel Oil (gallons)	589	381	Q	367	14.1
Kerosene (gallons)	120	124	Q	131	29.1
LPG (gallons)	437	436	634	325	11.8
Wood (cords)	1.3	1.0	1.0	1.1	14.1
Million Households					
Number of Households, Where the End Use Is:					
Space Heating ³	105.3	22.4	6.7	15.7	NF
Electric Air-Conditioning ⁴	80.8	9.6	3.2	6.3	7.2
Water Heating ⁵	106.7	23.2	6.7	16.5	NF
Refrigerators	106.8	23.2	6.7	16.5	NF
Appliances	107.0	23.3	6.7	16.6	NF
Quadrillion Btu					
Total Btu Consumption, Where the End Use Is:					
Space Heating	4.60	0.66	0.27	0.39	4.7
Electric Air-Conditioning	0.62	0.05	0.03	0.02	9.5
Water Heating	1.70	0.35	0.11	0.25	2.5
Refrigerators	0.55	0.10	0.03	0.07	2.6
Other Appliances and Lighting	2.37	0.46	0.14	0.32	2.8
Million Btu per Household²					
Total Btu Consumption per Household, Where the End Use Is:					
Space Heating	43.7	29.4	40.9	24.6	4.7
Electric Air-Conditioning	7.7	5.4	9.6	3.2	7.3
Water Heating	15.9	15.3	16.0	15.1	2.4
Refrigerators	5.1	4.4	5.1	4.2	2.5
Other Appliances and Lighting	22.2	19.9	20.8	19.6	2.8

¹ The RECS cannot be used to accurately estimate the number of households that do not use electricity.
² The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.
³ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
⁴ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.
⁵ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
 NF = No applicable RSE row factor.
 Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.
 Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.
 Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

2001 Consumption and Expenditures Tables

Total Consumption Tables

(26 pages, 123 kb)

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These data are from the 2001 Residential Energy Consumption Survey (RECS) which provides information on the use of energy in residential housing units in the United States. The RECS is a national statistical survey that collects energy-related data for occupied primary housing units. RECS was first conducted in 1978; the twelfth and most recent survey was conducted in 2001. In the 2001 RECS, data were collected from a sample of 4,822 households in housing units statistically selected to represent the 107.0 million housing units in the United States. The RECS data are available for the four Census regions, the nine Census divisions, and for the four most populous States--California, Florida, New York, and Texas.

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World Wide Web: <http://www.eia.doe.gov/emeu/consumption>

Table CE1-1c. Total Energy Consumption in U.S. Households by Climate Zone, 2001

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
		RSE Column Factor:	0.4	1.7	1.1	1.1	
Million Households							
Total U.S. Households	107.0	9.2	28.6	24.0	21.0	24.1	7.9
Number of Households, Fuels Used (more than one may apply):							
Electricity ²	107.0	9.2	28.6	24.0	21.0	24.1	7.9
Natural Gas	66.9	4.9	21.2	14.9	13.8	12.1	8.6
Fuel Oil	8.7	1.8	2.9	3.7	Q	Q	17.0
Kerosene	2.9	0.4	0.7	0.7	0.8	0.3	21.6
LPG	9.4	1.6	2.2	1.9	2.1	1.5	20.9
Wood	14.5	2.0	3.1	2.9	3.4	3.0	13.1
Quadrillion Btu							
Total Btu Consumption, Fuels Used:							
Electricity							
Primary	11.63	0.91	2.64	2.53	2.17	3.37	8.0
Site	3.89	0.31	0.88	0.85	0.72	1.13	8.0
Natural Gas	4.84	0.43	1.99	1.09	0.73	0.60	10.1
Fuel Oil	0.71	0.17	0.26	0.26	Q	Q	19.5
Kerosene	0.05	0.01	0.01	0.01	0.01	Q	32.4
LPG	0.38	0.07	0.12	0.08	0.06	0.05	25.8
Wood	0.37	0.13	0.09	0.07	0.06	0.03	20.0
Total (excludes primary electricity and wood)	9.86	0.98	3.27	2.29	1.55	1.78	7.4
Physical Units							
Physical Units of Total Consumption, Fuels Used:							
Electricity (billion kWh)	1,140	90	259	248	212	331	8.0
Natural Gas (billion cf)	4,708	416	1,936	1,055	713	587	10.1
Fuel Oil (million gallons)	5,105	1,217	1,909	1,903	Q	Q	19.5
Kerosene (million gallons)	348	75	82	81	92	Q	32.4
LPG (million gallons)	4,121	763	1,276	878	707	497	25.8
Wood (million cords)	18.7	6.3	4.3	3.5	2.9	1.7	20.0
Million Btu per Household³							
Total Btu Consumption per Household, Fuels Used:							
Electricity							
Primary	108.7	98.9	92.1	105.5	103.2	140.2	3.6
Site	36.4	33.1	30.8	35.3	34.5	46.9	3.6
Natural Gas	72.4	87.0	94.0	72.8	53.1	50.0	3.6
Fuel Oil	81.7	91.5	92.8	72.1	35.3	Q	8.1
Kerosene	16.1	24.8	16.9	15.0	15.5	Q	22.6
LPG	40.2	44.9	52.4	41.2	30.5	29.7	12.0
Wood	25.9	61.9	27.9	24.1	17.2	11.0	12.9
Total (excludes primary electricity and wood)	92.2	106.2	114.0	95.2	73.7	74.0	2.8

See footnotes at end of table.

Table CE1-1c. Total Energy Consumption in U.S. Households by Climate Zone, 2001 (Continued)

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.4	1.7	1.1	1.1	1.3	1.0	
Physical Units per Household³							
Physical Units of Total Consumption per Household, Fuels Used:							
Electricity (kWh)	10,656	9,693	9,030	10,345	10,118	13,743	3.6
Natural Gas (thousand cf)	70	85	91	71	52	49	3.6
Fuel Oil (gallons)	589	661	670	520	254	Q	8.1
Kerosene (gallons)	119	184	125	111	115	Q	22.6
LPG (gallons)	440	491	573	451	334	325	12.0
Wood (cords)	1.3	3.1	1.4	1.2	0.9	0.5	12.9
Million Households							
Number of Households, Where the End Use Is:							
Space Heating ⁴	105.3	9.1	28.5	23.7	20.4	23.5	8.0
Electric Air-Conditioning ⁵	80.8	5.3	20.5	19.9	13.4	21.8	8.2
Water Heating ⁶	106.7	9.2	28.6	24.0	20.9	24.0	7.9
Refrigerators	106.8	9.2	28.6	24.0	20.9	24.1	7.9
Appliances	107.0	9.2	28.6	24.0	21.0	24.1	7.9
Quadrillion Btu^a							
Total Btu Consumption, Where the End Use Is:							
Space Heating	4.62	0.58	1.89	1.15	0.56	0.44	8.8
Electric Air-Conditioning	0.62	0.02	0.08	0.11	0.11	0.30	10.3
Water Heating	1.68	0.14	0.51	0.38	0.32	0.33	7.0
Refrigerators	0.53	0.04	0.13	0.11	0.10	0.15	7.6
Other Appliances and Lighting	2.40	0.20	0.65	0.53	0.46	0.56	7.4
Million Btu per Household^{3,a}							
Total Btu Consumption per Household, Where the End Use Is:							
Space Heating	43.9	63.2	66.2	48.6	27.5	18.9	4.5
Electric Air-Conditioning	7.7	3.6	4.1	5.7	7.9	13.8	4.9
Water Heating	15.8	15.7	17.9	16.0	15.1	13.6	2.9
Refrigerators	5.0	4.6	4.6	4.6	4.7	6.2	2.9
Other Appliances and Lighting	22.5	21.7	22.8	21.9	22.1	23.2	2.8

¹ One of five climatically distinct areas, determined according to the 30-year average (1961-1990) of the annual heating and cooling degree-days. For this report, the heating or cooling degree-days are a measure of how cold or how hot a location is over a period of one year, relative to a base temperature of 65 degrees Fahrenheit. A household is assigned to a climate zone according to the 30-year average annual degree-days for an appropriate nearby weather station.

² The RECS cannot be used to accurately estimate the number of households that do not use electricity.

³ The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

⁴ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

⁵ The number of households, where the end use is electric air-conditioning, does not include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

⁶ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE1-2c. Total Energy Consumption in U.S. Households
by Year of Construction, 2001**

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.6	1.1	1.0	1.1	1.1	0.9	
Million Households								
Total U.S. Households	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
Number of Households, Fuels Used (more than one may apply):								
Electricity ²	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
Natural Gas	66.9	9.4	8.8	9.0	9.5	10.3	20.0	5.9
Fuel Oil	8.7	0.3	0.5	0.9	1.3	1.8	3.9	15.5
Kerosene	2.9	0.4	0.3	0.7	0.4	0.3	0.8	20.8
LPG	9.4	1.4	1.5	1.7	1.1	1.0	2.6	13.9
Wood	14.5	2.0	3.0	3.2	2.0	1.7	2.5	9.9
Quadrillion Btu								
Total Btu Consumption, Fuels Used:								
Electricity								
Primary	11.63	2.02	2.33	2.29	1.35	1.38	2.26	4.7
Site	3.89	0.68	0.78	0.77	0.45	0.46	0.76	4.7
Natural Gas	4.84	0.66	0.57	0.57	0.61	0.75	1.68	6.9
Fuel Oil	0.71	0.02	0.04	0.07	0.09	0.14	0.34	17.8
Kerosene	0.05	0.01	(*)	0.02	Q	(*)	0.01	32.0
LPG	0.38	0.06	0.06	0.07	0.04	0.03	0.13	17.6
Wood	0.37	0.03	0.06	0.07	0.04	0.05	0.12	18.1
Total (excludes primary electricity and wood)	9.86	1.43	1.45	1.48	1.19	1.39	2.92	4.5
Physical Units								
Physical Units of Total Consumption, Fuels Used:								
Electricity (billion kWh)	1,140	198	229	225	132	135	221	4.7
Natural Gas (billion cf)	4,708	645	551	551	594	732	1,635	6.9
Fuel Oil (million gallons)	5,105	173	321	486	630	1,034	2,461	17.8
Kerosene (million gallons)	348	66	34	121	Q	24	68	32.0
LPG (million gallons)	4,121	620	619	719	420	286	1,457	17.6
Wood (million cords)	18.7	1.5	3.0	3.7	2.1	2.4	6.0	18.1
Million Btu per Household³								
Total Btu Consumption per Household, Fuels Used:								
Electricity								
Primary	108.7	130.9	127.9	122.1	97.8	97.2	85.0	2.9
Site	36.4	43.8	42.8	40.8	32.7	32.5	28.4	2.9
Natural Gas	72.4	70.9	64.3	63.0	64.6	72.9	84.3	3.5
Fuel Oil	81.7	77.8	91.4	77.3	68.3	79.0	87.5	7.2
Kerosene	16.1	21.3	13.5	23.2	Q	11.4	11.6	26.1
LPG	40.2	41.1	36.6	37.5	34.2	26.3	51.6	10.8
Wood	25.9	14.8	20.0	23.0	21.1	27.6	48.5	14.9
Total (excludes primary electricity and wood)	92.2	92.5	79.7	79.0	86.5	97.9	109.8	2.4

See footnotes at end of table.

Table CE1-2c. Total Energy Consumption in U.S. Households by Year of Construction, 2001 (Continued)

	Total	Year of Construction					1949 or Before	RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959		
RSE Column Factor:	0.5	1.6	1.1	1.0	1.1	1.1	0.9	
Physical Units per Household³								
Physical Units of Total Consumption per Household, Fuels Used:								
Electricity (kWh)	10,656	12,827	12,534	11,971	9,586	9,533	8,332	2.9
Natural Gas (thousand cf)	70	69	63	61	63	71	82	3.5
Fuel Oil (gallons)	589	561	659	557	493	570	631	7.2
Kerosene (gallons)	119	157	100	172	Q	84	86	26.1
LPG (gallons)	440	450	401	411	374	288	565	10.8
Wood (cords)	1.3	0.7	1.0	1.2	1.1	1.4	2.4	14.9
Million Households								
Number of Households, Where the End Use Is:								
Space Heating ⁴	105.3	15.4	18.1	18.5	13.4	13.8	26.2	4.3
Electric Air-Conditioning ⁵	80.8	13.4	15.8	14.2	10.1	10.2	17.1	4.7
Water Heating ⁶	106.7	15.4	18.2	18.7	13.7	14.2	26.4	4.3
Refrigerators	106.8	15.5	18.2	18.7	13.8	14.1	26.5	4.3
Appliances	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
Quadrillion Btu^a								
Total Btu Consumption, Where the End Use Is:								
Space Heating	4.62	0.54	0.53	0.60	0.55	0.69	1.70	5.3
Electric Air-Conditioning	0.62	0.13	0.14	0.13	0.07	0.07	0.09	7.0
Water Heating	1.68	0.27	0.27	0.25	0.21	0.24	0.44	4.6
Refrigerators	0.53	0.08	0.10	0.10	0.07	0.07	0.12	4.5
Other Appliances and Lighting	2.40	0.41	0.41	0.40	0.29	0.31	0.58	4.7
Million Btu per Household^{3,a}								
Total Btu Consumption per Household, Where the End Use Is:								
Space Heating	43.9	35.2	29.4	32.6	41.3	50.4	64.9	3.6
Electric Air-Conditioning	7.7	9.7	9.0	8.9	6.9	6.7	5.1	5.2
Water Heating	15.8	17.3	14.8	13.6	15.6	16.8	16.6	2.7
Refrigerators	5.0	5.1	5.3	5.3	4.8	5.1	4.5	2.6
Other Appliances and Lighting	22.5	26.7	22.7	21.4	20.9	22.2	21.6	2.7

¹ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

² The RECS cannot be used to accurately estimate the number of households that do not use electricity.

³ The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

⁴ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

⁵ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

⁶ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

(*) = Value rounds to zero in the units displayed.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-3c. Total Energy Consumption in U.S. Households by Household Income, 2001

	Total	2001 Household Income				Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.5	1.7	0.9	1.0	0.9	1.4	0.9	
Million Households								
Total U.S. Households	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.3
Number of Households, Fuels Used (more than one may apply):								
Electricity ²	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.3
Natural Gas	66.9	6.8	18.2	16.4	25.5	9.3	20.7	4.8
Fuel Oil	8.7	0.6	2.2	2.5	3.4	0.8	2.4	12.7
Kerosene	2.9	0.4	0.8	0.9	0.8	0.7	1.2	17.0
LPG	9.4	0.9	2.9	2.6	3.0	1.2	3.0	12.7
Wood	14.5	0.4	2.5	3.6	8.0	0.7	2.3	10.1
Quadrillion Btu								
Total Btu Consumption, Fuels Used:								
Electricity								
Primary	11.63	0.81	2.78	2.91	5.13	1.25	3.06	3.9
Site	3.89	0.27	0.93	0.97	1.72	0.42	1.02	3.9
Natural Gas	4.84	0.38	1.19	1.15	2.13	0.54	1.36	5.8
Fuel Oil	0.71	0.04	0.16	0.19	0.31	0.05	0.18	14.2
Kerosene	0.05	0.01	0.02	0.01	0.01	0.01	0.03	26.8
LPG	0.38	0.03	0.12	0.11	0.12	0.04	0.11	17.3
Wood	0.37	0.03	0.09	0.11	0.14	0.04	0.09	21.0
Total (excludes primary electricity and wood)	9.86	0.72	2.42	2.43	4.30	1.06	2.70	3.6
Physical Units								
Physical Units of Total Consumption, Fuels Used:								
Electricity (billion kWh)	1,140	79	272	286	503	122	300	3.9
Natural Gas (billion cf)	4,708	366	1,153	1,114	2,075	523	1,320	5.8
Fuel Oil (million gallons)	5,105	271	1,184	1,391	2,259	356	1,299	14.1
Kerosene (million gallons)	348	73	129	86	60	108	191	26.8
LPG (million gallons)	4,121	275	1,315	1,170	1,360	439	1,251	17.3
Wood (million cords)	18.7	1.5	4.7	5.4	7.2	1.8	4.7	21.0
Million Btu per Household³								
Total Btu Consumption per Household, Fuels Used:								
Electricity								
Primary	108.7	73.3	90.9	107.6	134.0	83.2	90.5	2.4
Site	36.4	24.5	30.4	36.0	44.8	27.8	30.3	2.4
Natural Gas	72.4	55.8	65.1	69.8	83.6	57.9	65.5	3.0
Fuel Oil	81.7	68.2	73.0	77.9	92.5	65.3	76.6	5.7
Kerosene	16.1	21.9	21.1	13.4	10.4	22.4	20.8	21.0
LPG	40.2	28.2	41.1	41.6	41.7	32.1	37.5	9.9
Wood	25.9	70.0	37.3	30.2	18.0	48.2	41.8	18.4
Total (excludes primary electricity and wood)	92.2	65.2	79.1	89.8	112.1	70.7	79.9	2.2

See footnotes at end of table.

Table CE1-3c. Total Energy Consumption in U.S. Households by Household Income, 2001 (Continued)

	2001 Household Income					Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
	Total	Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.5	1.7	0.9	1.0	0.9	1.4	0.9	
Physical Units per Household³								
Physical Units of Total Consumption per Household, Fuels Used:								
Electricity (kWh)	10,656	7,190	8,906	10,545	13,131	8,152	8,871	2.4
Natural Gas (thousand cf)	70	54	63	68	81	56	64	3.0
Fuel Oil (gallons)	589	492	527	562	667	471	553	5.7
Kerosene (gallons)	119	162	157	99	77	166	154	21.0
LPG (gallons)	440	308	450	455	456	352	411	9.9
Wood (cords)	1.3	3.5	1.9	1.5	0.9	2.4	2.1	18.4
Million Households								
Number of Households, Where the End Use Is:								
Space Heating ⁴	105.3	10.8	30.2	26.5	37.8	14.6	33.2	3.4
Electric Air-Conditioning ⁵	80.8	6.9	21.7	21.0	31.2	9.1	22.6	3.9
Water Heating ⁶	106.7	11.0	30.5	27.0	38.2	14.9	33.7	3.3
Refrigerators	106.8	11.0	30.5	27.1	38.3	14.9	33.7	3.3
Appliances	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.3
Quadrillion Btu^a								
Total Btu Consumption, Where the End Use Is:								
Space Heating	4.62	0.36	1.20	1.14	1.92	0.50	1.32	4.4
Electric Air-Conditioning	0.62	0.04	0.13	0.15	0.31	0.05	0.13	5.9
Water Heating	1.68	0.13	0.40	0.42	0.73	0.19	0.47	3.7
Refrigerators	0.53	0.05	0.14	0.13	0.22	0.06	0.15	3.6
Other Appliances and Lighting	2.40	0.16	0.55	0.59	1.11	0.25	0.63	3.8
Million Btu per Household^{3,a}								
Total Btu Consumption per Household, Where the End Use Is:								
Space Heating	43.9	33.1	39.7	43.1	50.8	34.1	39.7	3.4
Electric Air-Conditioning	7.7	5.1	5.9	7.2	9.9	5.8	5.8	4.0
Water Heating	15.8	11.5	13.2	15.5	19.2	12.9	14.0	2.3
Refrigerators	5.0	4.2	4.6	4.8	5.7	4.2	4.4	2.0
Other Appliances and Lighting	22.5	14.1	17.9	21.7	29.1	16.8	18.7	2.2

¹ Below 150 percent of poverty line or 60 percent of median State income.

² The RECS cannot be used to accurately estimate the number of households that do not use electricity.

³ The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

⁴ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

⁵ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

⁶ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-4c. Total Energy Consumption in U.S. Households by Type of Housing Unit, 2001

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Apartments in Buildings With		Mobile Homes	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.5	1.6	1.4	1.8	
Million Households						
Total U.S. Households	107.0	73.7	9.5	17.0	6.8	4.4
Number of Households, Fuels Used (more than one may apply):						
Electricity ¹	107.0	73.7	9.5	17.0	6.8	4.4
Natural Gas	66.9	48.5	6.2	9.9	2.3	6.0
Fuel Oil	8.7	6.4	0.6	1.4	0.2	16.8
Kerosene	2.9	2.2	Q	Q	0.6	16.7
LPG	9.4	7.6	Q	Q	1.6	15.0
Wood	14.5	13.2	0.4	0.3	0.6	16.2
Quadrillion Btu						
Total Btu Consumption, Fuels Used:						
Electricity						
Primary	11.63	8.99	0.69	1.08	0.87	5.1
Site	3.89	3.01	0.23	0.36	0.29	5.1
Natural Gas	4.84	3.98	0.45	0.28	0.14	7.5
Fuel Oil	0.71	0.59	0.06	0.05	0.01	18.7
Kerosene	0.05	0.03	Q	Q	0.02	28.4
LPG	0.38	0.31	Q	Q	0.06	19.6
Wood	0.37	0.36	Q	Q	0.01	20.1
Total (excludes primary electricity and wood)	9.86	7.91	0.74	0.70	0.52	4.4
Physical Units						
Physical Units of Total Consumption, Fuels Used:						
Electricity (billion kWh)	1,140	881	68	105	85	5.1
Natural Gas (billion cf)	4,708	3,864	434	274	135	7.5
Fuel Oil (million gallons)	5,105	4,221	422	397	65	18.7
Kerosene (million gallons)	348	195	Q	Q	146	28.4
LPG (million gallons)	4,121	3,433	Q	Q	649	19.6
Wood (million cords)	18.7	17.8	Q	Q	0.6	20.1
Million Btu per Household²						
Total Btu Consumption per Household, Fuels Used:						
Electricity						
Primary	108.7	122.1	73.2	63.3	127.2	3.0
Site	36.4	40.8	24.5	21.2	42.5	3.0
Natural Gas	72.4	82.0	71.7	28.4	60.1	3.6
Fuel Oil	81.7	91.1	94.4	39.5	40.0	6.5
Kerosene	16.1	11.9	Q	Q	32.8	19.6
LPG	40.2	41.5	Q	Q	36.5	10.0
Wood	25.9	26.9	Q	2.2	19.7	18.7
Total (excludes primary electricity and wood)	92.2	107.3	78.1	41.0	75.9	2.3

See footnotes at end of table.

Table CE1-4c. Total Energy Consumption in U.S. Households by Type of Housing Unit, 2001 (Continued)

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Apartments in Buildings With		Mobile Homes	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.5	1.6	1.4	1.8	
Physical Units per Household²						
Physical Units of Total Consumption per Household, Fuels Used:						
Electricity (kWh)	10,656	11,965	7,176	6,204	12,469	3.0
Natural Gas (thousand cf)	70	80	70	28	58	3.6
Fuel Oil (gallons)	589	657	680	285	288	6.5
Kerosene (gallons)	119	88	Q	Q	243	19.6
LPG (gallons)	440	454	Q	Q	399	10.0
Wood (cords)	1.3	1.3	Q	0.1	1.0	18.7
Million Households						
Number of Households, Where the End Use Is:						
Space Heating ³	105.3	72.8	9.4	16.3	6.8	4.4
Electric Air-Conditioning ⁴	80.8	57.6	6.3	11.8	5.1	4.9
Water Heating ⁵	106.7	73.5	9.5	16.9	6.8	4.4
Refrigerators	106.8	73.6	9.5	16.9	6.8	4.4
Appliances	107.0	73.7	9.5	17.0	6.8	4.4
Quadrillion Btu^a						
Total Btu Consumption, Where the End Use Is:						
Space Heating	4.62	3.75	0.41	0.24	0.21	5.3
Electric Air-Conditioning	0.62	0.50	0.03	0.05	0.04	7.9
Water Heating	1.68	1.31	0.12	0.17	0.08	4.5
Refrigerators	0.53	0.41	0.03	0.05	0.03	4.6
Other Appliances and Lighting	2.40	1.93	0.14	0.18	0.15	4.6
Million Btu per Household^{2,a}						
Total Btu Consumption per Household, Where the End Use Is:						
Space Heating	43.9	51.5	44.2	14.8	31.3	3.9
Electric Air-Conditioning	7.7	8.7	5.0	4.6	7.4	5.5
Water Heating	15.8	17.9	12.4	10.0	12.2	2.7
Refrigerators	5.0	5.6	3.7	3.2	5.1	2.3
Other Appliances and Lighting	22.5	26.2	15.1	10.6	21.9	2.5

¹ The RECS cannot be used to accurately estimate the number of households that do not use electricity.

² The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

³ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

⁴ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

⁵ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-5.1u. Total Energy Consumption and Expenditures by Household Member and Demographics, 2001

Household Demographics	Total End-Use Energy								RSE Row Factors
	Households (millions)	Total		Per Household			Per Household Member		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	1.3	1.5	1.5	0.8	0.7	0.7	0.9	0.8	
Total Households	107.0	9.86	159.74	92.2	1,493	2.6	36.0	583	1.2
Household Size									
1 Person	28.2	1.84	29.67	65.5	1,053	1.0	65.5	1,053	2.0
2 Persons	35.1	3.25	52.18	92.6	1,486	2.0	46.3	743	1.8
3 Persons	17.0	1.67	27.38	98.2	1,608	3.0	32.7	536	2.5
4 Persons	15.6	1.71	28.17	110.0	1,808	4.0	27.5	452	2.7
5 Persons	7.1	0.87	14.27	122.9	2,006	5.0	24.6	401	5.2
6 or More Persons	4.0	0.51	8.08	127.3	2,022	6.7	18.9	301	4.5
2001 Household Income Category									
Less than \$9,999	11.0	0.72	11.47	65.2	1,039	1.9	34.8	554	5.0
\$10,000 to \$14,999	7.7	0.53	8.62	69.7	1,124	2.1	32.7	528	4.9
\$15,000 to \$19,999	8.9	0.72	11.49	80.5	1,290	2.3	35.2	565	4.6
\$20,000 to \$29,999	14.0	1.17	18.38	83.4	1,315	2.3	35.5	561	3.3
\$30,000 to \$39,999	13.9	1.21	19.43	86.9	1,398	2.6	34.0	547	3.0
\$40,000 to \$49,999	13.2	1.22	20.03	92.8	1,518	2.7	34.4	562	3.5
\$50,000 to \$74,999	21.7	2.22	36.47	102.5	1,683	2.9	35.1	577	2.6
\$75,000 to \$99,999	8.1	0.91	14.75	112.5	1,825	2.9	38.5	624	4.3
\$100,000 or More	8.6	1.17	19.09	136.1	2,231	3.0	44.7	732	4.8
Income Relative to Poverty Line									
Below 100 Percent	15.0	1.06	17.04	70.7	1,138	2.6	27.6	444	4.0
100 to 150 Percent	11.5	0.95	15.19	83.0	1,324	2.7	30.6	488	3.8
Above 150 Percent	80.5	7.85	127.51	97.5	1,583	2.5	38.4	623	1.3
Eligible for Federal Assistance¹									
Yes	33.8	2.70	42.94	79.9	1,270	2.7	30.1	479	2.4
No	73.2	7.16	116.80	97.9	1,596	2.5	38.8	633	1.4
Age of Householder									
Under 25 Years	6.1	0.40	7.04	65.9	1,148	2.6	24.9	434	4.7
25 to 34 Years	16.8	1.39	23.02	82.4	1,367	3.0	27.2	451	2.8
35 to 44 Years	22.3	2.24	36.35	100.1	1,626	3.3	30.4	494	2.6
45 to 54 Years	20.7	2.16	34.77	104.4	1,678	2.8	37.9	610	2.9
55 to 64 Years	14.5	1.41	23.14	97.3	1,593	2.1	45.6	747	3.1
65 to 74 Years	12.6	1.11	17.52	88.3	1,391	1.8	49.6	780	3.5
75 Years or More	11.2	0.92	13.98	81.4	1,243	1.5	54.2	828	4.0
No answer/refused	2.6	0.23	3.89	90.4	1,522	2.3	39.0	657	7.6
Race of Householder									
Non-Hispanic	96.8	9.15	147.60	94.5	1,524	2.5	38.0	613	1.3
Non-Hispanic White	78.7	7.49	120.71	95.2	1,533	2.4	39.6	637	1.5
Non-Hispanic Black	12.7	1.28	20.10	100.8	1,581	2.7	37.6	589	3.8
Multi-racial ²	0.9	0.07	1.17	75.4	1,343	2.8	26.8	477	13.6
Other ³	4.5	0.31	5.62	69.0	1,244	3.3	21.0	378	6.2
Hispanic	10.2	0.71	12.15	70.0	1,195	3.3	21.3	363	4.5

¹ Below 150 percent of poverty line or 60 percent of median State income.

² Respondents could select one or more race categories to describe themselves.

³ Includes Native American, Native Alaskan, Asian, and Pacific Islander households.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-5.2u. Total Energy Consumption and Expenditures by Square Feet and Household Demographics, 2001

Household Demographics	Total End-Use Energy								RSE Row Factors
	Households (millions)	Total		Per Household			Per Square Feet		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Square Feet	Consumption (1000 Btu)	Expenditures (dollars)	
RSE Column Factor:	1.3	1.5	1.4	0.8	0.7	0.9	0.8	0.8	
Total Households	107.0	9.86	159.74	92.2	1,493	1,975	46.7	0.76	1.3
Household Size									
1 Person	28.2	1.84	29.67	65.5	1,053	1,433	45.7	0.74	2.2
2 Persons	35.1	3.25	52.18	92.6	1,486	2,079	44.6	0.71	2.0
3 Persons	17.0	1.67	27.38	98.2	1,608	2,100	46.8	0.77	2.8
4 Persons	15.6	1.71	28.17	110.0	1,808	2,343	46.9	0.77	2.9
5 Persons	7.1	0.87	14.27	122.9	2,006	2,317	53.0	0.87	5.2
6 or More Persons	4.0	0.51	8.08	127.3	2,022	2,308	55.2	0.88	5.3
2001 Household Income Category									
Less than \$9,999	11.0	0.72	11.47	65.2	1,039	1,168	55.9	0.89	4.6
\$10,000 to \$14,999	7.7	0.53	8.62	69.7	1,124	1,328	52.5	0.85	4.4
\$15,000 to \$19,999	8.9	0.72	11.49	80.5	1,290	1,494	53.9	0.86	4.2
\$20,000 to \$29,999	14.0	1.17	18.38	83.4	1,315	1,555	53.6	0.85	3.1
\$30,000 to \$39,999	13.9	1.21	19.43	86.9	1,398	1,725	50.4	0.81	3.1
\$40,000 to \$49,999	13.2	1.22	20.03	92.8	1,518	2,068	44.9	0.73	3.6
\$50,000 to \$74,999	21.7	2.22	36.47	102.5	1,683	2,360	43.4	0.71	2.7
\$75,000 to \$99,999	8.1	0.91	14.75	112.5	1,825	2,690	41.8	0.68	4.2
\$100,000 or More	8.6	1.17	19.09	136.1	2,231	3,395	40.1	0.66	4.5
Income Relative to Poverty Line									
Below 100 Percent	15.0	1.06	17.04	70.7	1,138	1,227	57.6	0.93	3.8
100 to 150 Percent	11.5	0.95	15.19	83.0	1,324	1,494	55.6	0.89	3.7
Above 150 Percent	80.5	7.85	127.51	97.5	1,583	2,183	44.7	0.73	1.4
Eligible for Federal Assistance¹									
Yes	33.8	2.70	42.94	79.9	1,270	1,435	55.7	0.89	2.4
No	73.2	7.16	116.80	97.9	1,596	2,225	44.0	0.72	1.5
Age of Householder									
Under 25 Years	6.1	0.40	7.04	65.9	1,148	1,154	57.1	1.00	4.6
25 to 34 Years	16.8	1.39	23.02	82.4	1,367	1,673	49.2	0.82	2.9
35 to 44 Years	22.3	2.24	36.35	100.1	1,626	2,096	47.7	0.78	2.6
45 to 54 Years	20.7	2.16	34.77	104.4	1,678	2,307	45.2	0.73	2.9
55 to 64 Years	14.5	1.41	23.14	97.3	1,593	2,207	44.1	0.72	3.1
65 to 74 Years	12.6	1.11	17.52	88.3	1,391	1,932	45.7	0.72	3.6
75 Years or More	11.2	0.92	13.98	81.4	1,243	1,773	45.9	0.70	4.0
No answer/refused	2.6	0.23	3.89	90.4	1,522	1,977	45.7	0.77	7.3
Race of Householder									
Non-Hispanic	96.8	9.15	147.60	94.5	1,524	2,035	46.5	0.75	1.4
Non-Hispanic White	78.7	7.49	120.71	95.2	1,533	2,087	45.6	0.73	1.6
Non-Hispanic Black	12.7	1.28	20.10	100.8	1,581	1,827	55.2	0.87	4.5
Multi-racial ²	0.9	0.07	1.17	75.4	1,343	1,526	49.4	0.88	12.9
Other ³	4.5	0.31	5.62	69.0	1,244	1,808	38.1	0.69	6.8
Hispanic	10.2	0.71	12.15	70.0	1,195	1,407	49.8	0.85	4.3

¹ Below 150 percent of poverty line or 60 percent of median State income.

² Respondents could select one or more race categories to describe themselves.

³ Includes Native American, Native Alaskan, Asian, and Pacific Islander households.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-6.1u. Total Energy Consumption and Expenditures by Household Member and Usage Indicators, 2001⁴

Usage Indicators	Total End-Use Energy								RSE Row Factors
	Households (millions)	Total		Per Household			Per Household Member		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	1.5	1.6	1.6	0.7	0.7	0.7	0.9	0.8	
Total Households	107.0	9.86	159.74	92.2	1,493	2.6	36.0	583	1.3
Weekday Home Activities									
Home Used for Business									
Yes	7.6	0.87	14.06	114.7	1,859	2.9	39.2	636	4.3
No/Don't Know	99.4	9.00	145.69	90.5	1,465	2.5	35.7	578	1.4
Energy-Intensive Activity									
Yes	1.7	0.19	3.10	112.7	1,820	2.8	40.9	660	9.1
No/Don't Know	105.3	9.67	156.65	91.9	1,488	2.6	35.9	581	1.3
Someone Home All Day									
Yes	53.0	5.17	82.88	97.6	1,563	2.7	35.9	575	1.9
No/Don't Know	54.0	4.69	76.86	86.9	1,424	2.4	36.0	590	1.5
Total Floorspace Category¹ (square feet)									
Fewer than 500	3.9	0.15	2.96	39.0	759	1.8	21.7	423	6.7
500 to 999	21.8	1.19	20.99	54.8	964	2.1	26.5	465	3.0
1,000 to 1,499	22.7	1.71	29.34	75.4	1,294	2.5	30.3	520	2.7
1,500 to 1,999	16.6	1.56	25.33	93.5	1,522	2.7	34.8	567	2.7
2,000 to 2,499	13.5	1.45	22.62	106.8	1,672	2.7	39.3	616	3.1
2,500 to 2,999	9.3	1.08	16.40	115.8	1,759	2.7	42.7	648	3.4
3,000 to 3,499	6.9	0.87	13.73	126.8	1,996	3.1	40.5	636	4.7
3,500 to 3,999	4.1	0.58	9.01	143.6	2,224	3.2	45.0	697	5.5
4,000 or More	8.2	1.27	19.35	155.2	2,359	3.0	52.0	790	3.9
Year of Construction									
1939 or Before	19.0	2.16	30.57	113.9	1,613	2.5	46.0	651	3.4
1940 to 1949	7.6	0.76	11.61	99.8	1,518	2.7	37.6	572	4.9
1950 to 1959	14.2	1.39	21.25	97.9	1,500	2.5	39.1	599	3.1
1960 to 1969	13.8	1.19	19.48	86.5	1,414	2.4	35.7	583	3.4
1970 to 1979	18.8	1.48	26.03	79.0	1,388	2.5	31.6	555	3.2
1980 to 1989	18.2	1.45	26.22	79.7	1,438	2.5	31.9	575	3.4
1990 to 1999	14.5	1.33	22.91	91.3	1,575	2.9	31.2	539	5.3
2000 to 2001 ²	0.9	0.10	1.67	111.1	1,845	3.4	32.9	547	15.4
Housing Unit Type and Number of Bedrooms									
Mobile Homes	6.8	0.52	9.09	75.9	1,336	2.6	29.4	517	5.4
Less than 3 Bedrooms	3.7	0.26	4.58	71.3	1,234	2.0	35.4	612	6.4
3 or More Bedrooms	3.1	0.25	4.52	81.4	1,458	3.3	25.0	447	7.1
Single-Family Detached	63.1	6.85	108.81	108.5	1,724	2.7	39.6	630	1.6
Less than 3 Bedrooms	12.3	1.04	16.42	85.1	1,340	2.0	43.0	678	3.3
3 Bedrooms	33.5	3.41	54.45	101.7	1,624	2.7	38.2	610	2.2
4 Bedrooms	14.4	1.87	29.84	130.2	2,079	3.3	39.0	623	3.2
5 or More Bedrooms	3.0	0.52	8.10	176.5	2,733	3.8	46.2	716	7.8
Single-Family Attached	10.6	1.06	16.22	100.4	1,531	2.7	37.5	572	5.0
Less than 3 Bedrooms	3.9	0.31	4.64	78.5	1,184	2.1	37.8	570	8.3
3 Bedrooms	4.6	0.46	7.45	101.4	1,627	2.7	37.5	601	6.0
4 or More Bedrooms	2.1	0.29	4.13	139.2	1,969	3.7	37.2	526	9.9
Apartments in Buildings									
With 2 to 4 Units	9.5	0.74	11.97	78.1	1,261	2.3	34.3	554	5.1
Less than 2 Bedrooms	2.6	0.15	2.35	57.6	902	1.7	33.8	530	10.8
2 Bedrooms	5.0	0.38	6.37	75.2	1,264	2.1	35.1	590	5.4
3 or More Bedrooms	1.8	0.21	3.25	114.9	1,759	3.4	33.4	511	9.9

See footnotes at end of table.

Table CE1-6.1u. Total Energy Consumption and Expenditures by Household Member and Usage Indicators, 2001¹ (Continued)

Usage Indicators	Total End-Use Energy								RSE Row Factors
	Households (millions)	Total		Per Household			Per Household Member		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	1.5	1.6	1.6	0.7	0.7	0.7	0.9	0.8	
Apartments in Buildings With 5 or More Units	17.0	0.70	13.66	41.0	803	2.0	20.5	402	4.1
Less than 2 Bedrooms	8.5	0.28	5.41	32.7	635	1.5	21.3	414	5.0
2 Bedrooms	7.0	0.33	6.37	47.2	908	2.3	20.7	397	6.8
3 or More Bedrooms	1.5	0.09	1.88	60.2	1,283	3.3	18.0	384	10.9

¹ Does **not** include floorspace for unheated garages.

² New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-6.2u. Total Energy Consumption and Expenditures by Square Feet and Usage Indicators, 2001

Usage Indicators	Total End-Use Energy								RSE Row Factors
	Households (million)	Total		Per Household			Per Square Feet		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Square Feet	Consumption (1000 Btu)	Expenditures (dollars)	
RSE Column Factor:	1.6	1.7	1.7	0.8	0.7	0.7	0.8	0.7	
Total Households	107.0	9.86	159.74	92.2	1,493	1,975	46.7	0.76	1.4
Weekday Home Activities									
Home Used for Business									
Yes	7.6	0.87	14.06	114.7	1,859	2,586	44.3	0.72	4.4
No/Don't Know	99.4	9.00	145.69	90.5	1,465	1,929	46.9	0.76	1.5
Energy-Intensive Activity									
Yes	1.7	0.19	3.10	112.7	1,820	2,529	44.6	0.72	8.3
No/Don't Know	105.3	9.67	156.65	91.9	1,488	1,966	46.7	0.76	1.4
Someone Home All Day									
Yes	53.0	5.17	82.88	97.6	1,563	2,065	47.3	0.76	1.9
No/Don't Know	54.0	4.69	76.86	86.9	1,424	1,887	46.1	0.75	1.7
Total Floorspace Category¹ (square feet)									
Fewer than 500	3.9	0.15	2.96	39.0	759	402	96.9	1.89	5.6
500 to 999	21.8	1.19	20.99	54.8	964	770	71.2	1.25	2.7
1,000 to 1,499	22.7	1.71	29.34	75.4	1,294	1,232	61.2	1.05	2.4
1,500 to 1,999	16.6	1.56	25.33	93.5	1,522	1,737	53.8	0.88	2.5
2,000 to 2,499	13.5	1.45	22.62	106.8	1,672	2,227	48.0	0.75	2.7
2,500 to 2,999	9.3	1.08	16.40	115.8	1,759	2,733	42.4	0.64	2.9
3,000 to 3,499	6.9	0.87	13.73	126.8	1,996	3,226	39.3	0.62	4.4
3,500 to 3,999	4.1	0.58	9.01	143.6	2,224	3,697	38.8	0.60	4.7
4,000 or More	8.2	1.27	19.35	155.2	2,359	5,280	29.4	0.45	3.6
Year of Construction									
1939 or Before	19.0	2.16	30.57	113.9	1,613	2,034	56.0	0.79	3.2
1940 to 1949	7.6	0.76	11.61	99.8	1,518	1,853	53.9	0.82	4.9
1950 to 1959	14.2	1.39	21.25	97.9	1,500	2,004	48.9	0.75	3.2
1960 to 1969	13.8	1.19	19.48	86.5	1,414	1,836	47.1	0.77	3.4
1970 to 1979	18.8	1.48	26.03	79.0	1,388	1,737	45.5	0.80	3.3
1980 to 1989	18.2	1.45	26.22	79.7	1,438	1,925	41.4	0.75	3.5
1990 to 1999	14.5	1.33	22.91	91.3	1,575	2,370	38.5	0.66	5.4
2000 to 2001 ²	0.9	0.10	1.67	111.1	1,845	3,036	36.6	0.61	16.3
Housing Unit Type and Number of Bedrooms									
Mobile Homes	6.8	0.52	9.09	75.9	1,336	1,055	72.0	1.27	5.1
Less than 3 Bedrooms	3.7	0.26	4.58	71.3	1,234	835	85.5	1.48	5.7
3 or More Bedrooms	3.1	0.25	4.52	81.4	1,458	1,319	61.7	1.11	6.6
Single-Family Detached	63.1	6.85	108.81	108.5	1,724	2,428	44.7	0.71	1.7
Less than 3 Bedrooms	12.3	1.04	16.42	85.1	1,340	1,611	52.8	0.83	3.3
3 Bedrooms	33.5	3.41	54.45	101.7	1,624	2,288	44.5	0.71	2.3
4 Bedrooms	14.4	1.87	29.84	130.2	2,079	3,064	42.5	0.68	3.1
5 or More Bedrooms	3.0	0.52	8.10	176.5	2,733	4,305	41.0	0.63	7.2
Single-Family Attached	10.6	1.06	16.22	100.4	1,531	2,201	45.6	0.70	4.8
Less than 3 Bedrooms	3.9	0.31	4.64	78.5	1,184	1,548	50.7	0.77	7.6
3 Bedrooms	4.6	0.46	7.45	101.4	1,627	2,304	44.0	0.71	6.0
4 or More Bedrooms	2.1	0.29	4.13	139.2	1,969	3,193	43.6	0.62	7.8
Apartments in Buildings									
With 2 to 4 Units	9.5	0.74	11.97	78.1	1,261	1,393	56.1	0.91	4.7
Less than 2 Bedrooms	2.6	0.15	2.35	57.6	902	899	64.1	1.00	8.6
2 Bedrooms	5.0	0.38	6.37	75.2	1,264	1,403	53.6	0.90	5.3
3 or More Bedrooms	1.8	0.21	3.25	114.9	1,759	2,061	55.8	0.85	10.3

See footnotes at end of table.

Table CE1-6.2u. Total Energy Consumption and Expenditures by Square Feet and Usage Indicators, 2001 (Continued)

Usage Indicators	Total End-Use Energy								RSE Row Factors
	Households (million)	Total		Per Household			Per Square Feet		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Square Feet	Consumption (1000 Btu)	Expenditures (dollars)	
RSE Column Factor:	1.6	1.7	1.7	0.8	0.7	0.7	0.8	0.7	
Apartments in Buildings With 5 or More Units	17.0	0.70	13.66	41.0	803	847	48.5	0.95	3.8
Less than 2 Bedrooms	8.5	0.28	5.41	32.7	635	637	51.3	1.00	4.2
2 Bedrooms	7.0	0.33	6.37	47.2	908	1,009	46.8	0.90	6.2
3 or More Bedrooms	1.5	0.09	1.88	60.2	1,283	1,294	46.5	0.99	9.8

¹ Does **not** include floorspace for unheated garages.

² New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-7c. Total Energy Consumption in U.S. Households by Four Most Populated States, 2001

	Four Most Populated States					RSE Row Factors
	Total U.S.	New York	California	Texas	Florida	
	0.4	1.2	0.9	1.5	1.5	
Million Households						
Total U.S. Households	107.0	7.1	12.3	7.7	6.3	NE
Number of Households, Fuels Used (more than one may apply):						
Electricity ¹	107.0	7.1	12.3	7.7	6.3	NE
Natural Gas	66.9	5.4	10.5	4.9	1.3	4.1
Fuel Oil	8.7	2.2	Q	Q	Q	19.0
Kerosene	2.9	0.2	0.3	Q	Q	24.6
LPG	9.4	0.5	0.7	0.3	0.4	24.0
Wood	14.5	0.7	2.3	1.1	0.5	17.3
Quadrillion Btu						
Total Btu Consumption, Fuels Used:						
Electricity						
Primary	11.63	0.43	0.75	1.17	0.98	4.6
Site	3.89	0.14	0.25	0.39	0.33	4.6
Natural Gas	4.84	0.39	0.49	0.28	0.03	9.4
Fuel Oil	0.71	0.16	Q	Q	Q	21.9
Kerosene	0.05	(*)	0.01	Q	Q	32.1
LPG	0.38	0.01	0.02	0.01	(*)	27.9
Wood	0.37	0.06	0.04	0.01	(*)	21.8
Total (excludes primary electricity and wood)	9.86	0.70	0.77	0.68	0.37	3.1
Physical Units						
Physical Units of Total Consumption, Fuels Used:						
Electricity (billion kWh)	1,140	42	73	115	97	4.6
Natural Gas (billion cf)	4,708	378	475	271	33	9.4
Fuel Oil (million gallons)	5,105	1,123	Q	Q	Q	21.9
Kerosene (million gallons)	348	29	41	Q	Q	32.1
LPG (million gallons)	4,121	93	231	96	40	27.9
Wood (million cords)	18.7	2.8	1.8	0.6	0.2	21.8
Million Btu per Household²						
Total Btu Consumption per Household, Fuels Used:						
Electricity						
Primary	108.7	60.9	60.7	152.4	155.6	4.6
Site	36.4	20.4	20.3	51.0	52.0	4.6
Natural Gas	72.4	71.4	46.3	57.0	26.3	6.6
Fuel Oil	81.7	70.9	Q	Q	Q	5.2
Kerosene	16.1	22.3	20.4	Q	Q	31.7
LPG	40.2	16.9	30.7	30.7	9.8	20.0
Wood	25.9	80.5	15.3	11.1	8.9	15.9
Total (excludes primary electricity and wood)	92.2	99.0	62.3	88.5	58.1	3.1

See footnotes at end of table.

Table CE1-7c. Total Energy Consumption in U.S. Households by Four Most Populated States, 2001 (Continued)

	Four Most Populated States					RSE Row Factors
	Total U.S.	New York	California	Texas	Florida	
RSE Column Factor:	0.4	1.2	0.9	1.5	1.5	
Physical Units per Household²						
Physical Units of Total Consumption per Household, Fuels Used:						
Electricity (kWh)	10,656	5,974	5,948	14,937	15,250	4.6
Natural Gas (thousand cf)	70	69	45	55	26	6.6
Fuel Oil (gallons)	589	511	Q	Q	Q	5.2
Kerosene (gallons)	119	165	151	Q	Q	31.7
LPG (gallons)	440	185	336	336	108	20.0
Wood (cords)	1.3	4.0	0.8	0.6	0.4	15.9
Million Households						
Number of Households, Where the End Use Is:						
Space Heating ³	105.3	7.0	11.8	7.7	6.2	0.7
Electric Air-Conditioning ⁴	80.8	4.7	5.2	7.4	6.1	2.6
Water Heating ⁵	106.7	7.0	12.2	7.6	6.3	NE
Refrigerators	106.8	7.1	12.3	7.7	6.3	NE
Appliances	107.0	7.1	12.3	7.7	6.3	NE
Quadrillion Btu^a						
Total Btu Consumption, Where the End Use Is:						
Space Heating	4.62	0.41	0.27	0.20	0.03	6.7
Electric Air-Conditioning	0.62	0.01	0.02	0.11	0.10	8.1
Water Heating	1.68	0.13	0.20	0.12	0.06	3.6
Refrigerators	0.53	0.03	0.04	0.05	0.04	4.0
Other Appliances and Lighting	2.40	0.13	0.24	0.20	0.14	3.2
Million Btu per Household^{2,a}						
Total Btu Consumption per Household, Where the End Use Is:						
Space Heating	43.9	58.5	22.6	25.9	5.0	6.8
Electric Air-Conditioning	7.7	2.4	3.3	14.8	16.6	6.5
Water Heating	15.8	18.1	16.2	15.9	9.6	3.5
Refrigerators	5.0	3.7	3.5	6.7	6.3	3.9
Other Appliances and Lighting	22.5	18.4	19.7	25.9	21.4	3.2

¹ The RECS cannot be used to accurately estimate the number of households that do not use electricity.
² The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.
³ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
⁴ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.
⁵ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
^a The row factor in this section is underestimated because it contains no error for estimating the end-use.
(*) = Value rounds to zero in the units displayed.
NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.
Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.
Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-8c. Total Energy Consumption in U.S. Households by Urban/Rural Location, 2001

	Urban/Rural Location ¹					RSE Row Factors
	Total	City	Town	Suburbs	Rural	
	0.5	0.9	1.4	1.3	1.2	
Million Households						
Total U.S. Households	107.0	49.9	18.0	21.2	17.9	4.2
Number of Households, Fuels Used (more than one may apply):						
Electricity ²	107.0	49.9	18.0	21.2	17.9	4.2
Natural Gas	66.9	37.4	11.2	14.4	3.9	5.5
Fuel Oil	8.7	2.6	2.1	1.4	2.6	13.3
Kerosene	2.9	0.5	0.6	0.4	1.4	20.1
LPG	9.4	0.9	1.6	0.8	6.1	14.9
Wood	14.5	3.9	2.4	3.2	5.1	9.4
Quadrillion Btu						
Total Btu Consumption, Fuels Used:						
Electricity						
Primary	11.63	4.51	1.92	2.60	2.60	4.5
Site	3.89	1.51	0.64	0.87	0.87	4.5
Natural Gas	4.84	2.51	0.87	1.15	0.31	6.8
Fuel Oil	0.71	0.18	0.19	0.12	0.22	14.6
Kerosene	0.05	(*)	0.01	Q	0.03	29.5
LPG	0.38	0.02	0.07	0.03	0.26	20.2
Wood	0.37	0.05	0.06	0.04	0.23	15.1
Total (excludes primary electricity and wood)	9.86	4.22	1.77	2.18	1.69	4.1
Physical Units						
Physical Units of Total Consumption, Fuels Used:						
Electricity (billion kWh)	1,140	442	188	255	254	4.5
Natural Gas (billion cf)	4,708	2,438	848	1,121	302	6.8
Fuel Oil (million gallons)	5,105	1,277	1,352	878	1,598	14.6
Kerosene (million gallons)	348	29	56	Q	236	29.5
LPG (million gallons)	4,121	257	725	326	2,814	20.2
Wood (million cords)	18.7	2.3	2.9	2.0	11.5	15.1
Million Btu per Household³						
Total Btu Consumption per Household, Fuels Used:						
Electricity						
Primary	108.7	90.5	106.3	122.7	145.4	2.4
Site	36.4	30.3	35.6	41.0	48.6	2.4
Natural Gas	72.4	67.1	77.6	80.2	79.0	3.2
Fuel Oil	81.7	68.3	88.5	88.1	86.2	5.4
Kerosene	16.1	7.3	13.7	Q	22.0	22.0
LPG	40.2	25.7	42.6	37.0	42.1	11.6
Wood	25.9	11.7	24.6	12.7	45.6	11.9
Total (excludes primary electricity and wood)	92.2	84.7	98.4	102.7	94.5	2.1

See footnotes at end of table.

Table CE1-8c. Total Energy Consumption in U.S. Households by Urban/Rural Location, 2001 (Continued)

	Urban/Rural Location ¹				RSE Row Factors	
	Total	City	Town	Suburbs		Rural
RSE Column Factor:	0.5	0.9	1.4	1.3	1.2	
Physical Units per Household³						
Physical Units of Total Consumption per Household, Fuels Used:						
Electricity (kWh)	10,656	8,869	10,425	12,028	14,251	2.4
Natural Gas (thousand cf)	70	65	75	78	77	3.2
Fuel Oil (gallons)	589	493	638	635	622	5.4
Kerosene (gallons)	119	54	102	Q	163	22.1
LPG (gallons)	440	281	467	406	461	11.6
Wood (cords)	1.3	0.6	1.2	0.6	2.3	11.9
Million Households						
Number of Households, Where the End Use Is:						
Space Heating ⁴	105.3	48.9	17.9	21.1	17.3	4.2
Electric Air-Conditioning ⁵	80.8	35.6	13.4	18.6	13.3	4.3
Water Heating ⁶	106.7	49.7	18.0	21.2	17.8	4.2
Refrigerators	106.8	49.7	18.0	21.2	17.8	4.2
Appliances	107.0	49.9	18.0	21.2	17.9	4.2
Quadrillion Btu^a						
Total Btu Consumption, Where the End Use Is:						
Space Heating	4.62	1.99	0.90	0.97	0.76	5.1
Electric Air-Conditioning	0.62	0.26	0.09	0.17	0.11	5.9
Water Heating	1.68	0.77	0.29	0.37	0.25	3.9
Refrigerators	0.53	0.22	0.09	0.12	0.10	4.2
Other Appliances and Lighting	2.40	0.98	0.41	0.55	0.46	4.4
Million Btu per Household^{3,a}						
Total Btu Consumption per Household, Where the End Use Is:						
Space Heating	43.9	40.6	50.3	45.8	44.1	3.4
Electric Air-Conditioning	7.7	7.3	6.4	9.3	8.0	4.0
Water Heating	15.8	15.4	16.1	17.5	14.3	2.1
Refrigerators	5.0	4.5	5.0	5.5	5.8	2.1
Other Appliances and Lighting	22.5	19.7	22.6	25.9	25.9	2.4

¹ Based on the household respondent's description rather than the Federal Government definition.
² The RECS cannot be used to accurately estimate the number of households that do not use electricity.
³ The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.
⁴ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
⁵ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.
⁶ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
^a The row factor in this section is underestimated because it contains no error for estimating the end-use.
(*) = Value rounds to zero in the units displayed.
Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.
Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-9c. Total Energy Consumption in U.S. Households by Northeast Census Region, 2001

	Northeast Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	Middle Atlantic	New England	
			0.5	1.0	
RSE Column Factor:					
Million Households					
Total U.S. Households	107.0	20.3	14.8	5.4	NE
Number of Households, Fuels Used (more than one may apply):					
Electricity ¹	107.0	20.3	14.8	5.4	NE
Natural Gas	66.9	12.5	10.3	2.3	7.5
Fuel Oil	8.7	6.6	3.9	2.7	12.4
Kerosene	2.9	0.7	0.4	Q	23.8
LPG	9.4	1.7	1.0	0.7	16.7
Wood	14.5	2.3	1.3	0.9	13.1
Quadrillion Btu					
Total Btu Consumption, Fuels Used:					
Electricity					
Primary	11.63	1.58	1.18	0.39	3.8
Site	3.89	0.53	0.40	0.13	3.8
Natural Gas	4.84	0.98	0.79	0.19	10.0
Fuel Oil	0.71	0.58	0.30	0.27	14.3
Kerosene	0.05	0.02	0.01	Q	32.2
LPG	0.38	0.05	0.03	0.02	22.1
Wood	0.37	0.10	0.08	0.03	17.0
Total (excludes primary electricity and wood)	9.86	2.16	1.54	0.62	2.4
Physical Units					
Physical Units of Total Consumption, Fuels Used:					
Electricity (billion kWh)	1,140	154	116	39	3.8
Natural Gas (billion cf)	4,708	954	772	181	10.0
Fuel Oil (million gallons)	5,105	4,166	2,196	1,969	14.3
Kerosene (million gallons)	348	155	101	Q	32.2
LPG (million gallons)	4,121	563	296	267	22.1
Wood (million cords)	18.7	5.1	3.8	1.3	17.0
Million Btu per Household²					
Total Btu Consumption per Household, Fuels Used:					
Electricity					
Primary	108.7	77.8	79.6	72.9	3.8
Site	36.4	26.0	26.6	24.4	3.8
Natural Gas	72.4	78.3	77.4	82.5	4.7
Fuel Oil	81.7	87.3	78.8	99.3	4.2
Kerosene	16.1	30.2	33.2	25.8	19.2
LPG	40.2	29.8	27.4	33.1	17.8
Wood	25.9	44.9	56.7	27.9	10.8
Total (excludes primary electricity and wood)	92.2	106.6	103.4	115.3	2.4

See footnotes at end of table.

Table CE1-9c. Total Energy Consumption in U.S. Households by Northeast Census Region, 2001 (Continued)

	Northeast Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	Middle Atlantic	New England	
RSE Column Factor:	0.5	1.0	1.2	1.6	
Physical Units per Household²					
Physical Units of Total Consumption per Household, Fuels Used:					
Electricity (kWh)	10,656	7,624	7,799	7,142	3.8
Natural Gas (thousand cf)	70	76	75	80	4.7
Fuel Oil (gallons)	589	630	568	716	4.2
Kerosene (gallons)	119	224	246	191	19.2
LPG (gallons)	440	327	300	362	17.8
Wood (cords)	1.3	2.2	2.8	1.4	10.8
Million Households					
Number of Households, Where the End Use Is:					
Space Heating ³	105.3	19.9	14.6	5.3	NE
Electric Air-Conditioning ⁴	80.8	14.2	11.1	3.2	3.4
Water Heating ⁵	106.7	20.2	14.8	5.4	NE
Refrigerators	106.8	20.2	14.8	5.4	NE
Appliances	107.0	20.3	14.8	5.4	NE
Quadrillion Btu^a					
Total Btu Consumption, Where the End Use Is:					
Space Heating	4.62	1.26	0.88	0.38	3.1
Electric Air-Conditioning	0.62	0.05	0.04	0.01	8.1
Water Heating	1.68	0.36	0.26	0.11	2.6
Refrigerators	0.53	0.08	0.06	0.02	2.6
Other Appliances and Lighting	2.40	0.41	0.30	0.11	3.8
Million Btu per Household^{2,a}					
Total Btu Consumption per Household, Where the End Use Is:					
Space Heating	43.9	63.1	60.1	71.4	3.0
Electric Air-Conditioning	7.7	3.3	3.4	2.7	6.7
Water Heating	15.8	18.0	17.4	19.6	2.6
Refrigerators	5.0	4.2	4.3	3.9	2.5
Other Appliances and Lighting	22.5	20.1	20.3	19.6	3.8

¹ The RECS cannot be used to accurately estimate the number of households that do not use electricity.
² The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.
³ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
⁴ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.
⁵ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
^a The row factor in this section is underestimated because it contains no error for estimating the end-use.
NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.
Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.
Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-10c. Total Energy Consumption in U.S. Households by Midwest Census Region, 2001

	Midwest Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	East North Central	West North Central	
			0.5	1.0	
RSE Column Factor:	0.5	1.0	1.2	1.5	
Million Households					
Total U.S. Households	107.0	24.5	17.1	7.4	NE
Number of Households, Fuels Used (more than one may apply):					
Electricity ¹	107.0	24.5	17.1	7.4	NE
Natural Gas	66.9	19.4	14.2	5.2	3.9
Fuel Oil	8.7	0.9	0.5	0.4	15.2
Kerosene	2.9	0.5	0.4	Q	14.6
LPG	9.4	2.3	1.1	1.2	22.0
Wood	14.5	2.5	1.4	1.1	13.1
Quadrillion Btu					
Total Btu Consumption, Fuels Used:					
Electricity					
Primary	11.63	2.43	1.60	0.83	2.5
Site	3.89	0.81	0.54	0.28	2.5
Natural Gas	4.84	1.84	1.39	0.44	5.0
Fuel Oil	0.71	0.06	0.03	0.03	18.8
Kerosene	0.05	(*)	Q	Q	35.4
LPG	0.38	0.15	0.07	0.08	23.3
Wood	0.37	0.09	0.06	0.03	27.7
Total (excludes primary electricity and wood)	9.86	2.86	2.03	0.83	2.2
Physical Units					
Physical Units of Total Consumption, Fuels Used:					
Electricity (billion kWh)	1,140	238	157	81	2.5
Natural Gas (billion cf)	4,708	1,784	1,352	432	5.0
Fuel Oil (million gallons)	5,105	437	234	203	18.9
Kerosene (million gallons)	348	23	Q	Q	35.4
LPG (million gallons)	4,121	1,607	767	840	23.3
Wood (million cords)	18.7	4.6	3.0	1.6	27.7
Million Btu per Household²					
Total Btu Consumption per Household, Fuels Used:					
Electricity					
Primary	108.7	99.2	93.9	111.5	2.5
Site	36.4	33.2	31.4	37.3	2.5
Natural Gas	72.4	94.7	98.2	85.0	2.8
Fuel Oil	81.7	68.4	63.3	75.4	11.0
Kerosene	16.1	6.5	Q	Q	30.0
LPG	40.2	63.7	63.4	63.9	7.2
Wood	25.9	36.7	42.3	29.3	18.4
Total (excludes primary electricity and wood)	92.2	116.7	118.9	111.6	2.2

See footnotes at end of table.

Table CE1-10c. Total Energy Consumption in U.S. Households by Midwest Census Region, 2001 (Continued)

	Midwest Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	East North Central	West North Central	
			0.5	1.0	
RSE Column Factor:					
Physical Units per Household²					
Physical Units of Total Consumption per Household, Fuels Used:					
Electricity (kWh)	10,656	9,727	9,206	10,930	2.5
Natural Gas (thousand cf)	70	92	95	83	2.8
Fuel Oil (gallons)	589	494	456	546	11.0
Kerosene (gallons)	119	48	Q	Q	30.0
LPG (gallons)	440	697	694	700	7.2
Wood (cords)	1.3	1.8	2.1	1.5	18.4
Million Households					
Number of Households, Where the End Use Is:					
Space Heating ³	105.3	24.4	17.0	7.3	NE
Electric Air-Conditioning ⁴	80.8	20.2	13.4	6.7	2.3
Water Heating ⁵	106.7	24.5	17.1	7.4	NE
Refrigerators	106.8	24.5	17.1	7.4	NE
Appliances	107.0	24.5	17.1	7.4	NE
Quadrillion Btu^a					
Total Btu Consumption, Where the End Use Is:					
Space Heating	4.62	1.63	1.18	0.45	3.1
Electric Air-Conditioning	0.62	0.10	0.06	0.04	5.2
Water Heating	1.68	0.43	0.30	0.12	2.6
Refrigerators	0.53	0.12	0.08	0.04	2.1
Other Appliances and Lighting	2.40	0.58	0.41	0.17	2.1
Million Btu per Household^{2,a}					
Total Btu Consumption per Household, Where the End Use Is:					
Space Heating	43.9	66.8	69.3	61.2	3.0
Electric Air-Conditioning	7.7	5.1	4.6	6.0	4.3
Water Heating	15.8	17.4	17.7	16.8	2.6
Refrigerators	5.0	4.9	4.8	5.2	2.1
Other Appliances and Lighting	22.5	23.7	23.9	23.4	2.1

¹ The RECS cannot be used to accurately estimate the number of households that do not use electricity.
² The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.
³ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
⁴ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.
⁵ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
^a The row factor in this section is underestimated because it contains no error for estimating the end-use.
 (*) = Value rounds to zero in the units displayed.
 NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.
 Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.
 Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.
 Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE1-11c. Total Energy Consumption in U.S. Households
by South Census Region, 2001**

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			West south Central	
		Total	South Atlantic	East South Central		
RSE Column Factor:	0.5	0.8	1.2	1.5	1.5	
Million Households						
Total U.S. Households	107.0	38.9	20.3	6.8	11.8	NE
Number of Households, Fuels Used (more than one may apply):						
Electricity ¹	107.0	38.9	20.3	6.8	11.8	NE
Natural Gas	66.9	18.7	8.0	2.9	7.8	7.0
Fuel Oil	8.7	0.9	0.9	Q	Q	30.5
Kerosene	2.9	1.4	1.0	0.3	Q	19.3
LPG	9.4	3.8	2.1	1.3	0.5	16.6
Wood	14.5	5.2	2.8	0.9	1.5	11.2
Quadrillion Btu						
Total Btu Consumption, Fuels Used:						
Electricity						
Primary	11.63	5.65	2.85	1.07	1.73	3.1
Site	3.89	1.89	0.95	0.36	0.58	3.1
Natural Gas	4.84	1.13	0.49	0.18	0.46	9.1
Fuel Oil	0.71	0.06	0.06	Q	Q	33.1
Kerosene	0.05	0.02	0.01	(*)	Q	33.0
LPG	0.38	0.12	0.06	0.04	0.02	23.6
Wood	0.37	0.09	0.05	0.02	0.02	20.7
Total (excludes primary electricity and wood)	9.86	3.21	1.57	0.59	1.06	3.1
Physical Units						
Physical Units of Total Consumption, Fuels Used:						
Electricity (billion kWh)	1,140	554	279	105	170	3.1
Natural Gas (billion cf)	4,708	1,096	476	175	445	9.1
Fuel Oil (million gallons)	5,105	419	398	Q	Q	33.1
Kerosene (million gallons)	348	126	89	37	Q	33.0
LPG (million gallons)	4,121	1,301	656	432	213	23.6
Wood (million cords)	18.7	4.3	2.3	1.0	1.0	20.7
Million Btu per Household²						
Total Btu Consumption per Household, Fuels Used:						
Electricity						
Primary	108.7	145.3	140.4	157.6	146.5	3.1
Site	36.4	48.6	47.0	52.7	49.0	3.1
Natural Gas	72.4	60.4	61.2	61.6	59.1	4.7
Fuel Oil	81.7	61.6	64.2	Q	Q	13.6
Kerosene	16.1	12.2	12.4	14.6	Q	24.6
LPG	40.2	30.9	29.1	30.0	41.1	13.2
Wood	25.9	16.7	16.6	22.8	13.3	14.4
Total (excludes primary electricity and wood)	92.2	82.5	77.3	86.0	89.5	3.1

See footnotes at end of table.

Table CE1-11c. Total Energy Consumption in U.S. Households by South Census Region, 2001 (Continued)

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			RSE Row Factors	
		Total	South Atlantic	East South Central		
RSE Column Factor:	0.5	0.8	1.2	1.5	1.5	
Physical Units per Household²						
Physical Units of Total Consumption per Household, Fuels Used:						
Electricity (kWh)	10,656	14,240	13,763	15,447	14,363	3.1
Natural Gas (thousand cf)	70	59	59	60	57	4.7
Fuel Oil (gallons)	589	445	463	Q	Q	13.6
Kerosene (gallons)	119	90	92	108	Q	24.6
LPG (gallons)	440	338	319	328	451	13.2
Wood (cords)	1.3	0.8	0.8	1.1	0.7	14.4
Million Households						
Number of Households, Where the End Use Is:						
Space Heating ³	105.3	38.7	20.0	6.8	11.8	NE
Electric Air-Conditioning ⁴	80.8	36.9	19.0	6.4	11.5	1.6
Water Heating ⁵	106.7	38.9	20.3	6.8	11.8	NE
Refrigerators	106.8	38.9	20.3	6.8	11.8	NE
Appliances	107.0	38.9	20.3	6.8	11.8	NE
Quadrillion Btu^a						
Total Btu Consumption, Where the End Use Is:						
Space Heating	4.62	1.07	0.52	0.22	0.33	6.6
Electric Air-Conditioning	0.62	0.42	0.20	0.06	0.16	4.2
Water Heating	1.68	0.54	0.26	0.09	0.19	3.2
Refrigerators	0.53	0.23	0.11	0.04	0.08	2.9
Other Appliances and Lighting	2.40	0.94	0.47	0.17	0.30	2.2
Million Btu per Household^{2,a}						
Total Btu Consumption per Household, Where the End Use Is:						
Space Heating	43.9	27.7	25.9	32.5	27.9	6.6
Electric Air-Conditioning	7.7	11.5	10.7	9.9	13.7	3.5
Water Heating	15.8	13.9	12.8	13.3	16.3	3.2
Refrigerators	5.0	6.0	5.6	6.0	6.6	2.9
Other Appliances and Lighting	22.5	24.3	23.2	25.1	25.5	2.2

¹ The RECS cannot be used to accurately estimate the number of households that do not use electricity.

² The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

³ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

⁴ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

⁵ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

(*) = Value rounds to zero in the units displayed.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE1-12c. Total Energy Consumption in U.S. Households
by West Census Region, 2001**

	West Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	Mountain	Pacific	
			0.5	1.1	
RSE Column Factor:					
Million Households					
Total U.S. Households	107.0	23.3	6.7	16.6	NE
Number of Households, Fuels Used (more than one may apply):					
Electricity ¹	107.0	23.3	6.7	16.6	NE
Natural Gas	66.9	16.3	4.7	11.6	2.6
Fuel Oil	8.7	0.2	Q	0.2	24.0
Kerosene	2.9	0.4	Q	0.3	17.6
LPG	9.4	1.5	0.5	1.0	17.4
Wood	14.5	4.6	1.0	3.5	10.4
Quadrillion Btu					
Total Btu Consumption, Fuels Used:					
Electricity					
Primary	11.63	1.97	0.68	1.29	3.1
Site	3.89	0.66	0.23	0.43	3.1
Natural Gas	4.84	0.90	0.33	0.57	4.6
Fuel Oil	0.71	0.01	Q	0.01	31.5
Kerosene	0.05	0.01	Q	0.01	36.0
LPG	0.38	0.06	0.03	0.03	23.4
Wood	0.37	0.10	0.02	0.08	17.8
Total (excludes primary electricity and wood)	9.86	1.63	0.59	1.05	3.0
Physical Units					
Physical Units of Total Consumption, Fuels Used:					
Electricity (billion kWh)	1,140	193	67	126	3.1
Natural Gas (billion cf)	4,708	873	317	556	4.6
Fuel Oil (million gallons)	5,105	84	Q	72	31.5
Kerosene (million gallons)	348	45	Q	44	36.0
LPG (million gallons)	4,121	650	339	312	23.4
Wood (million cords)	18.7	4.8	1.0	3.8	17.8
Million Btu per Household²					
Total Btu Consumption per Household, Fuels Used:					
Electricity					
Primary	108.7	84.5	101.3	77.8	3.1
Site	36.4	28.3	33.9	26.0	3.1
Natural Gas	72.4	55.0	68.8	49.4	3.5
Fuel Oil	81.7	52.8	Q	50.8	14.3
Kerosene	16.1	16.7	Q	17.7	29.5
LPG	40.2	39.8	57.9	29.7	11.3
Wood	25.9	20.9	19.1	21.5	14.1
Total (excludes primary electricity and wood)	92.2	70.1	87.2	63.2	3.0

See footnotes at end of table.

Table CE1-12c. Total Energy Consumption in U.S. Households by West Census Region, 2001 (Continued)

	West Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	Mountain	Pacific	
RSE Column Factor:	0.5	1.1	1.5	1.3	
Physical Units per Household²					
Physical Units of Total Consumption per Household, Fuels Used:					
Electricity (kWh)	10,656	8,287	9,926	7,622	3.1
Natural Gas (thousand cf)	70	53	67	48	3.5
Fuel Oil (gallons)	589	381	Q	367	14.3
Kerosene (gallons)	119	124	Q	131	29.5
LPG (gallons)	440	436	634	326	11.3
Wood (cords)	1.3	1.0	1.0	1.1	14.1
Million Households					
Number of Households, Where the End Use Is:					
Space Heating ³	105.3	22.4	6.7	15.7	NE
Electric Air-Conditioning ⁴	80.8	9.6	3.2	6.3	7.2
Water Heating ⁵	106.7	23.2	6.7	16.5	NE
Refrigerators	106.8	23.2	6.7	16.5	NE
Appliances	107.0	23.3	6.7	16.6	NE
Quadrillion Btu^a					
Total Btu Consumption, Where the End Use Is:					
Space Heating	4.62	0.67	0.27	0.39	4.6
Electric Air-Conditioning	0.62	0.05	0.03	0.02	8.5
Water Heating	1.68	0.35	0.11	0.24	2.5
Refrigerators	0.53	0.10	0.03	0.06	2.7
Other Appliances and Lighting	2.40	0.47	0.14	0.33	3.0
Million Btu per Household^{2,a}					
Total Btu Consumption per Household, Where the End Use Is:					
Space Heating	43.9	29.7	41.0	24.9	4.6
Electric Air-Conditioning	7.7	5.4	9.7	3.2	6.5
Water Heating	15.8	15.1	15.7	14.9	2.5
Refrigerators	5.0	4.1	5.0	3.8	2.7
Other Appliances and Lighting	22.5	20.2	21.2	19.8	3.0

¹ The RECS cannot be used to accurately estimate the number of households that do not use electricity.
² The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.
³ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
⁴ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.
⁵ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
^a The row factor in this section is underestimated because it contains no error for estimating the end-use.
NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.
Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.
Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

2001 Consumption and Expenditures Tables

Total Expenditures Tables

(20 pages, 126 kb)

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These data are from the 2001 Residential Energy Consumption Survey (RECS) which provides information on the use of energy in residential housing units in the United States. The RECS is a national statistical survey that collects energy-related data for occupied primary housing units. RECS was first conducted in 1978; the twelfth and most recent survey was conducted in 2001. In the 2001 RECS, data were collected from a sample of 4,822 households in housing units statistically selected to represent the 107.0 million housing units in the United States. The RECS data are available for the four Census regions, the nine Census divisions, and for the four most populous States--California, Florida, New York, and Texas.

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Table CE1-1e. Total Energy Expenditures in U.S. Households by Climate Zone, 2001 - Preliminary Data

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.4	1.7	1.1	1.1	1.2	1.0	
Million Households							
Total U.S. Households	107.0	9.2	28.6	24.0	21.0	24.1	7.9
Number of Households, Fuels Used (more than one may apply):							
Electricity ²	107.0	9.2	28.6	24.0	21.0	24.1	7.9
Natural Gas	66.9	4.9	21.2	14.9	13.8	12.1	8.6
Fuel Oil	8.7	1.8	2.9	3.7	Q	Q	16.8
Kerosene	2.9	0.4	0.7	0.7	0.8	0.3	21.6
LPG	9.4	1.6	2.2	1.9	2.1	1.5	20.9
Wood	14.5	2.0	3.1	2.9	3.4	3.0	13.1
Billion Dollars							
Total Expenditures, Fuels Used:							
Electricity	99.77	7.25	22.73	21.43	19.38	28.99	7.2
Natural Gas	46.98	3.58	18.14	11.21	8.13	5.92	10.4
Fuel Oil	6.31	1.51	2.38	2.32	Q	Q	19.3
Kerosene	0.53	0.11	0.12	0.13	0.14	0.03	31.1
LPG	5.57	0.94	1.61	1.18	1.09	0.75	23.8
Total	159.15	13.38	44.98	36.26	28.83	35.70	7.0
Dollars per Household³							
Total Expenditures per Household, Fuels Used:							
Electricity	933	784	793	892	923	1,204	2.7
Natural Gas	702	728	856	751	588	490	4.1
Fuel Oil	728	821	836	634	Q	Q	6.4
Kerosene	180	270	188	173	175	81	23.7
LPG	594	603	725	608	514	489	9.7
Total	1,488	1,448	1,570	1,509	1,373	1,483	2.6
Dollars per Million Btu³							
Average Price of Btu Consumption, Fuels Used:							
Electricity	25.79	23.90	25.86	25.43	26.77	25.90	2.5
Natural Gas	9.70	8.37	9.10	10.32	11.07	9.80	2.5
Fuel Oil	8.91	8.96	9.00	8.79	Q	Q	1.7
Kerosene	11.08	10.90	11.11	11.56	10.99	10.12	3.7
LPG	14.90	13.44	14.15	14.86	16.57	16.66	4.3
Total	16.17	13.67	13.79	15.88	18.64	20.15	1.7

See footnotes at end of table.

Table CE1-1e. Total Energy Expenditures in U.S. Households by Climate Zone, 2001 - Preliminary Data (Continued)

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.4	1.7	1.1	1.1	1.2	1.0	
Price per Physical Unit³							
Average Price of Physical Units of Consumption, Fuels Used:							
Electricity (cents per kWh)	8.8	8.2	8.8	8.7	9.1	8.8	2.5
Natural Gas (dollars per thousand cf) ..	9.98	8.61	9.37	10.62	11.39	10.08	2.5
Fuel Oil (dollars per gallon)	1.24	1.24	1.25	1.22	Q	Q	1.7
Kerosene (dollars per gallon)	1.50	1.47	1.50	1.56	1.48	1.37	3.7
LPG (dollars per gallon)	1.36	1.23	1.29	1.36	1.51	1.52	4.3
Million Households							
Number of Households, Where the End Use Is:							
Space Heating ⁴	105.3	9.1	28.5	23.7	20.4	23.5	8.0
Electric Air-Conditioning ⁵	80.8	5.3	20.5	19.9	13.4	21.8	8.2
Water Heating ⁶	106.7	9.2	28.6	24.0	20.9	24.0	7.9
Refrigerators	106.8	9.2	28.6	24.0	20.9	24.1	7.9
Appliances	107.0	9.2	28.6	24.0	21.0	24.1	7.9
Billion Dollars							
Total Expenditures, Where the End Use Is:							
Space Heating	49.95	5.39	18.53	12.95	7.41	5.67	8.6
Electric Air-Conditioning	15.92	0.45	2.20	2.87	2.71	7.68	9.7
Water Heating	22.10	1.81	5.71	4.87	4.50	5.21	6.9
Refrigerators	14.78	1.13	3.73	3.22	2.91	3.79	6.8
Other Appliances and Lighting	56.41	4.59	14.81	12.36	11.29	13.35	6.9
Dollars per Household³							
Total Expenditures per Household, Where the End Use Is:							
Space Heating	474	592	650	546	363	241	4.1
Electric Air-Conditioning	197	86	107	144	202	353	4.7
Water Heating	207	198	199	203	216	217	2.5
Refrigerators	138	123	130	134	139	157	2.8
Other Appliances and Lighting	527	496	517	514	538	555	2.8

¹ One of five climatically distinct areas, determined according to the 30-year average (1961-1990) of the annual heating and cooling degree-days. For this report, the heating or cooling degree-days are a measure of how cold or how hot a location is over a period of one year, relative to a base temperature of 65 degrees Fahrenheit. A household is assigned to a climate zone according to the 30-year average annual degree-days for an appropriate nearby weather station.

² The RECS cannot be used to accurately estimate the number of households that do not use electricity.

³ The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

⁴ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

⁵ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

⁶ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE1-2e. Total Energy Expenditures in U.S. Households
by Year of Construction, 2001 - Preliminary Data**

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.6	1.1	1.0	1.2	1.1	0.9	
Million Households								
Total U.S. Households	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
Number of Households, Fuels Used (more than one may apply):								
Electricity ²	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
Natural Gas	66.9	9.4	8.8	9.0	9.5	10.3	20.0	5.9
Fuel Oil	8.7	0.3	0.5	0.9	1.3	1.8	3.9	15.5
Kerosene	2.9	0.4	0.3	0.7	0.4	0.3	0.8	20.8
LPG	9.4	1.4	1.5	1.7	1.1	1.0	2.6	13.9
Wood	14.5	2.0	3.0	3.2	2.0	1.7	2.5	9.9
Billion Dollars								
Total Expenditures, Fuels Used:								
Electricity	99.77	16.97	19.20	18.84	12.00	12.07	20.68	4.5
Natural Gas	46.98	6.54	5.53	5.28	6.00	7.15	16.47	7.3
Fuel Oil	6.31	0.21	0.40	0.61	0.77	1.29	3.04	18.0
Kerosene	0.53	0.10	0.05	0.18	0.05	0.04	0.11	32.8
LPG	5.57	0.84	0.88	0.95	0.57	0.45	1.89	16.5
Total	159.15	24.66	26.06	25.86	19.39	20.99	42.19	4.4
Dollars per Household³								
Total Expenditures per Household, Fuels Used:								
Electricity	933	1,098	1,053	1,005	871	852	779	2.7
Natural Gas	702	699	630	587	633	692	825	3.8
Fuel Oil	737	750	813	736	600	721	780	7.3
Kerosene	180	232	145	255	140	134	136	27.2
LPG	602	613	578	544	524	462	735	9.1
Total	1,488	1,595	1,429	1,379	1,407	1,482	1,586	2.3
Dollars per Million Btu³								
Average Price of Btu Consumption, Fuels Used:								
Electricity	25.79	24.96	24.82	24.84	26.77	26.75	27.34	1.3
Natural Gas	9.70	9.86	9.76	9.32	9.81	9.49	9.79	2.2
Fuel Oil	8.91	8.78	8.89	8.99	8.79	8.98	8.92	1.9
Kerosene	11.08	10.91	10.74	10.79	10.71	11.78	11.93	4.0
LPG	14.90	14.85	15.56	14.81	14.85	16.51	14.35	3.6
Total	16.17	17.21	18.02	17.55	16.29	15.23	14.45	1.4

See footnotes at end of table.

**Table CE1-2e. Total Energy Expenditures in U.S. Households
by Year of Construction, 2001 - Preliminary Data (Continued)**

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.6	1.1	1.0	1.2	1.1	0.9	
Price per Physical Unit³								
Average Price of Physical Units of Consumption, Fuels Used:								
Electricity (cents per kWh)	8.8	8.5	8.5	8.5	9.1	9.1	9.3	1.3
Natural Gas (dollars per thousand cf)	9.98	10.14	10.04	9.59	10.09	9.77	10.08	2.2
Fuel Oil (dollars per gallon)	1.24	1.22	1.23	1.25	1.22	1.25	1.24	1.9
Kerosene (dollars per gallon)	1.50	1.47	1.45	1.46	1.45	1.59	1.61	4.0
LPG (dollars per gallon)	1.36	1.36	1.42	1.35	1.36	1.51	1.31	3.6
Million Households								
Number of Households, Where the End Use Is:								
Space Heating ⁴	105.3	15.4	18.1	18.5	13.4	13.8	26.2	4.3
Electric Air-Conditioning ⁵	80.8	13.4	15.8	14.2	10.1	10.2	17.1	4.7
Water Heating ⁶	106.7	15.4	18.2	18.7	13.7	14.2	26.4	4.3
Refrigerators	106.8	15.5	18.2	18.7	13.8	14.1	26.5	4.2
Appliances	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
Billion Dollars								
Total Expenditures, Where the End Use Is:								
Space Heating	49.95	6.18	6.53	6.97	5.97	6.97	17.33	5.1
Electric Air-Conditioning	15.92	3.53	3.56	3.11	1.79	1.66	2.26	7.2
Water Heating	22.10	3.53	3.97	3.84	2.65	2.87	5.23	4.3
Refrigerators	14.78	2.10	2.52	2.59	1.92	2.04	3.61	4.5
Other Appliances and Lighting	56.41	9.32	9.49	9.34	7.05	7.46	13.75	4.5
Dollars per Household³								
Total Expenditures per Household, Where the End Use Is:								
Space Heating	474	402	361	378	445	505	662	3.3
Electric Air-Conditioning	197	264	226	220	176	164	132	5.4
Water Heating	207	229	218	205	193	202	198	2.2
Refrigerators	138	136	138	138	140	144	136	2.7
Other Appliances and Lighting	527	603	520	498	512	527	517	2.6

¹ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

² The RECS cannot be used to accurately estimate the number of households that do not use electricity.

³ The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

⁴ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

⁵ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

⁶ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-3e. Total Energy Expenditures in U.S. Households by Household Income, 2001 - Preliminary Data

	Total	2001 Household Income				Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.6	0.9	1.0	0.9	1.4	0.9	
Million Households								
Total U.S. Households	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.3
Number of Households, Fuels Used (more than one may apply):								
Electricity ²	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.3
Natural Gas	66.9	6.8	18.2	16.4	25.5	9.3	20.7	4.8
Fuel Oil	8.7	0.6	2.2	2.5	3.4	0.8	2.4	12.7
Kerosene	2.9	0.4	0.8	0.9	0.8	0.7	1.2	17.0
LPG	9.4	0.9	2.9	2.6	3.0	1.2	3.0	12.7
Wood	14.5	0.4	2.5	3.6	8.0	0.7	2.3	10.1
Billion Dollars								
Total Expenditures, Fuels Used:								
Electricity	99.77	6.95	23.45	24.69	44.69	10.50	26.09	3.7
Natural Gas	46.98	3.75	11.56	11.10	20.57	5.30	13.18	6.4
Fuel Oil	6.31	0.32	1.45	1.70	2.84	0.42	1.60	14.2
Kerosene	0.53	0.11	0.19	0.13	0.09	0.16	0.29	25.8
LPG	5.57	0.37	1.69	1.54	1.96	0.60	1.66	16.4
Total	159.15	11.49	38.33	39.16	70.16	16.99	42.82	3.5
Dollars per Household³								
Total Expenditures per Household, Fuels Used:								
Electricity	933	629	768	911	1,168	701	772	2.1
Natural Gas	702	555	634	677	805	571	636	3.6
Fuel Oil	737	578	648	693	857	570	685	6.1
Kerosene	180	241	236	154	115	252	232	19.0
LPG	602	428	587	601	670	492	552	8.2
Total	1,488	1,042	1,255	1,445	1,832	1,135	1,267	1.9
Dollars per Million Btu³								
Average Price of Btu Consumption, Fuels Used:								
Electricity	25.79	25.64	25.40	25.51	26.19	25.43	25.62	1.1
Natural Gas	9.70	9.95	9.74	9.68	9.64	9.85	9.71	1.9
Fuel Oil	8.91	8.47	8.83	8.81	9.08	8.60	8.87	1.5
Kerosene	11.08	10.74	10.99	11.56	11.06	11.06	10.97	3.2
LPG	14.90	14.58	14.41	14.62	15.64	14.58	14.57	2.6
Total	16.17	15.95	15.92	16.16	16.36	16.08	15.88	1.2

See footnotes at end of table.

**Table CE1-3e. Total Energy Expenditures in U.S. Households
by Household Income, 2001 - Preliminary Data (Continued)**

	2001 Household Income					Below Poverty Line	Eli-gible for Federal Assist-ance ¹	RSE Row Factors
	Total	Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.6	0.9	1.0	0.9	1.4	0.9	
Price per Physical Unit³								
Average Price of Physical Units of Consumption, Fuels Used:								
Electricity (cents per kWh)	8.8	8.7	8.7	8.7	8.9	8.7	8.7	1.1
Natural Gas (dollars per thousand cf)	9.98	10.24	10.02	9.96	9.92	10.14	9.99	1.9
Fuel Oil (dollars per gallon)	1.24	1.17	1.22	1.22	1.26	1.19	1.23	1.5
Kerosene (dollars per gallon)	1.50	1.45	1.48	1.56	1.49	1.49	1.48	3.2
LPG (dollars per gallon)	1.36	1.33	1.32	1.34	1.43	1.33	1.33	2.6
Million Households								
Number of Households, Where the End Use Is:								
Space Heating ⁴	105.3	10.8	30.2	26.5	37.8	14.6	33.2	3.4
Electric Air-Conditioning ⁵	80.8	6.9	21.7	21.0	31.2	9.1	22.6	3.9
Water Heating ⁶	106.7	11.0	30.5	27.0	38.2	14.9	33.7	3.3
Refrigerators	106.8	11.0	30.5	27.1	38.3	14.9	33.7	3.3
Appliances	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.3
Billion Dollars								
Total Expenditures, Where the End Use Is:								
Space Heating	49.95	3.99	13.01	12.42	20.53	5.53	14.26	4.4
Electric Air-Conditioning	15.92	0.88	3.25	3.71	8.08	1.33	3.36	6.1
Water Heating	22.10	1.71	5.53	5.67	9.19	2.63	6.37	3.5
Refrigerators	14.78	1.26	3.82	3.56	6.13	1.72	4.16	3.4
Other Appliances and Lighting	56.41	3.66	12.72	13.80	26.23	5.78	14.67	3.7
Dollars per Household³								
Total Expenditures per Household, Where the End Use Is:								
Space Heating	474	370	431	468	543	379	429	3.3
Electric Air-Conditioning	197	128	150	177	259	146	149	4.3
Water Heating	207	155	181	210	241	177	189	1.9
Refrigerators	138	115	125	131	160	116	123	1.9
Other Appliances and Lighting	527	332	416	509	685	386	434	2.1

¹ Below 150 percent of poverty line or 60 percent of median State income.

² The RECS cannot be used to accurately estimate the number of households that do not use electricity.

³ The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

⁴ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

⁵ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

⁶ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE1-4e. Total Energy Expenditures in U.S. Households
by Type of Housing Unit, 2001 - Preliminary Data**

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Multifamily		Mobile Home	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.5	1.6	1.3	1.8	
Million Households						
Total U.S. Households	107.0	73.7	9.5	17.0	6.8	4.4
Number of Households, Fuels Used (more than one may apply):						
Electricity ¹	107.0	73.7	9.5	17.0	6.8	4.4
Natural Gas	66.9	48.5	6.2	9.9	2.3	6.0
Fuel Oil	8.7	6.4	0.6	1.4	0.2	16.8
Kerosene	2.9	2.2	Q	Q	0.6	16.3
LPG	9.4	7.6	Q	Q	1.6	14.6
Wood	14.5	13.2	0.4	0.3	0.6	16.2
Billion Dollars						
Total Expenditures, Fuels Used:						
Electricity	99.77	76.33	6.65	10.10	6.70	5.0
Natural Gas	46.98	38.04	4.70	2.98	1.26	8.1
Fuel Oil	6.31	5.32	0.54	0.37	0.08	19.0
Kerosene	0.53	0.31	Q	Q	0.20	27.3
LPG	5.57	4.68	Q	Q	0.84	17.9
Total	159.15	124.68	11.92	13.46	9.09	4.5
Dollars per Household²						
Total Expenditures per Household, Fuels Used:						
Electricity	933	1,036	701	594	984	2.9
Natural Gas	702	785	754	300	546	4.3
Fuel Oil	737	840	872	263	391	6.8
Kerosene	180	142	Q	Q	340	18.5
LPG	602	627	Q	Q	524	8.1
Total	1,488	1,692	1,256	792	1,335	2.2
Dollars per Million Btu²						
Average Price of Btu Consumption, Fuels Used:						
Electricity	25.79	25.49	28.72	28.74	23.07	1.3
Natural Gas	9.70	9.57	10.52	10.56	9.07	2.1
Fuel Oil	8.91	9.09	9.24	6.65	9.05	1.9
Kerosene	11.08	11.62	Q	Q	10.37	2.4
LPG	14.90	14.90	Q	Q	14.69	3.1
Total	16.17	15.79	16.13	19.53	17.63	1.7

See footnotes at end of table.

**Table CE1-4e. Total Energy Expenditures in U.S. Households
by Type of Housing Unit, 2001 - Preliminary Data (Continued)**

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Multifamily		Mobile Home	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.5	1.6	1.3	1.8	
Price per Physical Unit²						
Average Price of Physical Units of Consumption, Fuels Used:						
Electricity (cents per kWh)	8.8	8.7	9.8	9.8	7.9	1.3
Natural Gas (dollars per thousand cf)	9.98	9.84	10.82	10.86	9.34	2.1
Fuel Oil (dollars per gallon)	1.24	1.26	1.28	0.92	1.25	1.9
Kerosene (dollars per gallon)	1.50	1.57	Q	Q	1.40	2.4
LPG (dollars per gallon)	1.36	1.36	Q	Q	1.34	3.1
Million Households						
Number of Households, Where the End Use Is:						
Space Heating ³	105.3	72.8	9.4	16.3	6.8	4.5
Electric Air-Conditioning ⁴	80.8	57.6	6.3	11.8	5.1	4.9
Water Heating ⁵	106.7	73.5	9.5	16.9	6.8	4.4
Refrigerators	106.8	73.6	9.5	16.9	6.8	4.4
Appliances	107.0	73.7	9.5	17.0	6.8	4.4
Billion Dollars						
Total Expenditures, Where the End Use Is:						
Space Heating	49.95	39.97	4.74	2.65	2.59	5.2
Electric Air-Conditioning	15.92	12.44	0.79	1.46	1.23	8.1
Water Heating	22.10	16.54	1.61	2.52	1.43	4.6
Refrigerators	14.78	11.10	1.09	1.80	0.79	4.6
Other Appliances and Lighting	56.41	44.64	3.69	5.04	3.05	4.8
Dollars per Household²						
Total Expenditures per Household, Where the End Use Is:						
Space Heating	474	549	506	162	383	3.6
Electric Air-Conditioning	197	216	125	124	240	5.7
Water Heating	207	225	170	149	210	2.4
Refrigerators	138	151	115	106	116	2.5
Other Appliances and Lighting	527	606	389	296	447	2.7

¹ The RECS cannot be used to accurately estimate the number of households that do not use electricity.

² The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

³ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

⁴ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

⁵ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-7e. Total Energy Expenditures in U.S. Households by Four Most Populated States, 2001 - Preliminary Data

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.4	1.1	1.0	1.6	1.5	
Million Households						
Total U.S. Households	107.0	7.1	12.3	7.7	6.3	NF
Number of Households, Fuels Used (more than one may apply):						
Electricity ¹	107.0	7.1	12.3	7.7	6.3	NF
Natural Gas	66.9	5.4	10.5	4.9	1.3	4.1
Fuel Oil	8.7	2.2	Q	Q	Q	20.4
Kerosene	2.9	0.2	0.3	Q	Q	25.5
LPG	9.4	0.5	0.7	0.3	0.4	24.0
Wood	14.5	0.7	2.3	1.1	0.5	17.3
Billion Dollars						
Total Expenditures, Fuels Used:						
Electricity	99.77	6.16	8.90	9.99	8.53	4.4
Natural Gas	46.98	4.51	5.09	2.43	0.51	7.8
Fuel Oil	6.31	1.36	Q	Q	Q	23.6
Kerosene	0.53	0.04	0.06	Q	Q	35.2
LPG	5.57	0.16	0.38	0.13	0.09	26.1
Total	159.15	12.23	14.46	12.55	9.13	3.5
Dollars per Household²						
Total Expenditures per Household, Fuels Used:						
Electricity	933	870	722	1,302	1,348	4.4
Natural Gas	702	829	483	497	386	5.9
Fuel Oil	737	624	Q	Q	Q	6.0
Kerosene	180	219	222	Q	Q	31.2
LPG	602	314	560	442	278	16.8
Total	1,488	1,727	1,171	1,636	1,443	3.5
Dollars per Million Btu²						
Average Price of Btu Consumption, Fuels Used:						
Electricity	25.79	42.69	35.33	25.54	26.20	2.2
Natural Gas	9.70	11.61	10.42	8.72	14.70	4.0
Fuel Oil	8.91	8.72	Q	Q	Q	1.3
Kerosene	11.08	9.96	10.84	Q	Q	5.6
LPG	14.90	19.10	17.95	14.53	23.87	8.3
Total	16.17	17.45	18.77	18.49	25.08	2.1

See footnotes at end of table.

Table CE1-7e. Total Energy Expenditures in U.S. Households by Four Most Populated States, 2001 - Preliminary Data (Continued)

	Four Most Populated States				RSE Row Factors	
	Total U.S.	New York	California	Texas		Florida
RSE Column Factor:	0.4	1.1	1.0	1.6	1.5	
Price per Physical Unit²						
Average Price of Physical Units of Consumption, Fuels Used:						
Electricity (cents per kWh)	8.8	14.6	12.1	8.7	8.9	2.2
Natural Gas (dollars per thousand cf)	9.98	11.95	10.72	8.98	15.13	4.0
Fuel Oil (dollars per gallon)	1.24	1.21	Q	Q	Q	1.3
Kerosene (dollars per gallon)	1.50	1.34	1.46	Q	Q	5.7
LPG (dollars per gallon)	1.36	1.74	1.64	1.33	2.18	8.4
Million Households						
Number of Households, Where the End Use Is:						
Space Heating ³	105.3	7.0	11.8	7.7	6.2	NF
Electric Air-Conditioning ⁴	80.8	4.7	5.2	7.4	6.1	2.6
Water Heating ⁵	106.7	7.0	12.2	7.6	6.3	NF
Refrigerators	106.8	7.1	12.3	7.7	6.3	NF
Appliances	107.0	7.1	12.3	7.7	6.3	NF
Billion Dollars						
Total Expenditures, Where the End Use Is:						
Space Heating	49.95	4.53	3.17	2.26	0.63	6.9
Electric Air-Conditioning	15.92	0.51	0.64	2.86	2.51	8.4
Water Heating	22.10	1.52	2.37	1.55	1.48	3.6
Refrigerators	14.78	1.24	1.68	1.29	0.99	3.8
Other Appliances and Lighting	56.41	4.44	6.60	4.60	3.51	3.5
Dollars per Household²						
Total Expenditures per Household, Where the End Use Is:						
Space Heating	474	651	268	294	103	7.0
Electric Air-Conditioning	197	107	124	388	414	7.2
Water Heating	207	216	194	202	234	3.5
Refrigerators	138	176	137	168	157	3.7
Other Appliances and Lighting	527	627	534	600	555	3.5

¹ The RECS cannot be used to accurately estimate the number of households that do not use electricity.
² The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.
³ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
⁴ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.
⁵ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
 NF = No applicable RSE row factor.
 Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.
 Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.
 Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE1-8e. Total Energy Expenditures in U.S. Households
by Urban/Rural Location, 2001 - Preliminary Data**

	Total	Urban/Rural Location ¹				RSE Row Factors
		City	Town	Suburbs	Rural	
RSE Column Factor:	0.5	1.0	1.4	1.3	1.1	
Million Households						
Total U.S. Households	107.0	49.9	18.0	21.2	17.9	4.1
Number of Households, Fuels Used (more than one may apply):						
Electricity ²	107.0	49.9	18.0	21.2	17.9	4.1
Natural Gas	66.9	37.4	11.2	14.4	3.9	5.5
Fuel Oil	8.7	2.6	2.1	1.4	2.6	13.3
Kerosene	2.9	0.5	0.6	0.4	1.4	20.1
LPG	9.4	0.9	1.6	0.8	6.1	14.9
Wood	14.5	3.9	2.4	3.2	5.1	9.4
Billion Dollars						
Total Expenditures, Fuels Used:						
Electricity	99.77	40.87	16.04	22.94	19.92	4.4
Natural Gas	46.98	24.34	8.32	11.38	2.94	7.2
Fuel Oil	6.31	1.49	1.71	1.13	1.97	14.6
Kerosene	0.53	0.05	0.09	0.04	0.35	31.2
LPG	5.57	0.39	0.98	0.48	3.72	19.2
Total	159.15	67.14	27.14	35.97	28.91	4.1
Dollars per Household³						
Total Expenditures per Household, Fuels Used:						
Electricity	933	820	890	1,081	1,116	2.3
Natural Gas	702	651	740	792	749	3.6
Fuel Oil	737	574	822	833	784	5.3
Kerosene	180	90	156	0	243	21.8
LPG	602	448	638	614	614	9.8
Total	1,488	1,347	1,505	1,695	1,617	1.9
Dollars per Million Btu³						
Average Price of Btu Consumption, Fuels Used:						
Electricity	25.79	27.07	25.30	26.54	23.18	1.2
Natural Gas	9.70	9.70	9.54	9.87	9.48	2.0
Fuel Oil	8.91	8.40	9.14	9.32	8.91	1.2
Kerosene	11.08	11.75	11.33	11.19	10.93	3.5
LPG	14.90	16.66	14.76	16.85	14.55	3.6
Total	16.17	15.90	15.35	16.56	17.22	1.3

See footnotes at end of table.

**Table CE1-8e. Total Energy Expenditures in U.S. Households
by Urban/Rural Location, 2001 - Preliminary Data (Continued)**

	Urban/Rural Location ¹				RSE Row Factors	
	Total	City	Town	Suburbs		Rural
RSE Column Factor:	0.5	1.0	1.4	1.3	1.1	
Price per Physical Unit³						
Average Price of Physical Units of Consumption, Fuels Used:						
Electricity (cents per kWh)	8.8	9.2	8.6	9.1	7.9	1.2
Natural Gas (dollars per thousand cf)	9.98	9.98	9.82	10.15	9.75	2.0
Fuel Oil (dollars per gallon)	1.24	1.16	1.27	1.29	1.23	1.2
Kerosene (dollars per gallon)	1.50	1.59	1.53	1.51	1.48	3.5
LPG (dollars per gallon)	1.36	1.52	1.35	1.54	1.33	3.6
Million Households						
Number of Households, Where the End Use Is:						
Space Heating ⁴	105.3	48.9	17.9	21.1	17.3	4.2
Electric Air-Conditioning ⁵	80.8	35.6	13.4	18.6	13.3	4.3
Water Heating ⁶	106.7	49.7	18.0	21.2	17.8	4.2
Refrigerators	106.8	49.7	18.0	21.2	17.8	4.2
Appliances	107.0	49.9	18.0	21.2	17.9	4.1
Billion Dollars						
Total Expenditures, Where the End Use Is:						
Space Heating	49.95	20.62	9.52	10.50	9.31	4.9
Electric Air-Conditioning	15.92	6.75	2.11	4.53	2.53	6.3
Water Heating	22.10	9.44	3.69	4.74	4.22	4.1
Refrigerators	14.78	6.62	2.44	3.26	2.45	4.1
Other Appliances and Lighting	56.41	23.70	9.38	12.94	10.40	4.3
Dollars per Household³						
Total Expenditures per Household, Where the End Use Is:						
Space Heating	474	421	531	497	538	3.0
Electric Air-Conditioning	197	190	157	244	191	4.4
Water Heating	207	190	205	223	238	1.9
Refrigerators	138	133	135	154	138	2.2
Other Appliances and Lighting	527	475	520	610	581	2.3

¹ Based on the household respondent's description rather than the Federal Government definition.

² The RECS cannot be used to accurately estimate the number of households that do not use electricity.

³ The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

⁴ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

⁵ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

⁶ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-9e. Total Energy Expenditures in U.S. Households by Northeast Census Region, 2001 - Preliminary Data

	Northeast Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	Middle Atlantic	New England	
	RSE Column Factor:	0.5	1.0	1.2	
Million Households					
Total U.S. Households	107.0	20.3	14.8	5.4	NF
Number of Households, Fuels Used (more than one may apply):					
Electricity ¹	107.0	20.3	14.8	5.4	NF
Natural Gas	66.9	12.5	10.3	2.3	7.5
Fuel Oil	8.7	6.6	3.9	2.7	12.4
Kerosene	2.9	0.7	0.4	0.0	23.6
LPG	9.4	1.7	1.0	0.7	16.7
Wood	14.5	2.3	1.3	0.9	13.1
Billion Dollars					
Total Expenditures, Fuels Used:					
Electricity	99.77	17.71	13.18	4.53	2.7
Natural Gas	46.98	11.14	8.85	2.29	11.0
Fuel Oil	6.31	5.13	2.66	2.46	14.2
Kerosene	0.53	0.22	0.14	0.00	32.1
LPG	5.57	0.90	0.48	0.42	20.7
Total	159.15	35.10	25.30	9.80	2.2
Dollars per Household²					
Total Expenditures per Household, Fuels Used:					
Electricity	933	874	888	838	2.7
Natural Gas	702	889	861	1,014	5.5
Fuel Oil	737	785	701	903	4.2
Kerosene	180	323	340	299	18.6
LPG	602	522	483	573	15.4
Total	1,488	1,733	1,704	1,812	2.2
Dollars per Million Btu²					
Average Price of Btu Consumption, Fuels Used:					
Electricity	25.79	33.99	33.68	34.92	1.9
Natural Gas	9.70	11.35	11.13	12.29	2.3
Fuel Oil	8.91	8.88	8.74	9.02	0.9
Kerosene	11.08	10.72	10.26	11.57	2.6
LPG	14.90	17.34	17.49	17.18	3.9
Total	16.17	16.30	16.52	15.76	1.0

See footnotes at end of table.

Table CE1-9e. Total Energy Expenditures in U.S. Households by Northeast Census Region, 2001 - Preliminary Data (Continued)

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
			0.5	1.0	
RSE Column Factor:	0.5	1.0	1.2	1.6	
Price per Physical Unit²					
Average Price of Physical Units of Consumption, Fuels Used:					
Electricity (cents per kWh)	8.8	11.6	11.5	11.9	1.9
Natural Gas (dollars per thousand cf)	9.98	11.68	11.45	12.64	2.3
Fuel Oil (dollars per gallon)	1.24	1.23	1.21	1.25	0.9
Kerosene (dollars per gallon)	1.50	1.45	1.39	1.56	2.6
LPG (dollars per gallon)	1.36	1.58	1.60	1.57	3.9
Million Households					
Number of Households, Where the End Use Is:					
Space Heating ³	105.3	19.9	14.6	5.3	NF
Electric Air-Conditioning ⁴	80.8	14.2	11.1	3.2	3.4
Water Heating ⁵	106.7	20.2	14.8	5.4	NF
Refrigerators	106.8	20.2	14.8	5.4	NF
Appliances	107.0	20.3	14.8	5.4	NF
Billion Dollars					
Total Expenditures, Where the End Use Is:					
Space Heating	49.95	13.92	9.78	4.15	3.3
Electric Air-Conditioning	15.92	1.56	1.28	0.28	7.4
Water Heating	22.10	4.61	3.23	1.38	2.4
Refrigerators	14.78	3.17	2.38	0.79	1.9
Other Appliances and Lighting	56.41	11.84	8.64	3.20	3.0
Dollars per Household²					
Total Expenditures per Household, Where the End Use Is:					
Space Heating	474	699	671	776	3.2
Electric Air-Conditioning	197	110	116	88	5.8
Water Heating	207	228	219	255	2.4
Refrigerators	138	157	160	147	1.8
Other Appliances and Lighting	527	584	582	591	3.0

¹ The RECS cannot be used to accurately estimate the number of households that do not use electricity.
² The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.
³ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
⁴ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.
⁵ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
 NF = No applicable RSE row factor.
 Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.
 Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-10e. Total Energy Expenditures in U.S. Households, by Midwest Census Region, 2001 - Preliminary Data

	Total U.S.	Midwest Census Region			RSE Row Factors
		Total	Census Division		
			East North Central	West North Central	
RSE Column Factor:	0.6	1.0	1.3	1.4	
Million Households					
Total U.S. Households	107.0	24.5	17.1	7.4	NF
Number of Households, Fuels Used (more than one may apply):					
Electricity ¹	107.0	24.5	17.1	7.4	NF
Natural Gas	66.9	19.4	14.2	5.2	3.9
Fuel Oil	8.7	0.9	0.5	0.4	15.2
Kerosene	2.9	0.5	0.4	Q	14.0
LPG	9.4	2.3	1.1	1.2	22.0
Wood	14.5	2.5	1.4	1.1	13.1
Billion Dollars					
Total Expenditures, Fuels Used:					
Electricity	99.77	19.70	13.37	6.33	2.5
Natural Gas	46.98	15.56	11.49	4.07	5.4
Fuel Oil	6.31	0.53	0.28	0.25	19.6
Kerosene	0.53	0.04	Q	Q	34.7
LPG	5.57	1.85	0.89	0.95	23.0
Total	159.15	37.68	26.06	11.62	2.1
Dollars per Household²					
Total Expenditures per Household, Fuels Used:					
Electricity	933	804	782	856	2.5
Natural Gas	702	803	811	779	3.5
Fuel Oil	737	597	548	663	12.0
Kerosene	180	88	Q	Q	29.3
LPG	602	809	827	792	5.8
Total	1,488	1,539	1,525	1,570	2.1
Dollars per Million Btu²					
Average Price of Btu Consumption, Fuels Used:					
Electricity	25.79	24.27	25.11	22.67	1.9
Natural Gas	9.70	8.48	8.26	9.16	2.1
Fuel Oil	8.91	8.73	8.66	8.80	1.8
Kerosene	11.08	13.58	13.04	Q	3.4
LPG	14.90	12.73	13.22	12.29	2.5
Total	16.17	13.19	12.86	13.99	2.0

See footnotes at end of table.

Table CE1-10e. Total Energy Expenditures in U.S. Households, by Midwest Census Region, 2001 - Preliminary Data (Continued)

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
			0.6	1.0	
RSE Column Factor:					
Price per Physical Unit²					
Average Price of Physical Units of Consumption, Fuels Used:					
Electricity (cents per kWh)	8.8	8.3	8.6	7.7	1.9
Natural Gas (dollars per thousand cf)	9.98	8.72	8.50	9.43	2.1
Fuel Oil (dollars per gallon)	1.24	1.21	1.20	1.22	1.8
Kerosene (dollars per gallon)	1.50	1.83	1.76	Q	3.4
LPG (dollars per gallon)	1.36	1.16	1.21	1.12	2.5
Million Households					
Number of Households, Where the End Use Is:					
Space Heating ³	105.3	24.4	17.0	7.3	NF
Electric Air-Conditioning ⁴	80.8	20.2	13.4	6.7	2.3
Water Heating ⁵	106.7	24.5	17.1	7.4	NF
Refrigerators	106.8	24.5	17.1	7.4	NF
Appliances	107.0	24.5	17.1	7.4	NF
Billion Dollars					
Total Expenditures, Where the End Use Is:					
Space Heating	49.95	14.99	10.44	4.55	3.0
Electric Air-Conditioning	15.92	2.52	1.59	0.93	5.2
Water Heating	22.10	4.56	3.06	1.49	2.4
Refrigerators	14.78	3.17	2.22	0.95	2.1
Other Appliances and Lighting	56.41	12.45	8.76	3.69	2.3
Dollars per Household²					
Total Expenditures per Household, Where the End Use Is:					
Space Heating	474	615	613	620	3.0
Electric Air-Conditioning	197	125	118	138	4.8
Water Heating	207	186	179	202	2.4
Refrigerators	138	129	130	129	2.1
Other Appliances and Lighting	527	508	513	498	2.3

¹ The RECS cannot be used to accurately estimate the number of households that do not use electricity.
² The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.
³ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
⁴ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.
⁵ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
 NF = No applicable RSE row factor.
 Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.
 Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.
 Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE1-11e. Total Energy Expenditures in U.S. Households
by South Census Region, 2001 - Preliminary Data**

	South Census Region					RSE Row Factors
	Total U.S.	Census Division				
		Total	South Atlantic	East South Central	West south Central	
RSE Column Factor:	0.5	0.9	1.1	1.4	1.7	
Million Households						
Total U.S. Households	107.0	38.9	20.3	6.8	11.8	NF
Number of Households, Fuels Used (more than one may apply):						
Electricity ¹	107.0	38.9	20.3	6.8	11.8	NF
Natural Gas	66.9	18.7	8.0	2.9	7.8	7.0
Fuel Oil	8.7	0.9	0.9	Q	Q	30.5
Kerosene	2.9	1.4	1.0	0.3	Q	19.9
LPG	9.4	3.8	2.1	1.3	0.5	16.6
Wood	14.5	5.2	2.8	0.9	1.5	11.2
Billion Dollars						
Total Expenditures, Fuels Used:						
Electricity	99.77	44.71	23.33	6.99	14.39	3.3
Natural Gas	46.98	11.84	5.74	1.77	4.33	9.5
Fuel Oil	6.31	0.55	0.53	Q	Q	34.2
Kerosene	0.53	0.19	0.14	0.06	Q	33.8
LPG	5.57	1.92	1.04	0.63	0.26	21.4
Total	159.15	59.22	30.77	9.47	18.98	2.8
Dollars per Household²						
Total Expenditures per Household, Fuels Used:						
Electricity	933	1,149	1,150	1,026	1,219	3.4
Natural Gas	702	635	720	606	559	6.0
Fuel Oil	737	598	629	Q	Q	15.1
Kerosene	180	139	143	163	Q	23.4
LPG	602	512	512	500	541	10.1
Total	1,488	1,521	1,515	1,388	1,608	2.8
Dollars per Million Btu²						
Average Price of Btu Consumption, Fuels Used:						
Electricity	25.79	23.80	24.70	19.41	25.08	1.8
Natural Gas	9.70	10.50	11.72	9.82	9.46	4.2
Fuel Oil	8.91	9.48	9.54	Q	Q	5.6
Kerosene	11.08	11.11	10.99	11.37	Q	2.6
LPG	14.90	16.31	17.71	15.10	14.52	3.2
Total	16.17	18.50	19.72	16.06	18.08	2.8

See footnotes at end of table.

**Table CE1-11e. Total Energy Expenditures in U.S. Households
by South Census Region, 2001 - Preliminary Data (Continued)**

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			West south Central	
		Total	South Atlantic	East South Central		
RSE Column Factor:	0.5	0.9	1.1	1.4	1.7	
Price per Physical Unit²						
Average Price of Physical Units of Consumption, Fuels Used:						
Electricity (cents per kWh)	8.8	8.1	8.4	6.6	8.6	1.8
Natural Gas (dollars per thousand cf)	9.98	10.80	12.06	10.11	9.73	4.2
Fuel Oil (dollars per gallon)	1.24	1.31	1.32	Q	Q	5.6
Kerosene (dollars per gallon)	1.50	1.50	1.48	1.53	Q	2.6
LPG (dollars per gallon)	1.36	1.49	1.62	1.38	1.33	3.2
Million Households						
Number of Households, Where the End Use Is:						
Space Heating ³	105.3	38.7	20.0	6.8	11.8	NF
Electric Air-Conditioning ⁴	80.8	36.9	19.0	6.4	11.5	1.6
Water Heating ⁵	106.7	38.9	20.3	6.8	11.8	NF
Refrigerators	106.8	38.9	20.3	6.8	11.8	NF
Appliances	107.0	38.9	20.3	6.8	11.8	NF
Billion Dollars						
Total Expenditures, Where the End Use Is:						
Space Heating	49.95	13.92	7.20	2.86	3.87	5.8
Electric Air-Conditioning	15.92	10.35	5.06	1.28	4.01	4.2
Water Heating	22.10	8.59	4.78	1.36	2.46	2.8
Refrigerators	14.78	5.50	2.80	0.81	1.89	3.5
Other Appliances and Lighting	56.41	20.85	10.93	3.17	6.76	2.6
Dollars per Household²						
Total Expenditures per Household, Where the End Use Is:						
Space Heating	474	360	359	419	328	5.8
Electric Air-Conditioning	197	281	266	200	350	3.5
Water Heating	207	221	236	199	209	2.8
Refrigerators	138	141	138	118	160	3.5
Other Appliances and Lighting	527	536	538	465	573	2.6

¹ The RECS cannot be used to accurately estimate the number of households that do not use electricity.

² The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

³ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

⁴ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

⁵ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE1-12e. Total Energy Expenditures in U.S. Households
by West Census Region, 2001 - Preliminary Data**

	West Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	Mountain	Pacific	
	RSE Column Factor:	0.5	1.1	1.7	
Million Households					
Total U.S. Households	107.0	23.3	6.7	16.6	NF
Number of Households, Fuels Used (more than one may apply):					
Electricity ¹	107.0	23.3	6.7	16.6	NF
Natural Gas	66.9	16.3	4.7	11.6	2.6
Fuel Oil	8.7	0.2	Q	0.2	24.9
Kerosene	2.9	0.4	Q	0.3	18.3
LPG	9.4	1.5	0.5	1.0	17.4
Wood	14.5	4.6	1.0	3.5	10.4
Billion Dollars					
Total Expenditures, Fuels Used:					
Electricity	99.77	17.65	5.36	12.29	2.8
Natural Gas	46.98	8.43	2.64	5.78	5.1
Fuel Oil	6.31	0.10	Q	0.09	32.9
Kerosene	0.53	0.07	Q	0.07	36.9
LPG	5.57	0.90	0.41	0.50	21.5
Total	159.15	27.16	8.43	18.73	2.9
Dollars per Household²					
Total Expenditures per Household, Fuels Used:					
Electricity	933	758	797	742	2.8
Natural Gas	702	516	558	499	4.5
Fuel Oil	737	473	Q	465	14.9
Kerosene	180	184	Q	195	29.8
LPG	602	607	762	520	9.3
Total	1,488	1,165	1,253	1,129	2.9
Dollars per Million Btu²					
Average Price of Btu Consumption, Fuels Used:					
Electricity	25.79	26.90	23.72	28.57	2.0
Natural Gas	9.70	9.38	8.10	10.11	2.5
Fuel Oil	8.91	8.96	Q	9.14	2.2
Kerosene	11.08	11.01	Q	11.01	1.9
LPG	14.90	15.25	13.16	17.52	4.2
Total	16.17	16.64	14.41	17.89	1.5

See footnotes at end of table.

**Table CE1-12e. Total Energy Expenditures in U.S. Households
by West Census Region, 2001 - Preliminary Data (Continued)**

	West Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Mountain	Pacific	
RSE Column Factor:	0.5	1.1	1.7	1.2	
Price per Physical Unit²					
Average Price of Physical Units of Consumption, Fuels Used:					
Electricity (cents per kWh)	8.8	9.2	8.1	9.7	2.0
Natural Gas (dollars per thousand cf)	9.98	9.65	8.34	10.40	2.5
Fuel Oil (dollars per gallon)	1.24	1.24	Q	1.27	2.2
Kerosene (dollars per gallon)	1.50	1.49	Q	1.49	1.9
LPG (dollars per gallon)	1.36	1.39	1.20	1.60	4.2
Million Households					
Number of Households, Where the End Use Is:					
Space Heating ³	105.3	22.4	6.7	15.7	NF
Electric Air-Conditioning ⁴	80.8	9.6	3.2	6.3	7.2
Water Heating ⁵	106.7	23.2	6.7	16.5	NF
Refrigerators	106.8	23.2	6.7	16.5	NF
Appliances	107.0	23.3	6.7	16.6	NF
Billion Dollars					
Total Expenditures, Where the End Use Is:					
Space Heating	49.95	7.12	2.55	4.56	4.6
Electric Air-Conditioning	15.92	1.49	0.77	0.73	9.6
Water Heating	22.10	4.33	1.22	3.12	2.9
Refrigerators	14.78	2.94	0.82	2.12	3.0
Other Appliances and Lighting	56.41	11.27	3.07	8.20	3.4
Dollars per Household²					
Total Expenditures per Household, Where the End Use Is:					
Space Heating	474	318	382	291	4.7
Electric Air-Conditioning	197	156	239	114	7.9
Water Heating	207	187	182	189	2.8
Refrigerators	138	127	123	128	3.0
Other Appliances and Lighting	527	483	456	495	3.4

¹ The RECS cannot be used to accurately estimate the number of households that do not use electricity.
² The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.
³ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
⁴ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.
⁵ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
 NF = No applicable RSE row factor.
 Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.
 Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.
 Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

2001 Consumption and Expenditures Tables

Total Expenditures Tables

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These data are from the 2001 Residential Energy Consumption Survey (RECS) which provides information on the use of energy in residential housing units in the United States. The RECS is a national statistical survey that collects energy-related data for occupied primary housing units. RECS was first conducted in 1978; the twelfth and most recent survey was conducted in 2001. In the 2001 RECS, data were collected from a sample of 4,822 households in housing units statistically selected to represent the 107.0 million housing units in the United States. The RECS data are available for the four Census regions, the nine Census divisions, and for the four most populous States--California, Florida, New York, and Texas.

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World Wide Web: <http://www.eia.doe.gov/emeu/consumption>

Table CE1-1e. Total Energy Expenditures in U.S. Households by Climate Zone, 2001

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.4	1.7	1.1	1.1	1.2	1.1	
Million Households							
Total U.S. Households	107.0	9.2	28.6	24.0	21.0	24.1	7.9
Number of Households, Fuels Used (more than one may apply):							
Electricity ²	107.0	9.2	28.6	24.0	21.0	24.1	7.9
Natural Gas	66.9	4.9	21.2	14.9	13.8	12.1	8.6
Fuel Oil	8.7	1.8	2.9	3.7	Q	Q	16.9
Kerosene	2.9	0.4	0.7	0.7	0.8	0.3	21.6
LPG	9.4	1.6	2.2	1.9	2.1	1.5	20.9
Wood	14.5	2.0	3.1	2.9	3.4	3.0	13.1
Billion Dollars							
Total Expenditures, Fuels Used:							
Electricity	100.34	7.31	22.84	21.54	19.40	29.24	7.3
Natural Gas	46.98	3.58	18.14	11.21	8.13	5.92	10.4
Fuel Oil	6.31	1.51	2.38	2.32	Q	Q	19.4
Kerosene	0.52	0.11	0.12	0.13	0.14	Q	32.6
LPG	5.60	0.93	1.65	1.19	1.07	0.75	23.7
Total	159.74	13.45	45.13	36.39	28.83	35.95	7.0
Dollars per Household³							
Total Expenditures per Household, Fuels Used:							
Electricity	938	791	797	897	924	1,215	2.9
Natural Gas	702	728	856	751	588	490	4.1
Fuel Oil	728	821	836	634	Q	Q	6.4
Kerosene	178	270	188	173	170	Q	22.0
LPG	598	602	741	613	506	494	9.8
Total	1,493	1,454	1,576	1,514	1,373	1,493	2.6
Dollars per Million Btu³							
Average Price of Btu Consumption, Fuels Used:							
Electricity	25.80	23.92	25.88	25.42	26.77	25.90	2.6
Natural Gas	9.70	8.37	9.10	10.32	11.07	9.80	2.5
Fuel Oil	8.91	8.96	9.00	8.79	Q	Q	1.7
Kerosene	11.09	10.90	11.11	11.55	11.01	10.10	4.1
LPG	14.87	13.40	14.15	14.87	16.56	16.62	4.3
Total	16.19	13.70	13.81	15.90	18.65	20.18	1.7

See footnotes at end of table.

Table CE1-1e. Total Energy Expenditures in U.S. Households by Climate Zone, 2001 (Continued)

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.4	1.7	1.1	1.1	1.2	1.1	
Price per Physical Unit³							
Average Price of Physical Units of Consumption, Fuels Used:							
Electricity (cents per kWh)	8.8	8.2	8.8	8.7	9.1	8.8	2.6
Natural Gas (dollars per thousand cf) ..	9.98	8.61	9.37	10.62	11.39	10.08	2.5
Fuel Oil (dollars per gallon)	1.24	1.24	1.25	1.22	Q	Q	1.7
Kerosene (dollars per gallon)	1.50	1.47	1.50	1.56	1.49	1.36	4.2
LPG (dollars per gallon)	1.36	1.22	1.29	1.36	1.51	1.52	4.3
Million Households							
Number of Households, Where the End Use Is:							
Space Heating ⁴	105.3	9.1	28.5	23.7	20.4	23.5	8.0
Electric Air-Conditioning ⁵	80.8	5.3	20.5	19.9	13.4	21.8	8.2
Water Heating ⁶	106.7	9.2	28.6	24.0	20.9	24.0	7.9
Refrigerators	106.8	9.2	28.6	24.0	20.9	24.1	7.9
Appliances	107.0	9.2	28.6	24.0	21.0	24.1	7.9
Billion Dollars^a							
Total Expenditures, Where the End Use Is:							
Space Heating	50.53	5.42	18.68	13.11	7.53	5.78	8.5
Electric Air-Conditioning	15.94	0.45	2.19	2.85	2.68	7.78	9.7
Water Heating	21.61	1.79	5.62	4.79	4.39	5.02	7.0
Refrigerators	14.38	1.06	3.50	3.09	2.78	3.94	6.9
Other Appliances and Lighting	57.28	4.71	15.14	12.55	11.45	13.43	6.9
Dollars per Household^{3,a}							
Total Expenditures per Household, Where the End Use Is:							
Space Heating	480	595	656	553	368	246	4.0
Electric Air-Conditioning	197	86	107	143	200	357	4.7
Water Heating	203	196	196	200	210	209	2.6
Refrigerators	135	115	122	129	133	164	2.8
Other Appliances and Lighting	535	510	529	522	545	558	2.8

¹ One of five climatically distinct areas, determined according to the 30-year average (1961-1990) of the annual heating and cooling degree-days. For this report, the heating or cooling degree-days are a measure of how cold or how hot a location is over a period of one year, relative to a base temperature of 65 degrees Fahrenheit. A household is assigned to a climate zone according to the 30-year average annual degree-days for an appropriate nearby weather station.

² The RECS cannot be used to accurately estimate the number of households that do not use electricity.

³ The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

⁴ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

⁵ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

⁶ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE1-2e. Total Energy Expenditures in U.S. Households
by Year of Construction, 2001**

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.6	1.1	1.0	1.2	1.1	0.9	
Million Households								
Total U.S. Households	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
Number of Households, Fuels Used (more than one may apply):								
Electricity ²	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
Natural Gas	66.9	9.4	8.8	9.0	9.5	10.3	20.0	5.9
Fuel Oil	8.7	0.3	0.5	0.9	1.3	1.8	3.9	15.5
Kerosene	2.9	0.4	0.3	0.7	0.4	0.3	0.8	20.8
LPG	9.4	1.4	1.5	1.7	1.1	1.0	2.6	13.9
Wood	14.5	2.0	3.0	3.2	2.0	1.7	2.5	9.9
Billion Dollars								
Total Expenditures, Fuels Used:								
Electricity	100.34	16.90	19.37	18.99	12.09	12.34	20.65	4.6
Natural Gas	46.98	6.54	5.53	5.28	6.00	7.15	16.47	7.3
Fuel Oil	6.31	0.21	0.40	0.61	0.77	1.29	3.04	18.0
Kerosene	0.52	0.10	0.05	0.18	Q	0.04	0.11	31.9
LPG	5.60	0.84	0.88	0.97	0.57	0.43	1.91	16.7
Total	159.74	24.59	26.22	26.03	19.48	21.25	42.18	4.4
Dollars per Household³								
Total Expenditures per Household, Fuels Used:								
Electricity	938	1,093	1,062	1,012	878	871	778	2.8
Natural Gas	702	699	630	587	633	692	825	3.8
Fuel Oil	737	750	813	736	600	721	780	7.3
Kerosene	178	232	145	251	Q	134	138	25.8
LPG	605	618	576	560	524	450	740	9.2
Total	1,493	1,591	1,438	1,388	1,414	1,500	1,586	2.3
Dollars per Million Btu³								
Average Price of Btu Consumption, Fuels Used:								
Electricity	25.80	24.98	24.84	24.79	26.84	26.78	27.34	1.4
Natural Gas	9.70	9.86	9.76	9.32	9.81	9.49	9.79	2.2
Fuel Oil	8.91	8.78	8.89	8.99	8.79	8.98	8.92	1.9
Kerosene	11.09	10.91	10.74	10.79	10.72	11.78	11.91	4.2
LPG	14.87	14.87	15.50	14.80	14.83	16.57	14.33	3.6
Total	16.19	17.20	18.05	17.56	16.34	15.32	14.44	1.4

See footnotes at end of table.

Table CE1-2e. Total Energy Expenditures in U.S. Households by Year of Construction, 2001 (Continued)

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.6	1.1	1.0	1.2	1.1	0.9	
Price per Physical Unit³								
Average Price of Physical Units of Consumption, Fuels Used:								
Electricity (cents per kWh)	8.8	8.5	8.5	8.5	9.2	9.1	9.3	1.4
Natural Gas (dollars per thousand cf)	9.98	10.14	10.04	9.59	10.09	9.77	10.08	2.2
Fuel Oil (dollars per gallon)	1.24	1.22	1.23	1.25	1.22	1.25	1.24	1.9
Kerosene (dollars per gallon)	1.50	1.47	1.45	1.46	1.45	1.59	1.61	4.2
LPG (dollars per gallon)	1.36	1.36	1.42	1.35	1.36	1.51	1.31	3.6
Million Households								
Number of Households, Where the End Use Is:								
Space Heating ⁴	105.3	15.4	18.1	18.5	13.4	13.8	26.2	4.3
Electric Air-Conditioning ⁵	80.8	13.4	15.8	14.2	10.1	10.2	17.1	4.7
Water Heating ⁶	106.7	15.4	18.2	18.7	13.7	14.2	26.4	4.3
Refrigerators	106.8	15.5	18.2	18.7	13.8	14.1	26.5	4.2
Appliances	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
Billion Dollars^a								
Total Expenditures, Where the End Use Is:								
Space Heating	50.53	6.23	6.66	7.22	6.03	7.00	17.38	5.1
Electric Air-Conditioning	15.94	3.33	3.56	3.17	1.84	1.75	2.30	7.2
Water Heating	21.61	3.47	3.86	3.68	2.59	2.84	5.18	4.4
Refrigerators	14.38	2.01	2.47	2.54	1.88	2.01	3.48	4.6
Other Appliances and Lighting	57.28	9.55	9.67	9.42	7.14	7.65	13.84	4.6
Dollars per Household^{3,a}								
Total Expenditures per Household, Where the End Use Is:								
Space Heating	480	405	368	391	449	508	664	3.2
Electric Air-Conditioning	197	249	225	224	181	172	134	5.4
Water Heating	203	225	212	196	189	200	196	2.3
Refrigerators	135	130	136	135	136	142	131	2.8
Other Appliances and Lighting	535	618	530	502	518	540	520	2.7

¹ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

² The RECS cannot be used to accurately estimate the number of households that do not use electricity.

³ The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

⁴ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

⁵ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

⁶ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-3e. Total Energy Expenditures in U.S. Households by Household Income, 2001

	Total	2001 Household Income				Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.6	0.9	1.0	0.9	1.4	0.9	
Million Households								
Total U.S. Households	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.3
Number of Households, Fuels Used (more than one may apply):								
Electricity ²	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.3
Natural Gas	66.9	6.8	18.2	16.4	25.5	9.3	20.7	4.8
Fuel Oil	8.7	0.6	2.2	2.5	3.4	0.8	2.4	12.7
Kerosene	2.9	0.4	0.8	0.9	0.8	0.7	1.2	17.0
LPG	9.4	0.9	2.9	2.6	3.0	1.2	3.0	12.7
Wood	14.5	0.4	2.5	3.6	8.0	0.7	2.3	10.1
Billion Dollars								
Total Expenditures, Fuels Used:								
Electricity	100.34	6.93	23.57	24.97	44.87	10.57	26.21	3.7
Natural Gas	46.98	3.75	11.56	11.10	20.57	5.30	13.18	6.4
Fuel Oil	6.31	0.32	1.45	1.70	2.84	0.42	1.60	14.2
Kerosene	0.52	0.11	0.19	0.13	0.09	0.16	0.28	26.0
LPG	5.60	0.37	1.73	1.56	1.94	0.59	1.67	16.6
Total	159.74	11.47	38.49	39.46	70.32	17.04	42.94	3.5
Dollars per Household³								
Total Expenditures per Household, Fuels Used:								
Electricity	938	628	772	922	1,172	706	776	2.1
Natural Gas	702	555	634	677	805	571	636	3.6
Fuel Oil	737	578	648	693	857	570	685	6.1
Kerosene	178	235	232	154	115	248	228	19.7
LPG	605	422	601	608	662	478	554	8.7
Total	1,493	1,039	1,260	1,456	1,836	1,138	1,270	1.9
Dollars per Million Btu³								
Average Price of Btu Consumption, Fuels Used:								
Electricity	25.80	25.59	25.38	25.61	26.16	25.38	25.62	1.2
Natural Gas	9.70	9.95	9.74	9.68	9.64	9.85	9.71	1.9
Fuel Oil	8.91	8.47	8.83	8.81	9.08	8.60	8.87	1.5
Kerosene	11.09	10.74	10.99	11.56	11.06	11.06	10.98	3.3
LPG	14.87	14.59	14.38	14.62	15.62	14.60	14.58	2.6
Total	16.19	15.93	15.93	16.22	16.37	16.10	15.90	1.2

See footnotes at end of table.

Table CE1-3e. Total Energy Expenditures in U.S. Households by Household Income, 2001 (Continued)

	2001 Household Income					Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
	Total	Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.6	0.9	1.0	0.9	1.4	0.9	
Price per Physical Unit³								
Average Price of Physical Units of Consumption, Fuels Used:								
Electricity (cents per kWh)	8.8	8.7	8.7	8.7	8.9	8.7	8.7	1.2
Natural Gas (dollars per thousand cf)	9.98	10.24	10.02	9.96	9.92	10.14	9.99	1.9
Fuel Oil (dollars per gallon)	1.24	1.17	1.22	1.22	1.26	1.19	1.23	1.5
Kerosene (dollars per gallon)	1.50	1.45	1.48	1.56	1.49	1.49	1.48	3.3
LPG (dollars per gallon)	1.36	1.33	1.31	1.34	1.43	1.33	1.33	2.6
Million Households								
Number of Households, Where the End Use Is:								
Space Heating ⁴	105.3	10.8	30.2	26.5	37.8	14.6	33.2	3.4
Electric Air-Conditioning ⁵	80.8	6.9	21.7	21.0	31.2	9.1	22.6	3.9
Water Heating ⁶	106.7	11.0	30.5	27.0	38.2	14.9	33.7	3.3
Refrigerators	106.8	11.0	30.5	27.1	38.3	14.9	33.7	3.3
Appliances	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.3
Billion Dollars^a								
Total Expenditures, Where the End Use Is:								
Space Heating	50.53	4.10	13.29	12.58	20.55	5.66	14.58	4.3
Electric Air-Conditioning	15.94	0.88	3.22	3.82	8.02	1.32	3.31	5.9
Water Heating	21.61	1.63	5.41	5.52	9.05	2.54	6.20	3.5
Refrigerators	14.38	1.23	3.74	3.50	5.92	1.68	4.07	3.5
Other Appliances and Lighting	57.28	3.62	12.83	14.05	26.78	5.84	14.79	3.7
Dollars per Household^{3,a}								
Total Expenditures per Household, Where the End Use Is:								
Space Heating	480	380	441	474	543	388	439	3.2
Electric Air-Conditioning	197	129	148	182	257	145	147	4.1
Water Heating	203	149	177	204	237	170	184	1.9
Refrigerators	135	112	123	129	155	113	121	2.0
Other Appliances and Lighting	535	328	420	518	699	390	437	2.2

¹ Below 150 percent of poverty line or 60 percent of median State income.

² The RECS cannot be used to accurately estimate the number of households that do not use electricity.

³ The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

⁴ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

⁵ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

⁶ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-4e. Total Energy Expenditures in U.S. Households by Type of Housing Unit, 2001

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Apartments in Buildings With		Mobile Homes	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.6	1.6	1.3	1.8	
Million Households						
Total U.S. Households	107.0	73.7	9.5	17.0	6.8	4.4
Number of Households, Fuels Used (more than one may apply):						
Electricity ¹	107.0	73.7	9.5	17.0	6.8	4.4
Natural Gas	66.9	48.5	6.2	9.9	2.3	6.0
Fuel Oil	8.7	6.4	0.6	1.4	0.2	16.8
Kerosene	2.9	2.2	Q	Q	0.6	16.1
LPG	9.4	7.6	Q	Q	1.6	14.5
Wood	14.5	13.2	0.4	0.3	0.6	16.2
Billion Dollars						
Total Expenditures, Fuels Used:						
Electricity	100.34	76.69	6.68	10.29	6.68	5.0
Natural Gas	46.98	38.04	4.70	2.98	1.26	8.1
Fuel Oil	6.31	5.32	0.54	0.37	0.08	19.0
Kerosene	0.52	0.31	Q	Q	0.20	27.2
LPG	5.60	4.67	Q	Q	0.87	17.9
Total	159.74	125.02	11.97	13.66	9.09	4.4
Dollars per Household²						
Total Expenditures per Household, Fuels Used:						
Electricity	938	1,041	704	605	981	2.9
Natural Gas	702	785	754	300	546	4.3
Fuel Oil	737	840	872	263	391	6.8
Kerosene	178	139	Q	Q	340	18.4
LPG	605	626	Q	Q	542	8.2
Total	1,493	1,697	1,261	803	1,336	2.1
Dollars per Million Btu²						
Average Price of Btu Consumption, Fuels Used:						
Electricity	25.80	25.50	28.75	28.60	23.05	1.4
Natural Gas	9.70	9.57	10.52	10.56	9.07	2.1
Fuel Oil	8.91	9.09	9.24	6.65	9.05	1.9
Kerosene	11.09	11.65	Q	Q	10.36	2.5
LPG	14.87	14.89	Q	Q	14.64	3.1
Total	16.19	15.81	16.15	19.57	17.59	1.7

See footnotes at end of table.

Table CE1-4e. Total Energy Expenditures in U.S. Households by Type of Housing Unit, 2001 (Continued)

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Apartments in Buildings With		Mobile Homes	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.6	1.6	1.3	1.8	
Price per Physical Unit²						
Average Price of Physical Units of Consumption, Fuels Used:						
Electricity (cents per kWh)	8.8	8.7	9.8	9.8	7.9	1.4
Natural Gas (dollars per thousand cf)	9.98	9.84	10.82	10.86	9.34	2.1
Fuel Oil (dollars per gallon)	1.24	1.26	1.28	0.92	1.25	1.9
Kerosene (dollars per gallon)	1.50	1.57	Q	Q	1.40	2.5
LPG (dollars per gallon)	1.36	1.36	Q	Q	1.34	3.1
Million Households						
Number of Households, Where the End Use Is:						
Space Heating ³	105.3	72.8	9.4	16.3	6.8	4.5
Electric Air-Conditioning ⁴	80.8	57.6	6.3	11.8	5.1	4.9
Water Heating ⁵	106.7	73.5	9.5	16.9	6.8	4.4
Refrigerators	106.8	73.6	9.5	16.9	6.8	4.4
Appliances	107.0	73.7	9.5	17.0	6.8	4.4
Billion Dollars^a						
Total Expenditures, Where the End Use Is:						
Space Heating	50.53	39.80	4.73	3.33	2.66	5.1
Electric Air-Conditioning	15.94	12.70	0.85	1.51	0.88	8.0
Water Heating	21.61	16.27	1.57	2.33	1.44	4.6
Refrigerators	14.38	10.82	1.07	1.65	0.85	4.6
Other Appliances and Lighting	57.28	45.42	3.75	4.84	3.27	4.8
Dollars per Household^{2,a}						
Total Expenditures per Household, Where the End Use Is:						
Space Heating	480	546	505	204	393	3.5
Electric Air-Conditioning	197	221	135	128	171	5.7
Water Heating	203	221	165	138	212	2.4
Refrigerators	135	147	113	98	124	2.5
Other Appliances and Lighting	535	616	395	284	480	2.7

¹ The RECS cannot be used to accurately estimate the number of households that do not use electricity.

² The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

³ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

⁴ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

⁵ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-7e. Total Energy Expenditures in U.S. Households by Four Most Populated States, 2001

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.4	1.2	0.9	1.6	1.5	
Million Households						
Total U.S. Households	107.0	7.1	12.3	7.7	6.3	NE
Number of Households, Fuels Used (more than one may apply):						
Electricity ¹	107.0	7.1	12.3	7.7	6.3	NE
Natural Gas	66.9	5.4	10.5	4.9	1.3	4.1
Fuel Oil	8.7	2.2	Q	Q	Q	19.9
Kerosene	2.9	0.2	0.3	Q	Q	25.5
LPG	9.4	0.5	0.7	0.3	0.4	24.0
Wood	14.5	0.7	2.3	1.1	0.5	17.3
Billion Dollars						
Total Expenditures, Fuels Used:						
Electricity	100.34	6.16	8.86	9.97	8.63	4.5
Natural Gas	46.98	4.51	5.09	2.43	0.51	7.8
Fuel Oil	6.31	1.36	Q	Q	Q	23.0
Kerosene	0.52	0.04	0.06	Q	Q	35.4
LPG	5.60	0.16	0.38	0.13	0.09	25.0
Total	159.74	12.23	14.42	12.53	9.23	3.6
Dollars per Household²						
Total Expenditures per Household, Fuels Used:						
Electricity	938	870	719	1,300	1,364	4.5
Natural Gas	702	829	483	497	386	5.9
Fuel Oil	737	624	Q	Q	Q	5.8
Kerosene	178	222	222	Q	Q	30.8
LPG	605	321	549	447	262	15.5
Total	1,493	1,727	1,168	1,634	1,458	3.6
Dollars per Million Btu²						
Average Price of Btu Consumption, Fuels Used:						
Electricity	25.80	42.67	35.37	25.50	26.21	2.3
Natural Gas	9.70	11.61	10.42	8.72	14.70	4.0
Fuel Oil	8.91	8.72	Q	Q	Q	1.3
Kerosene	11.09	9.96	10.85	Q	Q	5.6
LPG	14.87	19.07	17.88	14.57	24.23	7.7
Total	16.19	17.44	18.76	18.47	25.11	1.8

See footnotes at end of table.

Table CE1-7e. Total Energy Expenditures in U.S. Households by Four Most Populated States, 2001 (Continued)

	Four Most Populated States				RSE Row Factors	
	Total U.S.	New York	California	Texas		Florida
RSE Column Factor:	0.4	1.2	0.9	1.6	1.5	
Price per Physical Unit²						
Average Price of Physical Units of Consumption, Fuels Used:						
Electricity (cents per kWh)	8.8	14.6	12.1	8.7	8.9	2.3
Natural Gas (dollars per thousand cf)	9.98	11.95	10.72	8.98	15.13	4.0
Fuel Oil (dollars per gallon)	1.24	1.21	Q	Q	Q	1.3
Kerosene (dollars per gallon)	1.50	1.35	1.46	Q	Q	5.6
LPG (dollars per gallon)	1.36	1.74	1.63	1.33	2.21	7.7
Million Households						
Number of Households, Where the End Use Is:						
Space Heating ³	105.3	7.0	11.8	7.7	6.2	NE
Electric Air-Conditioning ⁴	80.8	4.7	5.2	7.4	6.1	2.6
Water Heating ⁵	106.7	7.0	12.2	7.6	6.3	NE
Refrigerators	106.8	7.1	12.3	7.7	6.3	NE
Appliances	107.0	7.1	12.3	7.7	6.3	NE
Billion Dollars^a						
Total Expenditures, Where the End Use Is:						
Space Heating	50.53	4.57	3.24	2.32	0.64	6.7
Electric Air-Conditioning	15.94	0.51	0.64	2.83	2.64	8.3
Water Heating	21.61	1.51	2.32	1.49	1.39	3.5
Refrigerators	14.38	1.18	1.53	1.31	1.05	4.1
Other Appliances and Lighting	57.28	4.46	6.69	4.58	3.51	3.5
Dollars per Household^{2,a}						
Total Expenditures per Household, Where the End Use Is:						
Space Heating	480	658	274	302	103	6.8
Electric Air-Conditioning	197	109	125	384	436	6.8
Water Heating	203	214	190	196	220	3.4
Refrigerators	135	167	125	171	166	4.0
Other Appliances and Lighting	535	630	542	597	554	3.5

¹ The RECS cannot be used to accurately estimate the number of households that do not use electricity.
² The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.
³ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
⁴ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.
⁵ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
^a The row factor in this section is underestimated because it contains no error for estimating the end-use.
 NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.
 Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.
 Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.
 Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-8e. Total Energy Expenditures in U.S. Households by Urban/Rural Location, 2001

	Total	Urban/Rural Location ¹				RSE Row Factors
		City	Town	Suburbs	Rural	
RSE Column Factor:	0.5	1.0	1.4	1.3	1.1	
Million Households						
Total U.S. Households	107.0	49.9	18.0	21.2	17.9	4.2
Number of Households, Fuels Used (more than one may apply):						
Electricity ²	107.0	49.9	18.0	21.2	17.9	4.2
Natural Gas	66.9	37.4	11.2	14.4	3.9	5.5
Fuel Oil	8.7	2.6	2.1	1.4	2.6	13.3
Kerosene	2.9	0.5	0.6	0.4	1.4	20.1
LPG	9.4	0.9	1.6	0.8	6.1	14.9
Wood	14.5	3.9	2.4	3.2	5.1	9.4
Billion Dollars						
Total Expenditures, Fuels Used:						
Electricity	100.34	40.89	16.24	23.10	20.11	4.3
Natural Gas	46.98	24.34	8.32	11.38	2.94	7.2
Fuel Oil	6.31	1.49	1.71	1.13	1.97	14.6
Kerosene	0.52	0.05	0.09	0.04	0.35	31.6
LPG	5.60	0.39	0.98	0.50	3.73	19.1
Total	159.74	67.15	27.33	36.16	29.10	4.1
Dollars per Household³						
Total Expenditures per Household, Fuels Used:						
Electricity	938	820	901	1,089	1,126	2.2
Natural Gas	702	651	740	792	749	3.6
Fuel Oil	737	574	822	833	784	5.3
Kerosene	178	86	156	0	241	22.2
LPG	605	442	637	640	617	9.9
Total	1,493	1,347	1,516	1,704	1,628	1.9
Dollars per Million Btu³						
Average Price of Btu Consumption, Fuels Used:						
Electricity	25.80	27.10	25.32	26.53	23.16	1.2
Natural Gas	9.70	9.70	9.54	9.87	9.48	2.0
Fuel Oil	8.91	8.40	9.14	9.32	8.91	1.2
Kerosene	11.09	11.83	11.33	11.19	10.93	3.6
LPG	14.87	16.60	14.76	16.78	14.53	3.6
Total	16.19	15.91	15.40	16.59	17.23	1.3

See footnotes at end of table.

Table CE1-8e. Total Energy Expenditures in U.S. Households by Urban/Rural Location, 2001 (Continued)

	Urban/Rural Location ¹					RSE Row Factors
	Total	City	Town	Suburbs	Rural	
RSE Column Factor:	0.5	1.0	1.4	1.3	1.1	
Price per Physical Unit³						
Average Price of Physical Units of Consumption, Fuels Used:						
Electricity (cents per kWh)	8.8	9.2	8.6	9.1	7.9	1.2
Natural Gas (dollars per thousand cf)	9.98	9.98	9.82	10.15	9.75	2.0
Fuel Oil (dollars per gallon)	1.24	1.16	1.27	1.29	1.23	1.2
Kerosene (dollars per gallon)	1.50	1.60	1.53	1.51	1.48	3.6
LPG (dollars per gallon)	1.36	1.52	1.35	1.53	1.33	3.6
Million Households						
Number of Households, Where the End Use Is:						
Space Heating ⁴	105.3	48.9	17.9	21.1	17.3	4.2
Electric Air-Conditioning ⁵	80.8	35.6	13.4	18.6	13.3	4.3
Water Heating ⁶	106.7	49.7	18.0	21.2	17.8	4.2
Refrigerators	106.8	49.7	18.0	21.2	17.8	4.2
Appliances	107.0	49.9	18.0	21.2	17.9	4.2
Billion Dollars^a						
Total Expenditures, Where the End Use Is:						
Space Heating	50.53	20.96	9.63	10.57	9.36	4.9
Electric Air-Conditioning	15.94	6.83	2.15	4.53	2.44	6.1
Water Heating	21.61	9.17	3.62	4.65	4.17	4.1
Refrigerators	14.38	6.38	2.36	3.16	2.48	4.1
Other Appliances and Lighting	57.28	23.81	9.57	13.24	10.65	4.3
Dollars per Household^{3,a}						
Total Expenditures per Household, Where the End Use Is:						
Space Heating	480	428	537	500	541	3.0
Electric Air-Conditioning	197	192	160	244	184	4.2
Water Heating	203	185	201	219	235	1.9
Refrigerators	135	128	131	149	139	2.2
Other Appliances and Lighting	535	478	531	624	596	2.3

¹ Based on the household respondent's description rather than the Federal Government definition.
² The RECS cannot be used to accurately estimate the number of households that do not use electricity.
³ The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.
⁴ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
⁵ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.
⁶ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
^a The row factor in this section is underestimated because it contains no error for estimating the end-use.
Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.
Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-9e. Total Energy Expenditures in U.S. Households by Northeast Census Region, 2001

	Northeast Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	Middle Atlantic	New England	
	RSE Column Factor:	0.5	1.0	1.2	
Million Households					
Total U.S. Households	107.0	20.3	14.8	5.4	NE
Number of Households, Fuels Used (more than one may apply):					
Electricity ¹	107.0	20.3	14.8	5.4	NE
Natural Gas	66.9	12.5	10.3	2.3	7.5
Fuel Oil	8.7	6.6	3.9	2.7	12.4
Kerosene	2.9	0.7	0.4	0.0	23.4
LPG	9.4	1.7	1.0	0.7	16.7
Wood	14.5	2.3	1.3	0.9	13.1
Billion Dollars					
Total Expenditures, Fuels Used:					
Electricity	100.34	17.88	13.27	4.61	3.0
Natural Gas	46.98	11.14	8.85	2.29	11.0
Fuel Oil	6.31	5.13	2.66	2.46	14.2
Kerosene	0.52	0.22	0.14	0.00	31.8
LPG	5.60	0.89	0.48	0.42	20.6
Total	159.74	35.26	25.39	9.87	2.3
Dollars per Household²					
Total Expenditures per Household, Fuels Used:					
Electricity	938	883	894	852	3.0
Natural Gas	702	889	861	1,014	5.5
Fuel Oil	737	785	701	903	4.2
Kerosene	178	324	341	299	18.5
LPG	605	519	482	569	15.3
Total	1,493	1,741	1,710	1,825	2.3
Dollars per Million Btu²					
Average Price of Btu Consumption, Fuels Used:					
Electricity	25.80	33.93	33.59	34.95	2.0
Natural Gas	9.70	11.35	11.13	12.29	2.3
Fuel Oil	8.91	8.88	8.74	9.02	0.9
Kerosene	11.09	10.72	10.26	11.57	2.6
LPG	14.87	17.39	17.57	17.18	3.9
Total	16.19	16.34	16.54	15.83	1.0

See footnotes at end of table.

Table CE1-9e. Total Energy Expenditures in U.S. Households by Northeast Census Region, 2001 (Continued)

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
	RSE Column Factor:	0.5	1.0	1.2	
Price per Physical Unit²					
Average Price of Physical Units of Consumption, Fuels Used:					
Electricity (cents per kWh)	8.8	11.6	11.5	11.9	2.0
Natural Gas (dollars per thousand cf)	9.98	11.68	11.45	12.64	2.3
Fuel Oil (dollars per gallon)	1.24	1.23	1.21	1.25	0.9
Kerosene (dollars per gallon)	1.50	1.45	1.39	1.56	2.6
LPG (dollars per gallon)	1.36	1.59	1.60	1.57	3.9
Million Households					
Number of Households, Where the End Use Is:					
Space Heating ³	105.3	19.9	14.6	5.3	NE
Electric Air-Conditioning ⁴	80.8	14.2	11.1	3.2	3.4
Water Heating ⁵	106.7	20.2	14.8	5.4	NE
Refrigerators	106.8	20.2	14.8	5.4	NE
Appliances	107.0	20.3	14.8	5.4	NE
Billion Dollars^a					
Total Expenditures, Where the End Use Is:					
Space Heating	50.53	14.07	9.90	4.17	3.3
Electric Air-Conditioning	15.94	1.58	1.29	0.29	7.1
Water Heating	21.61	4.55	3.18	1.36	2.5
Refrigerators	14.38	3.02	2.27	0.76	1.8
Other Appliances and Lighting	57.28	12.04	8.75	3.29	3.1
Dollars per Household^{2,a}					
Total Expenditures per Household, Where the End Use Is:					
Space Heating	480	706	679	779	3.2
Electric Air-Conditioning	197	111	117	92	5.6
Water Heating	203	225	215	253	2.5
Refrigerators	135	150	153	140	1.8
Other Appliances and Lighting	535	594	589	609	3.1

¹ The RECS cannot be used to accurately estimate the number of households that do not use electricity.
² The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.
³ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
⁴ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.
⁵ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
^a The row factor in this section is underestimated because it contains no error for estimating the end-use.
NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.
Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-10e. Total Energy Expenditures in U.S. Households, by Midwest Census Region, 2001

	Total U.S.	Midwest Census Region			RSE Row Factors
		Total	Census Division		
			East North Central	West North Central	
RSE Column Factor:	0.6	1.0	1.3	1.4	
Million Households					
Total U.S. Households	107.0	24.5	17.1	7.4	NE
Number of Households, Fuels Used (more than one may apply):					
Electricity ¹	107.0	24.5	17.1	7.4	NE
Natural Gas	66.9	19.4	14.2	5.2	3.9
Fuel Oil	8.7	0.9	0.5	0.4	15.2
Kerosene	2.9	0.5	0.4	Q	14.0
LPG	9.4	2.3	1.1	1.2	22.0
Wood	14.5	2.5	1.4	1.1	13.1
Billion Dollars					
Total Expenditures, Fuels Used:					
Electricity	100.34	19.74	13.49	6.25	2.5
Natural Gas	46.98	15.56	11.49	4.07	5.4
Fuel Oil	6.31	0.53	0.28	0.25	19.6
Kerosene	0.52	0.04	Q	Q	34.8
LPG	5.60	1.87	0.93	0.94	23.2
Total	159.74	37.74	26.22	11.52	2.1
Dollars per Household²					
Total Expenditures per Household, Fuels Used:					
Electricity	938	806	789	845	2.5
Natural Gas	702	803	811	779	3.5
Fuel Oil	737	597	548	663	12.0
Kerosene	178	88	Q	Q	29.3
LPG	605	818	857	783	6.2
Total	1,493	1,541	1,534	1,557	2.1
Dollars per Million Btu²					
Average Price of Btu Consumption, Fuels Used:					
Electricity	25.80	24.29	25.13	22.65	2.0
Natural Gas	9.70	8.48	8.26	9.16	2.1
Fuel Oil	8.91	8.73	8.66	8.80	1.8
Kerosene	11.09	13.58	13.04	Q	3.4
LPG	14.87	12.72	13.23	12.25	2.5
Total	16.19	13.20	12.90	13.95	2.0

See footnotes at end of table.

Table CE1-10e. Total Energy Expenditures in U.S. Households, by Midwest Census Region, 2001 (Continued)

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
RSE Column Factor:	0.6	1.0	1.3	1.4	
Price per Physical Unit²					
Average Price of Physical Units of Consumption, Fuels Used:					
Electricity (cents per kWh)	8.8	8.3	8.6	7.7	2.0
Natural Gas (dollars per thousand cf)	9.98	8.72	8.50	9.43	2.1
Fuel Oil (dollars per gallon)	1.24	1.21	1.20	1.22	1.8
Kerosene (dollars per gallon)	1.50	1.83	1.76	Q	3.5
LPG (dollars per gallon)	1.36	1.16	1.21	1.12	2.5
Million Households					
Number of Households, Where the End Use Is:					
Space Heating ³	105.3	24.4	17.0	7.3	NE
Electric Air-Conditioning ⁴	80.8	20.2	13.4	6.7	2.3
Water Heating ⁵	106.7	24.5	17.1	7.4	NE
Refrigerators	106.8	24.5	17.1	7.4	NE
Appliances	107.0	24.5	17.1	7.4	NE
Billion Dollars^a					
Total Expenditures, Where the End Use Is:					
Space Heating	50.53	15.06	10.53	4.53	3.0
Electric Air-Conditioning	15.94	2.49	1.58	0.91	5.1
Water Heating	21.61	4.50	3.02	1.47	2.5
Refrigerators	14.38	2.99	2.10	0.89	2.0
Other Appliances and Lighting	57.28	12.70	8.98	3.71	2.4
Dollars per Household^{2,a}					
Total Expenditures per Household, Where the End Use Is:					
Space Heating	480	618	619	617	3.0
Electric Air-Conditioning	197	123	117	135	4.6
Water Heating	203	184	177	199	2.5
Refrigerators	135	122	123	121	2.0
Other Appliances and Lighting	535	518	526	502	2.4

¹ The RECS cannot be used to accurately estimate the number of households that do not use electricity.
² The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.
³ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
⁴ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.
⁵ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
^a The row factor in this section is underestimated because it contains no error for estimating the end-use.
NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.
Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.
Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE1-11e. Total Energy Expenditures in U.S. Households
by South Census Region, 2001**

	Total U.S.	South Census Region			RSE Row Factors	
		Census Division				
		Total	South Atlantic	East South Central		West south Central
RSE Column Factor:	0.5	0.9	1.1	1.4	1.6	
Million Households						
Total U.S. Households	107.0	38.9	20.3	6.8	11.8	NE
Number of Households, Fuels Used (more than one may apply):						
Electricity ¹	107.0	38.9	20.3	6.8	11.8	NE
Natural Gas	66.9	18.7	8.0	2.9	7.8	7.0
Fuel Oil	8.7	0.9	0.9	Q	Q	30.6
Kerosene	2.9	1.4	1.0	0.3	Q	19.8
LPG	9.4	3.8	2.1	1.3	0.5	16.6
Wood	14.5	5.2	2.8	0.9	1.5	11.2
Billion Dollars						
Total Expenditures, Fuels Used:						
Electricity	100.34	45.00	23.54	6.99	14.47	3.3
Natural Gas	46.98	11.84	5.74	1.77	4.33	9.5
Fuel Oil	6.31	0.55	0.53	Q	Q	34.3
Kerosene	0.52	0.19	0.13	0.06	Q	33.7
LPG	5.60	1.94	1.06	0.60	0.28	22.4
Total	159.74	59.52	30.99	9.43	19.09	2.8
Dollars per Household²						
Total Expenditures per Household, Fuels Used:						
Electricity	938	1,157	1,160	1,025	1,226	3.3
Natural Gas	702	635	720	606	559	6.0
Fuel Oil	737	598	629	Q	Q	15.1
Kerosene	178	135	136	165	Q	24.3
LPG	605	516	521	479	594	10.8
Total	1,493	1,529	1,526	1,384	1,617	2.8
Dollars per Million Btu²						
Average Price of Btu Consumption, Fuels Used:						
Electricity	25.80	23.80	24.71	19.45	25.02	1.8
Natural Gas	9.70	10.50	11.72	9.82	9.46	4.2
Fuel Oil	8.91	9.48	9.54	Q	Q	5.6
Kerosene	11.09	11.12	11.00	11.36	Q	2.8
LPG	14.87	16.29	17.63	15.18	14.44	3.2
Total	16.19	18.53	19.75	16.09	18.07	2.7

See footnotes at end of table.

Table CE1-11e. Total Energy Expenditures in U.S. Households by South Census Region, 2001 (Continued)

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			West south Central	
		Total	South Atlantic	East South Central		
RSE Column Factor:	0.5	0.9	1.1	1.4	1.6	
Price per Physical Unit²						
Average Price of Physical Units of Consumption, Fuels Used:						
Electricity (cents per kWh)	8.8	8.1	8.4	6.6	8.5	1.8
Natural Gas (dollars per thousand cf)	9.98	10.80	12.06	10.11	9.73	4.2
Fuel Oil (dollars per gallon)	1.24	1.31	1.32	Q	Q	5.6
Kerosene (dollars per gallon)	1.50	1.50	1.49	1.53	Q	2.8
LPG (dollars per gallon)	1.36	1.49	1.61	1.39	1.32	3.2
Million Households						
Number of Households, Where the End Use Is:						
Space Heating ³	105.3	38.7	20.0	6.8	11.8	NE
Electric Air-Conditioning ⁴	80.8	36.9	19.0	6.4	11.5	1.6
Water Heating ⁵	106.7	38.9	20.3	6.8	11.8	NE
Refrigerators	106.8	38.9	20.3	6.8	11.8	NE
Appliances	107.0	38.9	20.3	6.8	11.8	NE
Billion Dollars^a						
Total Expenditures, Where the End Use Is:						
Space Heating	50.53	14.13	7.33	2.83	3.96	5.8
Electric Air-Conditioning	15.94	10.37	5.15	1.24	3.99	4.3
Water Heating	21.61	8.34	4.61	1.32	2.41	2.8
Refrigerators	14.38	5.60	2.84	0.82	1.94	3.4
Other Appliances and Lighting	57.28	21.07	11.06	3.22	6.79	2.5
Dollars per Household^{2,a}						
Total Expenditures per Household, Where the End Use Is:						
Space Heating	480	365	366	416	335	5.8
Electric Air-Conditioning	197	282	271	195	348	3.7
Water Heating	203	215	227	194	204	2.8
Refrigerators	135	144	140	120	165	3.4
Other Appliances and Lighting	535	541	544	472	576	2.5

¹ The RECS cannot be used to accurately estimate the number of households that do not use electricity.

² The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

³ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

⁴ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

⁵ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE1-12e. Total Energy Expenditures in U.S. Households by West Census Region, 2001

	West Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	Mountain	Pacific	
	RSE Column Factor:	0.5	1.1	1.8	
Million Households					
Total U.S. Households	107.0	23.3	6.7	16.6	NE
Number of Households, Fuels Used (more than one may apply):					
Electricity ¹	107.0	23.3	6.7	16.6	NE
Natural Gas	66.9	16.3	4.7	11.6	2.6
Fuel Oil	8.7	0.2	Q	0.2	25.2
Kerosene	2.9	0.4	Q	0.3	18.5
LPG	9.4	1.5	0.5	1.0	17.4
Wood	14.5	4.6	1.0	3.5	10.4
Billion Dollars					
Total Expenditures, Fuels Used:					
Electricity	100.34	17.72	5.41	12.31	2.9
Natural Gas	46.98	8.43	2.64	5.78	5.1
Fuel Oil	6.31	0.10	Q	0.09	33.2
Kerosene	0.52	0.07	Q	0.07	37.3
LPG	5.60	0.90	0.41	0.50	21.0
Total	159.74	27.23	8.47	18.75	3.0
Dollars per Household²					
Total Expenditures per Household, Fuels Used:					
Electricity	938	761	805	743	2.9
Natural Gas	702	516	558	499	4.5
Fuel Oil	737	473	Q	465	15.0
Kerosene	178	184	Q	195	30.2
LPG	605	605	762	517	8.7
Total	1,493	1,168	1,260	1,131	3.0
Dollars per Million Btu²					
Average Price of Btu Consumption, Fuels Used:					
Electricity	25.80	26.89	23.76	28.55	2.0
Natural Gas	9.70	9.38	8.10	10.11	2.5
Fuel Oil	8.91	8.96	Q	9.14	2.2
Kerosene	11.09	11.01	Q	11.01	1.9
LPG	14.87	15.19	13.15	17.40	4.1
Total	16.19	16.65	14.45	17.89	1.5

See footnotes at end of table.

Table CE1-12e. Total Energy Expenditures in U.S. Households by West Census Region, 2001 (Continued)

	West Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Mountain	Pacific	
RSE Column Factor:	0.5	1.1	1.8	1.1	
Price per Physical Unit²					
Average Price of Physical Units of Consumption, Fuels Used:					
Electricity (cents per kWh)	8.8	9.2	8.1	9.7	2.0
Natural Gas (dollars per thousand cf)	9.98	9.65	8.34	10.40	2.5
Fuel Oil (dollars per gallon)	1.24	1.24	Q	1.27	2.3
Kerosene (dollars per gallon)	1.50	1.49	Q	1.49	2.0
LPG (dollars per gallon)	1.36	1.39	1.20	1.59	4.1
Million Households					
Number of Households, Where the End Use Is:					
Space Heating ³	105.3	22.4	6.7	15.7	NE
Electric Air-Conditioning ⁴	80.8	9.6	3.2	6.3	7.2
Water Heating ⁵	106.7	23.2	6.7	16.5	NE
Refrigerators	106.8	23.2	6.7	16.5	NE
Appliances	107.0	23.3	6.7	16.6	NE
Billion Dollars^a					
Total Expenditures, Where the End Use Is:					
Space Heating	50.53	7.27	2.57	4.69	4.4
Electric Air-Conditioning	15.94	1.50	0.78	0.72	8.7
Water Heating	21.61	4.23	1.19	3.04	2.9
Refrigerators	14.38	2.76	0.81	1.95	3.0
Other Appliances and Lighting	57.28	11.47	3.12	8.35	3.6
Dollars per Household^{2,a}					
Total Expenditures per Household, Where the End Use Is:					
Space Heating	480	325	385	299	4.5
Electric Air-Conditioning	197	157	244	113	7.2
Water Heating	203	183	177	185	2.8
Refrigerators	135	119	122	118	3.0
Other Appliances and Lighting	535	492	464	503	3.6

¹ The RECS cannot be used to accurately estimate the number of households that do not use electricity.
² The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.
³ Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
⁴ The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.
⁵ Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.
^a The row factor in this section is underestimated because it contains no error for estimating the end-use.
NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.
Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.
Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

2001 Consumption and Expenditures Tables

Space-Heating Consumption Tables

(36 pages, 226 kb)

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These data are from the 2001 Residential Energy Consumption Survey (RECS) which provides information on the use of energy in residential housing units in the United States. The RECS is a national statistical survey that collects energy-related data for occupied primary housing units. RECS was first conducted in 1978; the twelfth and most recent survey was conducted in 2001. In the 2001 RECS, data were collected from a sample of 4,822 households in housing units statistically selected to represent the 107.0 million housing units in the United States. The RECS data are available for the four Census regions, the nine Census divisions, and for the four most populous States--California, Florida, New York, and Texas.

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World Wide Web: <http://www.eia.doe.gov/emeu/consumption>

Table CE2-1c. Space-Heating Energy Consumption in U.S. Households by Climate Zone, 2001 - Preliminary Data

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
		0.5	1.3	1.0	1.0		
RSE Column Factor:							
Million Households							
Total U.S. Households	107.0	9.2	28.6	24.0	21.0	24.1	8.3
No Space Heating	1.0	Q	Q	Q	0.3	0.5	14.0
Space Heating	106.0	9.2	28.6	23.9	20.7	23.6	8.4
Not Using a Major Fuel ²	0.7	0.1	Q	Q	0.2	Q	34.0
Using a Major Fuel ²	105.3	9.1	28.5	23.7	20.4	23.5	8.4
For Main Space Heating	103.8	8.6	28.3	23.3	20.2	23.4	8.5
For Secondary Space Heating Only	1.5	0.5	0.2	0.4	0.2	Q	26.7
Number of Households with Space Heating, Major Fuels Used (more than one may apply):							
Electricity	43.8	2.7	8.1	8.9	9.4	14.7	9.1
Natural Gas	60.5	4.9	20.4	12.7	12.2	10.3	9.1
Fuel Oil	8.5	1.8	2.8	3.5	Q	Q	17.8
Kerosene	2.7	0.4	0.6	0.7	0.7	0.3	22.9
LPG	6.6	1.0	1.7	1.4	1.6	1.0	25.8
Quadrillion Btu							
Space-Heating Btu Consumption, Major Fuels Used:							
Electricity	0.37	0.03	0.08	0.11	0.07	0.08	13.3
Natural Gas	3.32	0.34	1.48	0.76	0.41	0.33	11.1
Fuel Oil	0.58	0.14	0.22	0.20	Q	Q	20.7
Kerosene	0.04	0.01	0.01	0.01	0.01	(*)	32.1
LPG	0.28	0.05	0.09	0.06	0.05	0.03	29.1
Total	4.60	0.57	1.88	1.15	0.56	0.44	8.9
Physical Units							
Physical Units of Space-Heating Consumption, Major Fuels Used:							
Electricity (billion kWh)	109	8	23	32	22	24	13.3
Natural Gas (billion cf)	3,231	332	1,442	743	397	317	11.1
Fuel Oil (million gallons)	4,155	1,024	1,597	1,458	Q	Q	20.7
Kerosene (million gallons)	330	73	79	67	92	19	32.1
LPG (million gallons)	3,069	578	950	660	571	310	29.1
Million Btu per Household							
Average Space-Heating Btu Consumption per Household							
Using a Major Fuel ²	43.7	63.1	66.0	48.3	27.3	18.7	4.5
For Main Space Heating	44.0	65.3	66.3	48.9	27.5	18.7	4.5
For Secondary Space Heating Only ...	18.2	21.0	26.1	16.5	9.3	Q	24.0

See footnotes at end of table.

Table CE2-1c. Space-Heating Energy Consumption in U.S. Households by Climate Zone, 2001 - Preliminary Data (Continued)

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.5	1.3	1.0	1.0	1.3	1.2	
Million Households							
Number of Households, Where the Main Space-Heating Fuel Is:							
Electricity	30.9	1.2	3.9	6.3	6.9	12.6	11.1
Natural Gas	59.1	4.8	20.2	12.4	11.8	9.8	9.1
Fuel Oil	8.0	1.7	2.7	3.5	Q	Q	17.8
Kerosene	0.8	0.1	Q	Q	0.4	Q	28.4
LPG	4.9	0.8	1.3	1.1	1.0	0.9	28.7
Other	2.2	0.6	0.4	0.6	0.5	Q	24.3
No Space Heating	1.0	Q	Q	Q	0.3	0.5	14.0
Million Btu per Household⁴							
Space-Heating Btu Consumption per Household,³ Where the Main Space-Heating Fuel Is:							
Electricity	11.3	21.2	18.0	16.8	10.2	6.2	7.8
Natural Gas	55.4	70.4	72.9	60.5	33.4	32.2	4.3
Fuel Oil	70.2	79.4	82.2	58.1	Q	Q	6.6
Kerosene	39.0	62.6	Q	Q	28.4	Q	16.3
LPG	50.3	64.9	60.6	51.3	43.7	28.1	7.5
Physical Units (PU) per Household⁴							
Physical Units of Space-Heating Consumption per Household,³ Where the Main Space-Heating Fuel Is:							
Electricity (kWh)	3,314	6,207	5,261	4,938	2,976	1,803	7.8
Natural Gas (thousand cf)	54	68	71	59	32	31	4.3
Fuel Oil (gallons)	507	573	593	419	Q	Q	6.6
Kerosene (gallons)	289	464	Q	Q	210	Q	16.3
LPG (gallons)	551	711	664	562	479	307	7.5
2001 Heating Degree-Days (HDD) per Household⁴							
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:							
Electricity	3,006	6,838	5,640	4,238	2,696	1,371	3.4
Natural Gas	4,255	7,169	5,685	4,332	2,321	2,119	3.0
Fuel Oil	5,339	6,903	5,644	4,437	Q	Q	3.7
Kerosene	4,636	6,625	Q	Q	3,976	Q	8.1
LPG	4,643	7,016	6,060	4,359	3,179	2,384	6.1
Average for All Heated Households	4,004	7,008	5,690	4,322	2,549	1,733	2.1

See footnotes at end of table.

Table CE2-1c. Space-Heating Energy Consumption in U.S. Households by Climate Zone, 2001 - Preliminary Data (Continued)

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.5	1.3	1.0	1.0	1.3	1.2	
Heated Square Footage (HSF) per Household⁴							
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:							
Electricity	1,399	1,244	1,403	1,473	1,380	1,386	7.5
Natural Gas	1,836	2,130	2,003	1,863	1,560	1,645	3.7
Fuel Oil	2,043	2,005	2,404	1,843	Q	Q	7.0
Kerosene	1,076	1,529	Q	Q	1,120	Q	9.3
LPG	1,570	1,674	1,687	1,657	1,506	1,263	8.8
Average for All Heated Households	1,707	1,954	1,935	1,741	1,490	1,490	3.5
Space-Heating Intensity⁴ [PU÷(HDD×(HSF÷1000))]							
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:							
Electricity (kWh)	0.788	0.730	0.665	0.791	0.800	0.949	5.5
Natural Gas (cubic feet)	6.893	4.479	6.222	7.291	8.951	8.969	3.8
Fuel Oil (gallons)	0.046	0.041	0.044	0.051	Q	Q	6.5
Kerosene (gallons)	0.058	0.046	Q	Q	0.047	Q	22.8
LPG (gallons)	0.076	0.060	0.065	0.078	0.100	0.102	10.1

¹ One of five climatically distinct areas, determined according to the 30-year average (1961-1990) of the annual heating and cooling degree-days. For this report, the heating or cooling degree-days are a measure of how cold or how hot a location is over a period of one year, relative to a base temperature of 65 degrees Fahrenheit. A household is assigned to a climate zone according to the 30-year average annual degree-days for an appropriate nearby weather station.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes only the space-heating consumption of the space-heating fuel. Not included are: 1) the consumption of the main space-heating fuel for uses other than space heating; 2) the consumption of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the consumption of other fuels that are used as secondary space-heating fuels.

⁴ Averages are for those households using each of the main space-heating fuels.

(*) = Value rounds to zero in the units displayed.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-2c. Space-Heating Energy Consumption in U.S. Households by Year of Construction, 2001 - Preliminary Data

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.5	1.1	1.0	1.2	1.1	0.9	
Million Households								
Total U.S. Households	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
No Space Heating	1.0	Q	Q	Q	0.2	0.3	Q	22.6
Space Heating	106.0	15.4	18.2	18.6	13.6	13.9	26.4	4.4
Not Using a Major Fuel ²	0.7	Q	Q	Q	Q	Q	0.2	39.1
Using a Major Fuel ²	105.3	15.4	18.1	18.5	13.4	13.8	26.2	4.3
For Main Space Heating	103.8	15.2	17.8	18.1	13.2	13.6	25.8	4.4
For Secondary Space Heating Only	1.5	0.1	0.3	0.4	Q	Q	0.4	25.3
Number of Households with Space Heating, Major Fuels Used (more than one may apply):								
Electricity	43.8	6.8	10.3	10.1	4.7	4.4	7.5	6.2
Natural Gas	60.5	8.7	7.7	8.0	8.6	9.5	17.9	6.3
Fuel Oil	8.5	0.3	0.4	0.9	1.3	1.8	3.8	15.6
Kerosene	2.7	0.4	0.3	0.6	0.3	0.2	0.7	21.7
LPG	6.6	1.2	1.2	1.2	0.8	0.5	1.8	17.0
Quadrillion Btu								
Space-Heating Btu Consumption, Major Fuels Used:								
Electricity	0.37	0.06	0.09	0.10	0.04	0.03	0.05	9.4
Natural Gas	3.32	0.41	0.36	0.38	0.41	0.52	1.25	7.3
Fuel Oil	0.58	0.02	0.03	0.05	0.07	0.12	0.29	18.4
Kerosene	0.04	0.01	(*)	0.02	Q	(*)	0.01	32.5
LPG	0.28	0.04	0.04	0.05	0.03	0.02	0.10	19.0
Total	4.60	0.54	0.53	0.59	0.55	0.69	1.70	5.3
Physical Units								
Physical Units of Space-Heating Consumption, Major Fuels Used:								
Electricity (billion kWh)	109	17	27	30	12	9	15	9.4
Natural Gas (billion cf)	3,231	401	346	367	397	507	1,212	7.3
Fuel Oil (million gallons)	4,155	124	221	371	494	868	2,077	18.4
Kerosene (million gallons)	330	65	31	118	Q	24	56	32.5
LPG (million gallons)	3,069	463	473	505	338	185	1,105	19.0
Million Btu per Household								
Average Space-Heating Btu Consumption per Household								
Using a Major Fuel ²	43.7	35.1	29.1	32.1	41.1	50.3	64.8	3.6
For Main Space Heating	44.0	35.3	29.2	32.4	41.5	50.7	65.4	3.6
For Secondary Space Heating Only	18.2	Q	21.7	14.2	Q	Q	23.8	26.8

See footnotes at end of table.

**Table CE2-2c. Space-Heating Energy Consumption in U.S. Households
by Year of Construction, 2001 - Preliminary Data (Continued)**

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.5	1.1	1.0	1.2	1.1	0.9	
Million Households								
Number of Households, Where the Main Space-Heating Fuel Is:								
Electricity	30.9	5.5	9.0	8.4	3.0	2.2	2.8	8.2
Natural Gas	59.1	8.5	7.3	7.8	8.5	9.2	17.7	6.4
Fuel Oil	8.0	0.2	0.4	0.8	1.1	1.8	3.7	15.8
Kerosene	0.8	Q	Q	0.3	Q	Q	Q	29.8
LPG	4.9	0.8	0.9	0.8	0.6	0.4	1.5	19.3
Other	2.2	0.2	0.4	0.5	0.3	0.2	0.6	23.8
No Space Heating	1.0	Q	Q	Q	0.2	0.3	Q	22.6
Million Btu per Household⁴								
Space-Heating Btu Consumption per Household,³ Where the Main Space-Heating Fuel Is:								
Electricity	11.3	10.1	9.9	11.7	12.2	12.2	15.5	7.1
Natural Gas	55.4	47.6	46.6	47.3	47.7	55.6	70.0	3.9
Fuel Oil	70.2	68.1	68.4	62.9	59.0	68.2	76.5	8.2
Kerosene	39.0	Q	Q	37.6	Q	Q	Q	20.9
LPG	50.3	45.2	39.5	48.8	49.3	39.6	63.0	8.8
Physical Units (PU) per Household⁴								
Physical Units of Space-Heating Consumption per Household,³ Where the Main Space-Heating Fuel Is:								
Electricity (kWh)	3,314	2,964	2,901	3,419	3,563	3,580	4,551	7.1
Natural Gas (thousand cf)	54	46	45	46	46	54	68	3.9
Fuel Oil (gallons)	507	491	493	454	426	492	552	8.1
Kerosene (gallons)	289	Q	Q	278	Q	Q	Q	20.9
LPG (gallons)	551	495	433	534	540	433	690	8.8
2001 Heating Degree-Days (HDD) per Household⁴								
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:								
Electricity	3,006	3,121	2,799	3,080	2,802	2,761	3,641	5.2
Natural Gas	4,255	3,931	4,260	4,058	4,060	4,096	4,673	3.1
Fuel Oil	5,339	6,260	6,060	5,433	4,968	5,167	5,362	4.7
Kerosene	4,636	Q	Q	4,482	Q	Q	Q	10.9
LPG	4,643	5,309	4,256	4,685	4,261	4,211	4,752	7.9
Average for All Heated Households	4,004	3,776	3,588	3,726	3,880	4,014	4,680	2.5

See footnotes at end of table.

Table CE2-2c. Space-Heating Energy Consumption in U.S. Households by Year of Construction, 2001 - Preliminary Data (Continued)

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.5	1.1	1.0	1.2	1.1	0.9	
Heated Square Footage (HSF) per Household⁴								
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:								
Electricity	1,399	1,607	1,422	1,313	1,412	1,348	1,196	6.0
Natural Gas	1,836	2,510	2,077	1,650	1,584	1,750	1,657	3.4
Fuel Oil	2,043	3,225	2,057	2,251	1,901	2,106	1,931	8.2
Kerosene	1,076	Q	Q	1,039	Q	Q	Q	14.9
LPG	1,570	1,953	1,671	1,577	1,549	1,513	1,332	9.8
Average for All Heated Households	1,707	2,155	1,731	1,524	1,559	1,721	1,628	2.9
Space-Heating Intensity⁴ [PU÷(HDD×(HSF÷1000))]								
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:								
Electricity (kWh)	0.788	0.591	0.729	0.845	0.901	0.962	1.045	5.8
Natural Gas (cubic feet)	6.893	4.688	5.124	6.865	7.203	7.537	8.784	3.5
Fuel Oil (gallons)	0.046	0.024	0.040	0.037	0.045	0.045	0.053	8.9
Kerosene (gallons)	0.058	Q	Q	0.060	Q	Q	Q	20.3
LPG (gallons)	0.076	0.048	0.061	0.072	0.082	0.068	0.109	10.0

¹ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes only the space-heating consumption of the space-heating fuel. Not included are: 1) the consumption of the main space-heating fuel for uses other than space heating; 2) the consumption of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the consumption of other fuels that are used as secondary space-heating fuels.

⁴ Averages are for those households using each of the main space-heating fuels.

(*) = Value rounds to zero in the units displayed.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-3c. Space-Heating Energy Consumption in U.S. Households by Household Income, 2001 - Preliminary Data

	Total	2001 Household Income				Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.6	0.9	1.0	0.9	1.3	0.9	
Million Households								
Total U.S. Households	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.4
No Space Heating	1.0	Q	0.3	0.3	0.3	0.3	0.4	23.7
Space Heating	106.0	10.8	30.3	26.8	38.1	14.6	33.4	3.4
Not Using a Major Fuel ²	0.7	Q	Q	0.3	0.2	Q	0.2	32.7
Using a Major Fuel ²	105.3	10.8	30.2	26.5	37.8	14.6	33.2	3.4
For Main Space Heating	103.8	10.6	29.8	26.1	37.3	14.4	32.8	3.5
For Secondary Space Heating Only	1.5	Q	0.4	0.4	0.5	0.2	0.4	22.3
Number of Households with Space Heating, Major Fuels Used (more than one may apply):								
Electricity	43.8	4.9	12.7	11.1	15.1	6.5	13.9	5.6
Natural Gas	60.5	5.6	16.5	14.6	23.8	7.8	18.2	5.2
Fuel Oil	8.5	0.6	2.2	2.4	3.3	0.8	2.4	12.9
Kerosene	2.7	0.4	0.8	0.8	0.7	0.7	1.2	17.5
LPG	6.6	0.7	2.1	1.8	2.0	1.0	2.2	15.2
Quadrillion Btu								
Space-Heating Btu Consumption, Major Fuels Used:								
Electricity	0.37	0.03	0.10	0.10	0.14	0.05	0.11	8.3
Natural Gas	3.32	0.26	0.84	0.79	1.44	0.36	0.93	6.3
Fuel Oil	0.58	0.03	0.14	0.16	0.25	0.04	0.15	14.5
Kerosene	0.04	0.01	0.02	0.01	0.01	0.01	0.03	27.1
LPG	0.28	0.02	0.09	0.08	0.09	0.03	0.09	18.4
Total	4.60	0.35	1.19	1.14	1.92	0.49	1.30	4.5
Physical Units								
Physical Units of Space-Heating Consumption, Major Fuels Used:								
Electricity (billion kWh)	109	10	29	29	42	14	32	8.3
Natural Gas (billion cf)	3,231	253	816	764	1,398	350	908	6.3
Fuel Oil (million gallons)	4,155	196	1,007	1,145	1,807	273	1,077	14.5
Kerosene (million gallons)	330	72	128	83	46	108	190	27.1
LPG (million gallons)	3,069	241	1,004	885	939	355	950	18.4
Million Btu per Household								
Average Space-Heating Btu Consumption per Household								
Using a Major Fuel ²	43.7	32.6	39.3	42.9	50.8	33.7	39.3	3.5
For Main Space Heating	44.0	32.9	39.6	43.2	51.3	34.1	39.5	3.5
For Secondary Space Heating Only	18.2	Q	15.1	21.9	18.9	10.6	18.9	22.8

See footnotes at end of table.

Table CE2-3c. Space-Heating Energy Consumption in U.S. Households by Household Income, 2001 - Preliminary Data (Continued)

	2001 Household Income					Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
	Total	Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.6	0.9	1.0	0.9	1.3	0.9	
Million Households								
Number of Households, Where the Main Space-Heating Fuel Is:								
Electricity	30.9	3.7	9.4	8.1	9.7	4.9	10.3	7.3
Natural Gas	59.1	5.5	16.2	14.3	23.1	7.7	17.9	5.3
Fuel Oil	8.0	0.5	2.1	2.2	3.2	0.7	2.3	13.0
Kerosene	0.8	0.3	0.4	0.1	Q	0.4	0.6	25.0
LPG	4.9	0.6	1.7	1.4	1.2	0.7	1.8	17.1
Other	2.2	0.2	0.5	0.8	0.8	0.3	0.6	20.0
No Space Heating	1.0	Q	0.3	0.3	0.3	0.3	0.4	23.7
Million Btu per Household⁴								
Space-Heating Btu Consumption per Household,³ Where the Main Space-Heating Fuel Is:								
Electricity	11.3	8.2	9.8	11.8	13.6	8.9	9.8	5.8
Natural Gas	55.4	46.7	51.4	54.0	61.1	46.6	51.7	3.5
Fuel Oil	70.2	49.2	65.6	69.3	77.5	50.1	64.8	6.4
Kerosene	39.0	30.2	36.3	54.2	Q	32.5	34.3	15.7
LPG	50.3	35.2	49.7	51.8	56.6	39.1	44.5	7.7
Physical Units (PU) per Household⁴								
Physical Units of Space-Heating Consumption per Household,³ Where the Main Space-Heating Fuel Is:								
Electricity (kWh)	3,314	2,408	2,861	3,448	3,988	2,599	2,883	5.8
Natural Gas (thousand cf)	54	45	50	52	59	45	50	3.5
Fuel Oil (gallons)	507	355	473	499	559	361	468	6.4
Kerosene (gallons)	289	224	269	401	Q	241	254	15.7
LPG (gallons)	551	385	544	567	619	428	487	7.7
2001 Heating Degree-Days (HDD) per Household⁴								
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:								
Electricity	3,006	3,329	3,053	2,979	2,859	3,222	3,273	4.7
Natural Gas	4,255	4,167	4,247	4,378	4,206	3,986	4,277	2.4
Fuel Oil	5,339	5,501	5,471	5,259	5,279	5,461	5,456	4.0
Kerosene	4,636	4,297	4,484	5,355	Q	4,309	4,404	8.1
LPG	4,643	3,852	4,630	4,840	4,800	4,072	4,557	6.9
Average for All Heated Households	4,004	3,940	4,006	4,063	3,980	3,836	4,084	2.0

See footnotes at end of table.

Table CE2-3c. Space-Heating Energy Consumption in U.S. Households by Household Income, 2001 - Preliminary Data (Continued)

	Total	2001 Household Income				Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.6	0.9	1.0	0.9	1.3	0.9	
Heated Square Footage (HSF) per Household⁴								
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:								
Electricity	1,399	786	1,035	1,296	2,072	866	967	4.9
Natural Gas	1,836	1,067	1,340	1,688	2,458	1,100	1,319	2.7
Fuel Oil	2,043	1,106	1,670	1,956	2,506	1,235	1,544	7.2
Kerosene	1,076	746	1,129	1,422	Q	800	968	11.2
LPG	1,570	1,026	1,205	1,746	2,127	1,040	1,232	7.9
Average for All Heated Households	1,707	965	1,261	1,595	2,354	1,022	1,217	2.3
Space-Heating Intensity⁴ [PU÷(HDD×(HSF÷1000))]								
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:								
Electricity (kWh)	0.788	0.921	0.906	0.893	0.673	0.932	0.910	5.1
Natural Gas (cubic feet)	6.893	10.218	8.780	7.103	5.745	10.335	8.915	3.2
Fuel Oil (gallons)	0.046	0.058	0.052	0.049	0.042	0.054	0.056	7.5
Kerosene (gallons)	0.058	0.070	0.053	Q	Q	0.070	0.060	18.8
LPG (gallons)	0.076	0.098	0.098	0.067	0.061	0.101	0.087	9.8

¹ Below 150 percent of poverty line or 60 percent of median State income.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes only the space-heating consumption of the space-heating fuel. Not included are: 1) the consumption of the main space-heating fuel for uses other than space heating; 2) the consumption of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the consumption of other fuels that are used as secondary space-heating fuels.

⁴ Averages are for those households using each of the main space-heating fuels.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-4c. Space-Heating Energy Consumption in U.S. Households by Type of Housing Unit, 2001 - Preliminary Data

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Multifamily		Mobile Home	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.6	0.6	1.4	1.2	1.7	
Million Households						
Total U.S. Households	107.0	73.7	9.5	17.0	6.8	4.6
No Space Heating	1.0	0.3	Q	0.6	Q	18.4
Space Heating	106.0	73.4	9.4	16.4	6.8	4.6
Not Using a Major Fuel ¹	0.7	0.6	Q	Q	Q	33.5
Using a Major Fuel ¹	105.3	72.8	9.4	16.3	6.8	4.7
For Main Space Heating	103.8	71.5	9.3	16.3	6.7	4.7
For Secondary Space Heating Only	1.5	1.4	Q	Q	Q	23.6
Number of Households with Space Heating, Major Fuels Used (more than one may apply):						
Electricity	43.8	27.5	4.1	8.5	3.7	7.1
Natural Gas	60.5	45.6	5.6	7.1	2.2	6.4
Fuel Oil	8.5	6.3	0.6	1.3	0.2	17.0
Kerosene	2.7	2.0	Q	Q	0.6	15.6
LPG	6.6	5.3	Q	Q	1.2	16.2
Quadrillion Btu						
Space-Heating Btu Consumption, Major Fuels Used:						
Electricity	0.37	0.27	0.03	0.04	0.04	9.6
Natural Gas	3.32	2.75	0.33	0.15	0.10	8.0
Fuel Oil	0.58	0.49	0.05	0.03	0.01	19.2
Kerosene	0.04	0.02	Q	Q	0.02	25.5
LPG	0.28	0.23	Q	Q	0.05	19.1
Total	4.60	3.76	0.41	0.21	0.21	5.4
Physical Units						
Physical Units of Space-Heating Consumption, Major Fuels Used:						
Electricity (billion kWh)	109	78	9	11	11	9.6
Natural Gas (billion cf)	3,231	2,672	324	141	94	8.0
Fuel Oil (million gallons)	4,155	3,523	346	221	65	19.2
Kerosene (million gallons)	330	184	Q	Q	139	25.5
LPG (million gallons)	3,069	2,556	Q	Q	496	19.1
Million Btu per Household						
Average Space-Heating Btu Consumption per Household						
Using a Major Fuel ¹	43.7	51.6	44.2	13.1	30.7	4.1
For Main Space Heating	44.0	52.3	44.3	13.1	30.8	4.1
For Secondary Space Heating Only	18.2	17.7	Q	Q	Q	20.0

See footnotes at end of table.

**Table CE2-4c. Space-Heating Energy Consumption in U.S. Households
by Type of Housing Unit, 2001 - Preliminary Data (Continued)**

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Multifamily		Mobile Home	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.6	0.6	1.4	1.2	1.7	
Million Households						
Number of Households, Where the Main Space-Heating Fuel Is:						
Electricity	30.9	17.0	3.1	7.9	2.9	9.0
Natural Gas	59.1	44.3	5.6	7.1	2.2	6.5
Fuel Oil	8.0	5.9	0.6	1.3	0.2	17.3
Kerosene	0.8	0.5	Q	Q	0.3	26.4
LPG	4.9	3.8	Q	Q	1.0	17.7
Other	2.2	1.9	Q	Q	Q	21.9
No Space Heating	1.0	0.3	Q	0.6	Q	18.4
Million Btu per Household³						
Space-Heating Btu Consumption per Household,² Where the Main Space-Heating Fuel Is:						
Electricity	11.3	14.5	9.5	4.7	12.5	6.0
Natural Gas	55.4	61.1	59.4	20.2	43.9	3.9
Fuel Oil	70.2	80.3	77.3	23.6	49.5	7.7
Kerosene	39.0	32.8	Q	Q	47.9	17.9
LPG	50.3	54.1	Q	Q	39.6	6.4
Physical Units (PU) per Household³						
Physical Units of Space-Heating Consumption per Household,² Where the Main Space-Heating Fuel Is:						
Electricity (kWh)	3,314	4,254	2,795	1,373	3,662	6.0
Natural Gas (thousand cf)	54	59	58	20	43	3.9
Fuel Oil (gallons)	507	579	558	170	357	7.7
Kerosene (gallons)	289	243	Q	Q	355	17.9
LPG (gallons)	551	592	Q	Q	433	6.4
2001 Heating Degree-Days (HDD) per Household³						
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:						
Electricity	3,006	2,815	3,267	3,330	2,955	5.5
Natural Gas	4,255	4,184	4,686	4,287	4,498	2.9
Fuel Oil	5,339	5,474	5,674	4,490	5,873	5.3
Kerosene	4,636	4,583	Q	Q	4,581	9.9
LPG	4,643	4,611	Q	Q	4,885	6.5
Average for All Heated Households	4,004	4,012	4,274	3,841	3,942	2.7

See footnotes at end of table.

Table CE2-4c. Space-Heating Energy Consumption in U.S. Households by Type of Housing Unit, 2001 - Preliminary Data (Continued)

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Multifamily		Mobile Home	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.6	0.6	1.4	1.2	1.7	
Heated Square Footage (HSF) per Household³						
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:						
Electricity	1,399	1,869	842	745	1,036	4.6
Natural Gas	1,836	2,104	1,336	810	984	3.2
Fuel Oil	2,043	2,365	1,780	847	901	7.2
Kerosene	1,076	1,226	Q	Q	811	11.0
LPG	1,570	1,779	Q	Q	860	5.2
Average for All Heated Households	1,707	2,047	1,197	785	979	2.6
Space-Heating Intensity³ [PU÷(HDD×(HSF÷1000))]						
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:						
Electricity (kWh)	0.788	0.809	1.015	0.554	1.196	4.7
Natural Gas (cubic feet)	6.893	6.743	9.226	5.643	9.635	3.6
Fuel Oil (gallons)	0.046	0.045	0.055	0.045	0.068	8.5
Kerosene (gallons)	0.058	0.043	Q	Q	0.095	13.1
LPG (gallons)	0.076	0.072	Q	Q	0.103	8.0

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes only the space-heating consumption of the space-heating fuel. Not included are: 1) the consumption of the main space-heating fuel for uses other than space heating; 2) the consumption of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the consumption of other fuels that are used as secondary space-heating fuels.

³ Averages are for those households using each of the main space-heating fuels.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-5.1u. Space-Heating Energy Consumption and Expenditures by Household Member and Demographics, 2001 - Preliminary Data

Household Demographics	Space-Heating Energy								RSE Row Factors
	Households (millions)	Total		Per Household			Per Household Member		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	1.0	1.4	1.3	1.0	0.9	0.5	1.1	1.0	
Total Households Using a Major Space-Heating Fuel¹	105.3	4.60	49.95	43.7	474	2.6	17.1	186	1.8
Household Size									
1 Person	27.8	1.00	11.29	36.2	406	1.0	36.2	406	3.0
2 Persons	34.8	1.59	17.37	45.6	498	2.0	22.8	249	2.4
3 Persons	16.6	0.73	7.95	44.2	479	3.0	14.7	160	3.4
4 Persons	15.3	0.71	7.53	46.3	491	4.0	11.6	123	3.8
5 Persons	6.9	0.35	3.62	50.1	524	5.0	10.0	105	7.2
6 or More Persons	3.8	0.21	2.19	56.2	573	6.7	8.4	85	6.3
2001 Household Income Category									
Less than \$9,999	10.8	0.35	3.99	32.6	370	1.9	17.5	199	6.4
\$10,000 to \$14,999	7.5	0.26	2.90	34.5	387	2.1	16.4	184	6.2
\$15,000 to \$19,999	8.8	0.36	3.88	40.4	439	2.3	17.8	194	6.2
\$20,000 to \$29,999	13.8	0.57	6.23	41.3	450	2.3	17.6	192	4.3
\$30,000 to \$39,999	13.6	0.57	6.14	41.7	450	2.6	16.3	177	3.9
\$40,000 to \$49,999	12.9	0.57	6.29	44.1	488	2.7	16.4	182	4.9
\$50,000 to \$74,999	21.4	1.00	10.63	46.7	498	2.9	16.0	171	3.3
\$75,000 to \$99,999	8.0	0.42	4.47	52.5	558	2.9	18.0	191	5.7
\$100,000 or More	8.5	0.50	5.43	59.6	642	3.0	19.8	213	6.5
Income Relative to Poverty Line									
Below 100 Percent	14.6	0.49	5.53	33.7	379	2.5	13.3	149	5.7
100 to 150 Percent	11.4	0.45	4.90	39.4	432	2.7	14.5	159	4.8
Above 150 Percent	79.4	3.66	39.53	46.1	498	2.5	18.2	197	1.7
Eligible for Federal Assistance²									
Yes	33.2	1.30	14.26	39.3	429	2.6	14.9	163	3.4
No	72.1	3.29	35.70	45.7	495	2.5	18.2	197	1.8
Age of Householder									
Under 25 Years	6.0	0.16	1.95	27.3	326	2.6	10.3	123	6.5
25 to 34 Years	16.5	0.60	6.66	36.5	405	3.0	12.0	134	3.8
35 to 44 Years	22.1	0.97	10.32	43.7	467	3.3	13.3	142	3.4
45 to 54 Years	20.3	0.98	10.39	48.5	512	2.7	17.8	188	3.7
55 to 64 Years	14.2	0.68	7.48	47.8	526	2.1	22.6	249	3.9
65 to 74 Years	12.5	0.57	6.15	45.7	491	1.8	25.7	276	4.3
75 Years or More	13.7	0.63	7.00	46.1	511	1.7	27.8	309	4.5
Race of Householder									
Non-Hispanic	95.6	4.32	46.93	45.2	491	2.5	18.2	198	1.8
Non-Hispanic White	77.8	3.55	38.47	45.6	494	2.4	19.0	206	1.9
Non-Hispanic Black	12.7	0.62	6.73	49.3	531	2.7	18.4	198	5.0
Multi-racial ³	0.8	0.03	0.30	31.4	363	2.7	11.5	133	16.7
Other ⁴	4.3	0.13	1.44	29.7	336	3.3	9.0	102	8.5
Hispanic	9.7	0.28	3.03	28.4	312	3.3	8.7	95	6.7

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Below 150 percent of poverty line or 60 percent of median State income.

³ Respondents could select one or more race categories to describe themselves.

⁴ Includes Native American, Native Alaskan, Asian, and Pacific Islander households.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-5.2u. Space-Heating Energy Consumption and Expenditures by Square Feet and Household Demographics, 2001 - Preliminary Data

Household Demographics	Space-Heating Energy								RSE Row Factors
	Households (millions)	Total		Per Household			Per Square Feet		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Heated Square Feet	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	1.0	1.3	1.3	1.0	0.9	0.7	1.0	0.9	
Total Households Using a Major Space-Heating Fuel¹	105.3	4.60	49.95	43.7	474	1,707	25.6	0.28	1.9
Household Size									
1 Person	27.8	1.00	11.29	36.2	406	1,185	30.5	0.34	3.1
2 Persons	34.8	1.59	17.37	45.6	498	1,773	25.7	0.28	2.7
3 Persons	16.6	0.73	7.95	44.2	479	1,852	23.9	0.26	3.6
4 Persons	15.3	0.71	7.53	46.3	491	2,104	22.0	0.23	3.8
5 Persons	6.9	0.35	3.62	50.1	524	2,116	23.7	0.25	7.5
6 or More Persons	3.8	0.21	2.19	56.2	573	1,935	29.0	0.30	7.5
2001 Household Income Category									
Less than \$9,999	10.8	0.35	3.99	32.6	370	964	33.9	0.38	5.9
\$10,000 to \$14,999	7.5	0.26	2.90	34.5	387	1,117	30.8	0.35	5.7
\$15,000 to \$19,999	8.8	0.36	3.88	40.4	439	1,305	31.0	0.34	5.9
\$20,000 to \$29,999	13.8	0.57	6.23	41.3	450	1,306	31.6	0.34	4.0
\$30,000 to \$39,999	13.6	0.57	6.14	41.7	450	1,426	29.2	0.32	3.9
\$40,000 to \$49,999	12.9	0.57	6.29	44.1	488	1,776	24.9	0.27	4.7
\$50,000 to \$74,999	21.4	1.00	10.63	46.7	498	2,059	22.7	0.24	3.4
\$75,000 to \$99,999	8.0	0.42	4.47	52.5	558	2,411	21.8	0.23	5.6
\$100,000 or More	8.5	0.50	5.43	59.6	642	3,046	19.6	0.21	6.1
Income Relative to Poverty Line									
Below 100 Percent	14.6	0.49	5.53	33.7	379	1,021	33.1	0.37	5.3
100 to 150 Percent	11.4	0.45	4.90	39.4	432	1,262	31.2	0.34	4.7
Above 150 Percent	79.4	3.66	39.53	46.1	498	1,897	24.3	0.26	1.8
Eligible for Federal Assistance²									
Yes	33.2	1.30	14.26	39.3	429	1,215	32.3	0.35	3.3
No	72.1	3.29	35.70	45.7	495	1,933	23.6	0.26	2.0
Age of Householder									
Under 25 Years	6.0	0.16	1.95	27.3	326	1,011	27.0	0.32	6.3
25 to 34 Years	16.5	0.60	6.66	36.5	405	1,491	24.5	0.27	3.8
35 to 44 Years	22.1	0.97	10.32	43.7	467	1,838	23.8	0.25	3.5
45 to 54 Years	20.3	0.98	10.39	48.5	512	2,005	24.2	0.26	3.7
55 to 64 Years	14.2	0.68	7.48	47.8	526	1,881	25.4	0.28	3.8
65 to 74 Years	12.5	0.57	6.15	45.7	491	1,632	28.0	0.30	4.4
75 Years or More	13.7	0.63	7.00	46.1	511	1,504	30.7	0.34	4.5
Race of Householder									
Non-Hispanic	95.6	4.32	46.93	45.2	491	1,763	25.6	0.28	1.9
Non-Hispanic White	77.8	3.55	38.47	45.6	494	1,819	25.0	0.27	2.1
Non-Hispanic Black	12.7	0.62	6.73	49.3	531	1,539	32.0	0.35	5.8
Multi-racial ³	0.8	0.03	0.30	31.4	363	1,300	24.1	0.28	16.7
Other ⁴	4.3	0.13	1.44	29.7	336	1,510	19.7	0.22	9.6
Hispanic	9.7	0.28	3.03	28.4	312	1,151	24.6	0.27	6.6

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Below 150 percent of poverty line or 60 percent of median State income.

³ Respondents could select one or more race categories to describe themselves.

⁴ Includes Native American, Native Alaskan, Asian, and Pacific Islander households.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-6.1u. Space-Heating Energy Consumption and Expenditures by Household Member and Usage Indicators, 2001 - Preliminary Data

Usage Indicators	Space-Heating Energy								RSE Row Factors
	Households (million)	Total		Per Household			Per Household Member		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	1.1	1.4	1.3	1.0	0.9	0.5	1.1	1.0	
Total Households Using a Major Space-Heating Fuel¹	105.3	4.60	49.95	43.7	474	2.6	17.1	186	1.8
Weekday Home Activities									
Home Used for Business									
Yes	7.4	0.41	4.39	55.0	594	2.9	19.1	206	5.8
No/Don't Know	97.9	4.19	45.56	42.8	465	2.5	16.9	184	1.9
Energy-Intensive Activity									
Yes	1.6	0.09	0.93	55.9	566	2.8	20.3	205	11.2
No/Don't Know	103.7	4.51	49.03	43.5	473	2.5	17.0	185	1.8
Someone Home All Day									
Yes	52.1	2.45	26.32	47.0	505	2.7	17.4	187	2.3
No/Don't Know	53.2	2.15	23.63	40.4	444	2.4	16.8	184	2.1
Heated Floorspace Category (square feet)									
Fewer than 500	8.0	0.14	1.78	17.1	223	2.1	8.2	108	6.7
500 to 999	25.6	0.71	8.41	27.7	329	2.1	13.1	155	3.6
1,000 to 1,499	22.7	0.84	9.61	37.3	424	2.5	14.9	170	3.6
1,500 to 1,999	16.7	0.79	8.57	47.4	514	2.7	17.6	190	3.5
2,000 to 2,499	12.1	0.67	6.97	55.2	575	2.9	19.3	201	3.8
2,500 to 2,999	7.3	0.49	4.96	66.2	676	2.8	23.7	242	5.0
3,000 to 3,499	4.5	0.30	3.05	65.5	671	3.3	20.0	205	8.7
3,500 to 3,999	3.0	0.21	2.02	70.5	665	3.1	22.9	216	9.4
4,000 or More	5.4	0.45	4.58	83.9	852	3.2	26.4	268	5.4
Year of Construction									
1939 or Before	18.7	1.30	13.13	69.6	703	2.4	28.4	287	3.8
1940 to 1949	7.5	0.40	4.21	52.9	561	2.6	20.0	213	6.0
1950 to 1959	13.8	0.69	6.97	50.3	505	2.5	20.2	203	3.9
1960 to 1969	13.4	0.55	5.97	41.1	445	2.4	17.0	184	4.5
1970 to 1979	18.5	0.59	6.97	32.1	378	2.5	12.8	151	4.1
1980 to 1989	18.1	0.53	6.53	29.1	361	2.5	11.7	145	4.4
1990 to 1999	14.5	0.49	5.69	34.2	393	2.9	11.7	135	7.0
2000 to 2001 ²	0.9	0.04	0.50	49.2	546	3.4	14.6	162	18.4
Housing Unit Type and Number of Bedrooms									
Mobile Home	6.8	0.21	2.59	30.7	383	2.6	11.9	149	7.8
Less than 3 Bedrooms	3.7	0.12	1.45	32.6	393	2.0	16.3	197	9.2
3 or More Bedrooms	3.1	0.09	1.15	28.5	371	3.3	8.7	114	9.6
Single-Family Detached	62.3	3.22	34.33	51.7	551	2.7	19.0	202	2.1
Less than 3 Bedrooms	12.1	0.52	5.78	43.0	478	2.0	22.0	244	4.0
3 Bedrooms	33.2	1.59	17.17	47.8	517	2.7	18.0	195	2.7
4 Bedrooms	14.1	0.86	8.85	61.0	627	3.3	18.3	188	4.2
5 or More Bedrooms	2.8	0.25	2.53	88.4	889	3.7	23.7	238	9.3
Single-Family Attached	10.6	0.54	5.64	51.1	534	2.7	19.1	199	6.6
Less than 3 Bedrooms	3.9	0.15	1.63	38.8	417	2.1	18.7	201	10.1
3 Bedrooms	4.6	0.23	2.58	50.6	565	2.7	18.7	209	8.4
4 or More Bedrooms	2.1	0.16	1.43	74.9	683	3.7	20.0	183	12.3
Apartments (2 to 4 units) ...	9.4	0.41	4.74	44.2	506	2.3	19.5	224	6.7
Less than 2 Bedrooms	2.6	0.09	0.96	33.2	373	1.7	19.8	222	12.9
2 Bedrooms	5.0	0.20	2.41	40.6	484	2.1	19.0	227	7.3
3 or More Bedrooms	1.8	0.13	1.38	69.2	754	3.4	20.2	220	12.7

See footnotes at end of table.

Table CE2-6.1u. Space-Heating Energy Consumption and Expenditures by Household Member and Usage Indicators, 2001 - Preliminary Data (Continued)

Usage Indicators	Space-Heating Energy								RSE Row Factors
	Households (million)	Total		Per Household			Per Household Member		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	1.1	1.4	1.3	1.0	0.9	0.5	1.1	1.0	
Apartments (5 or more units)									
.....	16.3	0.21	2.65	13.1	162	2.0	6.6	82	6.1
Less than 2 Bedrooms	8.1	0.09	1.11	11.4	138	1.5	7.6	93	7.4
2 Bedrooms	6.8	0.10	1.26	15.1	185	2.3	6.7	82	10.4
3 or More Bedrooms	1.5	0.02	0.28	13.5	188	3.3	4.1	56	16.4
Adequacy of Insulation									
Well Insulated	42.2	1.74	19.15	41.3	454	2.4	16.9	186	2.9
Adequately Insulated	42.5	1.87	20.33	44.1	479	2.6	16.8	182	2.5
Poorly Insulated	19.1	0.92	9.78	48.2	512	2.6	18.2	193	3.8
No Insulation	0.7	0.04	0.39	49.6	523	2.4	20.4	215	15.6
Don't Know	0.9	0.03	0.31	33.4	350	2.5	13.3	139	16.3
Occurrences of Drafts During Winter									
Never	5.9	0.29	3.04	48.9	519	2.9	17.0	181	6.5
Some of the Time	6.3	0.27	3.08	42.8	486	2.7	15.6	177	6.3
Most of the	33.9	1.66	17.74	48.9	523	2.8	17.8	190	2.6
All of the Time	54.6	2.26	24.76	41.5	453	2.4	17.6	192	2.6
Don't Know	4.6	0.12	1.33	25.3	292	2.7	9.3	108	7.4
Secondary Heating Equipment									
Yes	33.9	1.69	18.89	49.9	557	2.7	18.3	204	2.6
No	71.4	2.91	31.06	40.7	435	2.5	16.5	176	2.1
Daytime Winter Temperature When Someone is at Home³									
Heat Turned On	96.1	4.39	47.56	45.7	495	2.6	17.9	194	1.8
63 Degrees or Less	3.9	0.16	1.76	41.8	446	2.6	16.3	174	7.9
64 to 66 Degrees	8.3	0.37	4.09	44.5	491	2.6	17.4	193	5.5
67 to 69 Degrees	23.5	1.19	12.64	50.3	537	2.5	19.9	212	2.6
70 Degrees	25.4	1.18	12.78	46.6	504	2.6	17.9	193	3.4
71 to 73 Degrees	16.4	0.79	8.67	48.4	528	2.5	19.4	212	4.0
74 Degrees or More	18.5	0.69	7.62	37.3	411	2.6	14.5	160	4.0
Heat Turned Off	2.0	0.02	0.30	11.2	145	2.8	4.0	51	14.8
Unknown/No Answer	7.1	0.19	2.10	26.0	294	2.4	10.7	121	6.3
Winter Temperature Settings³									
Lower When No One Home									
Yes	47.0	2.05	22.31	43.6	475	2.5	17.2	187	2.5
No	58.3	2.55	27.64	43.7	474	2.6	17.0	185	2.1
Lower During Sleeping Hours									
Yes	45.4	2.08	22.46	45.9	495	2.5	18.4	199	2.5
No	59.9	2.51	27.49	42.0	459	2.6	16.1	176	2.2

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

³ The 1.0 million households that do not heat their homes are not included in these categories.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-6.2u. Space-Heating Energy Consumption and Expenditures by Square Feet and Usage Indicators, 2001 - Preliminary Data

Usage Indicators	Space-Heating Energy								RSE Row Factors
	Households (million)	Total		Per Household			Per Square Feet		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Heated Square Feet	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	1.1	1.4	1.4	1.0	0.9	0.7	0.9	0.9	
Total Households Using a Major Space-Heating Fuel¹	105.3	4.60	49.95	43.7	474	1,707	25.6	0.28	1.9
Weekday Home Activities									
Home Used for Business									
Yes	7.4	0.41	4.39	55.0	594	2,336	23.6	0.25	6.0
No/Don't Know	97.9	4.19	45.56	42.8	465	1,659	25.8	0.28	2.0
Energy-Intensive Activity									
Yes	1.6	0.09	0.93	55.9	566	2,189	25.5	0.26	10.2
No/Don't Know	103.7	4.51	49.03	43.5	473	1,699	25.6	0.28	2.0
Someone Home All Day									
Yes	52.1	2.45	26.32	47.0	505	1,765	26.6	0.29	2.5
No/Don't Know	53.2	2.15	23.63	40.4	444	1,650	24.5	0.27	2.3
Heated Floorspace Category (square feet)									
Fewer than 500	8.0	0.14	1.78	17.1	223	313	54.7	0.71	6.2
500 to 999	25.6	0.71	8.41	27.7	329	767	36.1	0.43	3.5
1,000 to 1,499	22.7	0.84	9.61	37.3	424	1,234	30.2	0.34	3.5
1,500 to 1,999	16.7	0.79	8.57	47.4	514	1,730	27.4	0.30	3.3
2,000 to 2,499	12.1	0.67	6.97	55.2	575	2,216	24.9	0.26	3.6
2,500 to 2,999	7.3	0.49	4.96	66.2	676	2,723	24.3	0.25	4.8
3,000 to 3,499	4.5	0.30	3.05	65.5	671	3,224	20.3	0.21	9.5
3,500 to 3,999	3.0	0.21	2.02	70.5	665	3,714	19.0	0.18	7.8
4,000 or More	5.4	0.45	4.58	83.9	852	5,208	16.1	0.16	4.9
Year of Construction									
1939 or Before	18.7	1.30	13.13	69.6	703	1,675	41.5	0.42	3.5
1940 to 1949	7.5	0.40	4.21	52.9	561	1,504	35.2	0.37	5.7
1950 to 1959	13.8	0.69	6.97	50.3	505	1,721	29.2	0.29	3.9
1960 to 1969	13.4	0.55	5.97	41.1	445	1,562	26.3	0.28	4.3
1970 to 1979	18.5	0.59	6.97	32.1	378	1,522	21.1	0.25	4.2
1980 to 1989	18.1	0.53	6.53	29.1	361	1,730	16.8	0.21	4.6
1990 to 1999	14.5	0.49	5.69	34.2	393	2,119	16.1	0.19	6.7
2000 to 2001 ²	0.9	0.04	0.50	49.2	546	2,734	18.0	0.20	17.7
Housing Unit Type and Number of Bedrooms									
Mobile Home	6.8	0.21	2.59	30.7	383	979	31.4	0.39	7.5
Less than 3 Bedrooms	3.7	0.12	1.45	32.6	393	782	41.7	0.50	8.2
3 or More Bedrooms	3.1	0.09	1.15	28.5	371	1,215	23.5	0.31	9.3
Single-Family Detached	62.3	3.22	34.33	51.7	551	2,076	24.9	0.27	2.2
Less than 3 Bedrooms	12.1	0.52	5.78	43.0	478	1,312	32.8	0.36	3.9
3 Bedrooms	33.2	1.59	17.17	47.8	517	1,946	24.6	0.27	2.8
4 Bedrooms	14.1	0.86	8.85	61.0	627	2,702	22.6	0.23	4.1
5 or More Bedrooms	2.8	0.25	2.53	88.4	889	3,731	23.7	0.24	8.8
Single-Family Attached	10.6	0.54	5.64	51.1	534	1,879	27.2	0.28	6.2
Less than 3 Bedrooms	3.9	0.15	1.63	38.8	417	1,328	29.2	0.31	9.1
3 Bedrooms	4.6	0.23	2.58	50.6	565	1,996	25.4	0.28	8.4
4 or More Bedrooms	2.1	0.16	1.43	74.9	683	2,651	28.2	0.26	10.5
Apartments (2 to 4 units) ...	9.4	0.41	4.74	44.2	506	1,199	36.8	0.42	6.5
Less than 2 Bedrooms	2.6	0.09	0.96	33.2	373	811	40.9	0.46	11.1
2 Bedrooms	5.0	0.20	2.41	40.6	484	1,200	33.9	0.40	7.3
3 or More Bedrooms	1.8	0.13	1.38	69.2	754	1,741	39.8	0.43	13.1

See footnotes at end of table.

Table CE2-6.2u. Space-Heating Energy Consumption and Expenditures by Square Feet and Usage Indicators, 2001 - Preliminary Data (Continued)

Usage Indicators	Space-Heating Energy								RSE Row Factors
	Households (million)	Total		Per Household			Per Square Feet		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Heated Square Feet	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	1.1	1.4	1.4	1.0	0.9	0.7	0.9	0.9	
Apartments (5 or more units)									
.....	16.3	0.21	2.65	13.1	162	781	16.8	0.21	5.7
Less than 2 Bedrooms	8.1	0.09	1.11	11.4	138	590	19.2	0.23	6.6
2 Bedrooms	6.8	0.10	1.26	15.1	185	935	16.2	0.20	9.2
3 or More Bedrooms	1.5	0.02	0.28	13.5	188	1,119	12.1	0.17	16.6
Adequacy of Insulation									
Well Insulated	42.2	1.74	19.15	41.3	454	1,918	21.5	0.24	2.7
Adequately Insulated	42.5	1.87	20.33	44.1	479	1,698	26.0	0.28	2.7
Poorly Insulated	19.1	0.92	9.78	48.2	512	1,306	36.9	0.39	3.8
No Insulation	0.7	0.04	0.39	49.6	523	1,135	43.7	0.46	15.0
Don't Know	0.9	0.03	0.31	33.4	350	1,204	27.7	0.29	15.6
Occurrences of Drafts During Winter									
Never	5.9	0.29	3.04	48.9	519	1,264	38.7	0.41	6.2
Some of the Time	6.3	0.27	3.08	42.8	486	1,267	33.8	0.38	5.8
Most of the	33.9	1.66	17.74	48.9	523	1,711	28.6	0.31	2.8
All of the Time	54.6	2.26	24.76	41.5	453	1,837	22.6	0.25	2.6
Don't Know	4.6	0.12	1.33	25.3	292	1,297	19.5	0.23	7.3
Secondary Heating Equipment									
Yes	33.9	1.69	18.89	49.9	557	2,034	24.6	0.27	2.7
No	71.4	2.91	31.06	40.7	435	1,552	26.2	0.28	2.2
Daytime Winter Temperature When Someone is at Home³									
Heat Turned On	96.1	4.39	47.56	45.7	495	1,772	25.8	0.28	1.9
63 Degrees or Less	3.9	0.16	1.76	41.8	446	1,453	28.7	0.31	7.7
64 to 66 Degrees	8.3	0.37	4.09	44.5	491	1,739	25.6	0.28	5.2
67 to 69 Degrees	23.5	1.19	12.64	50.3	537	2,004	25.1	0.27	2.7
70 Degrees	25.4	1.18	12.78	46.6	504	1,707	27.3	0.29	3.5
71 to 73 Degrees	16.4	0.79	8.67	48.4	528	1,877	25.8	0.28	4.0
74 Degrees or More	18.5	0.69	7.62	37.3	411	1,557	24.0	0.26	4.3
Heat Turned Off	2.0	0.02	0.30	11.2	145	688	16.3	0.21	13.8
Unknown/No Answer	7.1	0.19	2.10	26.0	294	1,116	23.3	0.26	6.2
Winter Temperature Settings									
Lower When No One Home									
Yes	47.0	2.05	22.31	43.6	475	1,759	24.8	0.27	2.7
No	58.3	2.55	27.64	43.7	474	1,665	26.2	0.28	2.2
Lower During Sleeping Hours									
Yes	45.4	2.08	22.46	45.9	495	1,782	25.8	0.28	2.7
No	59.9	2.51	27.49	42.0	459	1,650	25.4	0.28	2.3

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

³ The 1.0 million households that do not heat their homes are not included in these categories.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-7c. Space-Heating Energy Consumption in U.S. Households by Four Most Populated States, 2001 - Preliminary Data

	Four Most Populated States					RSE Row Factors
	Total U.S.	New York	California	Texas	Florida	
RSE Column Factor:	0.3	1.1	0.8	1.5	2.2	
Million Households						
Total U.S. Households	107.0	7.1	12.3	7.7	6.3	NF
No Space Heating	1.0	Q	0.3	Q	Q	23.8
Space Heating	106.0	7.1	12.0	7.7	6.2	0.5
Not Using a Major Fuel ¹	0.7	Q	0.2	Q	Q	50.8
Using a Major Fuel ¹	105.3	7.0	11.8	7.7	6.2	0.5
For Main Space Heating	103.8	6.8	11.6	7.6	6.2	0.8
For Secondary Space Heating Only	1.5	Q	Q	Q	Q	41.4
Number of Households with Space Heating, Major Fuels Used (more than one may apply):						
Electricity	43.8	1.4	3.7	4.4	5.2	5.1
Natural Gas	60.5	4.2	9.0	4.2	1.0	7.2
Fuel Oil	8.5	2.2	Q	Q	Q	21.9
Kerosene	2.7	0.2	Q	Q	Q	32.6
LPG	6.6	Q	0.3	0.2	Q	30.9
Quadrillion Btu						
Space-Heating Btu Consumption, Major Fuels Used:						
Electricity	0.37	0.01	0.01	0.03	0.02	15.7
Natural Gas	3.32	0.28	0.23	0.16	0.01	12.6
Fuel Oil	0.58	0.11	Q	Q	Q	27.1
Kerosene	0.04	(*)	Q	Q	Q	29.9
LPG	0.28	Q	0.01	Q	Q	37.3
Total	4.60	0.41	0.26	0.20	0.03	6.8
Physical Units						
Physical Units of Space-Heating Consumption, Major Fuels Used:						
Electricity (billion kWh)	109	2	4	10	5	15.7
Natural Gas (billion cf)	3,231	268	225	152	12	12.6
Fuel Oil (million gallons)	4,155	828	Q	Q	Q	27.1
Kerosene (million gallons)	330	29	Q	Q	Q	29.9
LPG (million gallons)	3,069	Q	113	Q	Q	37.3
Million Btu per Household						
Average Space-Heating Btu Consumption per Household						
Using a Major Fuel ¹	43.7	58.3	22.4	25.5	5.0	6.9
For Main Space Heating	44.0	58.7	22.7	25.5	5.0	7.0
For Secondary Space Heating Only	18.2	Q	Q	Q	Q	33.3

See footnotes at end of table.

**Table CE2-7c. Space-Heating Energy Consumption in U.S. Households
by Four Most Populated States, 2001 - Preliminary Data (Continued)**

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.3	1.1	0.8	1.5	2.2	
Million Households						
Number of Households, Where the Main Space-Heating Fuel Is:						
Electricity	30.9	0.5	2.3	3.4	5.1	10.0
Natural Gas	59.1	4.2	8.9	4.0	1.0	7.5
Fuel Oil	8.0	2.1	Q	Q	Q	21.8
Kerosene	0.8	Q	Q	Q	Q	51.0
LPG	4.9	Q	0.3	Q	Q	35.2
Other	2.2	0.2	0.4	Q	Q	34.0
No Space Heating	1.0	Q	0.3	Q	Q	23.8
Million Btu per Household³						
Space-Heating Btu Consumption per Household,² Where the Main Space-Heating Fuel Is:						
Electricity	11.3	12.1	5.3	9.1	3.3	11.9
Natural Gas	55.4	65.1	25.6	37.6	12.2	7.9
Fuel Oil	70.2	54.0	Q	Q	Q	8.7
Kerosene	39.0	Q	Q	Q	Q	29.5
LPG	50.3	Q	33.2	Q	Q	19.6
Physical Units (PU) per Household³						
Physical Units of Space-Heating Consumption per Household,² Where the Main Space-Heating Fuel Is:						
Electricity (kWh)	3,314	3,544	1,540	2,664	973	11.9
Natural Gas (thousand cf)	54	63	25	37	12	7.9
Fuel Oil (gallons)	507	389	Q	Q	Q	8.7
Kerosene (gallons)	289	Q	Q	Q	Q	29.5
LPG (gallons)	551	Q	364	Q	Q	19.6
2001 Heating Degree-Days (HDD) per Household³						
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:						
Electricity	3,006	5,632	2,409	2,015	536	9.4
Natural Gas	4,255	5,183	2,113	2,211	818	4.9
Fuel Oil	5,339	4,607	Q	Q	Q	6.5
Kerosene	4,636	Q	Q	Q	Q	18.8
LPG	4,643	Q	3,668	Q	Q	13.8
Average for All Heated Households	4,004	5,011	2,290	2,139	579	5.8

See footnotes at end of table.

Table CE2-7c. Space-Heating Energy Consumption in U.S. Households by Four Most Populated States, 2001 - Preliminary Data (Continued)

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.3	1.1	0.8	1.5	2.2	
Heated Square Footage (HSF) per Household³						
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:						
Electricity	1,399	1,091	928	1,382	1,492	12.1
Natural Gas	1,836	1,788	1,394	1,716	1,958	5.8
Fuel Oil	2,043	1,531	Q	Q	Q	10.0
Kerosene	1,076	Q	Q	Q	Q	25.3
LPG	1,570	Q	1,650	Q	Q	17.3
Average for All Heated Households	1,707	1,657	1,315	1,549	1,576	4.2
Space-Heating Intensity³ [PU÷(HDD×(HSF÷1000))]						
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:						
Electricity (kWh)	0.788	0.577	0.689	0.957	1.217	7.6
Natural Gas (cubic feet)	6.893	6.826	8.444	9.626	7.426	6.6
Fuel Oil (gallons)	0.046	0.055	Q	Q	Q	9.2
Kerosene (gallons)	0.058	Q	Q	Q	Q	33.4
LPG (gallons)	0.076	Q	0.060	Q	Q	28.1

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes only the space-heating consumption of the space-heating fuel. Not included are: 1) the consumption of the main space-heating fuel for uses other than space heating; 2) the consumption of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the consumption of other fuels that are used as secondary space-heating fuels.

³ Averages are for those households using each of the main space-heating fuels.

(*) = Value rounds to zero in the units displayed.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-8c. Space-Heating Energy Consumption in U.S. Households by Urban/Rural Location, 2001 - Preliminary Data

	Urban/Rural Location ¹					RSE Row Factors
	Total	City	Town	Suburbs	Rural	
	0.6	1.0	1.3	1.3	1.0	
Million Households						
Total U.S. Households	107.0	49.9	18.0	21.2	17.9	4.3
No Space Heating	1.0	0.7	Q	Q	Q	15.7
Space Heating	106.0	49.1	18.0	21.2	17.8	4.3
Not Using a Major Fuel ²	0.7	0.2	Q	Q	0.5	31.0
Using a Major Fuel ²	105.3	48.9	17.9	21.1	17.3	4.3
For Main Space Heating	103.8	48.7	17.6	21.0	16.4	4.3
For Secondary Space Heating Only	1.5	0.2	0.3	Q	0.9	22.6
Number of Households with Space Heating, Major Fuels Used (more than one may apply):						
Electricity	43.8	18.8	7.8	8.6	8.6	5.6
Natural Gas	60.5	33.1	10.3	13.4	3.7	6.0
Fuel Oil	8.5	2.5	2.1	1.4	2.5	13.4
Kerosene	2.7	0.5	0.6	0.4	1.4	21.4
LPG	6.6	0.5	1.1	0.4	4.6	18.3
Quadrillion Btu						
Space-Heating Btu Consumption, Major Fuels Used:						
Electricity	0.37	0.12	0.07	0.08	0.11	8.2
Natural Gas	3.32	1.70	0.62	0.78	0.23	7.3
Fuel Oil	0.58	0.14	0.16	0.09	0.19	15.3
Kerosene	0.04	(*)	0.01	Q	0.03	30.1
LPG	0.28	0.02	0.05	0.01	0.20	21.5
Total	4.60	1.98	0.90	0.97	0.76	5.1
Physical Units						
Physical Units of Space-Heating Consumption, Major Fuels Used:						
Electricity (billion kWh)	109	35	19	22	33	8.2
Natural Gas (billion cf)	3,231	1,648	598	759	225	7.3
Fuel Oil (million gallons)	4,155	1,008	1,122	682	1,344	15.3
Kerosene (million gallons)	330	26	53	Q	225	30.1
LPG (million gallons)	3,069	173	588	126	2,182	21.5
Million Btu per Household						
Average Space-Heating Btu Consumption per Household						
Using a Major Fuel ²	43.7	40.4	50.1	45.7	43.9	3.4
For Main Space Heating	44.0	40.4	50.7	45.8	45.3	3.4
For Secondary Space Heating Only	18.2	20.3	12.2	Q	19.2	21.6

See footnotes at end of table.

**Table CE2-8c. Space-Heating Energy Consumption in U.S. Households
by Urban/Rural Location, 2001 - Preliminary Data (Continued)**

	Urban/Rural Location ¹					RSE Row Factors
	Total	City	Town	Suburbs	Rural	
	0.6	1.0	1.3	1.3	1.0	
Million Households						
Number of Households, Where the Main Space-Heating Fuel Is:						
Electricity	30.9	13.6	4.5	6.3	6.5	7.2
Natural Gas	59.1	32.3	10.0	13.1	3.6	6.0
Fuel Oil	8.0	2.4	2.0	1.3	2.3	13.6
Kerosene	0.8	Q	Q	Q	0.5	24.1
LPG	4.9	0.3	0.9	0.2	3.5	21.0
Other	2.2	0.4	0.3	Q	1.4	20.2
No Space Heating	1.0	0.7	Q	Q	Q	15.7
Million Btu per Household⁴						
Space-Heating Btu Consumption per Household,³ Where the Main Space-Heating Fuel Is:						
Electricity	11.3	8.2	13.1	11.3	16.6	5.8
Natural Gas	55.4	51.7	60.1	58.7	63.3	3.6
Fuel Oil	70.2	56.6	77.7	70.8	77.8	5.5
Kerosene	39.0	Q	Q	Q	42.3	13.7
LPG	50.3	39.9	55.9	31.5	51.0	9.1
Physical Units (PU) per Household⁴						
Physical Units of Space-Heating Consumption per Household,³ Where the Main Space-Heating Fuel Is:						
Electricity (kWh)	3,314	2,392	3,841	3,324	4,875	5.8
Natural Gas (thousand cf)	54	50	58	57	61	3.6
Fuel Oil (gallons)	507	408	560	511	561	5.5
Kerosene (gallons)	289	Q	Q	Q	313	13.7
LPG (gallons)	551	437	612	345	558	9.1
2001 Heating Degree-Days (HDD) per Household⁴						
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:						
Electricity	3,006	2,742	3,526	2,673	3,520	4.9
Natural Gas	4,255	4,069	4,685	4,339	4,430	2.5
Fuel Oil	5,339	5,259	5,683	4,750	5,467	3.6
Kerosene	4,636	Q	Q	Q	4,784	8.7
LPG	4,643	4,164	4,858	4,003	4,669	9.2
Average for All Heated Households	4,004	3,758	4,513	3,872	4,328	2.2

See footnotes at end of table.

Table CE2-8c. Space-Heating Energy Consumption in U.S. Households by Urban/Rural Location, 2001 - Preliminary Data (Continued)

	Total	Urban/Rural Location ¹				RSE Row Factors
		City	Town	Suburbs	Rural	
RSE Column Factor:	0.6	1.0	1.3	1.3	1.0	
Heated Square Footage (HSF) per Household⁴						
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:						
Electricity	1,399	1,159	1,307	1,647	1,728	5.2
Natural Gas	1,836	1,613	1,798	2,314	2,194	3.5
Fuel Oil	2,043	1,549	2,230	2,263	2,274	5.5
Kerosene	1,076	Q	Q	Q	1,159	12.1
LPG	1,570	1,041	1,446	1,612	1,647	10.5
Average for All Heated Households	1,707	1,480	1,692	2,103	1,880	2.7
Space-Heating Intensity⁴ [PU÷(HDD×(HSF÷1000))]						
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:						
Electricity (kWh)	0.788	0.753	0.833	0.755	0.801	4.8
Natural Gas (cubic feet)	6.893	7.656	6.938	5.684	6.327	4.0
Fuel Oil (gallons)	0.046	0.050	0.044	0.048	0.045	5.6
Kerosene (gallons)	0.058	Q	Q	Q	0.057	14.0
LPG (gallons)	0.076	0.101	0.087	0.053	0.073	12.8

¹ Based on the household respondent's description rather than the Federal Government definition.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes only the space-heating consumption of the space-heating fuel. Not included are: 1) the consumption of the main space-heating fuel for uses other than space heating; 2) the consumption of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the consumption of other fuels that are used as secondary space-heating fuels.

⁴ Averages are for those households using each of the main space-heating fuels.

(*) = Value rounds to zero in the units displayed.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-9c. Space-Heating Energy Consumption in U.S. Households by Northeast Census Region, 2001 - Preliminary Data

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.6	1.0	1.2	1.5	
Million Households					
Total U.S. Households	107.0	20.3	14.8	5.4	NF
No Space Heating	1.0	Q	Q	Q	17.3
Space Heating	106.0	20.1	14.7	5.4	NF
Not Using a Major Fuel ¹	0.7	0.2	Q	Q	33.9
Using a Major Fuel ¹	105.3	19.9	14.6	5.3	NF
For Main Space Heating	103.8	19.7	14.4	5.3	0.7
For Secondary Space Heating Only	1.5	0.2	Q	Q	23.4
Number of Households with Space Heating, Major Fuels Used (more than one may apply):					
Electricity	43.8	4.8	3.6	1.2	5.9
Natural Gas	60.5	10.6	8.7	1.9	8.7
Fuel Oil	8.5	6.4	3.7	2.7	12.5
Kerosene	2.7	0.7	0.4	Q	23.7
LPG	6.6	0.6	0.3	0.3	18.7
Quadrillion Btu					
Space-Heating Btu Consumption, Major Fuels Used:					
Electricity	0.37	0.04	0.04	0.01	12.1
Natural Gas	3.32	0.71	0.57	0.14	10.4
Fuel Oil	0.58	0.45	0.24	0.22	14.8
Kerosene	0.04	0.02	0.01	Q	31.4
LPG	0.28	0.03	0.02	0.01	24.3
Total	4.60	1.25	0.87	0.38	3.0
Physical Units					
Physical Units of Space-Heating Consumption, Major Fuels Used:					
Electricity (billion kWh)	109	13	11	2	12.1
Natural Gas (billion cf)	3,231	689	554	135	10.4
Fuel Oil (million gallons)	4,155	3,266	1,706	1,559	14.8
Kerosene (million gallons)	330	149	98	Q	31.4
LPG (million gallons)	3,069	287	170	117	24.3
Million Btu per Household					
Average Space-Heating Btu Consumption per Household					
Using a Major Fuel ¹	43.7	62.9	59.8	71.3	3.0
For Main Space Heating	44.0	63.3	60.2	72.0	3.1
For Secondary Space Heating Only	18.2	24.9	Q	Q	20.5

See footnotes at end of table.

Table CE2-9c. Space-Heating Energy Consumption in U.S. Households by Northeast Census Region, 2001 - Preliminary Data (Continued)

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.6	1.0	1.2	1.5	
Million Households					
Number of Households, Where the Main Space-Heating Fuel Is:					
Electricity	30.9	2.3	1.8	0.5	11.2
Natural Gas	59.1	10.5	8.6	1.9	8.6
Fuel Oil	8.0	6.2	3.6	2.7	12.4
Kerosene	0.8	0.3	0.2	Q	32.2
LPG	4.9	0.4	0.2	0.1	25.4
Other	2.2	0.4	0.3	0.1	22.4
No Space Heating	1.0	Q	Q	Q	17.3
Million Btu per Household³					
Space-Heating Btu Consumption per Household,² Where the Main Space-Heating Fuel Is:					
Electricity	11.3	17.6	18.4	14.8	7.8
Natural Gas	55.4	67.3	65.9	74.1	4.5
Fuel Oil	70.2	71.7	65.0	80.5	4.6
Kerosene	39.0	56.2	61.8	47.4	8.2
LPG	50.3	63.2	64.3	61.3	6.4
Physical Units (PU) per Household³					
Physical Units of Space-Heating Consumption per Household,² Where the Main Space-Heating Fuel Is:					
Electricity (kWh)	3,314	5,166	5,381	4,332	7.8
Natural Gas (thousand cf)	54	65	64	72	4.5
Fuel Oil (gallons)	507	517	469	580	4.6
Kerosene (gallons)	289	416	458	351	8.2
LPG (gallons)	551	692	704	671	6.4
2001 Heating Degree-Days (HDD) per Household³					
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:					
Electricity	3,006	5,266	5,202	5,515	3.2
Natural Gas	4,255	5,165	5,106	5,432	1.6
Fuel Oil	5,339	5,366	4,794	6,128	3.8
Kerosene	4,636	5,916	5,299	6,895	5.8
LPG	4,643	5,493	5,302	5,794	4.1
Average for All Heated Households	4,004	5,254	5,037	5,845	2.3

See footnotes at end of table.

Table CE2-9c. Space-Heating Energy Consumption in U.S. Households by Northeast Census Region, 2001 - Preliminary Data (Continued)

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.6	1.0	1.2	1.5	
Heated Square Footage (HSF) per Household³					
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:					
Electricity	1,399	1,609	1,734	1,122	9.2
Natural Gas	1,836	1,822	1,809	1,880	4.0
Fuel Oil	2,043	2,087	1,951	2,268	5.4
Kerosene	1,076	1,149	936	1,487	12.9
LPG	1,570	1,642	1,923	1,200	17.3
Average for All Heated Households	1,707	1,872	1,829	1,988	3.7
Space-Heating Intensity³ [PU÷(HDD×(HSF÷1000))]					
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:					
Electricity (kWh)	0.788	0.610	0.597	0.700	8.0
Natural Gas (cubic feet)	6.893	6.957	6.931	7.050	3.8
Fuel Oil (gallons)	0.046	0.046	0.050	0.042	5.2
Kerosene (gallons)	0.058	0.061	0.092	0.034	13.6
LPG (gallons)	0.076	0.077	0.069	0.097	21.4

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes only the space-heating consumption of the space-heating fuel. Not included are: 1) the consumption of the main space-heating fuel for uses other than space heating; 2) the consumption of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the consumption of other fuels that are used as secondary space-heating fuels.

³ Averages are for those households using each of the main space-heating fuels.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-10c. Space-Heating Energy Consumption in U.S. Households by Midwest Census Region, 2001 - Preliminary Data

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
	0.6	1.0	1.2	1.6	
RSE Column Factor:					
Million Households					
Total U.S. Households	107.0	24.5	17.1	7.4	NF
No Space Heating	1.0	Q	Q	Q	17.9
Space Heating	106.0	24.5	17.1	7.4	NF
Not Using a Major Fuel ¹	0.7	Q	Q	Q	35.5
Using a Major Fuel ¹	105.3	24.4	17.0	7.3	NF
For Main Space Heating	103.8	24.1	16.9	7.2	0.7
For Secondary Space Heating Only	1.5	0.3	Q	Q	29.8
Number of Households with Space Heating, Major Fuels Used (more than one may apply):					
Electricity	43.8	6.2	4.0	2.1	7.2
Natural Gas	60.5	19.1	14.0	5.2	4.2
Fuel Oil	8.5	0.9	0.5	0.4	15.2
Kerosene	2.7	0.5	0.4	Q	15.2
LPG	6.6	2.0	1.0	1.0	23.2
Quadrillion Btu					
Space-Heating Btu Consumption, Major Fuels Used:					
Electricity	0.37	0.05	0.03	0.02	14.7
Natural Gas	3.32	1.39	1.05	0.34	5.4
Fuel Oil	0.58	0.06	0.03	0.03	18.8
Kerosene	0.04	(*)	Q	Q	35.6
LPG	0.28	0.12	0.06	0.06	23.6
Total	4.60	1.62	1.17	0.45	3.1
Physical Units					
Physical Units of Space-Heating Consumption, Major Fuels Used:					
Electricity (billion kWh)	109	16	9	7	14.7
Natural Gas (billion cf)	3,231	1,349	1,021	328	5.4
Fuel Oil (million gallons)	4,155	434	234	199	18.8
Kerosene (million gallons)	330	23	Q	Q	35.6
LPG (million gallons)	3,069	1,301	626	675	23.6
Million Btu per Household					
Average Space-Heating Btu Consumption per Household					
Using a Major Fuel ¹	43.7	66.7	69.0	61.4	3.0
For Main Space Heating	44.0	67.1	69.2	62.1	3.0
For Secondary Space Heating Only	18.2	26.9	Q	Q	23.6

See footnotes at end of table.

**Table CE2-10c. Space-Heating Energy Consumption in U.S. Households
by Midwest Census Region, 2001 - Preliminary Data (Continued)**

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
	0.6	1.0	1.2	1.6	
Million Households					
Number of Households, Where the Main Space-Heating Fuel Is:					
Electricity	30.9	2.5	1.7	0.8	13.6
Natural Gas	59.1	18.9	13.8	5.1	4.5
Fuel Oil	8.0	0.8	0.4	0.4	14.1
Kerosene	0.8	Q	Q	Q	31.7
LPG	4.9	1.8	0.9	0.9	23.8
Other	2.2	0.4	Q	0.2	29.6
No Space Heating	1.0	Q	Q	Q	17.9
Million Btu per Household³					
Space-Heating Btu Consumption per Household,² Where the Main Space-Heating Fuel Is:					
Electricity	11.3	19.0	16.2	24.7	7.5
Natural Gas	55.4	72.8	75.5	65.5	2.8
Fuel Oil	70.2	71.0	68.2	74.4	11.2
Kerosene	39.0	Q	Q	Q	18.3
LPG	50.3	62.0	60.3	63.8	5.3
Physical Units (PU) per Household³					
Physical Units of Space-Heating Consumption per Household,² Where the Main Space-Heating Fuel Is:					
Electricity (kWh)	3,314	5,565	4,752	7,239	7.5
Natural Gas (thousand cf)	54	71	73	64	2.8
Fuel Oil (gallons)	507	513	492	538	11.3
Kerosene (gallons)	289	Q	Q	Q	18.3
LPG (gallons)	551	679	660	699	5.3
2001 Heating Degree-Days (HDD) per Household³					
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:					
Electricity	3,006	5,578	5,751	5,222	3.5
Natural Gas	4,255	5,772	5,738	5,864	2.2
Fuel Oil	5,339	6,827	6,402	7,339	4.3
Kerosene	4,636	Q	Q	Q	11.7
LPG	4,643	6,137	6,114	6,160	5.6
Average for All Heated Households	4,004	5,816	5,788	5,881	2.1

See footnotes at end of table.

**Table CE2-10c. Space-Heating Energy Consumption in U.S. Households
by Midwest Census Region, 2001 - Preliminary Data (Continued)**

	Midwest Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	East North Central	West North Central	
RSE Column Factor:	0.6	1.0	1.2	1.6	
Heated Square Footage (HSF) per Household³					
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:					
Electricity	1,399	1,481	1,289	1,877	10.1
Natural Gas	1,836	2,080	2,070	2,110	3.2
Fuel Oil	2,043	1,959	2,067	1,828	9.5
Kerosene	1,076	Q	Q	Q	15.7
LPG	1,570	1,800	1,772	1,829	4.8
Average for All Heated Households	1,707	1,997	1,985	2,024	2.7
Space-Heating Intensity³ [PU÷(HDD×(HSF÷1000))]					
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:					
Electricity (kWh)	0.788	0.674	0.641	0.738	6.5
Natural Gas (cubic feet)	6.893	5.892	6.180	5.142	3.0
Fuel Oil (gallons)	0.046	0.038	0.037	0.040	10.4
Kerosene (gallons)	0.058	Q	Q	Q	20.7
LPG (gallons)	0.076	0.061	0.061	0.062	8.4

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes only the space-heating consumption of the space-heating fuel. Not included are: 1) the consumption of the main space-heating fuel for uses other than space heating; 2) the consumption of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the consumption of other fuels that are used as secondary space-heating fuels.

³ Averages are for those households using each of the main space-heating fuels.

(*) = Value rounds to zero in the units displayed.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-11c. Space-Heating Energy Consumption in U.S. Households by South Census Region, 2001 - Preliminary Data

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			West south Central	
		Total	South Atlantic	East South Central		
RSE Column Factor:	0.4	0.9	1.1	1.6	1.6	
Million Households						
Total U.S. Households	107.0	38.9	20.3	6.8	11.8	NF
No Space Heating	1.0	Q	Q	Q	Q	23.9
Space Heating	106.0	38.8	20.2	6.8	11.8	NF
Not Using a Major Fuel ¹	0.7	Q	Q	Q	Q	47.3
Using a Major Fuel ¹	105.3	38.7	20.0	6.8	11.8	NF
For Main Space Heating	103.8	38.2	19.8	6.7	11.7	0.6
For Secondary Space Heating Only	1.5	0.5	0.3	Q	Q	39.8
Number of Households with Space Heating, Major Fuels Used (more than one may apply):						
Electricity	43.8	23.1	12.4	4.2	6.5	5.7
Natural Gas	60.5	16.6	7.1	2.7	6.8	7.4
Fuel Oil	8.5	0.9	0.9	Q	Q	31.8
Kerosene	2.7	1.3	0.9	0.3	Q	20.6
LPG	6.6	3.0	1.4	1.2	0.4	19.3
Quadrillion Btu						
Space-Heating Btu Consumption, Major Fuels Used:						
Electricity	0.37	0.20	0.09	0.05	0.05	9.1
Natural Gas	3.32	0.70	0.31	0.13	0.26	10.3
Fuel Oil	0.58	0.05	0.05	Q	Q	36.4
Kerosene	0.04	0.02	0.01	(*)	Q	33.7
LPG	0.28	0.10	0.05	0.04	0.01	26.6
Total	4.60	1.06	0.51	0.22	0.33	6.6
Physical Units						
Physical Units of Space-Heating Consumption, Major Fuels Used:						
Electricity (billion kWh)	109	57	28	16	14	9.1
Natural Gas (billion cf)	3,231	682	304	122	257	10.3
Fuel Oil (million gallons)	4,155	379	357	Q	Q	36.3
Kerosene (million gallons)	330	118	81	36	Q	33.7
LPG (million gallons)	3,069	1,046	510	392	145	26.6
Million Btu per Household						
Average Space-Heating Btu Consumption per Household						
Using a Major Fuel ¹	43.7	27.5	25.6	32.7	27.6	6.6
For Main Space Heating	44.0	27.6	25.7	33.0	27.7	6.7
For Secondary Space Heating Only	18.2	16.3	19.2	Q	Q	28.5

See footnotes at end of table.

**Table CE2-11c. Space-Heating Energy Consumption in U.S. Households
by South Census Region, 2001 - Preliminary Data (Continued)**

	South Census Region					RSE Row Factors
	Total U.S.	Census Division				
		Total	South Atlantic	East South Central	West south Central	
RSE Column Factor:	0.4	0.9	1.1	1.6	1.6	
Million Households						
Number of Households, Where the Main Space-Heating Fuel Is:						
Electricity	30.9	19.3	11.0	3.4	4.9	7.6
Natural Gas	59.1	15.7	6.8	2.4	6.5	7.8
Fuel Oil	8.0	0.8	0.8	Q	Q	31.5
Kerosene	0.8	0.4	0.3	Q	Q	32.3
LPG	4.9	2.0	0.9	0.8	0.3	22.3
Other	2.2	0.6	0.4	Q	Q	33.0
No Space Heating	1.0	Q	Q	Q	Q	23.9
Million Btu per Household³						
Space-Heating Btu Consumption per Household,² Where the Main Space-Heating Fuel Is:						
Electricity	11.3	9.8	8.3	15.5	9.1	6.4
Natural Gas	55.4	42.9	44.7	47.2	39.4	5.8
Fuel Oil	70.2	62.4	63.1	Q	Q	15.2
Kerosene	39.0	24.9	21.4	Q	Q	18.5
LPG	50.3	38.6	41.0	37.5	34.0	12.0
Physical Units (PU) per Household³						
Physical Units of Space-Heating Consumption per Household,² Where the Main Space-Heating Fuel Is:						
Electricity (kWh)	3,314	2,861	2,435	4,553	2,653	6.4
Natural Gas (thousand cf)	54	42	43	46	38	5.8
Fuel Oil (gallons)	507	450	455	Q	Q	15.2
Kerosene (gallons)	289	184	159	Q	Q	18.5
LPG (gallons)	551	423	449	411	372	12.0
2001 Heating Degree-Days (HDD) per Household³						
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:						
Electricity	3,006	2,155	1,922	3,021	2,082	5.8
Natural Gas	4,255	2,779	3,079	3,109	2,340	5.2
Fuel Oil	5,339	3,777	3,760	Q	Q	6.0
Kerosene	4,636	3,261	3,247	Q	Q	8.1
LPG	4,643	2,953	2,891	3,139	2,662	8.2
Average for All Heated Households	4,004	2,515	2,479	3,087	2,247	4.2

See footnotes at end of table.

Table CE2-11c. Space-Heating Energy Consumption in U.S. Households by South Census Region, 2001 - Preliminary Data (Continued)

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			West south Central	
		Total	South Atlantic	East South Central		
RSE Column Factor:	0.4	0.9	1.1	1.6	1.6	
Heated Square Footage (HSF) per Household³						
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:						
Electricity	1,399	1,487	1,461	1,783	1,344	5.7
Natural Gas	1,836	1,823	1,940	1,893	1,675	4.8
Fuel Oil	2,043	1,774	1,758	Q	Q	18.1
Kerosene	1,076	836	835	Q	Q	17.4
LPG	1,570	1,350	1,445	1,261	1,285	11.5
Average for All Heated Households	1,707	1,624	1,636	1,761	1,526	4.2
Space-Heating Intensity³ [PU÷(HDD×(HSF÷1000))]						
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:						
Electricity (kWh)	0.788	0.893	0.868	0.845	0.948	4.8
Natural Gas (cubic feet)	6.893	8.230	7.275	7.786	9.774	5.7
Fuel Oil (gallons)	0.046	0.067	0.069	Q	Q	13.1
Kerosene (gallons)	0.058	0.068	0.059	Q	Q	21.8
LPG (gallons)	0.076	0.106	0.107	0.104	0.109	12.5

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes only the space-heating consumption of the space-heating fuel. Not included are: 1) the consumption of the main space-heating fuel for uses other than space heating; 2) the consumption of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the consumption of other fuels that are used as secondary space-heating fuels.

³ Averages are for those households using each of the main space-heating fuels.

(*) = Value rounds to zero in the units displayed.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-12c. Space-Heating Energy Consumption in U.S. Households by West Census Region, 2001 - Preliminary Data

	Total U.S.	West Census Region			RSE Row Factors
		Total	Census Division		
			Mountain	Pacific	
RSE Column Factor:	0.5	1.1	1.5	1.3	
Million Households					
Total U.S. Households	107.0	23.3	6.7	16.6	NF
No Space Heating	1.0	0.7	Q	0.7	10.3
Space Heating	106.0	22.6	6.7	15.9	NF
Not Using a Major Fuel ¹	0.7	0.3	Q	0.2	31.1
Using a Major Fuel ¹	105.3	22.4	6.7	15.7	NF
For Main Space Heating	103.8	21.8	6.5	15.3	NF
For Secondary Space Heating Only	1.5	0.6	0.1	0.4	17.7
Number of Households with Space Heating, Major Fuels Used (more than one may apply):					
Electricity	43.8	9.7	2.9	6.8	4.3
Natural Gas	60.5	14.2	4.3	9.9	2.8
Fuel Oil	8.5	0.2	Q	0.2	23.7
Kerosene	2.7	0.2	Q	0.2	20.5
LPG	6.6	1.0	0.5	0.5	24.5
Quadrillion Btu					
Space-Heating Btu Consumption, Major Fuels Used:					
Electricity	0.37	0.08	0.02	0.06	9.5
Natural Gas	3.32	0.52	0.23	0.30	5.6
Fuel Oil	0.58	0.01	Q	0.01	29.3
Kerosene	0.04	0.01	Q	0.01	37.9
LPG	0.28	0.04	0.02	0.02	28.5
Total	4.60	0.66	0.27	0.39	4.7
Physical Units					
Physical Units of Space-Heating Consumption, Major Fuels Used:					
Electricity (billion kWh)	109	23	6	17	9.5
Natural Gas (billion cf)	3,231	510	221	288	5.6
Fuel Oil (million gallons)	4,155	77	Q	66	29.3
Kerosene (million gallons)	330	40	Q	40	37.9
LPG (million gallons)	3,069	435	265	171	28.5
Million Btu per Household					
Average Space-Heating Btu Consumption per Household					
Using a Major Fuel ¹	43.7	29.4	40.9	24.6	4.7
For Main Space Heating	44.0	29.9	41.2	25.0	4.7
For Secondary Space Heating Only	18.2	12.9	26.3	8.7	25.8

See footnotes at end of table.

Table CE2-12c. Space-Heating Energy Consumption in U.S. Households by West Census Region, 2001 - Preliminary Data (Continued)

	West Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	Mountain	Pacific	
RSE Column Factor:	0.5	1.1	1.5	1.3	
Million Households					
Number of Households, Where the Main Space-Heating Fuel Is:					
Electricity	30.9	6.8	2.0	4.8	6.2
Natural Gas	59.1	14.0	4.2	9.8	2.6
Fuel Oil	8.0	0.2	Q	Q	26.5
Kerosene	0.8	Q	Q	Q	35.6
LPG	4.9	0.7	0.4	0.4	25.3
Other	2.2	0.8	0.2	0.7	17.0
No Space Heating	1.0	0.7	Q	0.7	10.3
Million Btu per Household³					
Space-Heating Btu Consumption per Household,² Where the Main Space-Heating Fuel Is:					
Electricity	11.3	10.7	9.2	11.3	9.6
Natural Gas	55.4	36.8	53.2	29.8	4.1
Fuel Oil	70.2	52.3	Q	Q	10.2
Kerosene	39.0	Q	Q	Q	20.6
LPG	50.3	46.7	59.0	33.9	11.0
Physical Units (PU) per Household³					
Physical Units of Space-Heating Consumption per Household,² Where the Main Space-Heating Fuel Is:					
Electricity (kWh)	3,314	3,140	2,710	3,315	9.6
Natural Gas (thousand cf)	54	36	52	29	4.1
Fuel Oil (gallons)	507	378	Q	Q	10.2
Kerosene (gallons)	289	Q	Q	Q	20.6
LPG (gallons)	551	512	646	371	10.9
2001 Heating Degree-Days (HDD) per Household³					
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:					
Electricity	3,006	3,709	3,274	3,885	6.6
Natural Gas	4,255	3,171	4,842	2,456	2.7
Fuel Oil	5,339	4,894	Q	Q	9.2
Kerosene	4,636	Q	Q	Q	13.1
LPG	4,643	5,097	6,150	4,000	8.1
Average for All Heated Households	4,004	3,486	4,497	3,061	3.1

See footnotes at end of table.

Table CE2-12c. Space-Heating Energy Consumption in U.S. Households by West Census Region, 2001 - Preliminary Data (Continued)

	West Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	Mountain	Pacific	
RSE Column Factor:	0.5	1.1	1.5	1.3	
Heated Square Footage (HSF) per Household³					
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:					
Electricity	1,399	1,048	1,242	969	6.2
Natural Gas	1,836	1,528	1,721	1,445	4.5
Fuel Oil	2,043	2,121	Q	Q	11.9
Kerosene	1,076	Q	Q	Q	17.6
LPG	1,570	1,557	1,494	1,623	10.3
Average for All Heated Households	1,707	1,391	1,563	1,319	4.1
Space-Heating Intensity³ [PU÷(HDD×(HSF÷1000))]					
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:					
Electricity (kWh)	0.788	0.808	0.667	0.880	6.4
Natural Gas (cubic feet)	6.893	7.387	6.208	8.161	4.8
Fuel Oil (gallons)	0.046	0.036	Q	Q	10.3
Kerosene (gallons)	0.058	Q	Q	Q	23.3
LPG (gallons)	0.076	0.064	0.070	0.057	11.9

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes only the space-heating consumption of the space-heating fuel. Not included are: 1) the consumption of the main space-heating fuel for uses other than space heating; 2) the consumption of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the consumption of other fuels that are used as secondary space-heating fuels.

³ Averages are for those households using each of the main space-heating fuels.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

2001 Consumption and Expenditures Tables

Space-Heating Consumption Tables

(36 pages, 145 kb)

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These data are from the 2001 Residential Energy Consumption Survey (RECS) which provides information on the use of energy in residential housing units in the United States. The RECS is a national statistical survey that collects energy-related data for occupied primary housing units. RECS was first conducted in 1978; the twelfth and most recent survey was conducted in 2001. In the 2001 RECS, data were collected from a sample of 4,822 households in housing units statistically selected to represent the 107.0 million housing units in the United States. The RECS data are available for the four Census regions, the nine Census divisions, and for the four most populous States--California, Florida, New York, and Texas.

Data provided here are in the public domain and may be reproduced without permission. Appropriate credit would be appreciated. A suggested citation is "U.S. Department of Energy, Energy Information Administration, *"A Look at Residential Energy Consumption in 2001."*

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World Wide Web: <http://www.eia.doe.gov/emeu/consumption>

Table CE2-1c. Space-Heating Energy Consumption in U.S. Households by Climate Zone, 2001

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
		0.5	1.3	0.9	1.0		
RSE Column Factor:							
Million Households							
Total U.S. Households	107.0	9.2	28.6	24.0	21.0	24.1	8.3
No Space Heating	1.0	Q	Q	Q	0.3	0.5	13.9
Space Heating	106.0	9.2	28.6	23.9	20.7	23.6	8.4
Not Using a Major Fuel ²	0.7	0.1	Q	Q	0.2	Q	34.0
Using a Major Fuel ²	105.3	9.1	28.5	23.7	20.4	23.5	8.4
For Main Space Heating	103.8	8.6	28.3	23.3	20.2	23.4	8.5
For Secondary Space Heating Only	1.5	0.5	0.2	0.4	0.2	Q	26.8
Number of Households with Space Heating, Major Fuels Used (more than one may apply):							
Electricity	43.8	2.7	8.1	8.9	9.4	14.7	9.1
Natural Gas	60.5	4.9	20.4	12.7	12.2	10.3	9.1
Fuel Oil	8.5	1.8	2.8	3.5	Q	Q	17.9
Kerosene	2.7	0.4	0.6	0.7	0.7	0.3	22.9
LPG	6.6	1.0	1.7	1.4	1.6	1.0	25.8
Quadrillion Btu^a							
Space-Heating Btu Consumption, Major Fuels Used:							
Electricity	0.39	0.03	0.08	0.12	0.08	0.09	13.0
Natural Gas	3.32	0.34	1.48	0.76	0.41	0.33	11.1
Fuel Oil	0.58	0.14	0.22	0.20	Q	Q	20.9
Kerosene	0.04	0.01	0.01	0.01	0.01	Q	34.2
LPG	0.28	0.05	0.09	0.06	0.05	0.03	29.0
Total	4.62	0.58	1.89	1.15	0.56	0.44	8.8
Physical Units^a							
Physical Units of Space-Heating Consumption, Major Fuels Used:							
Electricity (billion kWh)	116	9	24	34	23	25	13.0
Natural Gas (billion cf)	3,231	332	1,442	743	397	317	11.1
Fuel Oil (million gallons)	4,155	1,024	1,597	1,458	Q	Q	20.9
Kerosene (million gallons)	326	73	79	67	90	Q	34.2
LPG (million gallons)	3,097	578	968	672	563	316	29.0
Million Btu per Household^a							
Average Space-Heating Btu Consumption per Household							
Using a Major Fuel ²	43.9	63.2	66.2	48.6	27.5	18.9	4.5
For Main Space Heating	44.3	65.5	66.6	49.2	27.7	18.9	4.5
For Secondary Space Heating Only ...	18.1	20.6	26.2	16.6	9.3	Q	24.3

See footnotes at end of table.

Table CE2-1c. Space-Heating Energy Consumption in U.S. Households by Climate Zone, 2001 (Continued)

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.5	1.3	0.9	1.0	1.3	1.2	
Million Households							
Number of Households, Where the Main Space-Heating Fuel Is:							
Electricity	30.9	1.2	3.9	6.3	6.9	12.6	11.1
Natural Gas	59.1	4.8	20.2	12.4	11.8	9.8	9.1
Fuel Oil	8.0	1.7	2.7	3.5	Q	Q	17.9
Kerosene	0.8	0.1	Q	Q	0.4	Q	28.4
LPG	4.9	0.8	1.3	1.1	1.0	0.9	28.7
Other	2.2	0.6	0.4	0.6	0.5	Q	24.4
No Space Heating	1.0	Q	Q	Q	0.3	0.5	13.9
Million Btu per Household^{4,a}							
Space-Heating Btu Consumption per Household,³ Where the Main Space-Heating Fuel Is:							
Electricity	12.0	22.2	19.4	17.8	11.0	6.5	6.6
Natural Gas	55.4	70.4	72.9	60.5	33.4	32.2	4.3
Fuel Oil	70.2	79.4	82.2	58.1	Q	Q	6.7
Kerosene	38.3	62.6	Q	Q	27.5	Q	17.2
LPG	51.0	65.5	61.7	52.6	43.3	28.7	7.5
Physical Units (PU) per Household^{4,a}							
Physical Units of Space-Heating Consumption per Household,³ Where the Main Space-Heating Fuel Is:							
Electricity (kWh)	3,524	6,517	5,673	5,206	3,216	1,896	6.6
Natural Gas (thousand cf)	54	68	71	59	32	31	4.3
Fuel Oil (gallons)	507	573	593	419	Q	Q	6.7
Kerosene (gallons)	283	464	Q	Q	203	Q	17.2
LPG (gallons)	559	717	676	576	474	314	7.5
2001 Heating Degree-Days (HDD) per Household⁴							
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:							
Electricity	3,006	6,838	5,640	4,238	2,696	1,371	3.4
Natural Gas	4,255	7,169	5,685	4,332	2,321	2,119	3.0
Fuel Oil	5,339	6,903	5,644	4,437	Q	Q	3.8
Kerosene	4,636	6,625	Q	Q	3,976	Q	8.1
LPG	4,643	7,016	6,060	4,359	3,179	2,384	6.1
Average for All Heated Households	4,004	7,008	5,690	4,322	2,549	1,733	2.1

See footnotes at end of table.

Table CE2-1c. Space-Heating Energy Consumption in U.S. Households by Climate Zone, 2001 (Continued)

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.5	1.3	0.9	1.0	1.3	1.2	
Heated Square Footage (HSF) per Household⁴							
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:							
Electricity	1,399	1,244	1,403	1,473	1,380	1,386	7.5
Natural Gas	1,836	2,130	2,003	1,863	1,560	1,645	3.7
Fuel Oil	2,043	2,005	2,404	1,843	Q	Q	7.1
Kerosene	1,076	1,529	Q	Q	1,120	Q	9.3
LPG	1,570	1,674	1,687	1,657	1,506	1,263	8.8
Average for All Heated Households	1,707	1,954	1,935	1,741	1,490	1,490	3.5
Space-Heating Intensity^{4,a} [PU÷(HDD×(HSF÷1000))]							
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:							
Electricity (kWh)	0.838	0.766	0.717	0.834	0.864	0.998	5.4
Natural Gas (cubic feet)	6.893	4.479	6.222	7.291	8.951	8.969	3.8
Fuel Oil (gallons)	0.046	0.041	0.044	0.051	Q	Q	6.5
Kerosene (gallons)	0.057	0.046	Q	Q	0.046	Q	23.1
LPG (gallons)	0.077	0.061	0.066	0.080	0.099	0.104	9.8

¹ One of five climatically distinct areas, determined according to the 30-year average (1961-1990) of the annual heating and cooling degree-days. For this report, the heating or cooling degree-days are a measure of how cold or how hot a location is over a period of one year, relative to a base temperature of 65 degrees Fahrenheit. A household is assigned to a climate zone according to the 30-year average annual degree-days for an appropriate nearby weather station.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes only the space-heating consumption of the space-heating fuel. Not included are: 1) the consumption of the main space-heating fuel for uses other than space heating; 2) the consumption of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the consumption of other fuels that are used as secondary space-heating fuels.

⁴ Averages are for those households using each of the main space-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-2c. Space-Heating Energy Consumption in U.S. Households by Year of Construction, 2001

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.5	1.1	1.0	1.2	1.1	0.9	
Million Households								
Total U.S. Households	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
No Space Heating	1.0	Q	Q	Q	0.2	0.3	Q	22.6
Space Heating	106.0	15.4	18.2	18.6	13.6	13.9	26.4	4.4
Not Using a Major Fuel ²	0.7	Q	Q	Q	Q	Q	0.2	39.1
Using a Major Fuel ²	105.3	15.4	18.1	18.5	13.4	13.8	26.2	4.3
For Main Space Heating	103.8	15.2	17.8	18.1	13.2	13.6	25.8	4.4
For Secondary Space Heating Only	1.5	0.1	0.3	0.4	Q	Q	0.4	25.3
Number of Households with Space Heating, Major Fuels Used (more than one may apply):								
Electricity	43.8	6.8	10.3	10.1	4.7	4.4	7.5	6.2
Natural Gas	60.5	8.7	7.7	8.0	8.6	9.5	17.9	6.3
Fuel Oil	8.5	0.3	0.4	0.9	1.3	1.8	3.8	15.6
Kerosene	2.7	0.4	0.3	0.6	0.3	0.2	0.7	21.7
LPG	6.6	1.2	1.2	1.2	0.8	0.5	1.8	17.0
Quadrillion Btu^a								
Space-Heating Btu Consumption, Major Fuels Used:								
Electricity	0.39	0.06	0.10	0.11	0.04	0.03	0.05	9.2
Natural Gas	3.32	0.41	0.36	0.38	0.41	0.52	1.25	7.3
Fuel Oil	0.58	0.02	0.03	0.05	0.07	0.12	0.29	18.4
Kerosene	0.04	0.01	(*)	0.02	Q	(*)	0.01	32.7
LPG	0.28	0.04	0.04	0.05	0.03	0.02	0.10	19.3
Total	4.62	0.54	0.53	0.60	0.55	0.69	1.70	5.3
Physical Units^a								
Physical Units of Space-Heating Consumption, Major Fuels Used:								
Electricity (billion kWh)	116	18	28	32	12	10	16	9.2
Natural Gas (billion cf)	3,231	401	346	367	397	507	1,212	7.3
Fuel Oil (million gallons)	4,155	124	221	371	494	868	2,077	18.4
Kerosene (million gallons)	326	65	31	116	Q	24	57	32.8
LPG (million gallons)	3,097	466	478	524	345	179	1,105	19.3
Million Btu per Household^a								
Average Space-Heating Btu Consumption per Household								
Using a Major Fuel ²	43.9	35.2	29.4	32.6	41.3	50.4	64.9	3.6
For Main Space Heating	44.3	35.4	29.5	33.0	41.6	50.8	65.5	3.6
For Secondary Space Heating Only	18.1	Q	21.2	14.3	Q	Q	23.8	27.0

See footnotes at end of table.

Table CE2-2c. Space-Heating Energy Consumption in U.S. Households by Year of Construction, 2001 (Continued)

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.5	1.1	1.0	1.2	1.1	0.9	
Million Households								
Number of Households, Where the Main Space-Heating Fuel Is:								
Electricity	30.9	5.5	9.0	8.4	3.0	2.2	2.8	8.2
Natural Gas	59.1	8.5	7.3	7.8	8.5	9.2	17.7	6.4
Fuel Oil	8.0	0.2	0.4	0.8	1.1	1.8	3.7	15.8
Kerosene	0.8	Q	Q	0.3	Q	Q	Q	29.7
LPG	4.9	0.8	0.9	0.8	0.6	0.4	1.5	19.3
Other	2.2	0.2	0.4	0.5	0.3	0.2	0.6	23.8
No Space Heating	1.0	Q	Q	Q	0.2	0.3	Q	22.6
Million Btu per Household^{4,a}								
Space-Heating Btu Consumption per Household,³ Where the Main Space-Heating Fuel Is:								
Electricity	12.0	10.6	10.4	12.7	12.9	13.0	16.3	6.3
Natural Gas	55.4	47.6	46.6	47.3	47.7	55.6	70.0	3.9
Fuel Oil	70.2	68.1	68.4	62.9	59.0	68.2	76.5	8.2
Kerosene	38.3	Q	Q	36.7	Q	Q	Q	23.6
LPG	51.0	46.3	40.1	51.1	50.4	38.1	63.2	8.7
Physical Units (PU) per Household^{4,a}								
Physical Units of Space-Heating Consumption per Household,³ Where the Main Space-Heating Fuel Is:								
Electricity (kWh)	3,524	3,100	3,054	3,724	3,780	3,808	4,784	6.3
Natural Gas (thousand cf)	54	46	45	46	46	54	68	3.9
Fuel Oil (gallons)	507	491	493	454	426	492	552	8.1
Kerosene (gallons)	283	Q	Q	272	Q	Q	Q	23.6
LPG (gallons)	559	506	439	559	552	417	692	8.7
2001 Heating Degree-Days (HDD) per Household⁴								
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:								
Electricity	3,006	3,121	2,799	3,080	2,802	2,761	3,641	5.2
Natural Gas	4,255	3,931	4,260	4,058	4,060	4,096	4,673	3.1
Fuel Oil	5,339	6,260	6,060	5,433	4,968	5,167	5,362	4.7
Kerosene	4,636	Q	Q	4,482	Q	Q	Q	10.9
LPG	4,643	5,309	4,256	4,685	4,261	4,211	4,752	7.9
Average for All Heated Households	4,004	3,776	3,588	3,726	3,880	4,014	4,680	2.5

See footnotes at end of table.

Table CE2-2c. Space-Heating Energy Consumption in U.S. Households by Year of Construction, 2001 (Continued)

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.5	1.1	1.0	1.2	1.1	0.9	
Heated Square Footage (HSF) per Household⁴								
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:								
Electricity	1,399	1,607	1,422	1,313	1,412	1,348	1,196	6.0
Natural Gas	1,836	2,510	2,077	1,650	1,584	1,750	1,657	3.4
Fuel Oil	2,043	3,225	2,057	2,251	1,901	2,106	1,931	8.2
Kerosene	1,076	Q	Q	1,039	Q	Q	Q	14.9
LPG	1,570	1,953	1,671	1,577	1,549	1,513	1,332	9.8
Average for All Heated Households	1,707	2,155	1,731	1,524	1,559	1,721	1,628	2.9
Space-Heating Intensity^{4,a} [PU÷(HDD×(HSF÷1000))]								
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:								
Electricity (kWh)	0.838	0.618	0.768	0.921	0.956	1.023	1.098	5.5
Natural Gas (cubic feet)	6.893	4.688	5.124	6.865	7.203	7.537	8.784	3.5
Fuel Oil (gallons)	0.046	0.024	0.040	0.037	0.045	0.045	0.053	8.9
Kerosene (gallons)	0.057	Q	Q	0.058	Q	Q	Q	22.2
LPG (gallons)	0.077	0.049	0.062	0.076	0.084	0.065	0.109	10.0

¹ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes only the space-heating consumption of the space-heating fuel. Not included are: 1) the consumption of the main space-heating fuel for uses other than space heating; 2) the consumption of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the consumption of other fuels that are used as secondary space-heating fuels.

⁴ Averages are for those households using each of the main space-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

(*) = Value rounds to zero in the units displayed.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-3c. Space-Heating Energy Consumption in U.S. Households by Household Income, 2001

	Total	2001 Household Income				Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.6	0.9	1.0	0.9	1.3	0.9	
Million Households								
Total U.S. Households	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.4
No Space Heating	1.0	Q	0.3	0.3	0.3	0.3	0.4	23.7
Space Heating	106.0	10.8	30.3	26.8	38.1	14.6	33.4	3.4
Not Using a Major Fuel ²	0.7	Q	Q	0.3	0.2	Q	0.2	32.6
Using a Major Fuel ²	105.3	10.8	30.2	26.5	37.8	14.6	33.2	3.4
For Main Space Heating	103.8	10.6	29.8	26.1	37.3	14.4	32.8	3.5
For Secondary Space Heating Only	1.5	Q	0.4	0.4	0.5	0.2	0.4	22.3
Number of Households with Space Heating, Major Fuels Used (more than one may apply):								
Electricity	43.8	4.9	12.7	11.1	15.1	6.5	13.9	5.6
Natural Gas	60.5	5.6	16.5	14.6	23.8	7.8	18.2	5.2
Fuel Oil	8.5	0.6	2.2	2.4	3.3	0.8	2.4	12.9
Kerosene	2.7	0.4	0.8	0.8	0.7	0.7	1.2	17.5
LPG	6.6	0.7	2.1	1.8	2.0	1.0	2.2	15.2
Quadrillion Btu^a								
Space-Heating Btu Consumption, Major Fuels Used:								
Electricity	0.39	0.04	0.11	0.10	0.14	0.05	0.12	8.1
Natural Gas	3.32	0.26	0.84	0.79	1.44	0.36	0.93	6.3
Fuel Oil	0.58	0.03	0.14	0.16	0.25	0.04	0.15	14.5
Kerosene	0.04	0.01	0.02	0.01	0.01	0.01	0.03	27.4
LPG	0.28	0.02	0.09	0.08	0.09	0.03	0.09	18.6
Total	4.62	0.36	1.20	1.14	1.92	0.50	1.32	4.4
Physical Units^a								
Physical Units of Space-Heating Consumption, Major Fuels Used:								
Electricity (billion kWh)	116	11	32	31	42	16	36	8.1
Natural Gas (billion cf)	3,231	253	816	764	1,398	350	908	6.3
Fuel Oil (million gallons)	4,155	196	1,007	1,145	1,807	273	1,077	14.5
Kerosene (million gallons)	326	70	127	84	46	106	186	27.4
LPG (million gallons)	3,097	238	1,027	900	931	349	952	18.6
Million Btu per Household^a								
Average Space-Heating Btu Consumption per Household								
Using a Major Fuel ²	43.9	33.1	39.7	43.1	50.8	34.1	39.7	3.4
For Main Space Heating	44.3	33.4	40.0	43.5	51.3	34.5	40.0	3.5
For Secondary Space Heating Only	18.1	Q	14.9	21.9	18.9	10.6	18.6	23.2

See footnotes at end of table.

Table CE2-3c. Space-Heating Energy Consumption in U.S. Households by Household Income, 2001 (Continued)

	2001 Household Income					Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
	Total	Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.6	0.9	1.0	0.9	1.3	0.9	
Million Households								
Number of Households, Where the Main Space-Heating Fuel Is:								
Electricity	30.9	3.7	9.4	8.1	9.7	4.9	10.3	7.3
Natural Gas	59.1	5.5	16.2	14.3	23.1	7.7	17.9	5.3
Fuel Oil	8.0	0.5	2.1	2.2	3.2	0.7	2.3	13.0
Kerosene	0.8	0.3	0.4	0.1	Q	0.4	0.6	25.1
LPG	4.9	0.6	1.7	1.4	1.2	0.7	1.8	17.1
Other	2.2	0.2	0.5	0.8	0.8	0.3	0.6	20.0
No Space Heating	1.0	Q	0.3	0.3	0.3	0.3	0.4	23.7
Million Btu per Household^{4,a}								
Space-Heating Btu Consumption per Household,³ Where the Main Space-Heating Fuel Is:								
Electricity	12.0	9.7	10.9	12.4	13.7	10.3	11.2	5.1
Natural Gas	55.4	46.7	51.4	54.0	61.1	46.6	51.7	3.5
Fuel Oil	70.2	49.2	65.6	69.3	77.5	50.1	64.8	6.4
Kerosene	38.3	29.2	35.4	54.2	Q	31.8	33.3	17.6
LPG	51.0	34.8	51.0	52.7	56.8	38.2	44.6	7.9
Physical Units (PU) per Household^{4,a}								
Physical Units of Space-Heating Consumption per Household,³ Where the Main Space-Heating Fuel Is:								
Electricity (kWh)	3,524	2,837	3,203	3,624	4,014	3,015	3,281	5.1
Natural Gas (thousand cf)	54	45	50	52	59	45	50	3.5
Fuel Oil (gallons)	507	355	473	499	559	361	468	6.4
Kerosene (gallons)	283	217	262	401	Q	235	247	17.6
LPG (gallons)	559	381	558	577	622	419	489	7.9
2001 Heating Degree-Days (HDD) per Household⁴								
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:								
Electricity	3,006	3,329	3,053	2,979	2,859	3,222	3,273	4.7
Natural Gas	4,255	4,167	4,247	4,378	4,206	3,986	4,277	2.4
Fuel Oil	5,339	5,501	5,471	5,259	5,279	5,461	5,456	4.0
Kerosene	4,636	4,297	4,484	5,355	Q	4,309	4,404	8.1
LPG	4,643	3,852	4,630	4,840	4,800	4,072	4,557	6.9
Average for All Heated Households	4,004	3,940	4,006	4,063	3,980	3,836	4,084	2.0

See footnotes at end of table.

Table CE2-3c. Space-Heating Energy Consumption in U.S. Households by Household Income, 2001 (Continued)

	Total	2001 Household Income				Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.6	0.9	1.0	0.9	1.3	0.9	
Heated Square Footage (HSF) per Household⁴								
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:								
Electricity	1,399	786	1,035	1,296	2,072	866	967	4.9
Natural Gas	1,836	1,067	1,340	1,688	2,458	1,100	1,319	2.7
Fuel Oil	2,043	1,106	1,670	1,956	2,506	1,235	1,544	7.2
Kerosene	1,076	746	1,129	1,422	Q	800	968	11.2
LPG	1,570	1,026	1,205	1,746	2,127	1,040	1,232	7.9
Average for All Heated Households	1,707	965	1,261	1,595	2,354	1,022	1,217	2.3
Space-Heating Intensity^{4,a} [PU÷{HDD×(HSF÷1000)}]								
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:								
Electricity (kWh)	0.838	1.084	1.014	0.939	0.678	1.081	1.036	4.7
Natural Gas (cubic feet)	6.893	10.218	8.780	7.103	5.745	10.335	8.915	3.2
Fuel Oil (gallons)	0.046	0.058	0.052	0.049	0.042	0.054	0.056	7.5
Kerosene (gallons)	0.057	0.068	0.052	Q	Q	0.068	0.058	20.8
LPG (gallons)	0.077	0.097	0.100	0.068	0.061	0.099	0.087	9.2

¹ Below 150 percent of poverty line or 60 percent of median State income.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes only the space-heating consumption of the space-heating fuel. Not included are: 1) the consumption of the main space-heating fuel for uses other than space heating; 2) the consumption of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the consumption of other fuels that are used as secondary space-heating fuels.

⁴ Averages are for those households using each of the main space-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-4c. Space-Heating Energy Consumption in U.S. Households by Type of Housing Unit, 2001

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Apartments in Buildings With		Mobile Homes	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.6	0.6	1.4	1.2	1.7	
Million Households						
Total U.S. Households	107.0	73.7	9.5	17.0	6.8	4.6
No Space Heating	1.0	0.3	Q	0.6	Q	18.5
Space Heating	106.0	73.4	9.4	16.4	6.8	4.6
Not Using a Major Fuel ¹	0.7	0.6	Q	Q	Q	33.5
Using a Major Fuel ¹	105.3	72.8	9.4	16.3	6.8	4.7
For Main Space Heating	103.8	71.5	9.3	16.3	6.7	4.7
For Secondary Space Heating Only	1.5	1.4	Q	Q	Q	23.6
Number of Households with Space Heating, Major Fuels Used (more than one may apply):						
Electricity	43.8	27.5	4.1	8.5	3.7	7.1
Natural Gas	60.5	45.6	5.6	7.1	2.2	6.4
Fuel Oil	8.5	6.3	0.6	1.3	0.2	17.0
Kerosene	2.7	2.0	Q	Q	0.6	15.6
LPG	6.6	5.3	Q	Q	1.2	16.1
Quadrillion Btu^a						
Space-Heating Btu Consumption, Major Fuels Used:						
Electricity	0.39	0.26	0.03	0.06	0.04	9.5
Natural Gas	3.32	2.75	0.33	0.15	0.10	8.0
Fuel Oil	0.58	0.49	0.05	0.03	0.01	19.2
Kerosene	0.04	0.02	Q	Q	0.02	25.6
LPG	0.28	0.23	Q	Q	0.05	19.3
Total	4.62	3.75	0.41	0.24	0.21	5.3
Physical Units^a						
Physical Units of Space-Heating Consumption, Major Fuels Used:						
Electricity (billion kWh)	116	76	9	19	12	9.5
Natural Gas (billion cf)	3,231	2,672	324	141	94	8.0
Fuel Oil (million gallons)	4,155	3,523	346	221	65	19.2
Kerosene (million gallons)	326	180	Q	Q	139	25.6
LPG (million gallons)	3,097	2,551	Q	Q	519	19.3
Million Btu per Household^a						
Average Space-Heating Btu Consumption per Household						
Using a Major Fuel ¹	43.9	51.5	44.2	14.8	31.3	3.9
For Main Space Heating	44.3	52.2	44.3	14.8	31.4	4.0
For Secondary Space Heating Only	18.1	17.7	Q	Q	Q	20.0

See footnotes at end of table.

Table CE2-4c. Space-Heating Energy Consumption in U.S. Households by Type of Housing Unit, 2001 (Continued)

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Apartments in Buildings With		Mobile Homes	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.6	0.6	1.4	1.2	1.7	
Million Households						
Number of Households, Where the Main Space-Heating Fuel Is:						
Electricity	30.9	17.0	3.1	7.9	2.9	9.0
Natural Gas	59.1	44.3	5.6	7.1	2.2	6.5
Fuel Oil	8.0	5.9	0.6	1.3	0.2	17.3
Kerosene	0.8	0.5	Q	Q	0.3	26.3
LPG	4.9	3.8	Q	Q	1.0	17.7
Other	2.2	1.9	Q	Q	Q	21.8
No Space Heating	1.0	0.3	Q	0.6	Q	18.5
Million Btu per Household^{3,a}						
Space-Heating Btu Consumption per Household,² Where the Main Space-Heating Fuel Is:						
Electricity	12.0	14.2	9.2	8.1	13.1	5.7
Natural Gas	55.4	61.1	59.4	20.2	43.9	3.9
Fuel Oil	70.2	80.3	77.3	23.6	49.5	7.7
Kerosene	38.3	31.5	Q	Q	47.9	19.5
LPG	51.0	54.2	Q	Q	41.6	6.6
Physical Units (PU) per Household^{3,a}						
Physical Units of Space-Heating Consumption per Household,² Where the Main Space-Heating Fuel Is:						
Electricity (kWh)	3,524	4,154	2,708	2,375	3,841	5.7
Natural Gas (thousand cf)	54	59	58	20	43	3.9
Fuel Oil (gallons)	507	579	558	170	357	7.7
Kerosene (gallons)	283	233	Q	Q	355	19.5
LPG (gallons)	559	594	Q	Q	456	6.6
2001 Heating Degree-Days (HDD) per Household³						
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:						
Electricity	3,006	2,815	3,267	3,330	2,955	5.5
Natural Gas	4,255	4,184	4,686	4,287	4,498	2.9
Fuel Oil	5,339	5,474	5,674	4,490	5,873	5.3
Kerosene	4,636	4,583	Q	Q	4,581	9.8
LPG	4,643	4,611	Q	Q	4,885	6.5
Average for All Heated Households	4,004	4,012	4,274	3,841	3,942	2.7

See footnotes at end of table.

Table CE2-4c. Space-Heating Energy Consumption in U.S. Households by Type of Housing Unit, 2001 (Continued)

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Apartments in Buildings With		Mobile Homes	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.6	0.6	1.4	1.2	1.7	
Heated Square Footage (HSF) per Household³						
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:						
Electricity	1,399	1,869	842	745	1,036	4.6
Natural Gas	1,836	2,104	1,336	810	984	3.2
Fuel Oil	2,043	2,365	1,780	847	901	7.2
Kerosene	1,076	1,226	Q	Q	811	11.0
LPG	1,570	1,779	Q	Q	860	5.1
Average for All Heated Households	1,707	2,047	1,197	785	979	2.6
Space-Heating Intensity^{3,a} [PU÷(HDD×(HSF÷1000))]						
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:						
Electricity (kWh)	0.838	0.790	0.984	0.958	1.254	4.6
Natural Gas (cubic feet)	6.893	6.743	9.226	5.643	9.635	3.6
Fuel Oil (gallons)	0.046	0.045	0.055	0.045	0.068	8.5
Kerosene (gallons)	0.057	0.042	Q	Q	0.095	13.7
LPG (gallons)	0.077	0.072	Q	Q	0.108	7.9

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes only the space-heating consumption of the space-heating fuel. Not included are: 1) the consumption of the main space-heating fuel for uses other than space heating; 2) the consumption of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the consumption of other fuels that are used as secondary space-heating fuels.

³ Averages are for those households using each of the main space-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-5.1u. Space-Heating Energy Consumption and Expenditures by Household Member and Demographics, 2001

Household Demographics	Space-Heating Energy								RSE Row Factors
	Households (millions)	Total ^a		Per Household ^a			Per Household Member ^a		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	1.0	1.4	1.3	1.0	0.9	0.5	1.1	1.0	
Total Households Using a Major Space-Heating Fuel¹	105.3	4.62	50.53	43.9	480	2.6	17.2	188	1.8
Household Size									
1 Person	27.8	1.02	11.58	36.6	417	1.0	36.6	417	2.9
2 Persons	34.8	1.60	17.55	45.8	504	2.0	22.9	252	2.4
3 Persons	16.6	0.74	8.02	44.4	483	3.0	14.8	161	3.4
4 Persons	15.3	0.71	7.55	46.3	492	4.0	11.6	123	3.8
5 Persons	6.9	0.35	3.65	50.4	527	5.0	10.1	105	7.2
6 or More Persons	3.8	0.21	2.18	56.0	570	6.7	8.4	85	6.4
2001 Household Income Category									
Less than \$9,999	10.8	0.36	4.10	33.1	380	1.9	17.8	205	6.2
\$10,000 to \$14,999	7.5	0.26	2.99	34.9	398	2.1	16.6	189	6.1
\$15,000 to \$19,999	8.8	0.36	3.96	40.8	449	2.3	18.0	198	6.1
\$20,000 to \$29,999	13.8	0.58	6.34	41.7	458	2.3	17.8	195	4.3
\$30,000 to \$39,999	13.6	0.57	6.25	42.1	459	2.6	16.5	180	3.9
\$40,000 to \$49,999	12.9	0.57	6.32	44.2	491	2.7	16.5	183	4.8
\$50,000 to \$74,999	21.4	1.00	10.68	46.8	500	2.9	16.0	171	3.3
\$75,000 to \$99,999	8.0	0.42	4.48	52.5	560	2.9	18.0	192	5.7
\$100,000 or More	8.5	0.50	5.39	59.3	636	3.0	19.7	211	6.5
Income Relative to Poverty Line									
Below 100 Percent	14.6	0.50	5.66	34.1	388	2.5	13.5	153	5.5
100 to 150 Percent	11.4	0.45	5.04	39.9	443	2.7	14.7	163	4.8
Above 150 Percent	79.4	3.67	39.83	46.3	502	2.5	18.3	198	1.7
Eligible for Federal Assistance²									
Yes	33.2	1.32	14.58	39.7	439	2.6	15.0	166	3.3
No	72.1	3.30	35.95	45.8	499	2.5	18.2	198	1.8
Age of Householder									
Under 25 Years	6.0	0.17	2.07	28.2	346	2.6	10.7	131	6.3
25 to 34 Years	16.5	0.61	6.77	36.8	412	3.0	12.1	136	3.7
35 to 44 Years	22.1	0.97	10.42	43.9	471	3.3	13.3	143	3.4
45 to 54 Years	20.3	0.98	10.41	48.4	512	2.7	17.8	188	3.7
55 to 64 Years	14.2	0.68	7.51	47.8	527	2.1	22.6	250	3.9
65 to 74 Years	12.5	0.57	6.19	45.9	494	1.8	25.7	277	4.2
75 Years or More	13.7	0.64	7.16	46.6	523	1.7	28.1	316	4.4
Race of Householder									
Non-Hispanic	95.6	4.34	47.44	45.4	496	2.5	18.3	200	1.8
Non-Hispanic White	77.8	3.56	38.82	45.7	499	2.4	19.1	208	1.9
Non-Hispanic Black	12.7	0.63	6.85	49.7	541	2.7	18.5	202	4.9
Multi-racial ³	0.8	0.03	0.31	31.8	373	2.7	11.7	136	16.8
Other ⁴	4.3	0.13	1.47	29.9	343	3.3	9.1	104	8.3
Hispanic	9.7	0.28	3.09	28.6	318	3.3	8.7	97	6.7

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Below 150 percent of poverty line or 60 percent of median State income.

³ Respondents could select one or more race categories to describe themselves.

⁴ Includes Native American, Native Alaskan, Asian, and Pacific Islander households.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-5.2u. Space-Heating Energy Consumption and Expenditures by Square Feet and Household Demographics, 2001

Household Demographics	Space-Heating Energy								RSE Row Factors
	Households (millions)	Total ^a		Per Household ^a			Per Square Feet ^a		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Heated Square Feet	Consumption (1000 Btu)	Expenditures (dollars)	
RSE Column Factor:	1.0	1.3	1.3	1.0	0.9	0.7	1.0	0.9	
Total Households Using a Major Space-Heating Fuel¹	105.3	4.62	50.53	43.9	480	1,707	25.7	0.28	1.9
Household Size									
1 Person	27.8	1.02	11.58	36.6	417	1,185	30.9	0.35	3.0
2 Persons	34.8	1.60	17.55	45.8	504	1,773	25.8	0.28	2.7
3 Persons	16.6	0.74	8.02	44.4	483	1,852	24.0	0.26	3.6
4 Persons	15.3	0.71	7.55	46.3	492	2,104	22.0	0.23	3.8
5 Persons	6.9	0.35	3.65	50.4	527	2,116	23.8	0.25	7.4
6 or More Persons	3.8	0.21	2.18	56.0	570	1,935	29.0	0.29	7.5
2001 Household Income Category									
Less than \$9,999	10.8	0.36	4.10	33.1	380	964	34.3	0.39	5.7
\$10,000 to \$14,999	7.5	0.26	2.99	34.9	398	1,117	31.3	0.36	5.6
\$15,000 to \$19,999	8.8	0.36	3.96	40.8	449	1,305	31.3	0.34	5.8
\$20,000 to \$29,999	13.8	0.58	6.34	41.7	458	1,306	31.9	0.35	4.0
\$30,000 to \$39,999	13.6	0.57	6.25	42.1	459	1,426	29.5	0.32	3.9
\$40,000 to \$49,999	12.9	0.57	6.32	44.2	491	1,776	24.9	0.28	4.7
\$50,000 to \$74,999	21.4	1.00	10.68	46.8	500	2,059	22.7	0.24	3.3
\$75,000 to \$99,999	8.0	0.42	4.48	52.5	560	2,411	21.8	0.23	5.6
\$100,000 or More	8.5	0.50	5.39	59.3	636	3,046	19.5	0.21	6.1
Income Relative to Poverty Line									
Below 100 Percent	14.6	0.50	5.66	34.1	388	1,021	33.5	0.38	5.1
100 to 150 Percent	11.4	0.45	5.04	39.9	443	1,262	31.6	0.35	4.6
Above 150 Percent	79.4	3.67	39.83	46.3	502	1,897	24.4	0.26	1.8
Eligible for Federal Assistance²									
Yes	33.2	1.32	14.58	39.7	439	1,215	32.6	0.36	3.2
No	72.1	3.30	35.95	45.8	499	1,933	23.7	0.26	2.0
Age of Householder									
Under 25 Years	6.0	0.17	2.07	28.2	346	1,011	27.9	0.34	6.1
25 to 34 Years	16.5	0.61	6.77	36.8	412	1,491	24.7	0.28	3.8
35 to 44 Years	22.1	0.97	10.42	43.9	471	1,838	23.9	0.26	3.5
45 to 54 Years	20.3	0.98	10.41	48.4	512	2,005	24.2	0.26	3.7
55 to 64 Years	14.2	0.68	7.51	47.8	527	1,881	25.4	0.28	3.8
65 to 74 Years	12.5	0.57	6.19	45.9	494	1,632	28.1	0.30	4.3
75 Years or More	13.7	0.64	7.16	46.6	523	1,504	31.0	0.35	4.4
Race of Householder									
Non-Hispanic	95.6	4.34	47.44	45.4	496	1,763	25.8	0.28	1.9
Non-Hispanic White	77.8	3.56	38.82	45.7	499	1,819	25.2	0.27	2.1
Non-Hispanic Black	12.7	0.63	6.85	49.7	541	1,539	32.3	0.35	5.8
Multi-racial ³	0.8	0.03	0.31	31.8	373	1,300	24.5	0.29	16.7
Other ⁴	4.3	0.13	1.47	29.9	343	1,510	19.8	0.23	9.5
Hispanic	9.7	0.28	3.09	28.6	318	1,151	24.9	0.28	6.7

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Below 150 percent of poverty line or 60 percent of median State income.

³ Respondents could select one or more race categories to describe themselves.

⁴ Includes Native American, Native Alaskan, Asian, and Pacific Islander households.

^a The column factor in this section is underestimated because it contains no error for estimating the end-use.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-6.1u. Space-Heating Energy Consumption and Expenditures by Household Member and Usage Indicators, 2001

Usage Indicators	Space-Heating Energy								RSE Row Factors
	Households (million)	Total ^a		Per Household ^a			Per Household Member ^a		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (million Btu)	Expenditures (dollars)	
		1.1	1.4	1.3	1.0	0.9	0.5	1.1	
Total Households Using a Major Space-Heating Fuel¹	105.3	4.62	50.53	43.9	480	2.6	17.2	188	1.8
Weekday Home Activities									
Home Used for Business									
Yes	7.4	0.41	4.44	55.4	600	2.9	19.2	208	5.8
No/Don't Know	97.9	4.21	46.08	43.0	471	2.5	17.0	186	1.9
Energy-Intensive Activity									
Yes	1.6	0.09	0.93	55.8	564	2.8	20.3	205	11.2
No/Don't Know	103.7	4.53	49.60	43.7	478	2.5	17.1	188	1.8
Someone Home All Day									
Yes	52.1	2.46	26.56	47.1	510	2.7	17.4	189	2.3
No/Don't Know	53.2	2.17	23.97	40.7	450	2.4	16.9	187	2.1
Heated Floorspace Category (square feet)									
Fewer than 500	8.0	0.14	1.89	17.6	237	2.1	8.5	114	6.6
500 to 999	25.6	0.73	8.82	28.4	345	2.1	13.4	163	3.6
1,000 to 1,499	22.7	0.85	9.79	37.6	432	2.5	15.0	173	3.5
1,500 to 1,999	16.7	0.79	8.59	47.4	515	2.7	17.6	191	3.5
2,000 to 2,499	12.1	0.67	6.91	54.9	570	2.9	19.2	199	3.8
2,500 to 2,999	7.3	0.48	4.92	65.9	670	2.8	23.6	240	5.0
3,000 to 3,499	4.5	0.30	3.03	65.2	667	3.3	19.9	204	8.7
3,500 to 3,999	3.0	0.21	2.01	70.4	663	3.1	22.9	216	9.4
4,000 or More	5.4	0.45	4.58	83.8	850	3.2	26.3	267	5.5
Year of Construction									
1939 or Before	18.7	1.30	13.19	69.7	706	2.4	28.5	288	3.7
1940 to 1949	7.5	0.40	4.19	52.8	559	2.6	20.0	212	6.0
1950 to 1959	13.8	0.69	7.00	50.4	508	2.5	20.2	204	3.9
1960 to 1969	13.4	0.55	6.03	41.3	449	2.4	17.1	185	4.5
1970 to 1979	18.5	0.60	7.22	32.6	391	2.5	13.1	157	4.0
1980 to 1989	18.1	0.53	6.66	29.4	368	2.5	11.8	148	4.3
1990 to 1999	14.5	0.50	5.74	34.4	397	2.9	11.8	136	7.0
2000 to 2001 ²	0.9	0.04	0.49	48.9	544	3.4	14.5	161	18.4
Housing Unit Type and Number of Bedrooms									
Mobile Home									
Less than 3 Bedrooms	6.8	0.21	2.66	31.3	393	2.6	12.2	153	7.8
3 or More Bedrooms	3.7	0.12	1.47	32.9	399	2.0	16.4	200	9.1
3 or More Bedrooms	3.1	0.09	1.19	29.5	386	3.3	9.0	118	9.7
Single-Family Detached									
Less than 3 Bedrooms	62.3	3.21	34.15	51.6	548	2.7	18.9	201	2.1
3 Bedrooms	12.1	0.52	5.75	43.0	476	2.0	21.9	243	4.1
4 Bedrooms	33.2	1.59	17.11	47.7	515	2.7	18.0	194	2.7
5 or More Bedrooms	14.1	0.86	8.77	60.8	621	3.3	18.3	187	4.3
5 or More Bedrooms	2.8	0.25	2.52	88.2	885	3.7	23.6	237	9.3
Single-Family Attached									
Less than 3 Bedrooms	10.6	0.54	5.65	51.1	535	2.7	19.1	200	6.6
3 Bedrooms	3.9	0.15	1.63	38.8	417	2.1	18.7	201	10.2
4 or More Bedrooms	4.6	0.23	2.60	50.8	569	2.7	18.8	211	8.3
4 or More Bedrooms	2.1	0.16	1.43	74.9	681	3.7	20.0	182	12.3
Apartments in Buildings									
With 2 to 4 Units									
Less than 2 Bedrooms	9.4	0.41	4.73	44.2	505	2.3	19.5	223	6.7
2 Bedrooms	2.6	0.09	0.95	33.1	371	1.7	19.8	221	13.0
3 or More Bedrooms	5.0	0.20	2.41	40.8	484	2.1	19.1	226	7.3
3 or More Bedrooms	1.8	0.13	1.37	69.1	750	3.4	20.1	219	12.7

See footnotes at end of table.

Table CE2-6.1u. Space-Heating Energy Consumption and Expenditures by Household Member and Usage Indicators, 2001 (Continued)

Usage Indicators	Space-Heating Energy								RSE Row Fac- tors
	Households (million)	Total ^a		Per Household ^a			Per Household Member ^a		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (million Btu)	Expenditures (dollars)	
	RSE Column Factor:	1.1	1.4	1.3	1.0	0.9	0.5	1.1	
Apartments in Buildings									
With 5 or More Units	16.3	0.24	3.33	14.8	204	2.0	7.5	103	5.6
Less than 2 Bedrooms	8.1	0.10	1.40	12.8	174	1.5	8.6	117	6.9
2 Bedrooms	6.8	0.11	1.53	16.7	225	2.3	7.4	99	9.4
3 or More Bedrooms	1.5	0.02	0.39	17.0	268	3.3	5.1	80	14.6
Adequacy of Insulation									
Well Insulated	42.2	1.75	19.32	41.5	458	2.4	17.0	188	2.8
Adequately Insulated	42.5	1.88	20.62	44.4	486	2.6	16.9	185	2.4
Poorly Insulated	19.1	0.92	9.87	48.4	517	2.6	18.3	195	3.8
No Insulation	0.7	0.04	0.39	49.8	526	2.4	20.5	217	15.5
Don't Know	0.9	0.03	0.32	34.1	366	2.5	13.5	145	15.8
Occurrences of Drafts During Winter									
Never	5.9	0.29	3.08	49.2	526	2.9	17.2	183	6.5
Some of the Time	6.3	0.27	3.11	42.8	490	2.7	15.6	178	6.3
Most of the Time	33.9	1.67	17.94	49.2	528	2.8	17.9	192	2.6
All of the Time	54.6	2.27	25.01	41.7	458	2.4	17.7	194	2.6
Don't Know	4.6	0.12	1.38	25.6	303	2.7	9.5	112	7.1
Secondary Heating Equipment									
Yes	33.9	1.69	18.90	50.0	558	2.7	18.3	204	2.6
No	71.4	2.93	31.62	41.0	443	2.5	16.6	179	2.1
Daytime Winter Temperature When Someone is at Home³									
Heat Turned On	96.1	4.41	48.04	45.9	500	2.6	17.9	196	1.8
63 Degrees or Less	3.9	0.17	1.79	42.3	454	2.6	16.5	177	7.9
64 to 66 Degrees	8.3	0.37	4.12	44.6	494	2.6	17.5	194	5.5
67 to 69 Degrees	23.5	1.19	12.71	50.5	540	2.5	19.9	213	2.6
70 Degrees	25.4	1.19	12.95	46.9	510	2.6	18.0	196	3.4
71 to 73 Degrees	16.4	0.80	8.75	48.6	533	2.5	19.5	213	4.0
74 Degrees or More	18.5	0.70	7.73	37.6	417	2.6	14.6	163	4.0
Heat Turned Off	2.0	0.02	0.31	11.5	150	2.8	4.1	53	14.4
Unknown/No Answer	7.1	0.19	2.18	26.4	305	2.4	10.8	125	6.2
Winter Temperature Settings³									
Lower When No One Home									
Yes	47.0	2.06	22.48	43.8	478	2.5	17.2	188	2.5
No	58.3	2.56	28.04	44.0	481	2.6	17.1	188	2.1
Lower During Sleeping Hours									
Yes	45.4	2.09	22.64	46.1	499	2.5	18.5	200	2.5
No	59.9	2.53	27.89	42.2	466	2.6	16.2	179	2.2

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

³ The 1.0 million households that do not heat their homes are not included in these categories.

^a The column factor in this section is underestimated because it contains no error for estimating the end-use.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-6.2u. Space-Heating Energy Consumption and Expenditures by Square Feet and Usage Indicators, 2001

Usage Indicators	Space-Heating Energy								RSE Row Factors
	Households (million)	Total ^a		Per Household ^a			Per Square Feet ^a		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Heated Square Feet	Consumption (1000 Btu)	Expenditures (dollars)	
RSE Column Factor:	1.1	1.4	1.4	1.0	0.9	0.7	0.9	0.9	
Total Households Using a Major Space-Heating Fuel¹	105.3	4.62	50.53	43.9	480	1,707	25.7	0.28	1.9
Weekday Home Activities Home Used for Business									
Yes	7.4	0.41	4.44	55.4	600	2,336	23.7	0.26	6.0
No/Don't Know	97.9	4.21	46.08	43.0	471	1,659	25.9	0.28	2.0
Energy-Intensive Activity									
Yes	1.6	0.09	0.93	55.8	564	2,189	25.5	0.26	10.2
No/Don't Know	103.7	4.53	49.60	43.7	478	1,699	25.7	0.28	2.0
Someone Home All Day									
Yes	52.1	2.46	26.56	47.1	510	1,765	26.7	0.29	2.5
No/Don't Know	53.2	2.17	23.97	40.7	450	1,650	24.7	0.27	2.3
Heated Floorspace Category (square feet)									
Fewer than 500	8.0	0.14	1.89	17.6	237	313	56.4	0.76	6.1
500 to 999	25.6	0.73	8.82	28.4	345	767	37.0	0.45	3.5
1,000 to 1,499	22.7	0.85	9.79	37.6	432	1,234	30.5	0.35	3.4
1,500 to 1,999	16.7	0.79	8.59	47.4	515	1,730	27.4	0.30	3.3
2,000 to 2,499	12.1	0.67	6.91	54.9	570	2,216	24.8	0.26	3.6
2,500 to 2,999	7.3	0.48	4.92	65.9	670	2,723	24.2	0.25	4.8
3,000 to 3,499	4.5	0.30	3.03	65.2	667	3,224	20.2	0.21	9.6
3,500 to 3,999	3.0	0.21	2.01	70.4	663	3,714	19.0	0.18	7.8
4,000 or More	5.4	0.45	4.58	83.8	850	5,208	16.1	0.16	4.9
Year of Construction									
1939 or Before	18.7	1.30	13.19	69.7	706	1,675	41.6	0.42	3.5
1940 to 1949	7.5	0.40	4.19	52.8	559	1,504	35.1	0.37	5.7
1950 to 1959	13.8	0.69	7.00	50.4	508	1,721	29.3	0.30	3.9
1960 to 1969	13.4	0.55	6.03	41.3	449	1,562	26.5	0.29	4.3
1970 to 1979	18.5	0.60	7.22	32.6	391	1,522	21.4	0.26	4.2
1980 to 1989	18.1	0.53	6.66	29.4	368	1,730	17.0	0.21	4.5
1990 to 1999	14.5	0.50	5.74	34.4	397	2,119	16.2	0.19	6.7
2000 to 2001 ²	0.9	0.04	0.49	48.9	544	2,734	17.9	0.20	17.8
Housing Unit Type and Number of Bedrooms									
Mobile Home	6.8	0.21	2.66	31.3	393	979	32.0	0.40	7.4
Less than 3 Bedrooms	3.7	0.12	1.47	32.9	399	782	42.0	0.51	8.1
3 or More Bedrooms	3.1	0.09	1.19	29.5	386	1,215	24.2	0.32	9.4
Single-Family Detached	62.3	3.21	34.15	51.6	548	2,076	24.9	0.26	2.2
Less than 3 Bedrooms	12.1	0.52	5.75	43.0	476	1,312	32.7	0.36	4.0
3 Bedrooms	33.2	1.59	17.11	47.7	515	1,946	24.5	0.26	2.9
4 Bedrooms	14.1	0.86	8.77	60.8	621	2,702	22.5	0.23	4.2
5 or More Bedrooms	2.8	0.25	2.52	88.2	885	3,731	23.6	0.24	8.8
Single-Family Attached	10.6	0.54	5.65	51.1	535	1,879	27.2	0.28	6.2
Less than 3 Bedrooms	3.9	0.15	1.63	38.8	417	1,328	29.2	0.31	9.2
3 Bedrooms	4.6	0.23	2.60	50.8	569	1,996	25.4	0.29	8.2
4 or More Bedrooms	2.1	0.16	1.43	74.9	681	2,651	28.2	0.26	10.6
Apartments in Buildings With 2 to 4 Units	9.4	0.41	4.73	44.2	505	1,199	36.9	0.42	6.6
Less than 2 Bedrooms	2.6	0.09	0.95	33.1	371	811	40.8	0.46	11.2
2 Bedrooms	5.0	0.20	2.41	40.8	484	1,200	34.0	0.40	7.3
3 or More Bedrooms	1.8	0.13	1.37	69.1	750	1,741	39.7	0.43	13.1

See footnotes at end of table.

Table CE2-6.2u. Space-Heating Energy Consumption and Expenditures by Square Feet and Usage Indicators, 2001 (Continued)

Usage Indicators	Space-Heating Energy								RSE Row Factors
	Households (million)	Total ^a		Per Household ^a			Per Square Feet ^a		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Heated Square Feet	Consumption (1000 Btu)	Expenditures (dollars)	
RSE Column Factor:	1.1	1.4	1.4	1.0	0.9	0.7	0.9	0.9	
Apartments in Buildings									
With 5 or More Units	16.3	0.24	3.33	14.8	204	781	18.9	0.26	5.1
Less than 2 Bedrooms	8.1	0.10	1.40	12.8	174	590	21.6	0.30	6.1
2 Bedrooms	6.8	0.11	1.53	16.7	225	935	17.8	0.24	8.2
3 or More Bedrooms	1.5	0.02	0.39	17.0	268	1,119	15.2	0.24	14.2
Adequacy of Insulation									
Well Insulated	42.2	1.75	19.32	41.5	458	1,918	21.6	0.24	2.7
Adequately Insulated	42.5	1.88	20.62	44.4	486	1,698	26.1	0.29	2.7
Poorly Insulated	19.1	0.92	9.87	48.4	517	1,306	37.0	0.40	3.7
No Insulation	0.7	0.04	0.39	49.8	526	1,135	43.9	0.46	14.9
Don't Know	0.9	0.03	0.32	34.1	366	1,204	28.3	0.30	15.1
Occurrences of Drafts									
During Winter									
Never	5.9	0.29	3.08	49.2	526	1,264	38.9	0.42	6.2
Some of the Time	6.3	0.27	3.11	42.8	490	1,267	33.8	0.39	5.8
Most of the	33.9	1.67	17.94	49.2	528	1,711	28.8	0.31	2.8
All of the Time	54.6	2.27	25.01	41.7	458	1,837	22.7	0.25	2.6
Don't Know	4.6	0.12	1.38	25.6	303	1,297	19.7	0.23	7.0
Secondary Heating Equipment									
Yes	33.9	1.69	18.90	50.0	558	2,034	24.6	0.27	2.8
No	71.4	2.93	31.62	41.0	443	1,552	26.4	0.29	2.2
Daytime Winter Temperature									
When Someone is at Home³									
Heat Turned On	96.1	4.41	48.04	45.9	500	1,772	25.9	0.28	1.9
63 Degrees or Less	3.9	0.17	1.79	42.3	454	1,453	29.1	0.31	7.6
64 to 66 Degrees	8.3	0.37	4.12	44.6	494	1,739	25.6	0.28	5.2
67 to 69 Degrees	23.5	1.19	12.71	50.5	540	2,004	25.2	0.27	2.7
70 Degrees	25.4	1.19	12.95	46.9	510	1,707	27.5	0.30	3.5
71 to 73 Degrees	16.4	0.80	8.75	48.6	533	1,877	25.9	0.28	4.1
74 Degrees or More	18.5	0.70	7.73	37.6	417	1,557	24.1	0.27	4.3
Heat Turned Off	2.0	0.02	0.31	11.5	150	688	16.7	0.22	13.4
Unknown/No Answer	7.1	0.19	2.18	26.4	305	1,116	23.7	0.27	6.1
Winter Temperature Settings									
Lower When No One Home									
Yes	47.0	2.06	22.48	43.8	478	1,759	24.9	0.27	2.6
No	58.3	2.56	28.04	44.0	481	1,665	26.4	0.29	2.2
Lower During Sleeping Hours									
Yes	45.4	2.09	22.64	46.1	499	1,782	25.8	0.28	2.7
No	59.9	2.53	27.89	42.2	466	1,650	25.6	0.28	2.3

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

³ The 1.0 million households that do not heat their homes are not included in these categories.

^a The column factor in this section is underestimated because it contains no error for estimating the end-use.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-7c. Space-Heating Energy Consumption in U.S. Households by Four Most Populated States, 2001

	Four Most Populated States					RSE Row Factors
	Total U.S.	New York	California	Texas	Florida	
RSE Column Factor:						
Million Households						
Total U.S. Households	107.0	7.1	12.3	7.7	6.3	NE
No Space Heating	1.0	Q	0.3	Q	Q	23.9
Space Heating	106.0	7.1	12.0	7.7	6.2	0.5
Not Using a Major Fuel ¹	0.7	Q	0.2	Q	Q	50.9
Using a Major Fuel ¹	105.3	7.0	11.8	7.7	6.2	0.5
For Main Space Heating	103.8	6.8	11.6	7.6	6.2	0.8
For Secondary Space Heating Only	1.5	Q	Q	Q	Q	41.0
Number of Households with Space Heating, Major Fuels Used (more than one may apply):						
Electricity	43.8	1.4	3.7	4.4	5.2	5.1
Natural Gas	60.5	4.2	9.0	4.2	1.0	7.2
Fuel Oil	8.5	2.2	Q	Q	Q	22.1
Kerosene	2.7	0.2	Q	Q	Q	32.8
LPG	6.6	Q	0.3	0.2	Q	30.8
Quadrillion Btu^a						
Space-Heating Btu Consumption, Major Fuels Used:						
Electricity	0.39	0.01	0.02	0.04	0.02	15.3
Natural Gas	3.32	0.28	0.23	0.16	0.01	12.6
Fuel Oil	0.58	0.11	Q	Q	Q	27.3
Kerosene	0.04	(*)	Q	Q	Q	30.8
LPG	0.28	Q	0.01	Q	Q	35.5
Total	4.62	0.41	0.27	0.20	0.03	6.7
Physical Units^a						
Physical Units of Space-Heating Consumption, Major Fuels Used:						
Electricity (billion kWh)	116	2	5	10	5	15.3
Natural Gas (billion cf)	3,231	268	225	152	12	12.6
Fuel Oil (million gallons)	4,155	828	Q	Q	Q	27.3
Kerosene (million gallons)	326	29	Q	Q	Q	30.8
LPG (million gallons)	3,097	Q	116	Q	Q	35.5
Million Btu per Household^a						
Average Space-Heating Btu Consumption per Household						
Using a Major Fuel ¹	43.9	58.5	22.6	25.9	5.0	6.8
For Main Space Heating	44.3	58.9	22.8	25.8	5.0	6.9
For Secondary Space Heating Only	18.1	Q	Q	Q	Q	33.3

See footnotes at end of table.

Table CE2-7c. Space-Heating Energy Consumption in U.S. Households by Four Most Populated States, 2001 (Continued)

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.3	1.0	0.8	1.5	2.2	
Million Households						
Number of Households, Where the Main Space-Heating Fuel Is:						
Electricity	30.9	0.5	2.3	3.4	5.1	10.0
Natural Gas	59.1	4.2	8.9	4.0	1.0	7.5
Fuel Oil	8.0	2.1	Q	Q	Q	22.0
Kerosene	0.8	Q	Q	Q	Q	50.5
LPG	4.9	Q	0.3	Q	Q	35.3
Other	2.2	0.2	0.4	Q	Q	34.4
No Space Heating	1.0	Q	0.3	Q	Q	23.9
Million Btu per Household^{3,a}						
Space-Heating Btu Consumption per Household,² Where the Main Space-Heating Fuel Is:						
Electricity	12.0	14.7	6.1	9.9	3.3	9.0
Natural Gas	55.4	65.1	25.6	37.6	12.2	7.9
Fuel Oil	70.2	54.0	Q	Q	Q	8.8
Kerosene	38.3	Q	Q	Q	Q	32.8
LPG	51.0	Q	34.1	Q	Q	17.1
Physical Units (PU) per Household^{3,a}						
Physical Units of Space-Heating Consumption per Household,² Where the Main Space-Heating Fuel Is:						
Electricity (kWh)	3,524	4,296	1,787	2,892	977	9.0
Natural Gas (thousand cf)	54	63	25	37	12	7.9
Fuel Oil (gallons)	507	389	Q	Q	Q	8.8
Kerosene (gallons)	283	Q	Q	Q	Q	32.8
LPG (gallons)	559	Q	374	Q	Q	17.1
2001 Heating Degree-Days (HDD) per Household³						
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:						
Electricity	3,006	5,632	2,409	2,015	536	9.4
Natural Gas	4,255	5,183	2,113	2,211	818	4.9
Fuel Oil	5,339	4,607	Q	Q	Q	6.5
Kerosene	4,636	Q	Q	Q	Q	18.6
LPG	4,643	Q	3,668	Q	Q	13.9
Average for All Heated Households	4,004	5,011	2,290	2,139	579	5.8

See footnotes at end of table.

Table CE2-7c. Space-Heating Energy Consumption in U.S. Households by Four Most Populated States, 2001 (Continued)

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.3	1.0	0.8	1.5	2.2	
Heated Square Footage (HSF) per Household³						
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:						
Electricity	1,399	1,091	928	1,382	1,492	12.1
Natural Gas	1,836	1,788	1,394	1,716	1,958	5.8
Fuel Oil	2,043	1,531	Q	Q	Q	10.1
Kerosene	1,076	Q	Q	Q	Q	25.0
LPG	1,570	Q	1,650	Q	Q	17.4
Average for All Heated Households	1,707	1,657	1,315	1,549	1,576	4.2
Space-Heating Intensity^{3,a} [PU÷{HDD×(HSF÷1000)}]						
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:						
Electricity (kWh)	0.838	0.699	0.800	1.039	1.222	8.2
Natural Gas (cubic feet)	6.893	6.826	8.444	9.626	7.426	6.6
Fuel Oil (gallons)	0.046	0.055	Q	Q	Q	9.3
Kerosene (gallons)	0.057	Q	Q	Q	Q	34.5
LPG (gallons)	0.077	Q	0.062	Q	Q	25.3

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes only the space-heating consumption of the space-heating fuel. Not included are: 1) the consumption of the main space-heating fuel for uses other than space heating; 2) the consumption of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the consumption of other fuels that are used as secondary space-heating fuels.

³ Averages are for those households using each of the main space-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

(*) = Value rounds to zero in the units displayed.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-8c. Space-Heating Energy Consumption in U.S. Households by Urban/Rural Location, 2001

	Urban/Rural Location ¹					RSE Row Factors
	Total	City	Town	Suburbs	Rural	
	0.6	1.0	1.3	1.3	1.0	
Million Households						
Total U.S. Households	107.0	49.9	18.0	21.2	17.9	4.3
No Space Heating	1.0	0.7	Q	Q	Q	15.7
Space Heating	106.0	49.1	18.0	21.2	17.8	4.3
Not Using a Major Fuel ²	0.7	0.2	Q	Q	0.5	30.9
Using a Major Fuel ²	105.3	48.9	17.9	21.1	17.3	4.3
For Main Space Heating	103.8	48.7	17.6	21.0	16.4	4.3
For Secondary Space Heating Only	1.5	0.2	0.3	Q	0.9	22.6
Number of Households with Space Heating, Major Fuels Used (more than one may apply):						
Electricity	43.8	18.8	7.8	8.6	8.6	5.6
Natural Gas	60.5	33.1	10.3	13.4	3.7	6.0
Fuel Oil	8.5	2.5	2.1	1.4	2.5	13.4
Kerosene	2.7	0.5	0.6	0.4	1.4	21.4
LPG	6.6	0.5	1.1	0.4	4.6	18.3
Quadrillion Btu^a						
Space-Heating Btu Consumption, Major Fuels Used:						
Electricity	0.39	0.13	0.07	0.08	0.11	8.1
Natural Gas	3.32	1.70	0.62	0.78	0.23	7.3
Fuel Oil	0.58	0.14	0.16	0.09	0.19	15.3
Kerosene	0.04	(*)	0.01	Q	0.03	30.6
LPG	0.28	0.02	0.05	0.01	0.20	21.4
Total	4.62	1.99	0.90	0.97	0.76	5.1
Physical Units^a						
Physical Units of Space-Heating Consumption, Major Fuels Used:						
Electricity (billion kWh)	116	39	21	23	33	8.1
Natural Gas (billion cf)	3,231	1,648	598	759	225	7.3
Fuel Oil (million gallons)	4,155	1,008	1,122	682	1,344	15.3
Kerosene (million gallons)	326	24	53	Q	223	30.6
LPG (million gallons)	3,097	171	587	139	2,200	21.4
Million Btu per Household^a						
Average Space-Heating Btu Consumption per Household						
Using a Major Fuel ²	43.9	40.6	50.3	45.8	44.1	3.4
For Main Space Heating	44.3	40.7	51.0	46.0	45.4	3.4
For Secondary Space Heating Only	18.1	20.3	12.1	Q	19.1	21.8

See footnotes at end of table.

Table CE2-8c. Space-Heating Energy Consumption in U.S. Households by Urban/Rural Location, 2001 (Continued)

	Urban/Rural Location ¹					RSE Row Factors
	Total	City	Town	Suburbs	Rural	
	0.6	1.0	1.3	1.3	1.0	
Million Households						
Number of Households, Where the Main Space-Heating Fuel Is:						
Electricity	30.9	13.6	4.5	6.3	6.5	7.2
Natural Gas	59.1	32.3	10.0	13.1	3.6	6.0
Fuel Oil	8.0	2.4	2.0	1.3	2.3	13.6
Kerosene	0.8	Q	Q	Q	0.5	24.0
LPG	4.9	0.3	0.9	0.2	3.5	21.0
Other	2.2	0.4	0.3	Q	1.4	20.1
No Space Heating	1.0	0.7	Q	Q	Q	15.7
Million Btu per Household^{4,a}						
Space-Heating Btu Consumption per Household,³ Where the Main Space-Heating Fuel Is:						
Electricity	12.0	9.2	14.2	11.7	16.8	5.3
Natural Gas	55.4	51.7	60.1	58.7	63.3	3.6
Fuel Oil	70.2	56.6	77.7	70.8	77.8	5.5
Kerosene	38.3	Q	Q	Q	41.8	15.6
LPG	51.0	40.5	55.7	36.8	51.6	8.8
Physical Units (PU) per Household^{4,a}						
Physical Units of Space-Heating Consumption per Household,³ Where the Main Space-Heating Fuel Is:						
Electricity (kWh)	3,524	2,690	4,158	3,427	4,929	5.3
Natural Gas (thousand cf)	54	50	58	57	61	3.6
Fuel Oil (gallons)	507	408	560	511	561	5.5
Kerosene (gallons)	283	Q	Q	Q	310	15.6
LPG (gallons)	559	444	610	403	565	8.8
2001 Heating Degree-Days (HDD) per Household⁴						
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:						
Electricity	3,006	2,742	3,526	2,673	3,520	4.9
Natural Gas	4,255	4,069	4,685	4,339	4,430	2.5
Fuel Oil	5,339	5,259	5,683	4,750	5,467	3.6
Kerosene	4,636	Q	Q	Q	4,784	8.7
LPG	4,643	4,164	4,858	4,003	4,669	9.2
Average for All Heated Households	4,004	3,758	4,513	3,872	4,328	2.2

See footnotes at end of table.

Table CE2-8c. Space-Heating Energy Consumption in U.S. Households by Urban/Rural Location, 2001 (Continued)

	Urban/Rural Location ¹				RSE Row Factors	
	Total	City	Town	Suburbs		Rural
RSE Column Factor:	0.6	1.0	1.3	1.3	1.0	
Heated Square Footage (HSF) per Household⁴						
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:						
Electricity	1,399	1,159	1,307	1,647	1,728	5.2
Natural Gas	1,836	1,613	1,798	2,314	2,194	3.5
Fuel Oil	2,043	1,549	2,230	2,263	2,274	5.5
Kerosene	1,076	Q	Q	Q	1,159	12.0
LPG	1,570	1,041	1,446	1,612	1,647	10.5
Average for All Heated Households	1,707	1,480	1,692	2,103	1,880	2.7
Space-Heating Intensity^{4,a} [PU÷{HDD×(HSF÷1000)}]						
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:						
Electricity (kWh)	0.838	0.847	0.902	0.778	0.810	4.5
Natural Gas (cubic feet)	6.893	7.656	6.938	5.684	6.327	4.0
Fuel Oil (gallons)	0.046	0.050	0.044	0.048	0.045	5.6
Kerosene (gallons)	0.057	Q	Q	Q	0.056	15.1
LPG (gallons)	0.077	0.102	0.087	0.062	0.074	12.3

¹ Based on the household respondent's description rather than the Federal Government definition.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes only the space-heating consumption of the space-heating fuel. Not included are: 1) the consumption of the main space-heating fuel for uses other than space heating; 2) the consumption of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the consumption of other fuels that are used as secondary space-heating fuels.

⁴ Averages are for those households using each of the main space-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

(*) = Value rounds to zero in the units displayed.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-9c. Space-Heating Energy Consumption in U.S. Households by Northeast Census Region, 2001

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
	0.6	1.0	1.2	1.5	
RSE Column Factor:					
Million Households					
Total U.S. Households	107.0	20.3	14.8	5.4	NE
No Space Heating	1.0	Q	Q	Q	17.3
Space Heating	106.0	20.1	14.7	5.4	NE
Not Using a Major Fuel ¹	0.7	0.2	Q	Q	33.9
Using a Major Fuel ¹	105.3	19.9	14.6	5.3	NE
For Main Space Heating	103.8	19.7	14.4	5.3	0.7
For Secondary Space Heating Only	1.5	0.2	Q	Q	23.4
Number of Households with Space Heating, Major Fuels Used (more than one may apply):					
Electricity	43.8	4.8	3.6	1.2	5.9
Natural Gas	60.5	10.6	8.7	1.9	8.7
Fuel Oil	8.5	6.4	3.7	2.7	12.5
Kerosene	2.7	0.7	0.4	Q	23.8
LPG	6.6	0.6	0.3	0.3	18.7
Quadrillion Btu^a					
Space-Heating Btu Consumption, Major Fuels Used:					
Electricity	0.39	0.05	0.04	0.01	11.4
Natural Gas	3.32	0.71	0.57	0.14	10.4
Fuel Oil	0.58	0.45	0.24	0.22	14.8
Kerosene	0.04	0.02	0.01	Q	31.5
LPG	0.28	0.03	0.02	0.01	24.3
Total	4.62	1.26	0.88	0.38	3.1
Physical Units^a					
Physical Units of Space-Heating Consumption, Major Fuels Used:					
Electricity (billion kWh)	116	14	12	3	11.4
Natural Gas (billion cf)	3,231	689	554	135	10.4
Fuel Oil (million gallons)	4,155	3,266	1,706	1,559	14.8
Kerosene (million gallons)	326	149	98	Q	31.5
LPG (million gallons)	3,097	286	169	117	24.3
Million Btu per Household^a					
Average Space-Heating Btu Consumption per Household					
Using a Major Fuel ¹	43.9	63.1	60.1	71.4	3.0
For Main Space Heating	44.3	63.6	60.5	72.1	3.1
For Secondary Space Heating Only	18.1	24.7	Q	Q	20.6

See footnotes at end of table.

Table CE2-9c. Space-Heating Energy Consumption in U.S. Households by Northeast Census Region, 2001 (Continued)

	Northeast Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	Middle Atlantic	New England	
RSE Column Factor:	0.6	1.0	1.2	1.5	
Million Households					
Number of Households, Where the Main Space-Heating Fuel Is:					
Electricity	30.9	2.3	1.8	0.5	11.2
Natural Gas	59.1	10.5	8.6	1.9	8.6
Fuel Oil	8.0	6.2	3.6	2.7	12.4
Kerosene	0.8	0.3	0.2	Q	32.3
LPG	4.9	0.4	0.2	0.1	25.4
Other	2.2	0.4	0.3	0.1	22.4
No Space Heating	1.0	Q	Q	Q	17.3
Million Btu per Household^{3,a}					
Space-Heating Btu Consumption per Household,² Where the Main Space-Heating Fuel Is:					
Electricity	12.0	19.8	20.7	16.1	6.4
Natural Gas	55.4	67.3	65.9	74.1	4.5
Fuel Oil	70.2	71.7	65.0	80.5	4.6
Kerosene	38.3	56.2	61.8	47.4	8.4
LPG	51.0	62.6	63.6	61.1	6.4
Physical Units (PU) per Household^{3,a}					
Physical Units of Space-Heating Consumption per Household,² Where the Main Space-Heating Fuel Is:					
Electricity (kWh)	3,524	5,800	6,075	4,733	6.4
Natural Gas (thousand cf)	54	65	64	72	4.5
Fuel Oil (gallons)	507	517	469	580	4.6
Kerosene (gallons)	283	416	458	351	8.4
LPG (gallons)	559	686	696	669	6.4
2001 Heating Degree-Days (HDD) per Household³					
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:					
Electricity	3,006	5,266	5,202	5,515	3.2
Natural Gas	4,255	5,165	5,106	5,432	1.6
Fuel Oil	5,339	5,366	4,794	6,128	3.8
Kerosene	4,636	5,916	5,299	6,895	5.8
LPG	4,643	5,493	5,302	5,794	4.1
Average for All Heated Households	4,004	5,254	5,037	5,845	2.3

See footnotes at end of table.

Table CE2-9c. Space-Heating Energy Consumption in U.S. Households by Northeast Census Region, 2001 (Continued)

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.6	1.0	1.2	1.5	
Heated Square Footage (HSF) per Household³					
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:					
Electricity	1,399	1,609	1,734	1,122	9.2
Natural Gas	1,836	1,822	1,809	1,880	4.0
Fuel Oil	2,043	2,087	1,951	2,268	5.4
Kerosene	1,076	1,149	936	1,487	12.9
LPG	1,570	1,642	1,923	1,200	17.3
Average for All Heated Households	1,707	1,872	1,829	1,988	3.7
Space-Heating Intensity^{3,a} [PU÷(HDD×(HSF÷1000))]					
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:					
Electricity (kWh)	0.838	0.685	0.673	0.765	8.5
Natural Gas (cubic feet)	6.893	6.957	6.931	7.050	3.8
Fuel Oil (gallons)	0.046	0.046	0.050	0.042	5.2
Kerosene (gallons)	0.057	0.061	0.092	0.034	13.7
LPG (gallons)	0.077	0.076	0.068	0.096	21.3

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes only the space-heating consumption of the space-heating fuel. Not included are: 1) the consumption of the main space-heating fuel for uses other than space heating; 2) the consumption of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the consumption of other fuels that are used as secondary space-heating fuels.

³ Averages are for those households using each of the main space-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE2-10c. Space-Heating Energy Consumption in U.S. Households
by Midwest Census Region, 2001**

	Total U.S.	Midwest Census Region			RSE Row Factors
		Total	Census Division		
			East North Central	West North Central	
		0.6	1.0	1.1	
Million Households					
Total U.S. Households	107.0	24.5	17.1	7.4	NE
No Space Heating	1.0	Q	Q	Q	17.8
Space Heating	106.0	24.5	17.1	7.4	NE
Not Using a Major Fuel ¹	0.7	Q	Q	Q	35.2
Using a Major Fuel ¹	105.3	24.4	17.0	7.3	NE
For Main Space Heating	103.8	24.1	16.9	7.2	0.7
For Secondary Space Heating Only	1.5	0.3	Q	Q	29.6
Number of Households with Space Heating, Major Fuels Used (more than one may apply):					
Electricity	43.8	6.2	4.0	2.1	7.2
Natural Gas	60.5	19.1	14.0	5.2	4.2
Fuel Oil	8.5	0.9	0.5	0.4	15.2
Kerosene	2.7	0.5	0.4	Q	15.2
LPG	6.6	2.0	1.0	1.0	23.2
Quadrillion Btu^a					
Space-Heating Btu Consumption, Major Fuels Used:					
Electricity	0.39	0.06	0.03	0.02	14.3
Natural Gas	3.32	1.39	1.05	0.34	5.4
Fuel Oil	0.58	0.06	0.03	0.03	18.8
Kerosene	0.04	(*)	Q	Q	35.6
LPG	0.28	0.12	0.06	0.06	23.8
Total	4.62	1.63	1.18	0.45	3.1
Physical Units^a					
Physical Units of Space-Heating Consumption, Major Fuels Used:					
Electricity (billion kWh)	116	17	10	7	14.3
Natural Gas (billion cf)	3,231	1,349	1,021	328	5.4
Fuel Oil (million gallons)	4,155	434	234	199	18.8
Kerosene (million gallons)	326	23	Q	Q	35.6
LPG (million gallons)	3,097	1,309	645	664	23.8
Million Btu per Household^a					
Average Space-Heating Btu Consumption per Household					
Using a Major Fuel ¹	43.9	66.8	69.3	61.2	3.0
For Main Space Heating	44.3	67.2	69.5	61.9	3.0
For Secondary Space Heating Only	18.1	27.0	Q	Q	23.6

See footnotes at end of table.

Table CE2-10c. Space-Heating Energy Consumption in U.S. Households by Midwest Census Region, 2001 (Continued)

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
	0.6	1.0	1.1	1.6	
Million Households					
Number of Households, Where the Main Space-Heating Fuel Is:					
Electricity	30.9	2.5	1.7	0.8	13.6
Natural Gas	59.1	18.9	13.8	5.1	4.5
Fuel Oil	8.0	0.8	0.4	0.4	14.1
Kerosene	0.8	Q	Q	Q	31.4
LPG	4.9	1.8	0.9	0.9	23.8
Other	2.2	0.4	Q	0.2	29.6
No Space Heating	1.0	Q	Q	Q	17.8
Million Btu per Household^{3,a}					
Space-Heating Btu Consumption per Household,² Where the Main Space-Heating Fuel Is:					
Electricity	12.0	20.1	18.1	24.3	5.7
Natural Gas	55.4	72.8	75.5	65.5	2.8
Fuel Oil	70.2	71.0	68.2	74.4	11.2
Kerosene	38.3	Q	Q	Q	20.4
LPG	51.0	62.6	62.2	63.1	4.9
Physical Units (PU) per Household^{3,a}					
Physical Units of Space-Heating Consumption per Household,² Where the Main Space-Heating Fuel Is:					
Electricity (kWh)	3,524	5,904	5,311	7,124	5.7
Natural Gas (thousand cf)	54	71	73	64	2.8
Fuel Oil (gallons)	507	513	492	538	11.3
Kerosene (gallons)	283	Q	Q	Q	20.4
LPG (gallons)	559	686	681	691	4.9
2001 Heating Degree-Days (HDD) per Household³					
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:					
Electricity	3,006	5,578	5,751	5,222	3.5
Natural Gas	4,255	5,772	5,738	5,864	2.2
Fuel Oil	5,339	6,827	6,402	7,339	4.3
Kerosene	4,636	Q	Q	Q	11.6
LPG	4,643	6,137	6,114	6,160	5.6
Average for All Heated Households	4,004	5,816	5,788	5,881	2.1

See footnotes at end of table.

Table CE2-10c. Space-Heating Energy Consumption in U.S. Households by Midwest Census Region, 2001 (Continued)

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
RSE Column Factor:	0.6	1.0	1.1	1.6	
Heated Square Footage (HSF) per Household³					
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:					
Electricity	1,399	1,481	1,289	1,877	10.1
Natural Gas	1,836	2,080	2,070	2,110	3.2
Fuel Oil	2,043	1,959	2,067	1,828	9.5
Kerosene	1,076	Q	Q	Q	15.6
LPG	1,570	1,800	1,772	1,829	4.8
Average for All Heated Households	1,707	1,997	1,985	2,024	2.7
Space-Heating Intensity^{3,a} [PU÷{HDD×(HSF÷1000)}]					
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:					
Electricity (kWh)	0.838	0.715	0.717	0.727	7.2
Natural Gas (cubic feet)	6.893	5.892	6.180	5.142	3.0
Fuel Oil (gallons)	0.046	0.038	0.037	0.040	10.4
Kerosene (gallons)	0.057	Q	Q	Q	21.5
LPG (gallons)	0.077	0.062	0.063	0.061	7.6

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes only the space-heating consumption of the space-heating fuel. Not included are: 1) the consumption of the main space-heating fuel for uses other than space heating; 2) the consumption of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the consumption of other fuels that are used as secondary space-heating fuels.

³ Averages are for those households using each of the main space-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

(*) = Value rounds to zero in the units displayed.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-11c. Space-Heating Energy Consumption in U.S. Households by South Census Region, 2001

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			West south Central	
		Total	South Atlantic	East South Central		
RSE Column Factor:	0.4	0.9	1.1	1.6	1.6	
Million Households						
Total U.S. Households	107.0	38.9	20.3	6.8	11.8	NE
No Space Heating	1.0	Q	Q	Q	Q	24.2
Space Heating	106.0	38.8	20.2	6.8	11.8	NE
Not Using a Major Fuel ¹	0.7	Q	Q	Q	Q	48.0
Using a Major Fuel ¹	105.3	38.7	20.0	6.8	11.8	NE
For Main Space Heating	103.8	38.2	19.8	6.7	11.7	0.6
For Secondary Space Heating Only	1.5	0.5	0.3	Q	Q	40.0
Number of Households with Space Heating, Major Fuels Used (more than one may apply):						
Electricity	43.8	23.1	12.4	4.2	6.5	5.7
Natural Gas	60.5	16.6	7.1	2.7	6.8	7.4
Fuel Oil	8.5	0.9	0.9	Q	Q	31.9
Kerosene	2.7	1.3	0.9	0.3	Q	20.7
LPG	6.6	3.0	1.4	1.2	0.4	19.3
Quadrillion Btu^a						
Space-Heating Btu Consumption, Major Fuels Used:						
Electricity	0.39	0.20	0.10	0.05	0.05	9.1
Natural Gas	3.32	0.70	0.31	0.13	0.26	10.3
Fuel Oil	0.58	0.05	0.05	Q	Q	36.5
Kerosene	0.04	0.02	0.01	(*)	Q	34.1
LPG	0.28	0.10	0.05	0.03	0.01	27.4
Total	4.62	1.07	0.52	0.22	0.33	6.6
Physical Units^a						
Physical Units of Space-Heating Consumption, Major Fuels Used:						
Electricity (billion kWh)	116	60	29	16	15	9.1
Natural Gas (billion cf)	3,231	682	304	122	257	10.3
Fuel Oil (million gallons)	4,155	379	357	Q	Q	36.5
Kerosene (million gallons)	326	114	77	37	Q	34.1
LPG (million gallons)	3,097	1,055	523	376	156	27.4
Million Btu per Household^a						
Average Space-Heating Btu Consumption per Household						
Using a Major Fuel ¹	43.9	27.7	25.9	32.5	27.9	6.6
For Main Space Heating	44.3	27.8	26.0	32.7	28.1	6.7
For Secondary Space Heating Only	18.1	16.3	19.2	Q	Q	28.7

See footnotes at end of table.

Table CE2-11c. Space-Heating Energy Consumption in U.S. Households by South Census Region, 2001 (Continued)

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			Total	
		South Atlantic	East South Central	West south Central		
RSE Column Factor:	0.4	0.9	1.1	1.6	1.6	
Million Households						
Number of Households, Where the Main Space-Heating Fuel Is:						
Electricity	30.9	19.3	11.0	3.4	4.9	7.6
Natural Gas	59.1	15.7	6.8	2.4	6.5	7.8
Fuel Oil	8.0	0.8	0.8	Q	Q	31.7
Kerosene	0.8	0.4	0.3	Q	Q	32.5
LPG	4.9	2.0	0.9	0.8	0.3	22.3
Other	2.2	0.6	0.4	Q	Q	33.1
No Space Heating	1.0	Q	Q	Q	Q	24.2
Million Btu per Household^{3,a}						
Space-Heating Btu Consumption per Household,² Where the Main Space-Heating Fuel Is:						
Electricity	12.0	10.2	8.8	15.5	9.7	5.9
Natural Gas	55.4	42.9	44.7	47.2	39.4	5.8
Fuel Oil	70.2	62.4	63.1	Q	Q	15.2
Kerosene	38.3	23.3	19.0	Q	Q	23.9
LPG	51.0	39.3	42.3	36.4	37.5	12.4
Physical Units (PU) per Household^{3,a}						
Physical Units of Space-Heating Consumption per Household,² Where the Main Space-Heating Fuel Is:						
Electricity (kWh)	3,524	2,991	2,576	4,544	2,853	5.9
Natural Gas (thousand cf)	54	42	43	46	38	5.8
Fuel Oil (gallons)	507	450	455	Q	Q	15.2
Kerosene (gallons)	283	173	141	Q	Q	23.9
LPG (gallons)	559	430	463	399	411	12.4
2001 Heating Degree-Days (HDD) per Household³						
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:						
Electricity	3,006	2,155	1,922	3,021	2,082	5.8
Natural Gas	4,255	2,779	3,079	3,109	2,340	5.2
Fuel Oil	5,339	3,777	3,760	Q	Q	6.0
Kerosene	4,636	3,261	3,247	Q	Q	8.2
LPG	4,643	2,953	2,891	3,139	2,662	8.2
Average for All Heated Households	4,004	2,515	2,479	3,087	2,247	4.2

See footnotes at end of table.

Table CE2-11c. Space-Heating Energy Consumption in U.S. Households by South Census Region, 2001 (Continued)

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			West south Central	
		Total	South Atlantic	East South Central		
RSE Column Factor:	0.4	0.9	1.1	1.6	1.6	
Heated Square Footage (HSF) per Household³						
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:						
Electricity	1,399	1,487	1,461	1,783	1,344	5.7
Natural Gas	1,836	1,823	1,940	1,893	1,675	4.8
Fuel Oil	2,043	1,774	1,758	Q	Q	18.2
Kerosene	1,076	836	835	Q	Q	17.5
LPG	1,570	1,350	1,445	1,261	1,285	11.5
Average for All Heated Households	1,707	1,624	1,636	1,761	1,526	4.2
Space-Heating Intensity^{3,a} [PU÷(HDD×(HSF÷1000))]						
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:						
Electricity (kWh)	0.838	0.933	0.918	0.844	1.020	4.7
Natural Gas (cubic feet)	6.893	8.230	7.275	7.786	9.774	5.7
Fuel Oil (gallons)	0.046	0.067	0.069	Q	Q	13.2
Kerosene (gallons)	0.057	0.063	0.052	Q	Q	26.7
LPG (gallons)	0.077	0.108	0.111	0.101	0.120	11.1

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes only the space-heating consumption of the space-heating fuel. Not included are: 1) the consumption of the main space-heating fuel for uses other than space heating; 2) the consumption of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the consumption of other fuels that are used as secondary space-heating fuels.

³ Averages are for those households using each of the main space-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

(*) = Value rounds to zero in the units displayed.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-12c. Space-Heating Energy Consumption in U.S. Households by West Census Region, 2001

	West Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	Mountain	Pacific	
RSE Column Factor:	0.5	1.1	1.5	1.2	
Million Households					
Total U.S. Households	107.0	23.3	6.7	16.6	NE
No Space Heating	1.0	0.7	Q	0.7	10.4
Space Heating	106.0	22.6	6.7	15.9	NE
Not Using a Major Fuel ¹	0.7	0.3	Q	0.2	31.4
Using a Major Fuel ¹	105.3	22.4	6.7	15.7	NE
For Main Space Heating	103.8	21.8	6.5	15.3	NE
For Secondary Space Heating Only	1.5	0.6	0.1	0.4	17.7
Number of Households with Space Heating, Major Fuels Used (more than one may apply):					
Electricity	43.8	9.7	2.9	6.8	4.3
Natural Gas	60.5	14.2	4.3	9.9	2.8
Fuel Oil	8.5	0.2	Q	0.2	23.9
Kerosene	2.7	0.2	Q	0.2	20.7
LPG	6.6	1.0	0.5	0.5	24.5
Quadrillion Btu^a					
Space-Heating Btu Consumption, Major Fuels Used:					
Electricity	0.39	0.08	0.02	0.06	8.8
Natural Gas	3.32	0.52	0.23	0.30	5.6
Fuel Oil	0.58	0.01	Q	0.01	29.6
Kerosene	0.04	0.01	Q	0.01	38.4
LPG	0.28	0.04	0.02	0.02	28.3
Total	4.62	0.67	0.27	0.39	4.6
Physical Units^a					
Physical Units of Space-Heating Consumption, Major Fuels Used:					
Electricity (billion kWh)	116	25	6	19	8.8
Natural Gas (billion cf)	3,231	510	221	288	5.6
Fuel Oil (million gallons)	4,155	77	Q	66	29.6
Kerosene (million gallons)	326	40	Q	40	38.4
LPG (million gallons)	3,097	447	269	178	28.3
Million Btu per Household^a					
Average Space-Heating Btu Consumption per Household					
Using a Major Fuel ¹	43.9	29.7	41.0	24.9	4.6
For Main Space Heating	44.3	30.2	41.4	25.4	4.6
For Secondary Space Heating Only	18.1	12.8	25.5	8.7	27.0

See footnotes at end of table.

Table CE2-12c. Space-Heating Energy Consumption in U.S. Households by West Census Region, 2001 (Continued)

	West Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	Mountain	Pacific	
RSE Column Factor:	0.5	1.1	1.5	1.2	
Million Households					
Number of Households, Where the Main Space-Heating Fuel Is:					
Electricity	30.9	6.8	2.0	4.8	6.2
Natural Gas	59.1	14.0	4.2	9.8	2.6
Fuel Oil	8.0	0.2	Q	Q	26.6
Kerosene	0.8	Q	Q	Q	35.4
LPG	4.9	0.7	0.4	0.4	25.3
Other	2.2	0.8	0.2	0.7	17.0
No Space Heating	1.0	0.7	Q	0.7	10.4
Million Btu per Household^{3,a}					
Space-Heating Btu Consumption per Household,² Where the Main Space-Heating Fuel Is:					
Electricity	12.0	11.6	9.5	12.4	8.3
Natural Gas	55.4	36.8	53.2	29.8	4.1
Fuel Oil	70.2	52.3	Q	Q	10.2
Kerosene	38.3	Q	Q	Q	23.0
LPG	51.0	48.3	60.2	35.8	10.2
Physical Units (PU) per Household^{3,a}					
Physical Units of Space-Heating Consumption per Household,² Where the Main Space-Heating Fuel Is:					
Electricity (kWh)	3,524	3,388	2,797	3,628	8.3
Natural Gas (thousand cf)	54	36	52	29	4.1
Fuel Oil (gallons)	507	378	Q	Q	10.2
Kerosene (gallons)	283	Q	Q	Q	23.0
LPG (gallons)	559	528	659	392	10.2
2001 Heating Degree-Days (HDD) per Household³					
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:					
Electricity	3,006	3,709	3,274	3,885	6.6
Natural Gas	4,255	3,171	4,842	2,456	2.7
Fuel Oil	5,339	4,894	Q	Q	9.2
Kerosene	4,636	Q	Q	Q	13.1
LPG	4,643	5,097	6,150	4,000	8.1
Average for All Heated Households	4,004	3,486	4,497	3,061	3.1

See footnotes at end of table.

Table CE2-12c. Space-Heating Energy Consumption in U.S. Households by West Census Region, 2001 (Continued)

	West Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	Mountain	Pacific	
RSE Column Factor:	0.5	1.1	1.5	1.2	
Heated Square Footage (HSF) per Household³					
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:					
Electricity	1,399	1,048	1,242	969	6.2
Natural Gas	1,836	1,528	1,721	1,445	4.5
Fuel Oil	2,043	2,121	Q	Q	11.9
Kerosene	1,076	Q	Q	Q	17.6
LPG	1,570	1,557	1,494	1,623	10.3
Average for All Heated Households	1,707	1,391	1,563	1,319	4.1
Space-Heating Intensity^{3,a} [PU÷{HDD×(HSF÷1000)}]					
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:					
Electricity (kWh)	0.838	0.872	0.688	0.964	5.6
Natural Gas (cubic feet)	6.893	7.387	6.208	8.161	4.8
Fuel Oil (gallons)	0.046	0.036	Q	Q	10.3
Kerosene (gallons)	0.057	Q	Q	Q	24.2
LPG (gallons)	0.077	0.067	0.072	0.060	12.5

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes only the space-heating consumption of the space-heating fuel. Not included are: 1) the consumption of the main space-heating fuel for uses other than space heating; 2) the consumption of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the consumption of other fuels that are used as secondary space-heating fuels.

³ Averages are for those households using each of the main space-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

2001 Consumption and Expenditures Tables

Space-Heating Expenditures Tables

(21 pages, 93 kb)

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These data are from the 2001 Residential Energy Consumption Survey (RECS) which provides information on the use of energy in residential housing units in the United States. The RECS is a national statistical survey that collects energy-related data for occupied primary housing units. RECS was first conducted in 1978; the twelfth and most recent survey was conducted in 2001. In the 2001 RECS, data were collected from a sample of 4,822 households in housing units statistically selected to represent the 107.0 million housing units in the United States. The RECS data are available for the four Census regions, the nine Census divisions, and for the four most populous States--California, Florida, New York, and Texas.

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World Wide Web: <http://www.eia.doe.gov/emeu/consumption>

Table CE2-1e. Space-Heating Energy Expenditures in U.S. Households by Climate Zone, 2001 - Preliminary Data

	Total	Climate Zone ¹					RSE Row Factors
		Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.5	1.3	1.0	1.0	1.3	1.1	
Million Households							
Total U.S. Households	107.0	9.2	28.6	24.0	21.0	24.1	8.4
No Space Heating	1.0	Q	Q	Q	0.3	0.5	14.1
Space Heating	106.0	9.2	28.6	23.9	20.7	23.6	8.4
Not Using a Major Fuel ²	0.7	0.1	Q	Q	0.2	Q	34.1
Using a Major Fuel ²	105.3	9.1	28.5	23.7	20.4	23.5	8.5
For Main Space Heating	103.8	8.6	28.3	23.3	20.2	23.4	8.5
For Secondary Space Heating Only	1.5	0.5	0.2	0.4	0.2	Q	26.5
Number of Households with Space Heating, Major Fuels Used (more than one may apply):							
Electricity	43.8	2.7	8.1	8.9	9.4	14.7	9.1
Natural Gas	60.5	4.9	20.4	12.7	12.2	10.3	9.1
Fuel Oil	8.5	1.8	2.8	3.5	Q	Q	17.5
Kerosene	2.7	0.4	0.6	0.7	0.7	0.3	22.9
LPG	6.6	1.0	1.7	1.4	1.6	1.0	25.8
Billion Dollars							
Space-Heating Expenditures, Major Fuels Used:							
Electricity	8.44	0.48	1.76	2.42	1.76	2.02	11.6
Natural Gas	31.84	2.86	13.47	7.76	4.59	3.16	11.3
Fuel Oil	5.17	1.28	2.00	1.80	Q	Q	20.6
Kerosene	0.49	0.11	0.12	0.11	0.14	0.03	31.6
LPG	4.01	0.68	1.19	0.86	0.83	0.45	27.8
Total	49.95	5.39	18.53	12.95	7.41	5.67	8.6
Dollars per Household							
Average Space-Heating Expenditures per Household							
Using a Major Fuel ²	474	592	650	546	363	241	4.1
For Main Space Heating	478	611	653	553	365	240	4.1
For Secondary Space Heating Only ...	218	235	295	190	127	Q	18.8
Million Households							
Number of Households, Where the Main Space-Heating Fuel Is:							
Electricity	30.9	1.2	3.9	6.3	6.9	12.6	11.1
Natural Gas	59.1	4.8	20.2	12.4	11.8	9.8	9.1
Fuel Oil	8.0	1.7	2.7	3.5	Q	Q	17.6
Kerosene	0.8	0.1	Q	Q	0.4	Q	28.5
LPG	4.9	0.8	1.3	1.1	1.0	0.9	28.7
Other	2.2	0.6	0.4	0.6	0.5	Q	24.1
No Space Heating	1.0	Q	Q	Q	0.3	0.5	14.1

See footnotes at end of table.

Table CE2-1e. Space-Heating Energy Expenditures in U.S. Households by Climate Zone, 2001 - Preliminary Data (Continued)

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.5	1.3	1.0	1.0	1.3	1.1	
Dollars per Household⁴							
Space-Heating Expenditures per Household,³ Where the Main Space-Heating Fuel Is:							
Electricity	253	335	400	365	236	152	6.8
Natural Gas	530	589	662	615	375	309	4.9
Fuel Oil	630	713	742	518	Q	Q	7.0
Kerosene	419	664	Q	Q	314	Q	14.6
LPG	703	814	810	718	680	448	7.2
2001 Heating Degree-Days (HDD) per Household⁴							
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:							
Electricity	3,006	6,838	5,640	4,238	2,696	1,371	3.4
Natural Gas	4,255	7,169	5,685	4,332	2,321	2,119	3.0
Fuel Oil	5,339	6,903	5,644	4,437	Q	Q	3.7
Kerosene	4,636	6,625	Q	Q	3,976	Q	8.1
LPG	4,643	7,016	6,060	4,359	3,179	2,384	6.1
Average for All Heated Households	4,004	7,008	5,690	4,322	2,549	1,733	2.1
Heated Square Footage (HSF) per Household⁴							
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:							
Electricity	1,399	1,244	1,403	1,473	1,380	1,386	7.5
Natural Gas	1,836	2,130	2,003	1,863	1,560	1,645	3.7
Fuel Oil	2,043	2,005	2,404	1,843	Q	Q	6.9
Kerosene	1,076	1,529	Q	Q	1,120	Q	9.3
LPG	1,570	1,674	1,687	1,657	1,506	1,263	8.8
Average for All Heated Households	1,707	1,954	1,935	1,741	1,490	1,490	3.5
Space-Heating Intensity⁴ [Cents÷(HDD×(HSF÷1000))]							
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:							
Electricity	6.01	3.93	5.05	5.85	6.35	8.00	5.7
Natural Gas	6.78	3.85	5.81	7.62	10.37	8.88	4.9
Fuel Oil	5.78	5.15	5.47	6.33	Q	Q	6.8
Kerosene	8.40	6.55	Q	Q	7.04	Q	21.4
LPG	9.64	6.93	7.92	9.94	14.20	14.89	11.5

¹ One of five climatically distinct areas, determined according to the 30-year average (1961-1990) of the annual heating and cooling degree-days. For this report, the heating or cooling degree-days are a measure of how cold or how hot a location is over a period of one year, relative to a base temperature of 65 degrees Fahrenheit. A household is assigned to a climate zone according to the 30-year average annual degree-days for an appropriate nearby weather station.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes only the space-heating expenditures of the space-heating fuel. Not included are: 1) the expenditures of the main space-heating fuel for uses other than space heating; 2) the expenditures of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the expenditures of other fuels that are used as secondary space-heating fuels.

⁴ Averages are for those households using each of the main space-heating fuels.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-2e. Space-Heating Energy Expenditures in U.S. Households by Year of Construction, 2001 - Preliminary Data

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.5	1.1	1.0	1.2	1.1	0.9	
Million Households								
Total U.S. Households	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
No Space Heating	1.0	Q	Q	Q	0.2	0.3	Q	22.8
Space Heating	106.0	15.4	18.2	18.6	13.6	13.9	26.4	4.4
Not Using a Major Fuel ²	0.7	Q	Q	Q	Q	Q	0.2	38.6
Using a Major Fuel ²	105.3	15.4	18.1	18.5	13.4	13.8	26.2	4.4
For Main Space Heating	103.8	15.2	17.8	18.1	13.2	13.6	25.8	4.4
For Secondary Space Heating Only	1.5	0.1	0.3	0.4	Q	Q	0.4	25.1
Number of Households with Space Heating, Major Fuels Used (more than one may apply):								
Electricity	43.8	6.8	10.3	10.1	4.7	4.4	7.5	6.2
Natural Gas	60.5	8.7	7.7	8.0	8.6	9.5	17.9	6.3
Fuel Oil	8.5	0.3	0.4	0.9	1.3	1.8	3.8	15.6
Kerosene	2.7	0.4	0.3	0.6	0.3	0.2	0.7	21.7
LPG	6.6	1.2	1.2	1.2	0.8	0.5	1.8	17.0
Billion Dollars								
Space-Heating Expenditures, Major Fuels Used:								
Electricity	8.44	1.29	2.09	2.25	0.91	0.70	1.20	9.1
Natural Gas	31.84	4.02	3.46	3.44	3.97	4.90	12.05	7.8
Fuel Oil	5.17	0.15	0.27	0.46	0.61	1.09	2.59	18.4
Kerosene	0.49	0.10	0.05	0.17	0.05	0.04	0.09	33.5
LPG	4.01	0.63	0.66	0.65	0.43	0.24	1.40	18.9
Total	49.95	6.18	6.53	6.97	5.97	6.97	17.33	5.1
Dollars per Household								
Average Space-Heating Expenditures per Household								
Using a Major Fuel ²	474	402	361	378	445	505	662	3.3
For Main Space Heating	478	404	362	382	448	509	668	3.3
For Secondary Space Heating Only	218	178	284	163	Q	Q	266	24.3
Million Households								
Number of Households, Where the Main Space-Heating Fuel Is:								
Electricity	30.9	5.5	9.0	8.4	3.0	2.2	2.8	8.2
Natural Gas	59.1	8.5	7.3	7.8	8.5	9.2	17.7	6.4
Fuel Oil	8.0	0.2	0.4	0.8	1.1	1.8	3.7	15.8
Kerosene	0.8	Q	Q	0.3	Q	Q	Q	29.8
LPG	4.9	0.8	0.9	0.8	0.6	0.4	1.5	19.3
Other	2.2	0.2	0.4	0.5	0.3	0.2	0.6	23.8
No Space Heating	1.0	Q	Q	Q	0.2	0.3	Q	22.8

See footnotes at end of table.

Table CE2-2e. Space-Heating Energy Expenditures in U.S. Households by Year of Construction, 2001 - Preliminary Data (Continued)

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.5	1.1	1.0	1.2	1.1	0.9	
Dollars per Household⁴								
Space-Heating Expenditures per Household,³ Where the Main Space-Heating Fuel Is:								
Electricity	253	222	227	259	277	264	345	6.7
Natural Gas	530	464	451	431	463	520	675	4.2
Fuel Oil	630	601	604	563	525	617	687	8.7
Kerosene	419	Q	Q	398	Q	Q	Q	20.1
LPG	703	650	579	665	683	556	864	8.1
2001 Heating Degree-Days (HDD) per Household⁴								
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:								
Electricity	3,006	3,121	2,799	3,080	2,802	2,761	3,641	5.2
Natural Gas	4,255	3,931	4,260	4,058	4,060	4,096	4,673	3.1
Fuel Oil	5,339	6,260	6,060	5,433	4,968	5,167	5,362	4.7
Kerosene	4,636	Q	Q	4,482	Q	Q	Q	10.9
LPG	4,643	5,309	4,256	4,685	4,261	4,211	4,752	7.9
Average for All Heated Households	4,004	3,776	3,588	3,726	3,880	4,014	4,680	2.5
Heated Square Footage (HSF) per Household⁴								
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:								
Electricity	1,399	1,607	1,422	1,313	1,412	1,348	1,196	6.0
Natural Gas	1,836	2,510	2,077	1,650	1,584	1,750	1,657	3.4
Fuel Oil	2,043	3,225	2,057	2,251	1,901	2,106	1,931	8.2
Kerosene	1,076	Q	Q	1,039	Q	Q	Q	14.9
LPG	1,570	1,953	1,671	1,577	1,549	1,513	1,332	9.8
Average for All Heated Households	1,707	2,155	1,731	1,524	1,559	1,721	1,628	2.9
Space-Heating Intensity⁴ [Cents÷(HDD×(HSF÷1000))]								
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:								
Electricity	6.01	4.43	5.70	6.40	6.99	7.10	7.93	6.0
Natural Gas	6.78	4.70	5.10	6.43	7.20	7.26	8.72	4.3
Fuel Oil	5.78	2.98	4.85	4.60	5.56	5.67	6.64	9.3
Kerosene	8.40	Q	Q	8.54	Q	Q	Q	19.7
LPG	9.64	6.27	8.13	9.00	10.35	8.72	13.65	11.8

¹ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes only the space-heating expenditures of the space-heating fuel. Not included are: 1) the expenditures of the main space-heating fuel for uses other than space heating; 2) the expenditures of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the expenditures of other fuels that are used as secondary space-heating fuels.

⁴ Averages are for those households using each of the main space-heating fuels.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-3e. Space-Heating Energy Expenditures in U.S. Households by Household Income, 2001 - Preliminary Data

	Total	2001 Household Income				Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.6	0.9	1.0	0.9	1.3	0.9	
Million Households								
Total U.S. Households	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.4
No Space Heating	1.0	Q	0.3	0.3	0.3	0.3	0.4	23.7
Space Heating	106.0	10.8	30.3	26.8	38.1	14.6	33.4	3.4
Not Using a Major Fuel ²	0.7	Q	Q	0.3	0.2	Q	0.2	32.6
Using a Major Fuel ²	105.3	10.8	30.2	26.5	37.8	14.6	33.2	3.4
For Main Space Heating	103.8	10.6	29.8	26.1	37.3	14.4	32.8	3.5
For Secondary Space Heating Only	1.5	Q	0.4	0.4	0.5	0.2	0.4	22.3
Number of Households with Space Heating, Major Fuels Used (more than one may apply):								
Electricity	43.8	4.9	12.7	11.1	15.1	6.5	13.9	5.6
Natural Gas	60.5	5.6	16.5	14.6	23.8	7.8	18.2	5.2
Fuel Oil	8.5	0.6	2.2	2.4	3.3	0.8	2.4	12.9
Kerosene	2.7	0.4	0.8	0.8	0.7	0.7	1.2	17.5
LPG	6.6	0.7	2.1	1.8	2.0	1.0	2.2	15.2
Billion Dollars								
Space-Heating Expenditures, Major Fuels Used:								
Electricity	8.44	0.77	2.22	2.25	3.20	1.06	2.46	7.8
Natural Gas	31.84	2.57	8.09	7.49	13.68	3.52	8.99	7.0
Fuel Oil	5.17	0.23	1.24	1.40	2.29	0.33	1.33	14.7
Kerosene	0.49	0.10	0.19	0.13	0.07	0.16	0.28	26.3
LPG	4.01	0.31	1.26	1.15	1.29	0.46	1.20	18.3
Total	49.95	3.99	13.01	12.42	20.53	5.53	14.26	4.4
Dollars per Household								
Average Space-Heating Expenditures per Household								
Using a Major Fuel ²	474	370	431	468	543	379	429	3.3
For Main Space Heating	478	373	434	472	547	383	432	3.3
For Secondary Space Heating Only	218	Q	171	235	251	146	217	18.3
Million Households								
Number of Households, Where the Main Space-Heating Fuel Is:								
Electricity	30.9	3.7	9.4	8.1	9.7	4.9	10.3	7.3
Natural Gas	59.1	5.5	16.2	14.3	23.1	7.7	17.9	5.3
Fuel Oil	8.0	0.5	2.1	2.2	3.2	0.7	2.3	13.0
Kerosene	0.8	0.3	0.4	0.1	Q	0.4	0.6	25.1
LPG	4.9	0.6	1.7	1.4	1.2	0.7	1.8	17.1
Other	2.2	0.2	0.5	0.8	0.8	0.3	0.6	20.0
No Space Heating	1.0	Q	0.3	0.3	0.3	0.3	0.4	23.7

See footnotes at end of table.

Table CE2-3e. Space-Heating Energy Expenditures in U.S. Households by Household Income, 2001 - Preliminary Data (Continued)

	2001 Household Income					Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
	Total	Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.6	0.9	1.0	0.9	1.3	0.9	
Dollars per Household⁴								
Space-Heating Expenditures per Household,³ Where the Main Space-Heating Fuel Is:								
Electricity	253	189	219	262	303	198	221	5.3
Natural Gas	530	462	495	513	581	455	498	4.2
Fuel Oil	630	424	584	611	709	441	579	6.9
Kerosene	419	323	392	603	Q	347	368	14.3
LPG	703	488	670	720	828	544	603	7.3
2001 Heating Degree-Days (HDD) per Household⁴								
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:								
Electricity	3,006	3,329	3,053	2,979	2,859	3,222	3,273	4.7
Natural Gas	4,255	4,167	4,247	4,378	4,206	3,986	4,277	2.4
Fuel Oil	5,339	5,501	5,471	5,259	5,279	5,461	5,456	4.0
Kerosene	4,636	4,297	4,484	5,355	Q	4,309	4,404	8.1
LPG	4,643	3,852	4,630	4,840	4,800	4,072	4,557	6.9
Average for All Heated Households	4,004	3,940	4,006	4,063	3,980	3,836	4,084	2.0
Heated Square Footage (HSF) per Household⁴								
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:								
Electricity	1,399	786	1,035	1,296	2,072	866	967	4.9
Natural Gas	1,836	1,067	1,340	1,688	2,458	1,100	1,319	2.7
Fuel Oil	2,043	1,106	1,670	1,956	2,506	1,235	1,544	7.2
Kerosene	1,076	746	1,129	1,422	Q	800	968	11.2
LPG	1,570	1,026	1,205	1,746	2,127	1,040	1,232	7.9
Average for All Heated Households	1,707	965	1,261	1,595	2,354	1,022	1,217	2.3
Space-Heating Intensity⁴ [Cents÷(HDD×(HSF÷1000))]								
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:								
Electricity	6.01	7.21	6.92	6.79	5.11	7.09	6.97	5.2
Natural Gas	6.78	10.39	8.71	6.95	5.62	10.37	8.83	4.1
Fuel Oil	5.78	6.97	6.39	5.94	5.36	6.54	6.87	7.8
Kerosene	8.40	10.09	7.74	7.92	Q	10.08	8.64	21.0
LPG	9.64	12.35	12.02	8.52	8.11	12.83	10.74	10.4

¹ Below 150 percent of poverty line or 60 percent of median State income.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes only the space-heating expenditures of the space-heating fuel. Not included are: 1) the expenditures of the main space-heating fuel for uses other than space heating; 2) the expenditures of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the expenditures of other fuels that are used as secondary space-heating fuels.

⁴ Averages are for those households using each of the main space-heating fuels.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-4e. Space-Heating Energy Expenditures in U.S. Households by Type of Housing Unit, 2001 - Preliminary Data

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Multifamily		Mobile Home	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.6	0.6	1.4	1.1	1.7	
Million Households						
Total U.S. Households	107.0	73.7	9.5	17.0	6.8	4.6
No Space Heating	1.0	0.3	Q	0.6	Q	18.5
Space Heating	106.0	73.4	9.4	16.4	6.8	4.6
Not Using a Major Fuel ¹	0.7	0.6	Q	Q	Q	33.3
Using a Major Fuel ¹	105.3	72.8	9.4	16.3	6.8	4.7
For Main Space Heating	103.8	71.5	9.3	16.3	6.7	4.7
For Secondary Space Heating Only	1.5	1.4	Q	Q	Q	23.5
Number of Households with Space Heating, Major Fuels Used (more than one may apply):						
Electricity	43.8	27.5	4.1	8.5	3.7	7.1
Natural Gas	60.5	45.6	5.6	7.1	2.2	6.4
Fuel Oil	8.5	6.3	0.6	1.3	0.2	17.0
Kerosene	2.7	2.0	Q	Q	0.6	15.5
LPG	6.6	5.3	Q	Q	1.2	16.1
Billion Dollars						
Space-Heating Expenditures, Major Fuels Used:						
Electricity	8.44	5.88	0.81	0.96	0.79	9.6
Natural Gas	31.84	26.02	3.47	1.47	0.88	8.7
Fuel Oil	5.17	4.44	0.44	0.20	0.08	19.2
Kerosene	0.49	0.29	Q	Q	0.19	25.1
LPG	4.01	3.34	Q	Q	0.65	18.8
Total	49.95	39.97	4.74	2.65	2.59	5.2
Dollars per Household						
Average Space-Heating Expenditures per Household						
Using a Major Fuel ¹	474	549	506	162	383	3.6
For Main Space Heating	478	555	507	162	383	3.6
For Secondary Space Heating Only	218	207	Q	Q	Q	18.1
Million Households						
Number of Households, Where the Main Space-Heating Fuel Is:						
Electricity	30.9	17.0	3.1	7.9	2.9	9.0
Natural Gas	59.1	44.3	5.6	7.1	2.2	6.5
Fuel Oil	8.0	5.9	0.6	1.3	0.2	17.3
Kerosene	0.8	0.5	Q	Q	0.3	26.2
LPG	4.9	3.8	Q	Q	1.0	17.6
Other	2.2	1.9	Q	Q	Q	21.7
No Space Heating	1.0	0.3	Q	0.6	Q	18.5

See footnotes at end of table.

Table CE2-4e. Space-Heating Energy Expenditures in U.S. Households by Type of Housing Unit, 2001 - Preliminary Data (Continued)

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Multifamily		Mobile Home	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.6	0.6	1.4	1.1	1.7	
Dollars per Household³						
Space-Heating Expenditures per Household,² Where the Main Space-Heating Fuel Is:						
Electricity	253	317	243	117	259	5.9
Natural Gas	530	577	621	204	397	4.6
Fuel Oil	630	730	715	157	450	7.8
Kerosene	419	367	Q	Q	495	17.3
LPG	703	753	Q	Q	557	6.2
2001 Heating Degree-Days (HDD) per Household³						
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:						
Electricity	3,006	2,815	3,267	3,330	2,955	5.5
Natural Gas	4,255	4,184	4,686	4,287	4,498	2.9
Fuel Oil	5,339	5,474	5,674	4,490	5,873	5.3
Kerosene	4,636	4,583	Q	Q	4,581	9.8
LPG	4,643	4,611	Q	Q	4,885	6.5
Average for All Heated Households	4,004	4,012	4,274	3,841	3,942	2.7
Heated Square Footage (HSF) per Household³						
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:						
Electricity	1,399	1,869	842	745	1,036	4.6
Natural Gas	1,836	2,104	1,336	810	984	3.2
Fuel Oil	2,043	2,365	1,780	847	901	7.2
Kerosene	1,076	1,226	Q	Q	811	10.9
LPG	1,570	1,779	Q	Q	860	5.1
Average for All Heated Households	1,707	2,047	1,197	785	979	2.6
Space-Heating Intensity³ [Cents÷(HDD×(HSF÷1000))]						
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:						
Electricity	6.01	6.02	8.82	4.73	8.44	5.0
Natural Gas	6.78	6.55	9.92	5.89	8.98	4.3
Fuel Oil	5.78	5.64	7.08	4.13	8.51	8.9
Kerosene	8.40	6.53	Q	Q	13.31	12.8
LPG	9.64	9.18	Q	Q	13.27	9.8

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes only the space-heating expenditures of the space-heating fuel. Not included are: 1) the expenditures of the main space-heating fuel for uses other than space heating; 2) the expenditures of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the expenditures of other fuels that are used as secondary space-heating fuels.

³ Averages are for those households using each of the main space-heating fuels.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-7e. Space-Heating Energy Expenditures in U.S. Households by Four Most Populated States, 2001 - Preliminary Data

	Four Most Populated States					RSE Row Factors
	Total U.S.	New York	California	Texas	Florida	
RSE Column Factor:						
Million Households						
Total U.S. Households	107.0	7.1	12.3	7.7	6.3	NF
No Space Heating	1.0	Q	0.3	Q	Q	22.6
Space Heating	106.0	7.1	12.0	7.7	6.2	0.6
Not Using a Major Fuel ¹	0.7	Q	0.2	Q	Q	48.1
Using a Major Fuel ¹	105.3	7.0	11.8	7.7	6.2	0.6
For Main Space Heating	103.8	6.8	11.6	7.6	6.2	0.8
For Secondary Space Heating Only	1.5	Q	Q	Q	Q	39.0
Number of Households with Space Heating, Major Fuels Used (more than one may apply):						
Electricity	43.8	1.4	3.7	4.4	5.2	5.1
Natural Gas	60.5	4.2	9.0	4.2	1.0	7.2
Fuel Oil	8.5	2.2	Q	Q	Q	20.2
Kerosene	2.7	0.2	Q	Q	Q	30.0
LPG	6.6	Q	0.3	0.2	Q	29.9
Billion Dollars						
Space-Heating Expenditures, Major Fuels Used:						
Electricity	8.44	0.29	0.46	0.81	0.44	15.1
Natural Gas	31.84	3.12	2.45	1.35	0.17	12.3
Fuel Oil	5.17	1.02	Q	Q	Q	25.0
Kerosene	0.49	0.04	Q	Q	Q	30.6
LPG	4.01	Q	0.18	0.09	Q	31.3
Total	49.95	4.53	3.17	2.26	0.63	6.9
Dollars per Household						
Average Space-Heating Expenditures per Household						
Using a Major Fuel ¹	474	651	268	294	103	7.0
For Main Space Heating	478	656	271	294	103	7.1
For Secondary Space Heating Only	218	Q	Q	Q	Q	28.5
Million Households						
Number of Households, Where the Main Space-Heating Fuel Is:						
Electricity	30.9	0.5	2.3	3.4	5.1	10.0
Natural Gas	59.1	4.2	8.9	4.0	1.0	7.5
Fuel Oil	8.0	2.1	Q	Q	Q	20.1
Kerosene	0.8	Q	Q	Q	Q	48.1
LPG	4.9	Q	0.3	Q	Q	33.3
Other	2.2	0.2	0.4	Q	Q	31.7
No Space Heating	1.0	Q	0.3	Q	Q	22.6

See footnotes at end of table.

Table CE2-7e. Space-Heating Energy Expenditures in U.S. Households by Four Most Populated States, 2001 - Preliminary Data (Continued)

	Four Most Populated States				RSE Row Factors	
	Total U.S.	New York	California	Texas		Florida
RSE Column Factor:	0.4	1.2	0.9	1.5	1.8	
Dollars per Household³						
Space-Heating Expenditures per Household,² Where the Main Space-Heating Fuel Is:						
Electricity	253	473	167	224	85	12.0
Natural Gas	530	737	270	326	165	7.4
Fuel Oil	630	478	Q	Q	Q	8.4
Kerosene	419	Q	Q	Q	Q	27.0
LPG	703	Q	579	Q	Q	16.7
2001 Heating Degree-Days (HDD) per Household³						
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:						
Electricity	3,006	5,632	2,409	2,015	536	9.4
Natural Gas	4,255	5,183	2,113	2,211	818	4.9
Fuel Oil	5,339	4,607	Q	Q	Q	6.0
Kerosene	4,636	Q	Q	Q	Q	17.7
LPG	4,643	Q	3,668	Q	Q	13.1
Average for All Heated Households	4,004	5,011	2,290	2,139	579	6.0
Heated Square Footage (HSF) per Household³						
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:						
Electricity	1,399	1,091	928	1,382	1,492	12.1
Natural Gas	1,836	1,788	1,394	1,716	1,958	5.8
Fuel Oil	2,043	1,531	Q	Q	Q	9.2
Kerosene	1,076	Q	Q	Q	Q	23.8
LPG	1,570	Q	1,650	Q	Q	16.4
Average for All Heated Households	1,707	1,657	1,315	1,549	1,576	4.2
Space-Heating Intensity³ [Cents÷(HDD×(HSF÷1000))]						
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:						
Electricity	6.01	7.69	7.49	8.04	10.57	7.8
Natural Gas	6.78	7.95	9.17	8.58	10.27	6.7
Fuel Oil	5.78	6.78	Q	Q	Q	8.7
Kerosene	8.40	Q	Q	Q	Q	30.3
LPG	9.64	Q	9.57	Q	Q	28.8

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes only the space-heating expenditures of the space-heating fuel. Not included are: 1) the expenditures of the main space-heating fuel for uses other than space heating; 2) the expenditures of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the expenditures of other fuels that are used as secondary space-heating fuels.

³ Averages are for those households using each of the main space-heating fuels.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-8e. Space-Heating Energy Expenditures in U.S. Households by Urban/Rural Location, 2001 - Preliminary Data

	Urban/Rural Location ¹					RSE Row Factors
	Total	City	Town	Suburbs	Rural	
	0.6	1.0	1.3	1.2	1.0	
Million Households						
Total U.S. Households	107.0	49.9	18.0	21.2	17.9	4.3
No Space Heating	1.0	0.7	Q	Q	Q	15.4
Space Heating	106.0	49.1	18.0	21.2	17.8	4.3
Not Using a Major Fuel ²	0.7	0.2	Q	Q	0.5	30.5
Using a Major Fuel ²	105.3	48.9	17.9	21.1	17.3	4.3
For Main Space Heating	103.8	48.7	17.6	21.0	16.4	4.3
For Secondary Space Heating Only	1.5	0.2	0.3	Q	0.9	22.3
Number of Households with Space Heating, Major Fuels Used (more than one may apply):						
Electricity	43.8	18.8	7.8	8.6	8.6	5.6
Natural Gas	60.5	33.1	10.3	13.4	3.7	6.0
Fuel Oil	8.5	2.5	2.1	1.4	2.5	13.4
Kerosene	2.7	0.5	0.6	0.4	1.4	21.4
LPG	6.6	0.5	1.1	0.4	4.6	18.3
Billion Dollars						
Space-Heating Expenditures, Major Fuels Used:						
Electricity	8.44	2.92	1.41	1.79	2.32	7.8
Natural Gas	31.84	16.22	5.83	7.61	2.17	7.8
Fuel Oil	5.17	1.20	1.42	0.88	1.67	15.3
Kerosene	0.49	0.04	0.08	Q	0.33	30.4
LPG	4.01	0.24	0.77	0.19	2.81	21.3
Total	49.95	20.62	9.52	10.50	9.31	4.9
Dollars per Household						
Average Space-Heating Expenditures per Household						
Using a Major Fuel ²	474	421	531	497	538	3.0
For Main Space Heating	478	422	537	498	555	3.0
For Secondary Space Heating Only	218	290	142	Q	227	19.3
Million Households						
Number of Households, Where the Main Space-Heating Fuel Is:						
Electricity	30.9	13.6	4.5	6.3	6.5	7.2
Natural Gas	59.1	32.3	10.0	13.1	3.6	6.0
Fuel Oil	8.0	2.4	2.0	1.3	2.3	13.6
Kerosene	0.8	Q	Q	Q	0.5	23.8
LPG	4.9	0.3	0.9	0.2	3.5	21.0
Other	2.2	0.4	0.3	Q	1.4	19.9
No Space Heating	1.0	0.7	Q	Q	Q	15.4

See footnotes at end of table.

Table CE2-8e. Space-Heating Energy Expenditures in U.S. Households by Urban/Rural Location, 2001 - Preliminary Data (Continued)

	Urban/Rural Location ¹					RSE Row Factors
	Total	City	Town	Suburbs	Rural	
RSE Column Factor:	0.6	1.0	1.3	1.2	1.0	
Dollars per Household⁴						
Space-Heating Expenditures per Household,³ Where the Main Space-Heating Fuel Is:						
Electricity	253	195	277	268	342	5.4
Natural Gas	530	494	568	573	593	3.9
Fuel Oil	630	487	710	661	695	5.8
Kerosene	419	Q	Q	Q	452	13.0
LPG	703	560	802	478	704	9.2
2001 Heating Degree-Days (HDD) per Household⁴						
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:						
Electricity	3,006	2,742	3,526	2,673	3,520	4.9
Natural Gas	4,255	4,069	4,685	4,339	4,430	2.5
Fuel Oil	5,339	5,259	5,683	4,750	5,467	3.6
Kerosene	4,636	Q	Q	Q	4,784	8.6
LPG	4,643	4,164	4,858	4,003	4,669	9.2
Average for All Heated Households	4,004	3,758	4,513	3,872	4,328	2.2
Heated Square Footage (HSF) per Household⁴						
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:						
Electricity	1,399	1,159	1,307	1,647	1,728	5.2
Natural Gas	1,836	1,613	1,798	2,314	2,194	3.5
Fuel Oil	2,043	1,549	2,230	2,263	2,274	5.5
Kerosene	1,076	Q	Q	Q	1,159	11.9
LPG	1,570	1,041	1,446	1,612	1,647	10.5
Average for All Heated Households	1,707	1,480	1,692	2,103	1,880	2.7
Space-Heating Intensity⁴ [Cents÷(HDD×(HSF÷1000))]						
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:						
Electricity	6.01	6.14	6.01	6.09	5.63	5.2
Natural Gas	6.78	7.52	6.75	5.70	6.11	4.5
Fuel Oil	5.78	5.98	5.60	6.15	5.59	5.6
Kerosene	8.40	Q	Q	Q	8.15	13.0
LPG	9.64	12.92	11.41	7.41	9.15	13.9

¹ Based on the household respondent's description rather than the Federal Government definition.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes only the space-heating expenditures of the space-heating fuel. Not included are: 1) the expenditures of the main space-heating fuel for uses other than space heating; 2) the expenditures of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the expenditures of other fuels that are used as secondary space-heating fuels.

⁴ Averages are for those households using each of the main space-heating fuels.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-9e. Space-Heating Energy Expenditures in U.S. Households by Northeast Census Region, 2001 - Preliminary Data

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.6	1.0	1.2	1.5	
Million Households					
Total U.S. Households	107.0	20.3	14.8	5.4	NF
No Space Heating	1.0	Q	Q	Q	17.4
Space Heating	106.0	20.1	14.7	5.4	NF
Not Using a Major Fuel ¹	0.7	0.2	Q	Q	33.8
Using a Major Fuel ¹	105.3	19.9	14.6	5.3	NF
For Main Space Heating	103.8	19.7	14.4	5.3	0.7
For Secondary Space Heating Only	1.5	0.2	Q	Q	23.3
Number of Households with Space Heating, Major Fuels Used (more than one may apply):					
Electricity	43.8	4.8	3.6	1.2	5.9
Natural Gas	60.5	10.6	8.7	1.9	8.7
Fuel Oil	8.5	6.4	3.7	2.7	12.5
Kerosene	2.7	0.7	0.4	Q	23.6
LPG	6.6	0.6	0.3	0.3	18.7
Billion Dollars					
Space-Heating Expenditures, Major Fuels Used:					
Electricity	8.44	1.32	1.06	0.26	11.9
Natural Gas	31.84	7.93	6.24	1.68	11.5
Fuel Oil	5.17	4.05	2.09	1.96	14.7
Kerosene	0.49	0.22	0.14	Q	31.5
LPG	4.01	0.42	0.25	0.17	23.5
Total	49.95	13.92	9.78	4.15	3.3
Dollars per Household					
Average Space-Heating Expenditures per Household					
Using a Major Fuel ¹	474	699	671	776	3.2
For Main Space Heating	478	704	675	784	3.2
For Secondary Space Heating Only	218	268	Q	Q	17.1
Million Households					
Number of Households, Where the Main Space-Heating Fuel Is:					
Electricity	30.9	2.3	1.8	0.5	11.2
Natural Gas	59.1	10.5	8.6	1.9	8.6
Fuel Oil	8.0	6.2	3.6	2.7	12.4
Kerosene	0.8	0.3	0.2	Q	32.0
LPG	4.9	0.4	0.2	0.1	25.4
Other	2.2	0.4	0.3	0.1	22.4
No Space Heating	1.0	Q	Q	Q	17.4

See footnotes at end of table.

Table CE2-9e. Space-Heating Energy Expenditures in U.S. Households by Northeast Census Region, 2001 - Preliminary Data (Continued)

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.6	1.0	1.2	1.5	
Dollars per Household³					
Space-Heating Expenditures per Household,² Where the Main Space-Heating Fuel Is:					
Electricity	253	512	524	467	6.8
Natural Gas	530	752	721	895	5.2
Fuel Oil	630	640	574	728	4.9
Kerosene	419	590	621	542	7.0
LPG	703	974	997	938	6.4
2001 Heating Degree-Days (HDD) per Household³					
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:					
Electricity	3,006	5,266	5,202	5,515	3.2
Natural Gas	4,255	5,165	5,106	5,432	1.6
Fuel Oil	5,339	5,366	4,794	6,128	3.8
Kerosene	4,636	5,916	5,299	6,895	5.8
LPG	4,643	5,493	5,302	5,794	4.1
Average for All Heated Households	4,004	5,254	5,037	5,845	2.3
Heated Square Footage (HSF) per Household³					
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:					
Electricity	1,399	1,609	1,734	1,122	9.2
Natural Gas	1,836	1,822	1,809	1,880	4.0
Fuel Oil	2,043	2,087	1,951	2,268	5.4
Kerosene	1,076	1,149	936	1,487	12.9
LPG	1,570	1,642	1,923	1,200	17.3
Average for All Heated Households	1,707	1,872	1,829	1,988	3.7
Space-Heating Intensity³ [Cents÷(HDD×(HSF÷1000))]					
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:					
Electricity	6.01	6.05	5.81	7.54	10.1
Natural Gas	6.78	8.00	7.81	8.77	4.8
Fuel Oil	5.78	5.72	6.14	5.24	5.3
Kerosene	8.40	8.69	12.52	5.28	14.3
LPG	9.64	10.80	9.77	13.48	25.0

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes only the space-heating expenditures of the space-heating fuel. Not included are: 1) the expenditures of the main space-heating fuel for uses other than space heating; 2) the expenditures of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the expenditures of other fuels that are used as secondary space-heating fuels.

³ Averages are for those households using each of the main space-heating fuels.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE2-10e. Space-Heating Energy Expenditures in U.S. Households
by Midwest Census Region, 2001 - Preliminary Data**

	Total U.S.	Midwest Census Region			RSE Row Factors
		Total	Census Division		
			East North Central	West North Central	
		0.6	1.0	1.2	
Million Households					
Total U.S. Households	107.0	24.5	17.1	7.4	NF
No Space Heating	1.0	Q	Q	Q	17.7
Space Heating	106.0	24.5	17.1	7.4	NF
Not Using a Major Fuel ¹	0.7	Q	Q	Q	35.1
Using a Major Fuel ¹	105.3	24.4	17.0	7.3	NF
For Main Space Heating	103.8	24.1	16.9	7.2	0.8
For Secondary Space Heating Only	1.5	0.3	Q	Q	29.5
Number of Households with Space Heating, Major Fuels Used (more than one may apply):					
Electricity	43.8	6.2	4.0	2.1	7.2
Natural Gas	60.5	19.1	14.0	5.2	4.2
Fuel Oil	8.5	0.9	0.5	0.4	15.2
Kerosene	2.7	0.5	0.4	Q	14.9
LPG	6.6	2.0	1.0	1.0	23.2
Billion Dollars					
Space-Heating Expenditures, Major Fuels Used:					
Electricity	8.44	1.14	0.68	0.46	14.0
Natural Gas	31.84	11.78	8.69	3.08	5.9
Fuel Oil	5.17	0.52	0.28	0.24	19.6
Kerosene	0.49	0.04	Q	Q	35.4
LPG	4.01	1.51	0.76	0.75	23.7
Total	49.95	14.99	10.44	4.55	3.0
Dollars per Household					
Average Space-Heating Expenditures per Household					
Using a Major Fuel ¹	474	615	613	620	3.0
For Main Space Heating	478	619	615	626	3.0
For Secondary Space Heating Only	218	292	Q	Q	18.9
Million Households					
Number of Households, Where the Main Space-Heating Fuel Is:					
Electricity	30.9	2.5	1.7	0.8	13.6
Natural Gas	59.1	18.9	13.8	5.1	4.5
Fuel Oil	8.0	0.8	0.4	0.4	14.1
Kerosene	0.8	Q	Q	Q	31.4
LPG	4.9	1.8	0.9	0.9	23.8
Other	2.2	0.4	Q	0.2	30.0
No Space Heating	1.0	Q	Q	Q	17.7

See footnotes at end of table.

Table CE2-10e. Space-Heating Energy Expenditures in U.S. Households by Midwest Census Region, 2001 - Preliminary Data (Continued)

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
RSE Column Factor:	0.6	1.0	1.2	1.5	
Dollars per Household³					
Space-Heating Expenditures per Household,² Where the Main Space-Heating Fuel Is:					
Electricity	253	392	344	491	7.8
Natural Gas	530	617	625	597	3.7
Fuel Oil	630	619	589	656	12.5
Kerosene	419	Q	Q	Q	17.6
LPG	703	782	794	770	4.9
2001 Heating Degree-Days (HDD) per Household³					
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:					
Electricity	3,006	5,578	5,751	5,222	3.5
Natural Gas	4,255	5,772	5,738	5,864	2.2
Fuel Oil	5,339	6,827	6,402	7,339	4.3
Kerosene	4,636	Q	Q	Q	11.6
LPG	4,643	6,137	6,114	6,160	5.6
Average for All Heated Households	4,004	5,816	5,788	5,881	2.1
Heated Square Footage (HSF) per Household³					
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:					
Electricity	1,399	1,481	1,289	1,877	10.1
Natural Gas	1,836	2,080	2,070	2,110	3.2
Fuel Oil	2,043	1,959	2,067	1,828	9.5
Kerosene	1,076	Q	Q	Q	15.5
LPG	1,570	1,800	1,772	1,829	4.8
Average for All Heated Households	1,707	1,997	1,985	2,024	2.7
Space-Heating Intensity³ [Cents÷(HDD×(HSF÷1000))]					
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:					
Electricity	6.01	4.75	4.64	5.01	7.5
Natural Gas	6.78	5.14	5.26	4.83	4.1
Fuel Oil	5.78	4.63	4.45	4.89	11.3
Kerosene	8.40	Q	Q	Q	19.8
LPG	9.64	7.08	7.33	6.84	8.7

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes only the space-heating expenditures of the space-heating fuel. Not included are: 1) the expenditures of the main space-heating fuel for uses other than space heating; 2) the expenditures of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the expenditures of other fuels that are used as secondary space-heating fuels.

³ Averages are for those households using each of the main space-heating fuels.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-11e. Space-Heating Energy Expenditures in U.S. Households by South Census Region, 2001 - Preliminary Data

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			West south Central	
		Total	South Atlantic	East South Central		
RSE Column Factor:	0.4	0.8	1.1	1.7	1.6	
Million Households						
Total U.S. Households	107.0	38.9	20.3	6.8	11.8	NF
No Space Heating	1.0	Q	Q	Q	Q	23.7
Space Heating	106.0	38.8	20.2	6.8	11.8	NF
Not Using a Major Fuel ¹	0.7	Q	Q	Q	Q	47.1
Using a Major Fuel ¹	105.3	38.7	20.0	6.8	11.8	NF
For Main Space Heating	103.8	38.2	19.8	6.7	11.7	0.6
For Secondary Space Heating Only	1.5	0.5	0.3	Q	Q	40.6
Number of Households with Space Heating, Major Fuels Used (more than one may apply):						
Electricity	43.8	23.1	12.4	4.2	6.5	5.7
Natural Gas	60.5	16.6	7.1	2.7	6.8	7.4
Fuel Oil	8.5	0.9	0.9	Q	Q	32.4
Kerosene	2.7	1.3	0.9	0.3	Q	20.7
LPG	6.6	3.0	1.4	1.2	0.4	19.3
Billion Dollars						
Space-Heating Expenditures, Major Fuels Used:						
Electricity	8.44	4.37	2.19	1.02	1.16	8.8
Natural Gas	31.84	7.36	3.62	1.23	2.51	10.8
Fuel Oil	5.17	0.50	0.48	Q	Q	38.1
Kerosene	0.49	0.18	0.12	0.06	Q	34.1
LPG	4.01	1.51	0.79	0.53	0.19	26.1
Total	49.95	13.92	7.20	2.86	3.87	5.8
Dollars per Household						
Average Space-Heating Expenditures per Household						
Using a Major Fuel ¹	474	360	359	419	328	5.8
For Main Space Heating	478	362	361	423	329	5.8
For Secondary Space Heating Only	218	211	262	Q	Q	29.0
Million Households						
Number of Households, Where the Main Space-Heating Fuel Is:						
Electricity	30.9	19.3	11.0	3.4	4.9	7.6
Natural Gas	59.1	15.7	6.8	2.4	6.5	7.8
Fuel Oil	8.0	0.8	0.8	Q	Q	32.1
Kerosene	0.8	0.4	0.3	Q	Q	32.9
LPG	4.9	2.0	0.9	0.8	0.3	22.3
Other	2.2	0.6	0.4	Q	Q	33.6
No Space Heating	1.0	Q	Q	Q	Q	23.7

See footnotes at end of table.

Table CE2-11e. Space-Heating Energy Expenditures in U.S. Households by South Census Region, 2001 - Preliminary Data (Continued)

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			Total	
		Total	South Atlantic	East South Central		
RSE Column Factor:	0.4	0.8	1.1	1.7	1.6	
Dollars per Household³						
Space-Heating Expenditures per Household,² Where the Main Space-Heating Fuel Is:						
Electricity	253	217	193	291	220	6.0
Natural Gas	530	449	517	458	375	7.2
Fuel Oil	630	599	610	Q	Q	18.0
Kerosene	419	279	239	Q	Q	17.7
LPG	703	593	672	550	457	11.6
2001 Heating Degree-Days (HDD) per Household³						
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:						
Electricity	3,006	2,155	1,922	3,021	2,082	5.8
Natural Gas	4,255	2,779	3,079	3,109	2,340	5.2
Fuel Oil	5,339	3,777	3,760	Q	Q	6.1
Kerosene	4,636	3,261	3,247	Q	Q	8.3
LPG	4,643	2,953	2,891	3,139	2,662	8.2
Average for All Heated Households	4,004	2,515	2,479	3,087	2,247	4.2
Heated Square Footage (HSF) per Household³						
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:						
Electricity	1,399	1,487	1,461	1,783	1,344	5.7
Natural Gas	1,836	1,823	1,940	1,893	1,675	4.8
Fuel Oil	2,043	1,774	1,758	Q	Q	18.4
Kerosene	1,076	836	835	Q	Q	17.8
LPG	1,570	1,350	1,445	1,261	1,285	11.5
Average for All Heated Households	1,707	1,624	1,636	1,761	1,526	4.2
Space-Heating Intensity³ [Cents÷(HDD×(HSF÷1000))]						
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:						
Electricity	6.01	6.77	6.88	5.40	7.86	5.3
Natural Gas	6.78	8.86	8.65	7.79	9.56	7.5
Fuel Oil	5.78	8.93	9.23	Q	Q	14.2
Kerosene	8.40	10.25	8.81	Q	Q	20.6
LPG	9.64	14.87	16.09	13.91	13.36	12.4

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes only the space-heating expenditures of the space-heating fuel. Not included are: 1) the expenditures of the main space-heating fuel for uses other than space heating; 2) the expenditures of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the expenditures of other fuels that are used as secondary space-heating fuels.

³ Averages are for those households using each of the main space-heating fuels.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-12e. Space-Heating Energy Expenditures in U.S. Households by West Census Region, 2001 - Preliminary Data

	Total U.S.	West Census Region			RSE Row Factors
		Total	Census Division		
			Mountain	Pacific	
RSE Column Factor:	0.5	1.1	1.5	1.2	
Million Households					
Total U.S. Households	107.0	23.3	6.7	16.6	NF
No Space Heating	1.0	0.7	Q	0.7	10.3
Space Heating	106.0	22.6	6.7	15.9	NF
Not Using a Major Fuel ¹	0.7	0.3	Q	0.2	31.2
Using a Major Fuel ¹	105.3	22.4	6.7	15.7	NF
For Main Space Heating	103.8	21.8	6.5	15.3	NF
For Secondary Space Heating Only	1.5	0.6	0.1	0.4	17.7
Number of Households with Space Heating, Major Fuels Used (more than one may apply):					
Electricity	43.8	9.7	2.9	6.8	4.3
Natural Gas	60.5	14.2	4.3	9.9	2.8
Fuel Oil	8.5	0.2	Q	0.2	23.7
Kerosene	2.7	0.2	Q	0.2	20.5
LPG	6.6	1.0	0.5	0.5	24.5
Billion Dollars					
Space-Heating Expenditures, Major Fuels Used:					
Electricity	8.44	1.61	0.43	1.18	7.7
Natural Gas	31.84	4.77	1.79	2.98	6.1
Fuel Oil	5.17	0.10	Q	0.08	29.6
Kerosene	0.49	0.06	Q	0.06	37.7
LPG	4.01	0.58	0.32	0.26	26.2
Total	49.95	7.12	2.55	4.56	4.6
Dollars per Household					
Average Space-Heating Expenditures per Household					
Using a Major Fuel ¹	474	318	382	291	4.7
For Main Space Heating	478	322	384	295	4.6
For Secondary Space Heating Only	218	168	290	129	23.8
Million Households					
Number of Households, Where the Main Space-Heating Fuel Is:					
Electricity	30.9	6.8	2.0	4.8	6.2
Natural Gas	59.1	14.0	4.2	9.8	2.6
Fuel Oil	8.0	0.2	Q	Q	26.2
Kerosene	0.8	Q	Q	Q	34.0
LPG	4.9	0.7	0.4	0.4	25.3
Other	2.2	0.8	0.2	0.7	17.0
No Space Heating	1.0	0.7	Q	0.7	10.3

See footnotes at end of table.

Table CE2-12e. Space-Heating Energy Expenditures in U.S. Households by West Census Region, 2001 - Preliminary Data (Continued)

	West Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	Mountain	Pacific	
RSE Column Factor:	0.5	1.1	1.5	1.2	
Dollars per Household³					
Space-Heating Expenditures per Household,² Where the Main Space-Heating Fuel Is:					
Electricity	253	216	199	222	7.7
Natural Gas	530	335	419	299	4.8
Fuel Oil	630	468	Q	Q	10.7
Kerosene	419	Q	Q	Q	19.1
LPG	703	672	762	579	8.8
2001 Heating Degree-Days (HDD) per Household³					
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:					
Electricity	3,006	3,709	3,274	3,885	6.6
Natural Gas	4,255	3,171	4,842	2,456	2.7
Fuel Oil	5,339	4,894	Q	Q	9.1
Kerosene	4,636	Q	Q	Q	12.5
LPG	4,643	5,097	6,150	4,000	8.1
Average for All Heated Households	4,004	3,486	4,497	3,061	3.1
Heated Square Footage (HSF) per Household³					
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:					
Electricity	1,399	1,048	1,242	969	6.2
Natural Gas	1,836	1,528	1,721	1,445	4.5
Fuel Oil	2,043	2,121	Q	Q	11.8
Kerosene	1,076	Q	Q	Q	16.9
LPG	1,570	1,557	1,494	1,623	10.3
Average for All Heated Households	1,707	1,391	1,563	1,319	4.1
Space-Heating Intensity³ [Cents÷(HDD×(HSF÷1000))]					
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:					
Electricity	6.01	5.55	4.89	5.90	6.1
Natural Gas	6.78	6.91	5.02	8.42	5.7
Fuel Oil	5.78	4.51	Q	Q	10.4
Kerosene	8.40	Q	Q	Q	21.4
LPG	9.64	8.47	8.29	8.92	14.2

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes only the space-heating expenditures of the space-heating fuel. Not included are: 1) the expenditures of the main space-heating fuel for uses other than space heating; 2) the expenditures of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the expenditures of other fuels that are used as secondary space-heating fuels.

³ Averages are for those households using each of the main space-heating fuels.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

2001 Consumption and Expenditures Tables

Space-Heating Expenditures Tables

(20 pages, 94 kb)

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These data are from the 2001 Residential Energy Consumption Survey (RECS) which provides information on the use of energy in residential housing units in the United States. The RECS is a national statistical survey that collects energy-related data for occupied primary housing units. RECS was first conducted in 1978; the twelfth and most recent survey was conducted in 2001. In the 2001 RECS, data were collected from a sample of 4,822 households in housing units statistically selected to represent the 107.0 million housing units in the United States. The RECS data are available for the four Census regions, the nine Census divisions, and for the four most populous States--California, Florida, New York, and Texas.

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World Wide Web: <http://www.eia.doe.gov/emeu/consumption>

Table CE2-1e. Space-Heating Energy Expenditures in U.S. Households by Climate Zone, 2001

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
		0.5	1.3	1.0	1.0		
RSE Column Factor:							
Million Households							
Total U.S. Households	107.0	9.2	28.6	24.0	21.0	24.1	8.4
No Space Heating	1.0	Q	Q	Q	0.3	0.5	14.1
Space Heating	106.0	9.2	28.6	23.9	20.7	23.6	8.4
Not Using a Major Fuel ²	0.7	0.1	Q	Q	0.2	Q	34.1
Using a Major Fuel ²	105.3	9.1	28.5	23.7	20.4	23.5	8.5
For Main Space Heating	103.8	8.6	28.3	23.3	20.2	23.4	8.5
For Secondary Space Heating Only	1.5	0.5	0.2	0.4	0.2	Q	26.6
Number of Households with Space Heating, Major Fuels Used (more than one may apply):							
Electricity	43.8	2.7	8.1	8.9	9.4	14.7	9.1
Natural Gas	60.5	4.9	20.4	12.7	12.2	10.3	9.1
Fuel Oil	8.5	1.8	2.8	3.5	Q	Q	17.6
Kerosene	2.7	0.4	0.6	0.7	0.7	0.3	22.9
LPG	6.6	1.0	1.7	1.4	1.6	1.0	25.8
Billion Dollars^a							
Space-Heating Expenditures, Major Fuels Used:							
Electricity	8.98	0.51	1.89	2.56	1.89	2.13	11.5
Natural Gas	31.84	2.86	13.47	7.76	4.59	3.16	11.3
Fuel Oil	5.17	1.28	2.00	1.80	Q	Q	20.6
Kerosene	0.49	0.11	0.12	0.11	0.13	Q	33.7
LPG	4.04	0.67	1.21	0.88	0.82	0.46	27.7
Total	50.53	5.42	18.68	13.11	7.53	5.78	8.5
Dollars per Household^a							
Average Space-Heating Expenditures per Household							
Using a Major Fuel ²	480	595	656	553	368	246	4.0
For Main Space Heating	484	615	659	559	371	245	4.0
For Secondary Space Heating Only ...	216	228	297	191	126	Q	19.3
Million Households							
Number of Households, Where the Main Space-Heating Fuel Is:							
Electricity	30.9	1.2	3.9	6.3	6.9	12.6	11.1
Natural Gas	59.1	4.8	20.2	12.4	11.8	9.8	9.1
Fuel Oil	8.0	1.7	2.7	3.5	Q	Q	17.6
Kerosene	0.8	0.1	Q	Q	0.4	Q	28.5
LPG	4.9	0.8	1.3	1.1	1.0	0.9	28.7
Other	2.2	0.6	0.4	0.6	0.5	Q	24.2
No Space Heating	1.0	Q	Q	Q	0.3	0.5	14.1

See footnotes at end of table.

Table CE2-1e. Space-Heating Energy Expenditures in U.S. Households by Climate Zone, 2001 (Continued)

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.5	1.3	1.0	1.0	1.3	1.1	
Dollars per Household^{4,a}							
Space-Heating Expenditures per Household,³ Where the Main Space-Heating Fuel Is:							
Electricity	271	364	434	389	257	161	5.9
Natural Gas	530	589	662	615	375	309	4.9
Fuel Oil	630	713	742	518	Q	Q	7.0
Kerosene	411	664	Q	Q	304	Q	15.5
LPG	713	824	825	737	673	458	7.4
2001 Heating Degree-Days (HDD) per Household⁴							
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:							
Electricity	3,006	6,838	5,640	4,238	2,696	1,371	3.4
Natural Gas	4,255	7,169	5,685	4,332	2,321	2,119	3.0
Fuel Oil	5,339	6,903	5,644	4,437	Q	Q	3.7
Kerosene	4,636	6,625	Q	Q	3,976	Q	8.1
LPG	4,643	7,016	6,060	4,359	3,179	2,384	6.1
Average for All Heated Households	4,004	7,008	5,690	4,322	2,549	1,733	2.1
Heated Square Footage (HSF) per Household⁴							
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:							
Electricity	1,399	1,244	1,403	1,473	1,380	1,386	7.5
Natural Gas	1,836	2,130	2,003	1,863	1,560	1,645	3.7
Fuel Oil	2,043	2,005	2,404	1,843	Q	Q	6.9
Kerosene	1,076	1,529	Q	Q	1,120	Q	9.3
LPG	1,570	1,674	1,687	1,657	1,506	1,263	8.8
Average for All Heated Households	1,707	1,954	1,935	1,741	1,490	1,490	3.5
Space-Heating Intensity^{4,a} [Cents÷(HDD×(HSF÷1000))]							
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:							
Electricity	6.45	4.28	5.49	6.23	6.91	8.46	6.3
Natural Gas	6.78	3.85	5.81	7.62	10.37	8.88	4.9
Fuel Oil	5.78	5.15	5.47	6.33	Q	Q	6.8
Kerosene	8.24	6.55	Q	Q	6.82	Q	21.6
LPG	9.78	7.01	8.06	10.21	14.07	15.21	11.4

¹ One of five climatically distinct areas, determined according to the 30-year average (1961-1990) of the annual heating and cooling degree-days. For this report, the heating or cooling degree-days are a measure of how cold or how hot a location is over a period of one year, relative to a base temperature of 65 degrees Fahrenheit. A household is assigned to a climate zone according to the 30-year average annual degree-days for an appropriate nearby weather station.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes only the space-heating expenditures of the space-heating fuel. Not included are: 1) the expenditures of the main space-heating fuel for uses other than space heating; 2) the expenditures of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the expenditures of other fuels that are used as secondary space-heating fuels.

⁴ Averages are for those households using each of the main space-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-2e. Space-Heating Energy Expenditures in U.S. Households by Year of Construction, 2001

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.5	1.1	1.0	1.2	1.1	0.9	
Million Households								
Total U.S. Households	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
No Space Heating	1.0	Q	Q	Q	0.2	0.3	Q	22.9
Space Heating	106.0	15.4	18.2	18.6	13.6	13.9	26.4	4.4
Not Using a Major Fuel ²	0.7	Q	Q	Q	Q	Q	0.2	38.4
Using a Major Fuel ²	105.3	15.4	18.1	18.5	13.4	13.8	26.2	4.4
For Main Space Heating	103.8	15.2	17.8	18.1	13.2	13.6	25.8	4.4
For Secondary Space Heating Only	1.5	0.1	0.3	0.4	Q	Q	0.4	25.0
Number of Households with Space Heating, Major Fuels Used (more than one may apply):								
Electricity	43.8	6.8	10.3	10.1	4.7	4.4	7.5	6.2
Natural Gas	60.5	8.7	7.7	8.0	8.6	9.5	17.9	6.3
Fuel Oil	8.5	0.3	0.4	0.9	1.3	1.8	3.8	15.6
Kerosene	2.7	0.4	0.3	0.6	0.3	0.2	0.7	21.7
LPG	6.6	1.2	1.2	1.2	0.8	0.5	1.8	17.0
Billion Dollars^a								
Space-Heating Expenditures, Major Fuels Used:								
Electricity	8.98	1.34	2.22	2.48	0.96	0.74	1.25	8.8
Natural Gas	31.84	4.02	3.46	3.44	3.97	4.90	12.05	7.8
Fuel Oil	5.17	0.15	0.27	0.46	0.61	1.09	2.59	18.4
Kerosene	0.49	0.09	0.05	0.17	Q	0.04	0.09	32.5
LPG	4.04	0.63	0.66	0.68	0.44	0.24	1.40	19.2
Total	50.53	6.23	6.66	7.22	6.03	7.00	17.38	5.1
Dollars per Household^a								
Average Space-Heating Expenditures per Household								
Using a Major Fuel ²	480	405	368	391	449	508	664	3.2
For Main Space Heating	484	408	370	396	453	511	670	3.3
For Secondary Space Heating Only	216	175	276	164	Q	Q	266	24.4
Million Households								
Number of Households, Where the Main Space-Heating Fuel Is:								
Electricity	30.9	5.5	9.0	8.4	3.0	2.2	2.8	8.2
Natural Gas	59.1	8.5	7.3	7.8	8.5	9.2	17.7	6.4
Fuel Oil	8.0	0.2	0.4	0.8	1.1	1.8	3.7	15.8
Kerosene	0.8	Q	Q	0.3	Q	Q	Q	29.6
LPG	4.9	0.8	0.9	0.8	0.6	0.4	1.5	19.3
Other	2.2	0.2	0.4	0.5	0.3	0.2	0.6	23.8
No Space Heating	1.0	Q	Q	Q	0.2	0.3	Q	22.9

See footnotes at end of table.

Table CE2-2e. Space-Heating Energy Expenditures in U.S. Households by Year of Construction, 2001 (Continued)

	Year of Construction						RSE Row Factors	
	Total	1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959		1949 or Before
RSE Column Factor:	0.5	1.5	1.1	1.0	1.2	1.1	0.9	
Dollars per Household^{4,a}								
Space-Heating Expenditures per Household,³ Where the Main Space-Heating Fuel Is:								
Electricity	271	232	241	286	296	286	366	5.8
Natural Gas	530	464	451	431	463	520	675	4.2
Fuel Oil	630	601	604	563	525	617	687	8.7
Kerosene	411	Q	Q	389	Q	Q	Q	22.7
LPG	713	666	587	697	698	536	866	8.1
2001 Heating Degree-Days (HDD) per Household⁴								
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:								
Electricity	3,006	3,121	2,799	3,080	2,802	2,761	3,641	5.2
Natural Gas	4,255	3,931	4,260	4,058	4,060	4,096	4,673	3.1
Fuel Oil	5,339	6,260	6,060	5,433	4,968	5,167	5,362	4.7
Kerosene	4,636	Q	Q	4,482	Q	Q	Q	10.9
LPG	4,643	5,309	4,256	4,685	4,261	4,211	4,752	7.9
Average for All Heated Households	4,004	3,776	3,588	3,726	3,880	4,014	4,680	2.5
Heated Square Footage (HSF) per Household⁴								
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:								
Electricity	1,399	1,607	1,422	1,313	1,412	1,348	1,196	6.0
Natural Gas	1,836	2,510	2,077	1,650	1,584	1,750	1,657	3.4
Fuel Oil	2,043	3,225	2,057	2,251	1,901	2,106	1,931	8.2
Kerosene	1,076	Q	Q	1,039	Q	Q	Q	14.8
LPG	1,570	1,953	1,671	1,577	1,549	1,513	1,332	9.8
Average for All Heated Households	1,707	2,155	1,731	1,524	1,559	1,721	1,628	2.9
Space-Heating Intensity^{4,a} [Cents÷{HDD×(HSF÷1000)}]								
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:								
Electricity	6.45	4.62	6.05	7.07	7.49	7.69	8.41	5.7
Natural Gas	6.78	4.70	5.10	6.43	7.20	7.26	8.72	4.3
Fuel Oil	5.78	2.98	4.85	4.60	5.56	5.67	6.64	9.3
Kerosene	8.24	Q	Q	8.35	Q	Q	Q	21.5
LPG	9.78	6.42	8.25	9.43	10.58	8.41	13.69	11.9

¹ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes only the space-heating expenditures of the space-heating fuel. Not included are: 1) the expenditures of the main space-heating fuel for uses other than space heating; 2) the expenditures of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the expenditures of other fuels that are used as secondary space-heating fuels.

⁴ Averages are for those households using each of the main space-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-3e. Space-Heating Energy Expenditures in U.S. Households by Household Income, 2001

	Total	2001 Household Income				Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.6	0.9	1.0	0.9	1.3	0.9	
Million Households								
Total U.S. Households	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.4
No Space Heating	1.0	Q	0.3	0.3	0.3	0.3	0.4	23.7
Space Heating	106.0	10.8	30.3	26.8	38.1	14.6	33.4	3.4
Not Using a Major Fuel ²	0.7	Q	Q	0.3	0.2	Q	0.2	32.6
Using a Major Fuel ²	105.3	10.8	30.2	26.5	37.8	14.6	33.2	3.4
For Main Space Heating	103.8	10.6	29.8	26.1	37.3	14.4	32.8	3.5
For Secondary Space Heating Only	1.5	Q	0.4	0.4	0.5	0.2	0.4	22.3
Number of Households with Space Heating, Major Fuels Used (more than one may apply):								
Electricity	43.8	4.9	12.7	11.1	15.1	6.5	13.9	5.6
Natural Gas	60.5	5.6	16.5	14.6	23.8	7.8	18.2	5.2
Fuel Oil	8.5	0.6	2.2	2.4	3.3	0.8	2.4	12.9
Kerosene	2.7	0.4	0.8	0.8	0.7	0.7	1.2	17.5
LPG	6.6	0.7	2.1	1.8	2.0	1.0	2.2	15.2
Billion Dollars^a								
Space-Heating Expenditures, Major Fuels Used:								
Electricity	8.98	0.89	2.48	2.38	3.23	1.20	2.78	7.7
Natural Gas	31.84	2.57	8.09	7.49	13.68	3.52	8.99	7.0
Fuel Oil	5.17	0.23	1.24	1.40	2.29	0.33	1.33	14.7
Kerosene	0.49	0.10	0.19	0.13	0.07	0.16	0.28	26.6
LPG	4.04	0.31	1.29	1.17	1.28	0.45	1.20	18.5
Total	50.53	4.10	13.29	12.58	20.55	5.66	14.58	4.3
Dollars per Household^a								
Average Space-Heating Expenditures per Household								
Using a Major Fuel ²	480	380	441	474	543	388	439	3.2
For Main Space Heating	484	384	444	478	548	392	442	3.2
For Secondary Space Heating Only	216	Q	167	235	250	145	212	19.0
Million Households								
Number of Households, Where the Main Space-Heating Fuel Is:								
Electricity	30.9	3.7	9.4	8.1	9.7	4.9	10.3	7.3
Natural Gas	59.1	5.5	16.2	14.3	23.1	7.7	17.9	5.3
Fuel Oil	8.0	0.5	2.1	2.2	3.2	0.7	2.3	13.0
Kerosene	0.8	0.3	0.4	0.1	Q	0.4	0.6	25.1
LPG	4.9	0.6	1.7	1.4	1.2	0.7	1.8	17.1
Other	2.2	0.2	0.5	0.8	0.8	0.3	0.6	20.0
No Space Heating	1.0	Q	0.3	0.3	0.3	0.3	0.4	23.7

See footnotes at end of table.

Table CE2-3e. Space-Heating Energy Expenditures in U.S. Households by Household Income, 2001 (Continued)

	2001 Household Income					Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
	Total	Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.6	0.9	1.0	0.9	1.3	0.9	
Dollars per Household^{4,a}								
Space-Heating Expenditures per Household,³ Where the Main Space-Heating Fuel Is:								
Electricity	271	222	247	279	308	229	253	4.6
Natural Gas	530	462	495	513	581	455	498	4.2
Fuel Oil	630	424	584	611	709	441	579	6.9
Kerosene	411	314	382	603	Q	340	357	16.3
LPG	713	483	688	733	831	531	605	7.4
2001 Heating Degree-Days (HDD) per Household⁴								
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:								
Electricity	3,006	3,329	3,053	2,979	2,859	3,222	3,273	4.7
Natural Gas	4,255	4,167	4,247	4,378	4,206	3,986	4,277	2.4
Fuel Oil	5,339	5,501	5,471	5,259	5,279	5,461	5,456	4.0
Kerosene	4,636	4,297	4,484	5,355	Q	4,309	4,404	8.1
LPG	4,643	3,852	4,630	4,840	4,800	4,072	4,557	6.9
Average for All Heated Households	4,004	3,940	4,006	4,063	3,980	3,836	4,084	2.0
Heated Square Footage (HSF) per Household⁴								
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:								
Electricity	1,399	786	1,035	1,296	2,072	866	967	4.9
Natural Gas	1,836	1,067	1,340	1,688	2,458	1,100	1,319	2.7
Fuel Oil	2,043	1,106	1,670	1,956	2,506	1,235	1,544	7.2
Kerosene	1,076	746	1,129	1,422	Q	800	968	11.2
LPG	1,570	1,026	1,205	1,746	2,127	1,040	1,232	7.9
Average for All Heated Households	1,707	965	1,261	1,595	2,354	1,022	1,217	2.3
Space-Heating Intensity^{4,a} [Cents÷(HDD×(HSF÷1000))]								
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:								
Electricity	6.45	8.47	7.82	7.22	5.19	8.21	7.98	4.9
Natural Gas	6.78	10.39	8.71	6.95	5.62	10.37	8.83	4.1
Fuel Oil	5.78	6.97	6.39	5.94	5.36	6.54	6.87	7.8
Kerosene	8.24	9.78	7.55	7.92	Q	9.86	8.38	23.1
LPG	9.78	12.23	12.33	8.67	8.14	12.55	10.77	9.9

¹ Below 150 percent of poverty line or 60 percent of median State income.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes only the space-heating expenditures of the space-heating fuel. Not included are: 1) the expenditures of the main space-heating fuel for uses other than space heating; 2) the expenditures of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the expenditures of other fuels that are used as secondary space-heating fuels.

⁴ Averages are for those households using each of the main space-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-4e. Space-Heating Energy Expenditures in U.S. Households by Type of Housing Unit, 2001

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Apartments in Buildings With		Mobile Homes	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.6	0.6	1.4	1.1	1.7	
Million Households						
Total U.S. Households	107.0	73.7	9.5	17.0	6.8	4.6
No Space Heating	1.0	0.3	Q	0.6	Q	18.6
Space Heating	106.0	73.4	9.4	16.4	6.8	4.6
Not Using a Major Fuel ¹	0.7	0.6	Q	Q	Q	33.2
Using a Major Fuel ¹	105.3	72.8	9.4	16.3	6.8	4.7
For Main Space Heating	103.8	71.5	9.3	16.3	6.7	4.7
For Secondary Space Heating Only	1.5	1.4	Q	Q	Q	23.4
Number of Households with Space Heating, Major Fuels Used (more than one may apply):						
Electricity	43.8	27.5	4.1	8.5	3.7	7.1
Natural Gas	60.5	45.6	5.6	7.1	2.2	6.4
Fuel Oil	8.5	6.3	0.6	1.3	0.2	17.0
Kerosene	2.7	2.0	Q	Q	0.6	15.4
LPG	6.6	5.3	Q	Q	1.2	16.0
Billion Dollars^a						
Space-Heating Expenditures, Major Fuels Used:						
Electricity	8.98	5.73	0.78	1.65	0.83	9.5
Natural Gas	31.84	26.02	3.47	1.47	0.88	8.7
Fuel Oil	5.17	4.44	0.44	0.20	0.08	19.2
Kerosene	0.49	0.28	Q	Q	0.19	25.2
LPG	4.04	3.33	Q	Q	0.68	19.0
Total	50.53	39.80	4.73	3.33	2.66	5.1
Dollars per Household^a						
Average Space-Heating Expenditures per Household						
Using a Major Fuel ¹	480	546	505	204	393	3.5
For Main Space Heating	484	553	506	204	393	3.5
For Secondary Space Heating Only	216	207	Q	Q	Q	18.2
Million Households						
Number of Households, Where the Main Space-Heating Fuel Is:						
Electricity	30.9	17.0	3.1	7.9	2.9	9.0
Natural Gas	59.1	44.3	5.6	7.1	2.2	6.5
Fuel Oil	8.0	5.9	0.6	1.3	0.2	17.3
Kerosene	0.8	0.5	Q	Q	0.3	26.1
LPG	4.9	3.8	Q	Q	1.0	17.6
Other	2.2	1.9	Q	Q	Q	21.6
No Space Heating	1.0	0.3	Q	0.6	Q	18.6

See footnotes at end of table.

Table CE2-4e. Space-Heating Energy Expenditures in U.S. Households by Type of Housing Unit, 2001 (Continued)

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Apartments in Buildings With		Mobile Homes	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.6	0.6	1.4	1.1	1.7	
Dollars per Household^{3,a}						
Space-Heating Expenditures per Household,² Where the Main Space-Heating Fuel Is:						
Electricity	271	310	235	204	271	5.5
Natural Gas	530	577	621	204	397	4.6
Fuel Oil	630	730	715	157	450	7.8
Kerosene	411	353	Q	Q	495	18.9
LPG	713	755	Q	Q	587	6.3
2001 Heating Degree-Days (HDD) per Household³						
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:						
Electricity	3,006	2,815	3,267	3,330	2,955	5.5
Natural Gas	4,255	4,184	4,686	4,287	4,498	2.9
Fuel Oil	5,339	5,474	5,674	4,490	5,873	5.3
Kerosene	4,636	4,583	Q	Q	4,581	9.8
LPG	4,643	4,611	Q	Q	4,885	6.4
Average for All Heated Households	4,004	4,012	4,274	3,841	3,942	2.7
Heated Square Footage (HSF) per Household³						
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:						
Electricity	1,399	1,869	842	745	1,036	4.6
Natural Gas	1,836	2,104	1,336	810	984	3.2
Fuel Oil	2,043	2,365	1,780	847	901	7.2
Kerosene	1,076	1,226	Q	Q	811	10.9
LPG	1,570	1,779	Q	Q	860	5.1
Average for All Heated Households	1,707	2,047	1,197	785	979	2.6
Space-Heating Intensity^{3,a} [Cents÷(HDD×(HSF÷1000))]						
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:						
Electricity	6.45	5.88	8.52	8.22	8.86	5.0
Natural Gas	6.78	6.55	9.92	5.89	8.98	4.3
Fuel Oil	5.78	5.64	7.08	4.13	8.51	8.9
Kerosene	8.24	6.29	Q	Q	13.31	13.4
LPG	9.78	9.20	Q	Q	13.97	9.6

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes only the space-heating expenditures of the space-heating fuel. Not included are: 1) the expenditures of the main space-heating fuel for uses other than space heating; 2) the expenditures of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the expenditures of other fuels that are used as secondary space-heating fuels.

³ Averages are for those households using each of the main space-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-7e. Space-Heating Energy Expenditures in U.S. Households by Four Most Populated States, 2001

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.4	1.2	0.9	1.5	1.8	
Million Households						
Total U.S. Households	107.0	7.1	12.3	7.7	6.3	NE
No Space Heating	1.0	Q	0.3	Q	Q	22.6
Space Heating	106.0	7.1	12.0	7.7	6.2	0.6
Not Using a Major Fuel ¹	0.7	Q	0.2	Q	Q	48.2
Using a Major Fuel ¹	105.3	7.0	11.8	7.7	6.2	0.6
For Main Space Heating	103.8	6.8	11.6	7.6	6.2	0.8
For Secondary Space Heating Only	1.5	Q	Q	Q	Q	38.7
Number of Households with Space Heating, Major Fuels Used (more than one may apply):						
Electricity	43.8	1.4	3.7	4.4	5.2	5.1
Natural Gas	60.5	4.2	9.0	4.2	1.0	7.2
Fuel Oil	8.5	2.2	Q	Q	Q	20.2
Kerosene	2.7	0.2	Q	Q	Q	30.0
LPG	6.6	Q	0.3	0.2	Q	29.8
Billion Dollars^a						
Space-Heating Expenditures, Major Fuels Used:						
Electricity	8.98	0.34	0.52	0.87	0.44	14.6
Natural Gas	31.84	3.12	2.45	1.35	0.17	12.3
Fuel Oil	5.17	1.02	Q	Q	Q	25.0
Kerosene	0.49	0.04	Q	Q	Q	31.0
LPG	4.04	Q	0.19	0.09	Q	30.3
Total	50.53	4.57	3.24	2.32	0.64	6.7
Dollars per Household^a						
Average Space-Heating Expenditures per Household						
Using a Major Fuel ¹	480	658	274	302	103	6.8
For Main Space Heating	484	663	276	302	103	6.9
For Secondary Space Heating Only	216	Q	Q	Q	Q	29.0
Million Households						
Number of Households, Where the Main Space-Heating Fuel Is:						
Electricity	30.9	0.5	2.3	3.4	5.1	10.0
Natural Gas	59.1	4.2	8.9	4.0	1.0	7.5
Fuel Oil	8.0	2.1	Q	Q	Q	20.1
Kerosene	0.8	Q	Q	Q	Q	47.7
LPG	4.9	Q	0.3	Q	Q	33.3
Other	2.2	0.2	0.4	Q	Q	31.8
No Space Heating	1.0	Q	0.3	Q	Q	22.6

See footnotes at end of table.

Table CE2-7e. Space-Heating Energy Expenditures in U.S. Households by Four Most Populated States, 2001 (Continued)

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.4	1.2	0.9	1.5	1.8	
Dollars per Household^{3,a}						
Space-Heating Expenditures per Household,² Where the Main Space-Heating Fuel Is:						
Electricity	271	581	195	243	85	8.6
Natural Gas	530	737	270	326	165	7.4
Fuel Oil	630	478	Q	Q	Q	8.4
Kerosene	411	Q	Q	Q	Q	30.1
LPG	713	Q	593	Q	Q	14.9
2001 Heating Degree-Days (HDD) per Household³						
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:						
Electricity	3,006	5,632	2,409	2,015	536	9.4
Natural Gas	4,255	5,183	2,113	2,211	818	4.9
Fuel Oil	5,339	4,607	Q	Q	Q	6.0
Kerosene	4,636	Q	Q	Q	Q	17.6
LPG	4,643	Q	3,668	Q	Q	13.1
Average for All Heated Households	4,004	5,011	2,290	2,139	579	6.0
Heated Square Footage (HSF) per Household³						
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:						
Electricity	1,399	1,091	928	1,382	1,492	12.1
Natural Gas	1,836	1,788	1,394	1,716	1,958	5.8
Fuel Oil	2,043	1,531	Q	Q	Q	9.2
Kerosene	1,076	Q	Q	Q	Q	23.6
LPG	1,570	Q	1,650	Q	Q	16.4
Average for All Heated Households	1,707	1,657	1,315	1,549	1,576	4.2
Space-Heating Intensity^{3,a} [Cents÷{HDD×(HSF÷1000)}]						
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:						
Electricity	6.45	9.45	8.75	8.72	10.66	8.7
Natural Gas	6.78	7.95	9.17	8.58	10.27	6.7
Fuel Oil	5.78	6.78	Q	Q	Q	8.7
Kerosene	8.24	Q	Q	Q	Q	31.3
LPG	9.78	Q	9.80	Q	Q	26.9

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes only the space-heating expenditures of the space-heating fuel. Not included are: 1) the expenditures of the main space-heating fuel for uses other than space heating; 2) the expenditures of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the expenditures of other fuels that are used as secondary space-heating fuels.

³ Averages are for those households using each of the main space-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-8e. Space-Heating Energy Expenditures in U.S. Households by Urban/Rural Location, 2001

	Urban/Rural Location ¹					RSE Row Factors
	Total	City	Town	Suburbs	Rural	
	0.6	1.0	1.3	1.2	1.0	
Million Households						
Total U.S. Households	107.0	49.9	18.0	21.2	17.9	4.3
No Space Heating	1.0	0.7	Q	Q	Q	15.4
Space Heating	106.0	49.1	18.0	21.2	17.8	4.3
Not Using a Major Fuel ²	0.7	0.2	Q	Q	0.5	30.4
Using a Major Fuel ²	105.3	48.9	17.9	21.1	17.3	4.3
For Main Space Heating	103.8	48.7	17.6	21.0	16.4	4.3
For Secondary Space Heating Only	1.5	0.2	0.3	Q	0.9	22.3
Number of Households with Space Heating, Major Fuels Used (more than one may apply):						
Electricity	43.8	18.8	7.8	8.6	8.6	5.6
Natural Gas	60.5	33.1	10.3	13.4	3.7	6.0
Fuel Oil	8.5	2.5	2.1	1.4	2.5	13.4
Kerosene	2.7	0.5	0.6	0.4	1.4	21.4
LPG	6.6	0.5	1.1	0.4	4.6	18.3
Billion Dollars^a						
Space-Heating Expenditures, Major Fuels Used:						
Electricity	8.98	3.26	1.52	1.84	2.36	7.7
Natural Gas	31.84	16.22	5.83	7.61	2.17	7.8
Fuel Oil	5.17	1.20	1.42	0.88	1.67	15.3
Kerosene	0.49	0.04	0.08	Q	0.33	30.8
LPG	4.04	0.24	0.77	0.20	2.83	21.2
Total	50.53	20.96	9.63	10.57	9.36	4.9
Dollars per Household^a						
Average Space-Heating Expenditures per Household						
Using a Major Fuel ²	480	428	537	500	541	3.0
For Main Space Heating	484	429	544	502	558	3.0
For Secondary Space Heating Only	216	289	140	Q	225	19.5
Million Households						
Number of Households, Where the Main Space-Heating Fuel Is:						
Electricity	30.9	13.6	4.5	6.3	6.5	7.2
Natural Gas	59.1	32.3	10.0	13.1	3.6	6.0
Fuel Oil	8.0	2.4	2.0	1.3	2.3	13.6
Kerosene	0.8	Q	Q	Q	0.5	23.7
LPG	4.9	0.3	0.9	0.2	3.5	21.0
Other	2.2	0.4	0.3	Q	1.4	19.9
No Space Heating	1.0	0.7	Q	Q	Q	15.4

See footnotes at end of table.

Table CE2-8e. Space-Heating Energy Expenditures in U.S. Households by Urban/Rural Location, 2001 (Continued)

	Urban/Rural Location ¹					RSE Row Factors
	Total	City	Town	Suburbs	Rural	
RSE Column Factor:	0.6	1.0	1.3	1.2	1.0	
Dollars per Household^{4,a}						
Space-Heating Expenditures per Household,³ Where the Main Space-Heating Fuel Is:						
Electricity	271	222	304	277	347	4.9
Natural Gas	530	494	568	573	593	3.9
Fuel Oil	630	487	710	661	695	5.8
Kerosene	411	Q	Q	Q	447	14.8
LPG	713	569	799	555	713	8.9
2001 Heating Degree-Days (HDD) per Household⁴						
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:						
Electricity	3,006	2,742	3,526	2,673	3,520	4.9
Natural Gas	4,255	4,069	4,685	4,339	4,430	2.5
Fuel Oil	5,339	5,259	5,683	4,750	5,467	3.6
Kerosene	4,636	Q	Q	Q	4,784	8.6
LPG	4,643	4,164	4,858	4,003	4,669	9.2
Average for All Heated Households	4,004	3,758	4,513	3,872	4,328	2.2
Heated Square Footage (HSF) per Household⁴						
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:						
Electricity	1,399	1,159	1,307	1,647	1,728	5.2
Natural Gas	1,836	1,613	1,798	2,314	2,194	3.5
Fuel Oil	2,043	1,549	2,230	2,263	2,274	5.5
Kerosene	1,076	Q	Q	Q	1,159	11.8
LPG	1,570	1,041	1,446	1,612	1,647	10.5
Average for All Heated Households	1,707	1,480	1,692	2,103	1,880	2.7
Space-Heating Intensity^{4,a} [Cents÷{HDD×(HSF÷1000)}]						
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:						
Electricity	6.45	6.98	6.60	6.29	5.70	5.0
Natural Gas	6.78	7.52	6.75	5.70	6.11	4.5
Fuel Oil	5.78	5.98	5.60	6.15	5.59	5.6
Kerosene	8.24	Q	Q	Q	8.06	14.1
LPG	9.78	13.13	11.38	8.60	9.27	13.5

¹ Based on the household respondent's description rather than the Federal Government definition.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes only the space-heating expenditures of the space-heating fuel. Not included are: 1) the expenditures of the main space-heating fuel for uses other than space heating; 2) the expenditures of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the expenditures of other fuels that are used as secondary space-heating fuels.

⁴ Averages are for those households using each of the main space-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-9e. Space-Heating Energy Expenditures in U.S. Households by Northeast Census Region, 2001

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.6	1.0	1.2	1.5	
Million Households					
Total U.S. Households	107.0	20.3	14.8	5.4	NE
No Space Heating	1.0	Q	Q	Q	17.3
Space Heating	106.0	20.1	14.7	5.4	NE
Not Using a Major Fuel ¹	0.7	0.2	Q	Q	33.7
Using a Major Fuel ¹	105.3	19.9	14.6	5.3	NE
For Main Space Heating	103.8	19.7	14.4	5.3	0.7
For Secondary Space Heating Only	1.5	0.2	Q	Q	23.2
Number of Households with Space Heating, Major Fuels Used (more than one may apply):					
Electricity	43.8	4.8	3.6	1.2	5.9
Natural Gas	60.5	10.6	8.7	1.9	8.7
Fuel Oil	8.5	6.4	3.7	2.7	12.5
Kerosene	2.7	0.7	0.4	Q	23.6
LPG	6.6	0.6	0.3	0.3	18.7
Billion Dollars^a					
Space-Heating Expenditures, Major Fuels Used:					
Electricity	8.98	1.46	1.18	0.28	11.4
Natural Gas	31.84	7.93	6.24	1.68	11.5
Fuel Oil	5.17	4.05	2.09	1.96	14.7
Kerosene	0.49	0.22	0.14	Q	31.5
LPG	4.04	0.41	0.25	0.17	23.5
Total	50.53	14.07	9.90	4.17	3.3
Dollars per Household^a					
Average Space-Heating Expenditures per Household					
Using a Major Fuel ¹	480	706	679	779	3.2
For Main Space Heating	484	711	684	787	3.2
For Secondary Space Heating Only	216	264	Q	Q	17.1
Million Households					
Number of Households, Where the Main Space-Heating Fuel Is:					
Electricity	30.9	2.3	1.8	0.5	11.2
Natural Gas	59.1	10.5	8.6	1.9	8.6
Fuel Oil	8.0	6.2	3.6	2.7	12.4
Kerosene	0.8	0.3	0.2	Q	32.0
LPG	4.9	0.4	0.2	0.1	25.4
Other	2.2	0.4	0.3	0.1	22.4
No Space Heating	1.0	Q	Q	Q	17.3

See footnotes at end of table.

Table CE2-9e. Space-Heating Energy Expenditures in U.S. Households by Northeast Census Region, 2001 (Continued)

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.6	1.0	1.2	1.5	
Dollars per Household^{3,a}					
Space-Heating Expenditures per Household,² Where the Main Space-Heating Fuel Is:					
Electricity	271	579	597	510	4.7
Natural Gas	530	752	721	895	5.2
Fuel Oil	630	640	574	728	4.9
Kerosene	411	590	620	542	7.3
LPG	713	966	985	935	6.5
2001 Heating Degree-Days (HDD) per Household³					
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:					
Electricity	3,006	5,266	5,202	5,515	3.2
Natural Gas	4,255	5,165	5,106	5,432	1.6
Fuel Oil	5,339	5,366	4,794	6,128	3.8
Kerosene	4,636	5,916	5,299	6,895	5.8
LPG	4,643	5,493	5,302	5,794	4.1
Average for All Heated Households	4,004	5,254	5,037	5,845	2.3
Heated Square Footage (HSF) per Household³					
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:					
Electricity	1,399	1,609	1,734	1,122	9.2
Natural Gas	1,836	1,822	1,809	1,880	4.0
Fuel Oil	2,043	2,087	1,951	2,268	5.4
Kerosene	1,076	1,149	936	1,487	12.9
LPG	1,570	1,642	1,923	1,200	17.3
Average for All Heated Households	1,707	1,872	1,829	1,988	3.7
Space-Heating Intensity^{3,a} [Cents÷{HDD×(HSF÷1000)}]					
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:					
Electricity	6.45	6.84	6.62	8.24	10.3
Natural Gas	6.78	8.00	7.81	8.77	4.8
Fuel Oil	5.78	5.72	6.14	5.24	5.3
Kerosene	8.24	8.68	12.51	5.28	14.4
LPG	9.78	10.71	9.66	Q	22.5

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes only the space-heating expenditures of the space-heating fuel. Not included are: 1) the expenditures of the main space-heating fuel for uses other than space heating; 2) the expenditures of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the expenditures of other fuels that are used as secondary space-heating fuels.

³ Averages are for those households using each of the main space-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-10e. Space-Heating Energy Expenditures in U.S. Households by Midwest Census Region, 2001

	Total U.S.	Midwest Census Region			RSE Row Factors
		Total	Census Division		
			East North Central	West North Central	
		RSE Column Factor:	0.6	1.0	
Million Households					
Total U.S. Households	107.0	24.5	17.1	7.4	NE
No Space Heating	1.0	Q	Q	Q	17.7
Space Heating	106.0	24.5	17.1	7.4	NE
Not Using a Major Fuel ¹	0.7	Q	Q	Q	35.0
Using a Major Fuel ¹	105.3	24.4	17.0	7.3	NE
For Main Space Heating	103.8	24.1	16.9	7.2	0.7
For Secondary Space Heating Only	1.5	0.3	Q	Q	29.5
Number of Households with Space Heating, Major Fuels Used (more than one may apply):					
Electricity	43.8	6.2	4.0	2.1	7.2
Natural Gas	60.5	19.1	14.0	5.2	4.2
Fuel Oil	8.5	0.9	0.5	0.4	15.2
Kerosene	2.7	0.5	0.4	Q	14.9
LPG	6.6	2.0	1.0	1.0	23.2
Billion Dollars^a					
Space-Heating Expenditures, Major Fuels Used:					
Electricity	8.98	1.21	0.75	0.46	13.8
Natural Gas	31.84	11.78	8.69	3.08	5.9
Fuel Oil	5.17	0.52	0.28	0.24	19.6
Kerosene	0.49	0.04	Q	Q	35.5
LPG	4.04	1.51	0.78	0.73	24.0
Total	50.53	15.06	10.53	4.53	3.0
Dollars per Household^a					
Average Space-Heating Expenditures per Household					
Using a Major Fuel ¹	480	618	619	617	3.0
For Main Space Heating	484	622	621	623	3.0
For Secondary Space Heating Only	216	294	Q	Q	19.3
Million Households					
Number of Households, Where the Main Space-Heating Fuel Is:					
Electricity	30.9	2.5	1.7	0.8	13.6
Natural Gas	59.1	18.9	13.8	5.1	4.5
Fuel Oil	8.0	0.8	0.4	0.4	14.1
Kerosene	0.8	Q	Q	Q	31.3
LPG	4.9	1.8	0.9	0.9	23.8
Other	2.2	0.4	Q	0.2	29.9
No Space Heating	1.0	Q	Q	Q	17.7

See footnotes at end of table.

Table CE2-10e. Space-Heating Energy Expenditures in U.S. Households by Midwest Census Region, 2001 (Continued)

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
RSE Column Factor:	0.6	1.0	1.2	1.5	
Dollars per Household^{3,a}					
Space-Heating Expenditures per Household,² Where the Main Space-Heating Fuel Is:					
Electricity	271	420	388	486	6.2
Natural Gas	530	617	625	597	3.7
Fuel Oil	630	619	589	656	12.5
Kerosene	411	Q	Q	Q	19.7
LPG	713	790	820	760	4.5
2001 Heating Degree-Days (HDD) per Household³					
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:					
Electricity	3,006	5,578	5,751	5,222	3.5
Natural Gas	4,255	5,772	5,738	5,864	2.2
Fuel Oil	5,339	6,827	6,402	7,339	4.3
Kerosene	4,636	Q	Q	Q	11.5
LPG	4,643	6,137	6,114	6,160	5.6
Average for All Heated Households	4,004	5,816	5,788	5,881	2.1
Heated Square Footage (HSF) per Household³					
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:					
Electricity	1,399	1,481	1,289	1,877	10.1
Natural Gas	1,836	2,080	2,070	2,110	3.2
Fuel Oil	2,043	1,959	2,067	1,828	9.5
Kerosene	1,076	Q	Q	Q	15.5
LPG	1,570	1,800	1,772	1,829	4.8
Average for All Heated Households	1,707	1,997	1,985	2,024	2.7
Space-Heating Intensity^{3,a} [Cents÷(HDD×(HSF÷1000))]					
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:					
Electricity	6.45	5.08	5.23	4.96	8.2
Natural Gas	6.78	5.14	5.26	4.83	4.1
Fuel Oil	5.78	4.63	4.45	4.89	11.3
Kerosene	8.24	Q	Q	Q	20.6
LPG	9.78	7.15	7.57	6.75	7.8

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes only the space-heating expenditures of the space-heating fuel. Not included are: 1) the expenditures of the main space-heating fuel for uses other than space heating; 2) the expenditures of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the expenditures of other fuels that are used as secondary space-heating fuels.

³ Averages are for those households using each of the main space-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-11e. Space-Heating Energy Expenditures in U.S. Households by South Census Region, 2001

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			West south Central	
		Total	South Atlantic	East South Central		
RSE Column Factor:	0.4	0.8	1.1	1.7	1.6	
Million Households						
Total U.S. Households	107.0	38.9	20.3	6.8	11.8	NE
No Space Heating	1.0	Q	Q	Q	Q	24.0
Space Heating	106.0	38.8	20.2	6.8	11.8	NE
Not Using a Major Fuel ¹	0.7	Q	Q	Q	Q	47.6
Using a Major Fuel ¹	105.3	38.7	20.0	6.8	11.8	NE
For Main Space Heating	103.8	38.2	19.8	6.7	11.7	0.6
For Secondary Space Heating Only	1.5	0.5	0.3	Q	Q	40.7
Number of Households with Space Heating, Major Fuels Used (more than one may apply):						
Electricity	43.8	23.1	12.4	4.2	6.5	5.7
Natural Gas	60.5	16.6	7.1	2.7	6.8	7.4
Fuel Oil	8.5	0.9	0.9	Q	Q	32.4
Kerosene	2.7	1.3	0.9	0.3	Q	20.8
LPG	6.6	3.0	1.4	1.2	0.4	19.3
Billion Dollars^a						
Space-Heating Expenditures, Major Fuels Used:						
Electricity	8.98	4.57	2.31	1.01	1.24	8.9
Natural Gas	31.84	7.36	3.62	1.23	2.51	10.8
Fuel Oil	5.17	0.50	0.48	Q	Q	38.2
Kerosene	0.49	0.17	0.11	0.06	Q	34.3
LPG	4.04	1.52	0.81	0.51	0.20	27.0
Total	50.53	14.13	7.33	2.83	3.96	5.8
Dollars per Household^a						
Average Space-Heating Expenditures per Household						
Using a Major Fuel ¹	480	365	366	416	335	5.8
For Main Space Heating	484	367	367	419	337	5.9
For Secondary Space Heating Only	216	212	261	Q	Q	29.1
Million Households						
Number of Households, Where the Main Space-Heating Fuel Is:						
Electricity	30.9	19.3	11.0	3.4	4.9	7.6
Natural Gas	59.1	15.7	6.8	2.4	6.5	7.8
Fuel Oil	8.0	0.8	0.8	Q	Q	32.2
Kerosene	0.8	0.4	0.3	Q	Q	33.0
LPG	4.9	2.0	0.9	0.8	0.3	22.3
Other	2.2	0.6	0.4	Q	Q	33.7
No Space Heating	1.0	Q	Q	Q	Q	24.0

See footnotes at end of table.

Table CE2-11e. Space-Heating Energy Expenditures in U.S. Households by South Census Region, 2001 (Continued)

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			West south Central	
		Total	South Atlantic	East South Central		
RSE Column Factor:	0.4	0.8	1.1	1.7	1.6	
Dollars per Household^{3,a}						
Space-Heating Expenditures per Household,² Where the Main Space-Heating Fuel Is:						
Electricity	271	228	204	291	237	5.5
Natural Gas	530	449	517	458	375	7.2
Fuel Oil	630	599	610	Q	Q	18.1
Kerosene	411	263	214	Q	Q	23.0
LPG	713	603	692	535	505	12.2
2001 Heating Degree-Days (HDD) per Household³						
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:						
Electricity	3,006	2,155	1,922	3,021	2,082	5.8
Natural Gas	4,255	2,779	3,079	3,109	2,340	5.2
Fuel Oil	5,339	3,777	3,760	Q	Q	6.1
Kerosene	4,636	3,261	3,247	Q	Q	8.3
LPG	4,643	2,953	2,891	3,139	2,662	8.2
Average for All Heated Households	4,004	2,515	2,479	3,087	2,247	4.2
Heated Square Footage (HSF) per Household³						
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:						
Electricity	1,399	1,487	1,461	1,783	1,344	5.7
Natural Gas	1,836	1,823	1,940	1,893	1,675	4.8
Fuel Oil	2,043	1,774	1,758	Q	Q	18.5
Kerosene	1,076	836	835	Q	Q	17.8
LPG	1,570	1,350	1,445	1,261	1,285	11.5
Average for All Heated Households	1,707	1,624	1,636	1,761	1,526	4.2
Space-Heating Intensity^{3,a} [Cents÷(HDD×(HSF÷1000))]						
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:						
Electricity	6.45	7.11	7.28	5.40	8.46	5.2
Natural Gas	6.78	8.86	8.65	7.79	9.56	7.5
Fuel Oil	5.78	8.93	9.23	Q	Q	14.2
Kerosene	8.24	9.65	7.88	Q	Q	25.4
LPG	9.78	15.13	16.57	13.52	14.75	11.5

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes only the space-heating expenditures of the space-heating fuel. Not included are: 1) the expenditures of the main space-heating fuel for uses other than space heating; 2) the expenditures of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the expenditures of other fuels that are used as secondary space-heating fuels.

³ Averages are for those households using each of the main space-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE2-12e. Space-Heating Energy Expenditures in U.S. Households by West Census Region, 2001

	Total U.S.	West Census Region			RSE Row Factors
		Total	Census Division		
			Mountain	Pacific	
RSE Column Factor:	0.5	1.1	1.5	1.2	
Million Households					
Total U.S. Households	107.0	23.3	6.7	16.6	NE
No Space Heating	1.0	0.7	Q	0.7	10.4
Space Heating	106.0	22.6	6.7	15.9	NE
Not Using a Major Fuel ¹	0.7	0.3	Q	0.2	31.5
Using a Major Fuel ¹	105.3	22.4	6.7	15.7	NE
For Main Space Heating	103.8	21.8	6.5	15.3	NE
For Secondary Space Heating Only	1.5	0.6	0.1	0.4	17.7
Number of Households with Space Heating, Major Fuels Used (more than one may apply):					
Electricity	43.8	9.7	2.9	6.8	4.3
Natural Gas	60.5	14.2	4.3	9.9	2.8
Fuel Oil	8.5	0.2	Q	0.2	23.9
Kerosene	2.7	0.2	Q	0.2	20.7
LPG	6.6	1.0	0.5	0.5	24.5
Billion Dollars^a					
Space-Heating Expenditures, Major Fuels Used:					
Electricity	8.98	1.75	0.45	1.30	7.1
Natural Gas	31.84	4.77	1.79	2.98	6.1
Fuel Oil	5.17	0.10	Q	0.08	29.9
Kerosene	0.49	0.06	Q	0.06	38.2
LPG	4.04	0.60	0.32	0.27	26.3
Total	50.53	7.27	2.57	4.69	4.4
Dollars per Household^a					
Average Space-Heating Expenditures per Household					
Using a Major Fuel ¹	480	325	385	299	4.5
For Main Space Heating	484	329	387	304	4.5
For Secondary Space Heating Only	216	165	276	129	25.6
Million Households					
Number of Households, Where the Main Space-Heating Fuel Is:					
Electricity	30.9	6.8	2.0	4.8	6.2
Natural Gas	59.1	14.0	4.2	9.8	2.6
Fuel Oil	8.0	0.2	Q	Q	26.2
Kerosene	0.8	Q	Q	Q	33.8
LPG	4.9	0.7	0.4	0.4	25.3
Other	2.2	0.8	0.2	0.7	17.0
No Space Heating	1.0	0.7	Q	0.7	10.4

See footnotes at end of table.

Table CE2-12e. Space-Heating Energy Expenditures in U.S. Households by West Census Region, 2001 (Continued)

	West Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	Mountain	Pacific	
RSE Column Factor:	0.5	1.1	1.5	1.2	
Dollars per Household^{3,a}					
Space-Heating Expenditures per Household,² Where the Main Space-Heating Fuel Is:					
Electricity	271	236	207	249	6.3
Natural Gas	530	335	419	299	4.8
Fuel Oil	630	468	Q	Q	10.8
Kerosene	411	Q	Q	Q	21.3
LPG	713	694	779	606	8.3
2001 Heating Degree-Days (HDD) per Household³					
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is:					
Electricity	3,006	3,709	3,274	3,885	6.6
Natural Gas	4,255	3,171	4,842	2,456	2.7
Fuel Oil	5,339	4,894	Q	Q	9.1
Kerosene	4,636	Q	Q	Q	12.5
LPG	4,643	5,097	6,150	4,000	8.1
Average for All Heated Households	4,004	3,486	4,497	3,061	3.1
Heated Square Footage (HSF) per Household³					
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:					
Electricity	1,399	1,048	1,242	969	6.2
Natural Gas	1,836	1,528	1,721	1,445	4.5
Fuel Oil	2,043	2,121	Q	Q	11.8
Kerosene	1,076	Q	Q	Q	16.8
LPG	1,570	1,557	1,494	1,623	10.3
Average for All Heated Households	1,707	1,391	1,563	1,319	4.1
Space-Heating Intensity^{3,a} [Cents÷(HDD×(HSF÷1000))]					
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:					
Electricity	6.45	6.08	5.08	6.60	5.5
Natural Gas	6.78	6.91	5.02	8.42	5.7
Fuel Oil	5.78	4.51	Q	Q	10.4
Kerosene	8.24	Q	Q	Q	22.2
LPG	9.78	8.75	8.48	9.33	14.4

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes only the space-heating expenditures of the space-heating fuel. Not included are: 1) the expenditures of the main space-heating fuel for uses other than space heating; 2) the expenditures of the main space-heating fuel where it is the secondary, and not the main, space-heating fuel, and; 3) the expenditures of other fuels that are used as secondary space-heating fuels.

³ Averages are for those households using each of the main space-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

2001 Consumption and Expenditures Tables

Water-Heating Consumption Tables

(26 pages, 180 kb)

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These data are from the 2001 Residential Energy Consumption Survey (RECS) which provides information on the use of energy in residential housing units in the United States. The RECS is a national statistical survey that collects energy-related data for occupied primary housing units. RECS was first conducted in 1978; the twelfth and most recent survey was conducted in 2001. In the 2001 RECS, data were collected from a sample of 4,822 households in housing units statistically selected to represent the 107.0 million housing units in the United States. The RECS data are available for the four Census regions, the nine Census divisions, and for the four most populous States--California, Florida, New York, and Texas.

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World Wide Web: <http://www.eia.doe.gov/emeu/consumption>

Table CE4-1c. Water-Heating Energy Consumption in U.S. Households by Climate Zone, 2001 - Preliminary Data

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
		0.4	1.5	1.0	1.1		
Million Households							
Total U.S. Households	107.0	9.2	28.6	24.0	21.0	24.1	8.1
No Water Heating	Q	Q	Q	Q	Q	Q	NF
Water Heating	106.9	9.2	28.6	24.0	20.9	24.0	8.1
Not Using a Major Fuel ²	0.2	Q	Q	Q	Q	Q	91.3
Using a Major Fuel ²	106.7	9.2	28.6	24.0	20.9	24.0	8.1
For Main Water Heating	106.5	9.2	28.6	24.0	20.8	23.9	8.1
Number of Households with Water Heating, Major Fuels Used:							
Electricity	41.6	4.1	7.4	8.6	8.6	13.0	10.3
Natural Gas	58.2	3.8	19.2	12.4	12.2	10.6	8.9
Fuel Oil	4.7	0.8	1.5	2.4	Q	Q	20.6
LPG	3.0	0.6	0.8	0.6	0.5	0.5	27.6
Quadrillion Btu							
Water-Heating Btu Consumption, Major Fuels Used:							
Electricity	0.37	0.04	0.06	0.08	0.08	0.12	11.7
Natural Gas	1.15	0.07	0.39	0.24	0.24	0.21	9.3
Fuel Oil	0.13	0.03	0.04	0.06	Q	Q	22.1
LPG	0.05	0.01	0.01	Q	0.01	0.01	26.8
Total ³	1.70	0.14	0.51	0.39	0.32	0.33	6.9
Physical Units							
Physical Units of Water-Heating Consumption, Major Fuels Used:							
Electricity (billion kWh)	109	11	19	23	22	34	11.7
Natural Gas (billion cf)	1,115	68	383	231	229	204	9.3
Fuel Oil (million gallons)	950	193	311	445	Q	Q	22.1
LPG (million gallons)	524	114	141	Q	82	89	26.8
Million Btu per Household							
Average Water-Heating Btu Consumption per Household							
Using a Major Fuel ²	15.9	15.8	18.0	16.2	15.4	13.9	2.8
For Main Water Heating	16.0	15.8	18.0	16.2	15.4	14.0	2.8
Million Households							
Number of Households, Where the Main Water-Heating Fuel Is:							
Electricity	40.8	4.0	7.3	8.5	8.1	12.8	10.4
Natural Gas	58.0	3.7	19.1	12.4	12.2	10.6	8.9
Fuel Oil	4.6	0.8	1.4	2.4	Q	Q	21.3
LPG	2.9	0.6	0.8	0.6	0.5	0.4	27.7
No Water Heating	Q	Q	Q	Q	Q	Q	NF

See footnotes at end of table.

Table CE4-1c. Water-Heating Energy Consumption in U.S. Households by Climate Zone, 2001 - Preliminary Data (Continued)

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.4	1.5	1.0	1.1	1.3	1.1	
Million Btu per Household⁵							
Water-Heating Btu Consumption per Household,⁴ Where the Main Water-Heating Fuel Is:							
Electricity	9.2	9.3	8.8	9.3	9.5	9.0	3.3
Natural Gas	19.7	18.5	20.5	19.1	19.3	19.7	2.9
Fuel Oil	28.1	32.7	29.9	25.5	Q	Q	5.3
LPG	16.1	17.8	16.6	14.1	15.1	16.8	10.9
Physical Units (PU) per Household⁵							
Physical Units of Water-Heating Consumption per Household,⁴ Where the Main Water-Heating Fuel Is:							
Electricity (kWh)	2,683	2,737	2,575	2,712	2,780	2,646	3.3
Natural Gas (thousand cf)	19	18	20	19	19	19	2.9
Fuel Oil (gallons)	203	236	215	184	Q	Q	5.3
LPG (gallons)	176	195	182	154	166	184	10.9
Number of Household Members (NHM) per Household⁵							
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:							
Electricity	2.4	2.6	2.3	2.5	2.5	2.4	3.1
Natural Gas	2.7	2.4	2.6	2.5	3.0	2.7	3.1
Fuel Oil	2.4	2.4	2.5	2.4	Q	Q	6.2
LPG	2.6	2.6	2.6	2.3	2.2	3.3	9.3
Water-Heating Intensity (PU÷NHM)⁵							
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:							
Electricity	1,101	1,064	1,113	1,106	1,113	1,097	3.1
Natural Gas	7.2	7.4	7.8	7.4	6.3	7.1	2.9
Fuel Oil	84	97	88	77	Q	Q	7.1
LPG	68	75	71	67	75	55	11.2

¹ One of five climatically distinct areas, determined according to the 30-year average (1961-1990) of the annual heating and cooling degree-days. For this report, the heating or cooling degree-days are a measure of how cold or how hot a location is over a period of one year, relative to a base temperature of 65 degrees Fahrenheit. A household is assigned to a climate zone according to the 30-year average annual degree-days for an appropriate nearby weather station.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes a small amount of kerosene use for water heating.

⁴ Includes only the water-heating consumption of the water-heating fuel. Not included are: 1) the consumption of the main water-heating fuel for uses other than water heating; 2) the consumption of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the consumption of other fuels that are used as secondary water-heating fuels.

⁵ Averages are for those households using each of the main water-heating fuels.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE4-2c. Water-Heating Energy Consumption in U.S. Households
by Year of Construction, 2001 - Preliminary Data**

	Total	Year of Construction					1949 or Before	RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1990 to 1999		
RSE Column Factor:	0.5	1.5	1.3	1.0	1.2	1.1	0.9	
Million Households								
Total U.S. Households	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
No Water Heating	Q	Q	Q	Q	Q	Q	Q	NF
Water Heating	106.9	15.5	18.2	18.7	13.8	14.2	26.5	4.3
Not Using a Major Fuel ²	0.2	Q	Q	Q	Q	Q	Q	84.2
Using a Major Fuel ²	106.7	15.4	18.2	18.7	13.7	14.2	26.4	4.3
For Main Water Heating	106.5	15.4	18.2	18.7	13.6	14.1	26.4	4.3
Number of Households with Water Heating, Major Fuels Used:								
Electricity	41.6	6.5	9.8	9.8	4.2	4.4	6.9	6.6
Natural Gas	58.2	8.3	7.7	7.8	8.7	8.8	16.9	6.4
Fuel Oil	4.7	0.2	0.3	0.5	0.7	0.9	2.1	19.6
LPG	3.0	0.5	0.4	0.7	0.2	0.3	0.8	23.2
Quadrillion Btu								
Water-Heating Btu Consumption, Major Fuels Used:								
Electricity	0.37	0.06	0.09	0.09	0.04	0.04	0.06	7.5
Natural Gas	1.15	0.19	0.16	0.15	0.16	0.18	0.31	7.0
Fuel Oil	0.13	0.01	0.01	0.02	0.02	0.02	0.05	20.0
LPG	0.05	0.01	0.01	0.01	(*)	(*)	0.01	25.0
Total ³	1.70	0.27	0.27	0.26	0.22	0.24	0.44	4.6
Physical Units								
Physical Units of Water-Heating Consumption, Major Fuels Used:								
Electricity (billion kWh)	109	19	26	26	11	11	18	7.5
Natural Gas (billion cf)	1,115	185	160	141	153	171	306	7.0
Fuel Oil (million gallons)	950	48	101	115	136	166	384	20.0
LPG (million gallons)	524	92	77	114	40	52	149	25.1
Million Btu per Household								
Average Water-Heating Btu Consumption per Household								
Using a Major Fuel ²	15.9	17.5	15.0	13.9	15.8	16.9	16.7	2.6
For Main Water Heating	16.0	17.5	15.0	13.9	15.9	17.0	16.7	2.6
Million Households								
Number of Households, Where the Main Water-Heating Fuel Is:								
Electricity	40.8	6.4	9.8	9.8	4.1	4.1	6.7	6.8
Natural Gas	58.0	8.3	7.7	7.8	8.6	8.8	16.9	6.4
Fuel Oil	4.6	0.2	0.3	0.5	0.7	0.9	2.0	20.2
LPG	2.9	0.5	0.4	0.7	0.2	0.3	0.8	23.2
No Water Heating	Q	Q	Q	Q	Q	Q	Q	NF

See footnotes at end of table.

Table CE4-2c. Water-Heating Energy Consumption in U.S. Households by Year of Construction, 2001 - Preliminary Data (Continued)

	Total	Year of Construction					1990 to 1999	1949 or Before	RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969				
RSE Column Factor:	0.5	1.5	1.3	1.0	1.2	1.1	0.9		
Million Btu per Household⁵									
Water-Heating Btu Consumption per Household,⁴ Where the Main Water-Heating Fuel Is:									
Electricity	9.2	9.8	9.0	9.1	9.1	8.8	9.0	3.2	
Natural Gas	19.7	22.9	21.3	18.6	18.2	19.9	18.5	2.9	
Fuel Oil	28.1	35.0	44.5	32.8	25.8	24.8	26.1	7.7	
LPG	16.1	16.9	15.9	14.5	16.2	18.1	16.3	11.5	
Physical Units (PU) per Household⁵									
Physical Units of Water-Heating Consumption per Household,⁴ Where the Main Water-Heating Fuel Is:									
Electricity (kWh)	2,683	2,878	2,645	2,668	2,669	2,591	2,637	3.2	
Natural Gas (thousand cf)	19	22	21	18	18	19	18	2.9	
Fuel Oil (gallons)	203	252	321	237	186	179	188	7.7	
LPG (gallons)	176	185	174	159	178	198	179	11.5	
Number of Household Members (NHM) per Household⁵									
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:									
Electricity	2.4	2.7	2.4	2.3	2.4	2.4	2.5	3.2	
Natural Gas	2.7	3.1	2.6	2.7	2.5	2.6	2.6	2.9	
Fuel Oil	2.4	2.9	3.2	2.8	2.4	2.1	2.3	7.1	
LPG	2.6	3.1	2.5	2.4	2.0	2.6	2.5	11.7	
Water-Heating Intensity (PU÷NHM)⁵									
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:									
Electricity	1,101	1,070	1,092	1,141	1,134	1,100	1,074	2.7	
Natural Gas	7.2	7.1	8.0	6.7	7.1	7.4	7.0	3.0	
Fuel Oil	84	87	101	84	78	87	81	10.1	
LPG	68	59	69	65	90	76	71	13.2	

¹ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes a small amount of kerosene use for water heating.

⁴ Includes only the water-heating consumption of the water-heating fuel. Not included are: 1) the consumption of the main water-heating fuel for uses other than water heating; 2) the consumption of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the consumption of other fuels that are used as secondary water-heating fuels.

⁵ Averages are for those households using each of the main water-heating fuels.

(*) = Value rounds to zero in the units displayed.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-3c. Water-Heating Energy Consumption in U.S. Households by Household Income, 2001 - Preliminary Data

	Total	2001 Household Income				Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.7	1.0	0.9	0.9	1.5	0.9	
Million Households								
Total U.S. Households	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.3
No Water Heating	Q	Q	Q	Q	Q	Q	Q	NF
Water Heating	106.9	11.0	30.5	27.1	38.3	14.9	33.7	3.3
Not Using a Major Fuel ²	0.2	Q	Q	Q	Q	Q	Q	71.9
Using a Major Fuel ²	106.7	11.0	30.5	27.0	38.2	14.9	33.7	3.3
For Main Water Heating	106.5	11.0	30.4	27.0	38.1	14.9	33.7	3.3
Number of Households with Water Heating, Major Fuels Used:								
Electricity	41.6	4.7	13.4	10.8	12.7	6.4	14.3	6.0
Natural Gas	58.2	5.6	15.5	14.1	23.0	7.9	17.7	5.2
Fuel Oil	4.7	0.4	1.1	1.3	2.0	0.4	1.1	15.5
LPG	3.0	0.3	0.9	1.0	0.8	0.4	0.9	19.4
Quadrillion Btu								
Water-Heating Btu Consumption, Major Fuels Used:								
Electricity	0.37	0.03	0.10	0.10	0.14	0.05	0.12	6.3
Natural Gas	1.15	0.08	0.26	0.27	0.53	0.13	0.31	5.7
Fuel Oil	0.13	0.01	0.02	0.03	0.06	0.01	0.03	17.2
LPG	0.05	(*)	0.01	0.02	0.01	(*)	0.01	21.7
Total ³	1.70	0.13	0.41	0.43	0.74	0.20	0.48	3.6
Physical Units								
Physical Units of Water-Heating Consumption, Major Fuels Used:								
Electricity (billion kWh)	109	10	31	29	40	15	35	6.3
Natural Gas (billion cf)	1,115	82	257	267	510	124	304	5.7
Fuel Oil (million gallons)	950	76	176	246	452	83	221	17.2
LPG (million gallons)	524	21	160	191	151	53	162	21.7
Million Btu per Household								
Average Water-Heating Btu Consumption per Household								
Using a Major Fuel ²	15.9	11.8	13.4	15.8	19.3	13.2	14.2	2.2
For Main Water Heating	16.0	11.8	13.4	15.8	19.4	13.2	14.2	2.2
Million Households								
Number of Households, Where the Main Water-Heating Fuel Is:								
Electricity	40.8	4.7	13.1	10.6	12.4	6.2	14.0	6.0
Natural Gas	58.0	5.6	15.4	14.1	23.0	7.8	17.6	5.2
Fuel Oil	4.6	0.4	1.0	1.3	1.9	0.4	1.1	15.9
LPG	2.9	0.3	0.9	1.0	0.8	0.4	0.9	19.5
No Water Heating	Q	Q	Q	Q	Q	Q	Q	NF

See footnotes at end of table.

Table CE4-3c. Water-Heating Energy Consumption in U.S. Households by Household Income, 2001 - Preliminary Data (Continued)

	2001 Household Income					Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
	Total	Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.7	1.0	0.9	0.9	1.5	0.9	
Million Btu per Household⁵								
Water-Heating Btu Consumption per Household,⁴ Where the Main Water-Heating Fuel Is:								
Electricity	9.2	6.9	8.0	9.4	11.0	8.3	8.5	2.6
Natural Gas	19.7	14.9	17.1	19.4	22.8	16.3	17.7	2.4
Fuel Oil	28.1	27.7	22.9	26.5	32.1	26.8	28.9	6.2
LPG	16.1	6.9	15.8	18.2	17.0	11.6	15.7	10.0
Physical Units (PU) per Household⁵								
Physical Units of Water-Heating Consumption per Household,⁴ Where the Main Water-Heating Fuel Is:								
Electricity (kWh)	2,683	2,035	2,333	2,752	3,237	2,444	2,504	2.6
Natural Gas (thousand cf)	19	15	17	19	22	16	17	2.4
Fuel Oil (gallons)	203	200	165	192	231	193	209	6.2
LPG (gallons)	176	76	173	200	186	127	172	10.0
Number of Household Members (NHM) per Household⁵								
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:								
Electricity	2.4	1.7	2.2	2.5	2.9	2.4	2.5	3.0
Natural Gas	2.7	2.0	2.4	2.7	3.0	2.8	2.8	2.6
Fuel Oil	2.4	2.1	1.7	2.5	2.8	2.3	2.5	7.2
LPG	2.6	1.3	2.5	2.8	2.9	2.5	2.7	10.7
Water-Heating Intensity (PU÷NHM)⁵								
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:								
Electricity	1,101	1,166	1,054	1,118	1,113	1,039	1,018	2.6
Natural Gas	7.2	7.2	7.0	6.9	7.4	5.7	6.1	2.7
Fuel Oil	84	94	96	76	83	84	84	8.6
LPG	68	59	70	71	65	50	64	11.2

¹ Below 150 percent of poverty line or 60 percent of median State income.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes a small amount of kerosene use for water heating.

⁴ Includes only the water-heating consumption of the water-heating fuel. Not included are: 1) the consumption of the main water-heating fuel for uses other than water heating; 2) the consumption of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the consumption of other fuels that are used as secondary water-heating fuels.

⁵ Averages are for those households using each of the main water-heating fuels.

(*) = Value rounds to zero in the units displayed.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-4c. Water-Heating Energy Consumption in U.S. Households by Type of Housing Unit, 2001 - Preliminary Data

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Multifamily		Mobile Home	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.5	1.6	1.3	1.8	
Million Households						
Total U.S. Households	107.0	73.7	9.5	17.0	6.8	4.4
No Water Heating	Q	Q	Q	Q	Q	NF
Water Heating	106.9	73.6	9.5	17.0	6.8	4.4
Not Using a Major Fuel ¹	0.2	Q	Q	Q	Q	82.3
Using a Major Fuel ¹	106.7	73.5	9.5	16.9	6.8	4.4
For Main Water Heating	106.5	73.3	9.5	16.8	6.8	4.4
Number of Households with Water Heating, Major Fuels Used:						
Electricity	41.6	25.9	3.4	7.4	4.9	7.5
Natural Gas	58.2	42.8	5.7	8.2	1.5	6.7
Fuel Oil	4.7	3.0	0.4	1.3	Q	19.5
LPG	3.0	2.5	Q	Q	0.4	22.4
Quadrillion Btu						
Water-Heating Btu Consumption, Major Fuels Used:						
Electricity	0.37	0.25	0.02	0.05	0.05	8.4
Natural Gas	1.15	0.93	0.08	0.10	0.03	7.4
Fuel Oil	0.13	0.10	0.01	0.02	Q	20.4
LPG	0.05	0.04	Q	Q	(*)	23.9
Total ²	1.70	1.32	0.12	0.18	0.08	4.5
Physical Units						
Physical Units of Water-Heating Consumption, Major Fuels Used:						
Electricity (billion kWh)	109	73	7	15	14	8.4
Natural Gas (billion cf)	1,115	907	82	98	28	7.4
Fuel Oil (million gallons)	950	698	76	176	Q	20.4
LPG (million gallons)	524	466	Q	Q	53	23.9
Million Btu per Household						
Average Water-Heating Btu Consumption per Household						
Using a Major Fuel ¹	15.9	18.0	12.5	10.5	12.1	2.6
For Main Water Heating	16.0	18.0	12.5	10.5	12.1	2.6
Million Households						
Number of Households, Where the Main Water-Heating Fuel Is:						
Electricity	40.8	25.2	3.4	7.4	4.9	7.6
Natural Gas	58.0	42.7	5.7	8.1	1.5	6.7
Fuel Oil	4.6	2.9	0.4	1.3	Q	20.1
LPG	2.9	2.5	Q	Q	0.3	22.7
No Water Heating	Q	Q	Q	Q	Q	NF

See footnotes at end of table.

**Table CE4-4c. Water-Heating Energy Consumption in U.S. Households
by Type of Housing Unit, 2001 - Preliminary Data (Continued)**

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Multifamily		Mobile Home	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.5	1.6	1.3	1.8	
Million Btu per Household⁴						
Water-Heating Btu Consumption per Household,³ Where the Main Water-Heating Fuel Is:						
Electricity	9.2	10.0	7.2	6.9	9.8	3.1
Natural Gas	19.7	21.8	14.8	12.4	18.8	3.1
Fuel Oil	28.1	32.3	25.7	19.0	Q	5.8
LPG	16.1	17.0	Q	Q	12.5	9.2
Physical Units (PU) per Household⁴						
Physical Units of Water-Heating Consumption per Household,³ Where the Main Water-Heating Fuel Is:						
Electricity (kWh)	2,683	2,917	2,107	2,013	2,878	3.1
Natural Gas (thousand cf)	19	21	14	12	18	3.1
Fuel Oil (gallons)	203	233	185	137	Q	5.8
LPG (gallons)	176	186	Q	Q	137	9.2
Number of Household Members (NHM) per Household⁴						
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:						
Electricity	2.4	2.6	2.2	1.9	2.7	3.1
Natural Gas	2.7	2.8	2.4	2.1	2.4	3.1
Fuel Oil	2.4	2.6	1.7	2.1	Q	7.3
LPG	2.6	2.7	Q	Q	2.2	8.6
Water-Heating Intensity (PU÷NHM)⁴						
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:						
Electricity	1,101	1,125	966	1,085	1,076	2.9
Natural Gas	7.2	7.5	6.0	5.7	7.6	3.6
Fuel Oil	84	89	112	64	Q	9.0
LPG	68	70	Q	Q	62	9.7

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes a small amount of kerosene use for water heating.

³ Includes only the water-heating consumption of the water-heating fuel. Not included are: 1) the consumption of the main water-heating fuel for uses other than water heating; 2) the consumption of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the consumption of other fuels that are used as secondary water-heating fuels.

⁴ Averages are for those households using each of the main water-heating fuels.

(*) = Value rounds to zero in the units displayed.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-5.1u. Water-Heating Energy Consumption and Expenditures by Household Member and Demographics, 2001 - Preliminary Data

Household Demographics	Water-Heating Energy								RSE Row Factors
	Households (millions)	Total		Per Household			Per Household Member		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	1.3	1.5	1.5	0.9	0.8	0.7	0.9	0.8	
Total Households Using a Major Water-Heating Fuel¹									
Total Households Using a Major Water-Heating Fuel ¹	106.7	1.70	22.10	15.9	207	2.6	6.2	81	1.2
Household Size									
1 Person	28.1	0.27	3.72	9.7	132	1.0	9.7	132	2.1
2 Persons	35.0	0.53	6.91	15.1	197	2.0	7.6	99	2.1
3 Persons	17.0	0.31	4.02	18.0	237	3.0	6.0	79	2.6
4 Persons	15.6	0.32	4.09	20.8	263	4.0	5.2	66	3.0
5 Persons	7.1	0.17	2.11	23.5	296	5.0	4.7	59	4.1
6 or More Persons	4.0	0.10	1.26	25.8	318	6.7	3.9	48	4.5
2001 Household Income Category									
Less than \$9,999	11.0	0.13	1.71	11.8	155	1.9	6.3	83	4.7
\$10,000 to \$14,999	7.6	0.09	1.28	12.0	167	2.1	5.6	79	5.2
\$15,000 to \$19,999	8.9	0.12	1.59	13.2	178	2.3	5.8	78	4.6
\$20,000 to \$29,999	14.0	0.20	2.67	14.2	191	2.3	6.1	81	3.5
\$30,000 to \$39,999	13.9	0.21	2.79	15.1	201	2.6	5.9	79	3.2
\$40,000 to \$49,999	13.1	0.22	2.88	16.5	219	2.7	6.1	81	3.8
\$50,000 to \$74,999	21.6	0.39	4.94	18.0	229	2.9	6.2	78	2.7
\$75,000 to \$99,999	8.1	0.16	1.98	19.4	245	2.9	6.6	84	4.1
\$100,000 or More	8.5	0.19	2.28	22.7	267	3.0	7.5	88	4.6
Income Relative to Poverty Line									
Below 100 Percent	14.9	0.20	2.63	13.2	177	2.6	5.1	69	3.6
100 to 150 Percent	11.4	0.17	2.33	14.9	204	2.7	5.5	75	4.1
Above 150 Percent	80.3	1.33	17.13	16.6	213	2.5	6.5	84	1.3
Eligible for Federal Assistance²									
Yes	33.7	0.48	6.37	14.2	189	2.7	5.4	71	2.3
No	73.0	1.22	15.72	16.8	215	2.5	6.7	86	1.5
Age of Householder									
Under 25 Years	6.1	0.08	1.20	13.1	196	2.6	5.0	74	5.0
25 to 34 Years	16.8	0.27	3.64	15.9	217	3.0	5.2	72	2.9
35 to 44 Years	22.3	0.41	5.21	18.5	233	3.3	5.6	71	2.6
45 to 54 Years	20.7	0.37	4.62	17.7	224	2.7	6.5	82	2.8
55 to 64 Years	14.5	0.23	3.07	15.8	212	2.1	7.4	99	3.1
65 to 74 Years	12.6	0.17	2.17	13.5	173	1.8	7.6	97	3.7
75 Years or More	13.8	0.18	2.19	12.8	159	1.7	7.7	96	3.4
Race of Householder									
Non-Hispanic	96.6	1.54	20.11	15.9	208	2.5	6.4	84	1.3
Non-Hispanic White	78.5	1.23	16.17	15.7	206	2.4	6.5	86	1.5
Non-Hispanic Black	12.7	0.23	2.88	17.9	227	2.7	6.7	84	3.7
Multi-racial ³	0.9	0.01	0.21	17.0	241	2.8	6.0	86	16.3
Other ⁴	4.5	0.06	0.85	14.3	191	3.3	4.3	58	6.1
Hispanic	10.1	0.16	1.98	15.9	196	3.3	4.8	59	4.4

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Below 150 percent of poverty line or 60 percent of median State income.

³ Respondents could select one or more race categories to describe themselves.

⁴ Includes Native American, Native Alaskan, Asian, and Pacific Islander households.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-5.2u. Water-Heating Energy Consumption and Expenditures by Square Feet and Household Demographics, 2001 - Preliminary Data

Household Demographics	Water-Heating Energy								RSE Row Factors
	Households (millions)	Total		Per Household			Per Square Feet		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Square Feet	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	1.2	1.4	1.3	0.8	0.7	0.8	1.0	1.0	
Total Households Using a Major Water-Heating Fuel¹	106.7	1.70	22.10	15.9	207	1,974	8.1	0.10	1.4
Household Size									
1 Person	28.1	0.27	3.72	9.7	132	1,430	6.8	0.09	2.5
2 Persons	35.0	0.53	6.91	15.1	197	2,081	7.3	0.09	2.4
3 Persons	17.0	0.31	4.02	18.0	237	2,097	8.6	0.11	3.1
4 Persons	15.6	0.32	4.09	20.8	263	2,342	8.9	0.11	3.3
5 Persons	7.1	0.17	2.11	23.5	296	2,317	10.2	0.13	4.8
6 or More Persons	4.0	0.10	1.26	25.8	318	2,301	11.2	0.14	5.5
2001 Household Income Category									
Less than \$9,999	11.0	0.13	1.71	11.8	155	1,173	10.1	0.13	4.7
\$10,000 to \$14,999	7.6	0.09	1.28	12.0	167	1,330	9.0	0.13	5.2
\$15,000 to \$19,999	8.9	0.12	1.59	13.2	178	1,494	8.8	0.12	4.5
\$20,000 to \$29,999	14.0	0.20	2.67	14.2	191	1,555	9.2	0.12	3.6
\$30,000 to \$39,999	13.9	0.21	2.79	15.1	201	1,724	8.7	0.12	3.5
\$40,000 to \$49,999	13.1	0.22	2.88	16.5	219	2,062	8.0	0.11	4.0
\$50,000 to \$74,999	21.6	0.39	4.94	18.0	229	2,362	7.6	0.10	3.1
\$75,000 to \$99,999	8.1	0.16	1.98	19.4	245	2,682	7.2	0.09	4.4
\$100,000 or More	8.5	0.19	2.28	22.7	267	3,395	6.7	0.08	4.4
Income Relative to Poverty Line									
Below 100 Percent	14.9	0.20	2.63	13.2	177	1,231	10.7	0.14	3.7
100 to 150 Percent	11.4	0.17	2.33	14.9	204	1,495	9.9	0.14	4.1
Above 150 Percent	80.3	1.33	17.13	16.6	213	2,181	7.6	0.10	1.6
Eligible for Federal Assistance²									
Yes	33.7	0.48	6.37	14.2	189	1,437	9.9	0.13	2.5
No	73.0	1.22	15.72	16.8	215	2,222	7.5	0.10	1.7
Age of Householder									
Under 25 Years	6.1	0.08	1.20	13.1	196	1,150	11.4	0.17	5.2
25 to 34 Years	16.8	0.27	3.64	15.9	217	1,667	9.5	0.13	3.4
35 to 44 Years	22.3	0.41	5.21	18.5	233	2,097	8.8	0.11	2.8
45 to 54 Years	20.7	0.37	4.62	17.7	224	2,305	7.7	0.10	3.0
55 to 64 Years	14.5	0.23	3.07	15.8	212	2,212	7.1	0.10	3.4
65 to 74 Years	12.6	0.17	2.17	13.5	173	1,928	7.0	0.09	4.0
75 Years or More	13.8	0.18	2.19	12.8	159	1,811	7.1	0.09	3.7
Race of Householder									
Non-Hispanic	96.6	1.54	20.11	15.9	208	2,034	7.8	0.10	1.5
Non-Hispanic White	78.5	1.23	16.17	15.7	206	2,085	7.5	0.10	1.7
Non-Hispanic Black	12.7	0.23	2.88	17.9	227	1,830	9.8	0.12	4.6
Multi-racial ³	0.9	0.01	0.21	17.0	241	1,526	11.1	0.16	15.8
Other ⁴	4.5	0.06	0.85	14.3	191	1,816	7.9	0.10	7.3
Hispanic	10.1	0.16	1.98	15.9	196	1,407	11.3	0.14	4.6

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Below 150 percent of poverty line or 60 percent of median State income.

³ Respondents could select one or more race categories to describe themselves.

⁴ Includes Native American, Native Alaskan, Asian, and Pacific Islander households.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-6.1u. Water-Heating Energy Consumption and Expenditures by Household Member and Usage Indicators, 2001 - Preliminary Data

Usage Indicators	Water-Heating Energy								RSE Row Factors
	Households (millions)	Total		Per Household			Per Household Member		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (thousand Btu)	Expenditures (dollars)	
	RSE Column Factor:	1.4	1.6	1.6	0.8	0.7	0.7	0.9	
Total Households Using a Major Water-Heating Fuel¹ ..	106.7	1.70	22.10	15.9	207	2.6	6.2	81	1.2
Weekday Home Activities									
Home Used for Business									
Yes	7.5	0.14	1.85	18.4	247	2.9	6.4	85	4.7
No/Don't Know	99.2	1.56	20.24	15.8	204	2.5	6.2	80	1.3
Energy-Intensive Activity									
Yes	1.7	0.03	0.38	17.6	228	2.8	6.3	82	8.7
No/Don't Know	105.0	1.67	21.72	15.9	207	2.6	6.2	81	1.3
Someone Home All Day									
Yes	52.9	0.88	11.21	16.6	212	2.7	6.1	78	1.8
No/Don't Know	53.8	0.82	10.89	15.3	202	2.4	6.3	84	1.7
Total Floorspace Category² (square feet)									
Fewer than 500	3.8	0.03	0.50	8.8	130	1.8	4.9	72	7.7
500 to 999	21.7	0.25	3.61	11.5	166	2.1	5.5	80	3.1
1,000 to 1,499	22.7	0.32	4.44	14.2	196	2.5	5.7	79	3.0
1,500 to 1,999	16.6	0.27	3.53	16.4	212	2.7	6.1	79	3.1
2,000 to 2,499	13.5	0.24	3.04	18.1	225	2.7	6.6	83	3.3
2,500 to 2,999	9.3	0.17	2.00	17.7	214	2.7	6.5	79	3.7
3,000 to 3,499	6.8	0.14	1.75	20.8	257	3.1	6.7	83	5.2
3,500 to 3,999	4.1	0.09	1.10	22.5	272	3.2	7.0	85	6.4
4,000 or More	8.2	0.18	2.13	22.4	261	3.0	7.5	87	4.0
Year of Construction									
1939 or Before	18.8	0.31	3.68	16.6	196	2.5	6.7	79	3.5
1940 to 1949	7.6	0.13	1.55	17.1	204	2.7	6.4	77	5.0
1950 to 1959	14.2	0.24	2.87	16.9	202	2.5	6.8	81	3.2
1960 to 1969	13.7	0.22	2.65	15.8	193	2.4	6.5	80	3.3
1970 to 1979	18.7	0.26	3.84	13.9	205	2.5	5.6	82	3.1
1980 to 1989	18.2	0.27	3.97	15.0	218	2.5	6.0	87	3.4
1990 to 1999	14.5	0.25	3.32	17.3	229	2.9	5.9	78	4.8
2000 to 2001 ³	0.9	0.02	0.21	20.1	230	3.4	5.9	68	12.8
Housing Unit Type and Number of Bedrooms									
Mobile Home	6.8	0.08	1.43	12.1	210	2.6	4.7	81	5.8
Less than 3 Bedrooms	3.7	0.04	0.70	10.9	189	2.0	5.4	94	7.0
3 or More Bedrooms	3.1	0.04	0.73	13.5	235	3.3	4.2	72	7.3
Single-Family Detached	63.0	1.13	14.27	18.0	227	2.7	6.6	83	1.8
Less than 3 Bedrooms	12.2	0.17	2.30	14.3	188	2.0	7.2	95	3.4
3 Bedrooms	33.5	0.58	7.34	17.2	219	2.7	6.5	82	2.3
4 Bedrooms	14.3	0.31	3.74	21.3	261	3.3	6.4	78	3.4
5 or More Bedrooms	2.9	0.08	0.89	25.9	306	3.8	6.9	81	6.9
Single-Family Attached	10.6	0.19	2.27	18.1	215	2.7	6.8	80	5.3
Less than 3 Bedrooms	3.9	0.06	0.72	15.8	184	2.1	7.6	89	8.3
3 Bedrooms	4.6	0.08	0.98	17.5	214	2.7	6.5	79	6.9
4 or More Bedrooms	2.1	0.05	0.57	23.8	274	3.8	6.3	73	11.9
Apartments (2 to 4 units) ...	9.5	0.12	1.61	12.5	170	2.3	5.5	74	4.8
Less than 2 Bedrooms	2.6	0.02	0.32	9.5	122	1.7	5.6	72	9.6
2 Bedrooms	5.0	0.06	0.87	12.0	172	2.1	5.6	80	5.5
3 or More Bedrooms	1.8	0.03	0.42	18.3	230	3.4	5.3	67	9.8

See footnotes at end of table.

Table CE4-6.1u. Water-Heating Energy Consumption and Expenditures by Household Member and Usage Indicators, 2001 - Preliminary Data (Continued)

Usage Indicators	Water-Heating Energy								RSE Row Factors
	Households (millions)	Total		Per Household			Per Household Member		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (thousand Btu)	Expenditures (dollars)	
	RSE Column Factor:	1.4	1.6	1.6	0.8	0.7	0.7	0.9	
Apartments (5 or more units)	16.9	0.18	2.52	10.5	149	2.0	5.2	75	4.8
Less than 2 Bedrooms	8.5	0.07	0.96	8.0	114	1.5	5.2	74	5.3
2 Bedrooms	7.0	0.09	1.24	12.6	178	2.3	5.5	78	8.3
3 or More Bedrooms	1.5	0.02	0.32	14.5	220	3.3	4.3	66	10.3

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Does **not** include floorspace for unheated garages.

³ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-6.2u. Water-Heating Energy Consumption and Expenditures by Square Feet and Usage Indicators, 2001 - Preliminary Data

Usage Indicators	Water-Heating Energy								RSE Row Factors
	Households (millions)	Total		Per Household			Per Square Feet		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Square Feet	Consumption (million Btu)	Expenditures (dollars)	
	RSE Column Factor:	1.4	1.6	1.5	0.8	0.7	0.7	0.9	
Total Households Using a Major Water-Heating Fuel¹ ..	106.7	1.70	22.10	15.9	207	1,974	8.1	0.10	1.5
Weekday Home Activities									
Home Used for Business									
Yes	7.5	0.14	1.85	18.4	247	2,584	7.1	0.10	5.1
No/Don't Know	99.2	1.56	20.24	15.8	204	1,928	8.2	0.11	1.6
Energy-Intensive Activity									
Yes	1.7	0.03	0.38	17.6	228	2,529	7.0	0.09	8.8
No/Don't Know	105.0	1.67	21.72	15.9	207	1,966	8.1	0.11	1.5
Someone Home All Day									
Yes	52.9	0.88	11.21	16.6	212	2,064	8.0	0.10	2.0
No/Don't Know	53.8	0.82	10.89	15.3	202	1,886	8.1	0.11	1.9
Total Floorspace Category² (square feet)									
Fewer than 500	3.8	0.03	0.50	8.8	130	405	21.8	0.32	6.3
500 to 999	21.7	0.25	3.61	11.5	166	770	14.9	0.22	3.0
1,000 to 1,499	22.7	0.32	4.44	14.2	196	1,232	11.5	0.16	2.6
1,500 to 1,999	16.6	0.27	3.53	16.4	212	1,737	9.4	0.12	3.2
2,000 to 2,499	13.5	0.24	3.04	18.1	225	2,227	8.1	0.10	3.1
2,500 to 2,999	9.3	0.17	2.00	17.7	214	2,733	6.5	0.08	3.4
3,000 to 3,499	6.8	0.14	1.75	20.8	257	3,226	6.5	0.08	5.1
3,500 to 3,999	4.1	0.09	1.10	22.5	272	3,697	6.1	0.07	6.0
4,000 or More	8.2	0.18	2.13	22.4	261	5,282	4.2	0.05	3.8
Year of Construction									
1939 or Before	18.8	0.31	3.68	16.6	196	2,029	8.2	0.10	3.6
1940 to 1949	7.6	0.13	1.55	17.1	204	1,853	9.2	0.11	5.0
1950 to 1959	14.2	0.24	2.87	16.9	202	2,004	8.4	0.10	3.6
1960 to 1969	13.7	0.22	2.65	15.8	193	1,834	8.6	0.11	3.7
1970 to 1979	18.7	0.26	3.84	13.9	205	1,737	8.0	0.12	3.5
1980 to 1989	18.2	0.27	3.97	15.0	218	1,925	7.8	0.11	3.9
1990 to 1999	14.5	0.25	3.32	17.3	229	2,371	7.3	0.10	5.7
2000 to 2001 ³	0.9	0.02	0.21	20.1	230	3,036	6.6	0.08	15.6
Housing Unit Type and Number of Bedrooms									
Mobile Home	6.8	0.08	1.43	12.1	210	1,055	11.5	0.20	5.8
Less than 3 Bedrooms	3.7	0.04	0.70	10.9	189	835	13.1	0.23	6.9
3 or More Bedrooms	3.1	0.04	0.73	13.5	235	1,319	10.3	0.18	7.2
Single-Family Detached	63.0	1.13	14.27	18.0	227	2,427	7.4	0.09	1.9
Less than 3 Bedrooms	12.2	0.17	2.30	14.3	188	1,611	8.9	0.12	3.8
3 Bedrooms	33.5	0.58	7.34	17.2	219	2,288	7.5	0.10	2.5
4 Bedrooms	14.3	0.31	3.74	21.3	261	3,063	7.0	0.09	3.7
5 or More Bedrooms	2.9	0.08	0.89	25.9	306	4,320	6.0	0.07	7.2
Single-Family Attached	10.6	0.19	2.27	18.1	215	2,192	8.3	0.10	5.5
Less than 3 Bedrooms	3.9	0.06	0.72	15.8	184	1,548	10.2	0.12	7.7
3 Bedrooms	4.6	0.08	0.98	17.5	214	2,301	7.6	0.09	7.1
4 or More Bedrooms	2.1	0.05	0.57	23.8	274	3,168	7.5	0.09	10.9
Apartments (2 to 4 units) ...	9.5	0.12	1.61	12.5	170	1,393	9.0	0.12	4.8
Less than 2 Bedrooms	2.6	0.02	0.32	9.5	122	899	10.6	0.14	9.1
2 Bedrooms	5.0	0.06	0.87	12.0	172	1,403	8.5	0.12	5.9
3 or More Bedrooms	1.8	0.03	0.42	18.3	230	2,061	8.9	0.11	10.6

See footnotes at end of table.

Table CE4-6.2u. Water-Heating Energy Consumption and Expenditures by Square Feet and Usage Indicators, 2001 - Preliminary Data (Continued)

Usage Indicators	Water-Heating Energy								RSE Row Factors
	Households (millions)	Total		Per Household			Per Square Feet		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Square Feet	Consumption (million Btu)	Expenditures (dollars)	
	RSE Column Factor:	1.4	1.6	1.5	0.8	0.7	0.7	0.9	
Apartments (5 or more units)	16.9	0.18	2.52	10.5	149	847	12.3	0.18	4.6
Less than 2 Bedrooms	8.5	0.07	0.96	8.0	114	640	12.5	0.18	5.0
2 Bedrooms	7.0	0.09	1.24	12.6	178	1,005	12.5	0.18	7.6
3 or More Bedrooms	1.5	0.02	0.32	14.5	220	1,294	11.2	0.17	10.7

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Does **not** include floorspace for unheated garages.

³ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-7c. Water-Heating Energy Consumption in U.S. Households by Four Most Populated States, 2001 - Preliminary Data

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.4	1.7	0.9	1.3	1.2	
Million Households						
Total U.S. Households	107.0	7.1	12.3	7.7	6.3	NF
No Water Heating	Q	Q	Q	Q	Q	NF
Water Heating	106.9	7.1	12.3	7.6	6.3	NF
Not Using a Major Fuel ¹	0.2	Q	Q	Q	Q	99.9
Using a Major Fuel ¹	106.7	7.0	12.2	7.6	6.3	NF
For Main Water Heating	106.5	7.0	12.1	7.6	6.3	1.2
Number of Households with Water Heating, Major Fuels Used:						
Electricity	41.6	0.9	2.3	3.0	5.2	7.9
Natural Gas	58.2	4.4	10.0	4.6	1.2	5.4
Fuel Oil	4.7	1.7	Q	Q	Q	15.4
LPG	3.0	Q	0.4	Q	Q	33.0
Quadrillion Btu						
Water-Heating Btu Consumption, Major Fuels Used:						
Electricity	0.37	0.01	0.01	0.03	0.05	11.0
Natural Gas	1.15	0.08	0.18	0.09	0.02	8.0
Fuel Oil	0.13	0.04	Q	Q	Q	14.7
LPG	0.05	Q	0.01	Q	Q	37.7
Total ²	1.70	0.13	0.20	0.12	0.06	3.5
Physical Units						
Physical Units of Water-Heating Consumption, Major Fuels Used:						
Electricity (billion kWh)	109	2	4	8	14	11.0
Natural Gas (billion cf)	1,115	76	175	92	17	8.0
Fuel Oil (million gallons)	950	295	Q	Q	Q	14.7
LPG (million gallons)	524	Q	67	Q	Q	37.7
Million Btu per Household						
Average Water-Heating Btu Consumption per Household						
Using a Major Fuel ¹	15.9	18.1	16.3	16.2	10.2	3.5
For Main Water Heating	16.0	18.1	16.4	16.2	10.2	3.5
Million Households						
Number of Households, Where the Main Water-Heating Fuel Is:						
Electricity	40.8	0.9	1.8	3.0	5.1	8.4
Natural Gas	58.0	4.4	9.9	4.5	1.2	5.5
Fuel Oil	4.6	1.6	Q	Q	Q	16.2
LPG	2.9	Q	0.4	Q	Q	33.0
No Water Heating	Q	Q	Q	Q	Q	NF

See footnotes at end of table.

Table CE4-7c. Water-Heating Energy Consumption in U.S. Households by Four Most Populated States, 2001 - Preliminary Data (Continued)

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.4	1.7	0.9	1.3	1.2	
Million Btu per Household⁴						
Water-Heating Btu Consumption per Household,³ Where the Main Water-Heating Fuel Is:						
Electricity	9.2	8.2	7.4	9.3	9.0	5.1
Natural Gas	19.7	17.5	18.1	20.6	15.2	4.2
Fuel Oil	28.1	24.8	Q	Q	Q	6.1
LPG	16.1	Q	14.2	Q	Q	20.0
Physical Units (PU) per Household⁴						
Physical Units of Water-Heating Consumption per Household,³ Where the Main Water-Heating Fuel Is:						
Electricity (kWh)	2,683	2,390	2,164	2,732	2,641	5.1
Natural Gas (thousand cf)	19	17	18	20	15	4.2
Fuel Oil (gallons)	203	179	Q	Q	Q	6.1
LPG (gallons)	176	Q	156	Q	Q	20.0
Number of Household Members (NHM) per Household⁴						
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:						
Electricity	2.4	2.8	2.5	2.3	2.5	4.5
Natural Gas	2.7	2.5	3.1	3.0	2.7	2.7
Fuel Oil	2.4	2.3	Q	Q	Q	6.2
LPG	2.6	Q	2.4	Q	Q	13.0
Water-Heating Intensity (PU÷NHM)⁴						
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:						
Electricity	1,101	848	882	1,211	1,066	3.7
Natural Gas	7.2	6.8	5.7	6.8	5.4	5.6
Fuel Oil	84	77	Q	Q	Q	8.8
LPG	68	Q	65	Q	Q	24.8

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes a small amount of kerosene use for water heating.

³ Includes only the water-heating consumption of the water-heating fuel. Not included are: 1) the consumption of the main water-heating fuel for uses other than water heating; 2) the consumption of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the consumption of other fuels that are used as secondary water-heating fuels.

⁴ Averages are for those households using each of the main water-heating fuels.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-8c. Water-Heating Energy Consumption in U.S. Households by Urban/Rural Location, 2001 - Preliminary Data

	Urban/Rural Location ¹					RSE Row Factors
	Total	City	Town	Suburbs	Rural	
	0.5	0.9	1.4	1.2	1.2	
Million Households						
Total U.S. Households	107.0	49.9	18.0	21.2	17.9	4.2
No Water Heating	Q	Q	Q	Q	Q	NF
Water Heating	106.9	49.8	18.0	21.2	17.9	4.2
Not Using a Major Fuel ²	0.2	Q	Q	Q	Q	73.4
Using a Major Fuel ²	106.7	49.7	18.0	21.2	17.8	4.2
For Main Water Heating	106.5	49.5	18.0	21.1	17.8	4.2
Number of Households with Water Heating, Major Fuels Used:						
Electricity	41.6	15.8	7.0	7.1	11.6	6.6
Natural Gas	58.2	32.6	9.4	13.0	3.1	5.9
Fuel Oil	4.7	1.6	1.1	1.0	1.0	16.2
LPG	3.0	0.3	0.5	Q	2.1	21.4
Quadrillion Btu						
Water-Heating Btu Consumption, Major Fuels Used:						
Electricity	0.37	0.13	0.06	0.06	0.12	7.6
Natural Gas	1.15	0.61	0.19	0.28	0.06	6.3
Fuel Oil	0.13	0.04	0.03	0.03	0.04	15.5
LPG	0.05	(*)	0.01	Q	0.04	23.0
Total ³	1.70	0.78	0.29	0.38	0.26	3.9
Physical Units						
Physical Units of Water-Heating Consumption, Major Fuels Used:						
Electricity (billion kWh)	109	37	17	19	36	7.6
Natural Gas (billion cf)	1,115	592	189	275	60	6.3
Fuel Oil (million gallons)	950	269	231	196	254	15.5
LPG (million gallons)	524	46	76	Q	385	23.0
Million Btu per Household						
Average Water-Heating Btu Consumption per Household						
Using a Major Fuel ²	15.9	15.6	16.2	17.7	14.4	2.1
For Main Water Heating	16.0	15.7	16.3	17.8	14.4	2.1
Million Households						
Number of Households, Where the Main Water-Heating Fuel Is:						
Electricity	40.8	15.3	6.9	7.0	11.6	6.6
Natural Gas	58.0	32.5	9.4	13.0	3.1	5.9
Fuel Oil	4.6	1.5	1.1	1.0	1.0	16.5
LPG	2.9	0.2	0.5	Q	2.1	21.0
No Water Heating	Q	Q	Q	Q	Q	NF

See footnotes at end of table.

Table CE4-8c. Water-Heating Energy Consumption in U.S. Households by Urban/Rural Location, 2001 - Preliminary Data (Continued)

	Urban/Rural Location ¹					RSE Row Factors
	Total	City	Town	Suburbs	Rural	
RSE Column Factor:	0.5	0.9	1.4	1.2	1.2	
Million Btu per Household⁵						
Water-Heating Btu Consumption per Household,⁴ Where the Main Water-Heating Fuel Is:						
Electricity	9.2	8.3	8.6	9.1	10.7	2.7
Natural Gas	19.7	18.7	20.4	21.7	19.7	2.5
Fuel Oil	28.1	23.6	29.2	27.2	34.7	6.4
LPG	16.1	15.8	13.2	Q	17.0	10.6
Physical Units (PU) per Household⁵						
Physical Units of Water-Heating Consumption per Household,⁴ Where the Main Water-Heating Fuel Is:						
Electricity (kWh)	2,683	2,421	2,513	2,678	3,133	2.7
Natural Gas (thousand cf)	19	18	20	21	19	2.5
Fuel Oil (gallons)	203	170	211	196	250	6.4
LPG (gallons)	176	173	145	Q	186	10.6
Number of Household Members (NHM) per Household⁵						
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:						
Electricity	2.4	2.3	2.3	2.4	2.7	2.6
Natural Gas	2.7	2.6	2.7	2.8	2.4	2.7
Fuel Oil	2.4	2.1	2.5	2.5	2.8	5.7
LPG	2.6	2.5	2.1	Q	2.6	9.6
Water-Heating Intensity (PU÷NHM)⁵						
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:						
Electricity	1,101	1,046	1,083	1,095	1,179	2.3
Natural Gas	7.2	6.9	7.4	7.6	8.0	2.9
Fuel Oil	84	81	86	80	90	6.9
LPG	68	70	68	Q	71	11.1

¹ Based on the household respondent's description rather than the Federal Government definition.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes a small amount of kerosene use for water heating.

⁴ Includes only the water-heating consumption of the water-heating fuel. Not included are: 1) the consumption of the main water-heating fuel for uses other than water heating; 2) the consumption of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the consumption of other fuels that are used as secondary water-heating fuels.

⁵ Averages are for those households using each of the main water-heating fuels.

(*) = Value rounds to zero in the units displayed.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-9c. Water-Heating Energy Consumption in U.S. Households by Northeast Census Region, 2001 - Preliminary Data

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.5	1.0	1.2	1.6	
Million Households					
Total U.S. Households	107.0	20.3	14.8	5.4	NF
No Water Heating	Q	Q	Q	Q	NF
Water Heating	106.9	20.2	14.8	5.4	NF
Not Using a Major Fuel ¹	0.2	Q	Q	Q	82.5
Using a Major Fuel ¹	106.7	20.2	14.8	5.4	NF
For Main Water Heating	106.5	20.2	14.8	5.4	NF
Number of Households with Water Heating, Major Fuels Used:					
Electricity	41.6	4.7	3.3	1.5	10.0
Natural Gas	58.2	10.8	8.9	1.9	8.7
Fuel Oil	4.7	4.4	2.6	1.9	13.1
LPG	3.0	0.3	Q	0.2	24.7
Quadrillion Btu					
Water-Heating Btu Consumption, Major Fuels Used:					
Electricity	0.37	0.04	0.03	0.01	10.6
Natural Gas	1.15	0.19	0.16	0.03	9.6
Fuel Oil	0.13	0.12	0.07	0.06	14.6
LPG	0.05	0.01	Q	(*)	21.9
Total ²	1.70	0.37	0.26	0.11	2.5
Physical Units					
Physical Units of Water-Heating Consumption, Major Fuels Used:					
Electricity (billion kWh)	109	11	8	3	10.6
Natural Gas (billion cf)	1,115	189	155	34	9.6
Fuel Oil (million gallons)	950	900	490	410	14.6
LPG (million gallons)	524	67	Q	36	21.9
Million Btu per Household					
Average Water-Heating Btu Consumption per Household					
Using a Major Fuel ¹	15.9	18.1	17.5	19.7	2.6
For Main Water Heating	16.0	18.1	17.5	19.7	2.6
Million Households					
Number of Households, Where the Main Water-Heating Fuel Is:					
Electricity	40.8	4.7	3.2	1.4	9.9
Natural Gas	58.0	10.8	8.9	1.9	8.7
Fuel Oil	4.6	4.4	2.5	1.8	13.7
LPG	2.9	0.3	Q	0.2	24.7
No Water Heating	Q	Q	Q	Q	NF

See footnotes at end of table.

Table CE4-9c. Water-Heating Energy Consumption in U.S. Households by Northeast Census Region, 2001 - Preliminary Data (Continued)

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.5	1.0	1.2	1.6	
Million Btu per Household⁴					
Water-Heating Btu Consumption per Household,³ Where the Main Water-Heating Fuel Is:					
Electricity	9.2	8.4	8.8	7.6	4.0
Natural Gas	19.7	18.1	18.1	18.1	2.9
Fuel Oil	28.1	28.2	26.6	30.5	4.5
LPG	16.1	18.1	Q	20.1	11.9
Physical Units (PU) per Household⁴					
Physical Units of Water-Heating Consumption per Household,³ Where the Main Water-Heating Fuel Is:					
Electricity (kWh)	2,683	2,460	2,568	2,218	4.0
Natural Gas (thousand cf)	19	18	18	18	2.9
Fuel Oil (gallons)	203	204	192	220	4.5
LPG (gallons)	176	199	Q	220	11.9
Number of Household Members (NHM) per Household⁴					
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:					
Electricity	2.4	2.5	2.6	2.3	3.7
Natural Gas	2.7	2.4	2.4	2.4	2.9
Fuel Oil	2.4	2.4	2.4	2.4	4.6
LPG	2.6	2.6	Q	2.5	10.2
Water-Heating Intensity (PU÷NHM)⁴					
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:					
Electricity	1,101	975	978	968	3.2
Natural Gas	7.2	7.3	7.3	7.2	4.0
Fuel Oil	84	84	78	92	5.9
LPG	68	76	Q	88	10.4

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes a small amount of kerosene use for water heating.

³ Includes only the water-heating consumption of the water-heating fuel. Not included are: 1) the consumption of the main water-heating fuel for uses other than water heating; 2) the consumption of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the consumption of other fuels that are used as secondary water-heating fuels.

⁴ Averages are for those households using each of the main water-heating fuels.

(*) = Value rounds to zero in the units displayed.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE4-10c. Water-Heating Energy Consumption in U.S. Households
by Midwest Census Region, 2001 - Preliminary Data**

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
RSE Column Factor:	0.6	0.9	1.3	1.5	
Million Households					
Total U.S. Households	107.0	24.5	17.1	7.4	NF
No Water Heating	Q	Q	Q	Q	NF
Water Heating	106.9	24.5	17.1	7.4	NF
Not Using a Major Fuel ¹	0.2	Q	Q	Q	70.9
Using a Major Fuel ¹	106.7	24.5	17.1	7.4	NF
For Main Water Heating	106.5	24.5	17.1	7.4	NF
Number of Households with Water Heating, Major Fuels Used:					
Electricity	41.6	6.4	4.2	2.2	6.8
Natural Gas	58.2	17.0	12.5	4.5	4.0
Fuel Oil	4.7	Q	Q	Q	19.0
LPG	3.0	1.3	0.5	0.7	23.0
Quadrillion Btu					
Water-Heating Btu Consumption, Major Fuels Used:					
Electricity	0.37	0.06	0.03	0.02	7.2
Natural Gas	1.15	0.35	0.26	0.09	4.8
Fuel Oil	0.13	Q	Q	Q	21.4
LPG	0.05	0.02	0.01	0.01	24.8
Total ²	1.70	0.43	0.30	0.13	2.5
Physical Units					
Physical Units of Water-Heating Consumption, Major Fuels Used:					
Electricity (billion kWh)	109	17	10	6	7.2
Natural Gas (billion cf)	1,115	341	253	88	4.8
Fuel Oil (million gallons)	950	Q	Q	Q	21.4
LPG (million gallons)	524	230	90	140	24.8
Million Btu per Household					
Average Water-Heating Btu Consumption per Household					
Using a Major Fuel ¹	15.9	17.5	17.8	16.9	2.5
For Main Water Heating	16.0	17.5	17.8	16.9	2.5
Million Households					
Number of Households, Where the Main Water-Heating Fuel Is:					
Electricity	40.8	6.3	4.2	2.2	6.8
Natural Gas	58.0	16.9	12.4	4.5	3.9
Fuel Oil	4.6	Q	Q	Q	19.8
LPG	2.9	1.3	0.5	0.7	23.0
No Water Heating	Q	Q	Q	Q	NF

See footnotes at end of table.

Table CE4-10c. Water-Heating Energy Consumption in U.S. Households by Midwest Census Region, 2001 - Preliminary Data (Continued)

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
RSE Column Factor:	0.6	0.9	1.3	1.5	
Million Btu per Household³					
Water-Heating Btu Consumption per Household,³ Where the Main Water-Heating Fuel Is:					
Electricity	9.2	8.9	8.4	10.1	2.6
Natural Gas	19.7	20.6	20.8	20.1	2.7
Fuel Oil	28.1	Q	Q	Q	6.6
LPG	16.1	16.7	15.5	17.5	6.7
Physical Units (PU) per Household³					
Physical Units of Water-Heating Consumption per Household,³ Where the Main Water-Heating Fuel Is:					
Electricity (kWh)	2,683	2,622	2,449	2,950	2.6
Natural Gas (thousand cf)	19	20	20	20	2.7
Fuel Oil (gallons)	203	Q	Q	Q	6.6
LPG (gallons)	176	183	170	192	6.7
Number of Household Members (NHM) per Household³					
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:					
Electricity	2.4	2.4	2.3	2.5	3.3
Natural Gas	2.7	2.6	2.6	2.4	3.3
Fuel Oil	2.4	Q	Q	Q	6.6
LPG	2.6	2.6	2.7	2.5	5.9
Water-Heating Intensity (PU÷NHM)³					
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:					
Electricity	1,101	1,114	1,084	1,164	3.3
Natural Gas	7.2	7.8	7.7	8.0	2.1
Fuel Oil	84	Q	Q	Q	8.9
LPG	68	71	63	77	5.9

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes a small amount of kerosene use for water heating.

³ Includes only the water-heating consumption of the water-heating fuel. Not included are: 1) the consumption of the main water-heating fuel for uses other than water heating; 2) the consumption of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the consumption of other fuels that are used as secondary water-heating fuels.

³ Averages are for those households using each of the main water-heating fuels.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-11c. Water-Heating Energy Consumption in U.S. Households by South Census Region, 2001 - Preliminary Data

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			Total	
		South Atlantic	East South Central	West south Central		
RSE Column Factor:	0.4	0.9	1.0	1.9	1.4	
Million Households						
Total U.S. Households	107.0	38.9	20.3	6.8	11.8	NF
No Water Heating	Q	Q	Q	Q	Q	NF
Water Heating	106.9	38.9	20.3	6.8	11.8	NF
Not Using a Major Fuel ¹	0.2	Q	Q	Q	Q	92.2
Using a Major Fuel ¹	106.7	38.9	20.3	6.8	11.8	NF
For Main Water Heating	106.5	38.8	20.2	6.8	11.7	NF
Number of Households with Water Heating, Major Fuels Used:						
Electricity	41.6	22.6	13.5	4.4	4.7	6.6
Natural Gas	58.2	15.5	6.3	2.2	7.0	8.4
Fuel Oil	4.7	Q	Q	Q	Q	24.7
LPG	3.0	0.7	0.3	0.2	Q	30.0
Quadrillion Btu						
Water-Heating Btu Consumption, Major Fuels Used:						
Electricity	0.37	0.21	0.12	0.05	0.04	7.7
Natural Gas	1.15	0.32	0.13	0.04	0.15	8.7
Fuel Oil	0.13	Q	Q	Q	Q	27.8
LPG	0.05	0.01	0.01	(*)	Q	29.4
Total ²	1.70	0.55	0.27	0.09	0.19	3.0
Physical Units						
Physical Units of Water-Heating Consumption, Major Fuels Used:						
Electricity (billion kWh)	109	63	37	14	12	7.7
Natural Gas (billion cf)	1,115	313	127	42	144	8.7
Fuel Oil (million gallons)	950	Q	Q	Q	Q	27.8
LPG (million gallons)	524	109	57	20	Q	29.4
Million Btu per Household						
Average Water-Heating Btu Consumption per Household						
Using a Major Fuel ¹	15.9	14.2	13.2	13.6	16.4	3.0
For Main Water Heating	16.0	14.2	13.2	13.6	16.5	3.0
Million Households						
Number of Households, Where the Main Water-Heating Fuel Is:						
Electricity	40.8	22.4	13.4	4.4	4.6	6.6
Natural Gas	58.0	15.4	6.3	2.2	6.9	8.4
Fuel Oil	4.6	Q	Q	Q	Q	25.7
LPG	2.9	0.6	Q	0.2	Q	27.3
No Water Heating	Q	Q	Q	Q	Q	NF

See footnotes at end of table.

Table CE4-11c. Water-Heating Energy Consumption in U.S. Households by South Census Region, 2001 - Preliminary Data (Continued)

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			RSE Row Factors	
		Total	South Atlantic	East South Central		
RSE Column Factor:	0.4	0.9	1.0	1.9	1.4	
Million Btu per Household³						
Water-Heating Btu Consumption per Household,³ Where the Main Water-Heating Fuel Is:						
Electricity	9.2	9.5	9.3	10.7	9.1	2.7
Natural Gas	19.7	20.8	20.8	19.6	21.3	3.9
Fuel Oil	28.1	Q	Q	Q	Q	8.6
LPG	16.1	14.5	Q	10.1	Q	9.5
Physical Units (PU) per Household³						
Physical Units of Water-Heating Consumption per Household,³ Where the Main Water-Heating Fuel Is:						
Electricity (kWh)	2,683	2,798	2,730	3,132	2,675	2.7
Natural Gas (thousand cf)	19	20	20	19	21	3.9
Fuel Oil (gallons)	203	Q	Q	Q	Q	8.6
LPG (gallons)	176	159	Q	110	Q	9.5
Number of Household Members (NHM) per Household³						
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:						
Electricity	2.4	2.5	2.5	2.5	2.2	2.9
Natural Gas	2.7	2.7	2.6	2.2	2.8	2.9
Fuel Oil	2.4	Q	Q	Q	Q	8.6
LPG	2.6	2.5	Q	1.4	Q	11.7
Water-Heating Intensity (PU÷NHM)³						
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:						
Electricity	1,101	1,139	1,087	1,242	1,196	2.1
Natural Gas	7.2	7.6	7.7	8.5	7.3	3.9
Fuel Oil	84	Q	Q	Q	Q	11.5
LPG	68	64	Q	79	Q	12.7

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes a small amount of kerosene use for water heating.

³ Includes only the water-heating consumption of the water-heating fuel. Not included are: 1) the consumption of the main water-heating fuel for uses other than water heating; 2) the consumption of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the consumption of other fuels that are used as secondary water-heating fuels.

³ Averages are for those households using each of the main water-heating fuels.

(*) = Value rounds to zero in the units displayed.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. •

See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE4-12c. Water-Heating Energy Consumption in U.S. Households
by West Census Region, 2001 - Preliminary Data**

	Total U.S.	West Census Region			RSE Row Factors
		Total	Census Division		
			Mountain	Pacific	
RSE Column Factor:	0.5	1.0	1.5	1.3	
Million Households					
Total U.S. Households	107.0	23.3	6.7	16.6	NF
No Water Heating	Q	Q	Q	Q	NF
Water Heating	106.9	23.3	6.7	16.6	NF
Not Using a Major Fuel ¹	0.2	Q	Q	Q	76.8
Using a Major Fuel ¹	106.7	23.2	6.7	16.5	NF
For Main Water Heating	106.5	23.0	6.7	16.3	NF
Number of Households with Water Heating, Major Fuels Used:					
Electricity	41.6	7.9	2.3	5.5	5.0
Natural Gas	58.2	15.0	4.1	10.9	2.7
Fuel Oil	4.7	Q	Q	Q	20.6
LPG	3.0	0.7	0.2	0.5	26.2
Quadrillion Btu					
Water-Heating Btu Consumption, Major Fuels Used:					
Electricity	0.37	0.06	0.02	0.04	6.7
Natural Gas	1.15	0.28	0.08	0.20	3.8
Fuel Oil	0.13	Q	Q	Q	23.1
LPG	0.05	0.01	(*)	0.01	28.8
Total ²	1.70	0.35	0.11	0.25	2.5
Physical Units					
Physical Units of Water-Heating Consumption, Major Fuels Used:					
Electricity (billion kWh)	109	19	6	13	6.7
Natural Gas (billion cf)	1,115	272	81	191	3.8
Fuel Oil (million gallons)	950	Q	Q	Q	23.1
LPG (million gallons)	524	119	45	74	28.8
Million Btu per Household					
Average Water-Heating Btu Consumption per Household					
Using a Major Fuel ¹	15.9	15.3	16.0	15.1	2.4
For Main Water Heating	16.0	15.4	16.0	15.1	2.4
Million Households					
Number of Households, Where the Main Water-Heating Fuel Is:					
Electricity	40.8	7.3	2.3	5.0	4.9
Natural Gas	58.0	14.9	4.1	10.8	2.8
Fuel Oil	4.6	Q	Q	Q	21.4
LPG	2.9	0.7	0.2	0.5	26.2
No Water Heating	Q	Q	Q	Q	NF

See footnotes at end of table.

Table CE4-12c. Water-Heating Energy Consumption in U.S. Households by West Census Region, 2001 - Preliminary Data (Continued)

	West Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	Mountain	Pacific	
RSE Column Factor:	0.5	1.0	1.5	1.3	
Million Btu per Household⁴					
Water-Heating Btu Consumption per Household,³ Where the Main Water-Heating Fuel Is:					
Electricity	9.2	8.6	8.4	8.7	3.7
Natural Gas	19.7	18.7	20.2	18.1	2.7
Fuel Oil	28.1	Q	Q	Q	7.2
LPG	16.1	15.4	17.2	14.6	10.2
Physical Units (PU) per Household⁴					
Physical Units of Water-Heating Consumption per Household,³ Where the Main Water-Heating Fuel Is:					
Electricity (kWh)	2,683	2,525	2,462	2,554	3.7
Natural Gas (thousand cf)	19	18	20	18	2.7
Fuel Oil (gallons)	203	Q	Q	Q	7.2
LPG (gallons)	176	169	188	159	10.2
Number of Household Members (NHM) per Household⁴					
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:					
Electricity	2.4	2.4	2.4	2.4	3.7
Natural Gas	2.7	3.0	2.9	3.0	2.3
Fuel Oil	2.4	Q	Q	Q	7.2
LPG	2.6	2.6	3.0	2.4	10.8
Water-Heating Intensity (PU÷NHM)⁴					
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:					
Electricity	1,101	1,059	1,006	1,084	4.1
Natural Gas	7.2	6.1	6.8	5.9	2.9
Fuel Oil	84	Q	Q	Q	9.6
LPG	68	64	63	65	18.5

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes a small amount of kerosene use for water heating.

³ Includes only the water-heating consumption of the water-heating fuel. Not included are: 1) the consumption of the main water-heating fuel for uses other than water heating; 2) the consumption of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the consumption of other fuels that are used as secondary water-heating fuels.

⁴ Averages are for those households using each of the main water-heating fuels.

(*) = Value rounds to zero in the units displayed.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

2001 Consumption and Expenditures Tables

Water-Heating Consumption Tables

(26 pages, 117 kb)

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These data are from the 2001 Residential Energy Consumption Survey (RECS) which provides information on the use of energy in residential housing units in the United States. The RECS is a national statistical survey that collects energy-related data for occupied primary housing units. RECS was first conducted in 1978; the twelfth and most recent survey was conducted in 2001. In the 2001 RECS, data were collected from a sample of 4,822 households in housing units statistically selected to represent the 107.0 million housing units in the United States. The RECS data are available for the four Census regions, the nine Census divisions, and for the four most populous States--California, Florida, New York, and Texas.

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World Wide Web: <http://www.eia.doe.gov/emeu/consumption>

Table CE4-1c. Water-Heating Energy Consumption in U.S. Households by Climate Zone, 2001

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.4	1.6	1.0	1.1	1.2	1.1	
Million Households							
Total U.S. Households	107.0	9.2	28.6	24.0	21.0	24.1	8.1
No Water Heating	Q	Q	Q	Q	Q	Q	NF
Water Heating	106.9	9.2	28.6	24.0	20.9	24.0	8.1
Not Using a Major Fuel ²	0.2	Q	Q	Q	Q	Q	91.7
Using a Major Fuel ²	106.7	9.2	28.6	24.0	20.9	24.0	8.1
For Main Water Heating	106.5	9.2	28.6	24.0	20.8	23.9	8.1
Number of Households with Water Heating, Major Fuels Used:							
Electricity	41.6	4.1	7.4	8.6	8.6	13.0	10.3
Natural Gas	58.2	3.8	19.2	12.4	12.2	10.6	8.9
Fuel Oil	4.7	0.8	1.5	2.4	Q	Q	20.5
LPG	3.0	0.6	0.8	0.6	0.5	0.5	27.6
Quadrillion Btu^a							
Water-Heating Btu Consumption, Major Fuels Used:							
Electricity	0.36	0.04	0.06	0.08	0.07	0.11	11.9
Natural Gas	1.15	0.07	0.39	0.24	0.24	0.21	9.3
Fuel Oil	0.13	0.03	0.04	0.06	Q	Q	22.0
LPG	0.05	0.01	0.01	Q	0.01	0.01	25.6
Total ³	1.68	0.14	0.51	0.38	0.32	0.33	7.0
Physical Units^a							
Physical Units of Water-Heating Consumption, Major Fuels Used:							
Electricity (billion kWh)	104	11	18	22	21	32	11.9
Natural Gas (billion cf)	1,115	68	383	231	229	204	9.3
Fuel Oil (million gallons)	950	193	311	445	Q	Q	22.0
LPG (million gallons)	515	111	144	Q	73	88	25.6
Million Btu per Household^a							
Average Water-Heating Btu Consumption per Household							
Using a Major Fuel ²	15.8	15.7	17.9	16.0	15.1	13.6	2.9
For Main Water Heating	15.8	15.7	17.9	16.0	15.2	13.7	2.9
Million Households							
Number of Households, Where the Main Water-Heating Fuel Is:							
Electricity	40.8	4.0	7.3	8.5	8.1	12.8	10.4
Natural Gas	58.0	3.7	19.1	12.4	12.2	10.6	8.9
Fuel Oil	4.6	0.8	1.4	2.4	Q	Q	21.1
LPG	2.9	0.6	0.8	0.6	0.5	0.4	27.7
No Water Heating	Q	Q	Q	Q	Q	Q	NF

See footnotes at end of table.

Table CE4-1c. Water-Heating Energy Consumption in U.S. Households by Climate Zone, 2001 (Continued)

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.4	1.6	1.0	1.1	1.2	1.1	
Million Btu per Household^{5,a}							
Water-Heating Btu Consumption per Household,⁴ Where the Main Water-Heating Fuel Is:							
Electricity	8.7	9.2	8.3	8.9	9.0	8.5	3.6
Natural Gas	19.7	18.5	20.5	19.1	19.3	19.7	2.9
Fuel Oil	28.1	32.7	29.9	25.5	Q	Q	5.2
LPG	15.9	17.4	16.9	14.2	13.5	17.0	10.1
Physical Units (PU) per Household^{5,a}							
Physical Units of Water-Heating Consumption per Household,⁴ Where the Main Water-Heating Fuel Is:							
Electricity (kWh)	2,552	2,700	2,429	2,607	2,636	2,486	3.6
Natural Gas (thousand cf)	19	18	20	19	19	19	2.9
Fuel Oil (gallons)	203	236	215	184	Q	Q	5.2
LPG (gallons)	174	190	186	156	148	186	10.1
Number of Household Members (NHM) per Household⁵							
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:							
Electricity	2.4	2.6	2.3	2.5	2.5	2.4	3.1
Natural Gas	2.7	2.4	2.6	2.5	3.0	2.7	3.1
Fuel Oil	2.4	2.4	2.5	2.4	Q	Q	6.2
LPG	2.6	2.6	2.6	2.3	2.2	3.3	9.3
Water-Heating Intensity^{5,a} (PU÷NHM)							
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:							
Electricity	1,048	1,049	1,050	1,063	1,055	1,031	3.2
Natural Gas	7.2	7.4	7.8	7.4	6.3	7.1	2.9
Fuel Oil	84	97	88	77	Q	Q	7.1
LPG	68	73	72	68	67	56	11.1

¹ One of five climatically distinct areas, determined according to the 30-year average (1961-1990) of the annual heating and cooling degree-days. For this report, the heating or cooling degree-days are a measure of how cold or how hot a location is over a period of one year, relative to a base temperature of 65 degrees Fahrenheit. A household is assigned to a climate zone according to the 30-year average annual degree-days for an appropriate nearby weather station.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes a small amount of kerosene use for water heating.

⁴ Includes only the water-heating consumption of the water-heating fuel. Not included are: 1) the consumption of the main water-heating fuel for uses other than water heating; 2) the consumption of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the consumption of other fuels that are used as secondary water-heating fuels.

⁵ Averages are for those households using each of the main water-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE4-2c. Water-Heating Energy Consumption in U.S. Households
by Year of Construction, 2001**

	Total	Year of Construction					1949 or Before	RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1990 to 1999		
RSE Column Factor:	0.5	1.5	1.2	1.0	1.2	1.1	0.9	
Million Households								
Total U.S. Households	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
No Water Heating	Q	Q	Q	Q	Q	Q	Q	NF
Water Heating	106.9	15.5	18.2	18.7	13.8	14.2	26.5	4.3
Not Using a Major Fuel ²	0.2	Q	Q	Q	Q	Q	Q	84.9
Using a Major Fuel ²	106.7	15.4	18.2	18.7	13.7	14.2	26.4	4.3
For Main Water Heating	106.5	15.4	18.2	18.7	13.6	14.1	26.4	4.3
Number of Households with Water Heating, Major Fuels Used:								
Electricity	41.6	6.5	9.8	9.8	4.2	4.4	6.9	6.6
Natural Gas	58.2	8.3	7.7	7.8	8.7	8.8	16.9	6.4
Fuel Oil	4.7	0.2	0.3	0.5	0.7	0.9	2.1	19.6
LPG	3.0	0.5	0.4	0.7	0.2	0.3	0.8	23.2
Quadrillion Btu^a								
Water-Heating Btu Consumption, Major Fuels Used:								
Electricity	0.36	0.06	0.08	0.08	0.04	0.04	0.06	7.7
Natural Gas	1.15	0.19	0.16	0.15	0.16	0.18	0.31	7.0
Fuel Oil	0.13	0.01	0.01	0.02	0.02	0.02	0.05	20.0
LPG	0.05	0.01	0.01	0.01	(*)	(*)	0.01	24.7
Total ³	1.68	0.27	0.27	0.25	0.21	0.24	0.44	4.6
Physical Units^a								
Physical Units of Water-Heating Consumption, Major Fuels Used:								
Electricity (billion kWh)	104	18	25	24	10	10	17	7.7
Natural Gas (billion cf)	1,115	185	160	141	153	171	306	7.0
Fuel Oil (million gallons)	950	48	101	115	136	166	384	20.0
LPG (million gallons)	515	94	68	116	32	50	156	24.7
Million Btu per Household^{5,a}								
Average Water-Heating Btu Consumption per Household								
Using a Major Fuel ²	15.8	17.3	14.8	13.6	15.6	16.8	16.6	2.7
For Main Water Heating	15.8	17.3	14.8	13.6	15.7	16.9	16.6	2.7
Million Households								
Number of Households, Where the Main Water-Heating Fuel Is:								
Electricity	40.8	6.4	9.8	9.8	4.1	4.1	6.7	6.8
Natural Gas	58.0	8.3	7.7	7.8	8.6	8.8	16.9	6.4
Fuel Oil	4.6	0.2	0.3	0.5	0.7	0.9	2.0	20.2
LPG	2.9	0.5	0.4	0.7	0.2	0.3	0.8	23.2
No Water Heating	Q	Q	Q	Q	Q	Q	Q	NF

See footnotes at end of table.

Table CE4-2c. Water-Heating Energy Consumption in U.S. Households by Year of Construction, 2001 (Continued)

	Year of Construction							RSE Row Factors
	Total	1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1990 to 1999	1949 or Before	
RSE Column Factor:	0.5	1.5	1.2	1.0	1.2	1.1	0.9	
Million Btu per Household^{5,a}								
Water-Heating Btu Consumption per Household,⁴ Where the Main Water-Heating Fuel Is:								
Electricity	8.7	9.4	8.6	8.5	8.7	8.6	8.6	3.4
Natural Gas	19.7	22.9	21.3	18.6	18.2	19.9	18.5	2.9
Fuel Oil	28.1	35.0	44.5	32.8	25.8	24.8	26.1	7.7
LPG	15.9	17.1	14.1	15.0	13.2	17.2	17.1	11.1
Physical Units (PU) per Household^{5,a}								
Physical Units of Water-Heating Consumption per Household,⁴ Where the Main Water-Heating Fuel Is:								
Electricity (kWh)	2,552	2,752	2,522	2,480	2,543	2,522	2,535	3.4
Natural Gas (thousand cf)	19	22	21	18	18	19	18	2.9
Fuel Oil (gallons)	203	252	321	237	186	179	188	7.7
LPG (gallons)	174	187	155	164	144	189	187	11.1
Number of Household Members (NHM) per Household⁵								
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:								
Electricity	2.4	2.7	2.4	2.3	2.4	2.4	2.5	3.2
Natural Gas	2.7	3.1	2.6	2.7	2.5	2.6	2.6	2.9
Fuel Oil	2.4	2.9	3.2	2.8	2.4	2.1	2.3	7.1
LPG	2.6	3.1	2.5	2.4	2.0	2.6	2.5	11.7
Water-Heating Intensity^{5,a} (PU÷NHM)								
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:								
Electricity	1,048	1,023	1,042	1,061	1,080	1,071	1,033	2.7
Natural Gas	7.2	7.1	8.0	6.7	7.1	7.4	7.0	3.0
Fuel Oil	84	87	101	84	78	87	81	10.1
LPG	68	60	61	67	73	72	74	13.3

¹ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes a small amount of kerosene use for water heating.

⁴ Includes only the water-heating consumption of the water-heating fuel. Not included are: 1) the consumption of the main water-heating fuel for uses other than water heating; 2) the consumption of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the consumption of other fuels that are used as secondary water-heating fuels.

⁵ Averages are for those households using each of the main water-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

(*) = Value rounds to zero in the units displayed.
 NF = No applicable RSE row factor.
 Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.
 • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-3c. Water-Heating Energy Consumption in U.S. Households by Household Income, 2001

	Total	2001 Household Income				Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.6	1.0	0.9	0.8	1.5	0.9	
Million Households								
Total U.S. Households	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.3
No Water Heating	Q	Q	Q	Q	Q	Q	Q	NF
Water Heating	106.9	11.0	30.5	27.1	38.3	14.9	33.7	3.3
Not Using a Major Fuel ²	0.2	Q	Q	Q	Q	Q	Q	72.4
Using a Major Fuel ²	106.7	11.0	30.5	27.0	38.2	14.9	33.7	3.3
For Main Water Heating	106.5	11.0	30.4	27.0	38.1	14.9	33.7	3.3
Number of Households with Water Heating, Major Fuels Used:								
Electricity	41.6	4.7	13.4	10.8	12.7	6.4	14.3	6.0
Natural Gas	58.2	5.6	15.5	14.1	23.0	7.9	17.7	5.2
Fuel Oil	4.7	0.4	1.1	1.3	2.0	0.4	1.1	15.5
LPG	3.0	0.3	0.9	1.0	0.8	0.4	0.9	19.4
Quadrillion Btu^a								
Water-Heating Btu Consumption, Major Fuels Used:								
Electricity	0.36	0.03	0.10	0.09	0.13	0.05	0.11	6.4
Natural Gas	1.15	0.08	0.26	0.27	0.53	0.13	0.31	5.7
Fuel Oil	0.13	0.01	0.02	0.03	0.06	0.01	0.03	17.2
LPG	0.05	(*)	0.01	0.02	0.01	(*)	0.01	21.2
Total ³	1.68	0.13	0.40	0.42	0.73	0.19	0.47	3.7
Physical Units^a								
Physical Units of Water-Heating Consumption, Major Fuels Used:								
Electricity (billion kWh)	104	9	29	28	39	14	33	6.4
Natural Gas (billion cf)	1,115	82	257	267	510	124	304	5.7
Fuel Oil (million gallons)	950	76	176	246	452	83	221	17.2
LPG (million gallons)	515	19	164	184	148	45	156	21.2
Million Btu per Household^{5,a}								
Average Water-Heating Btu Consumption per Household								
Using a Major Fuel ²	15.8	11.5	13.2	15.5	19.2	12.9	14.0	2.3
For Main Water Heating	15.8	11.5	13.2	15.5	19.3	12.9	14.0	2.3
Million Households								
Number of Households, Where the Main Water-Heating Fuel Is:								
Electricity	40.8	4.7	13.1	10.6	12.4	6.2	14.0	6.0
Natural Gas	58.0	5.6	15.4	14.1	23.0	7.8	17.6	5.2
Fuel Oil	4.6	0.4	1.0	1.3	1.9	0.4	1.1	15.9
LPG	2.9	0.3	0.9	1.0	0.8	0.4	0.9	19.5
No Water Heating	Q	Q	Q	Q	Q	Q	Q	NF

See footnotes at end of table.

Table CE4-3c. Water-Heating Energy Consumption in U.S. Households by Household Income, 2001 (Continued)

	2001 Household Income					Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
	Total	Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.6	1.0	0.9	0.8	1.5	0.9	
Million Btu per Household^{5,a}								
Water-Heating Btu Consumption per Household,⁴ Where the Main Water-Heating Fuel Is:								
Electricity	8.7	6.3	7.6	8.8	10.7	7.8	8.1	2.7
Natural Gas	19.7	14.9	17.1	19.4	22.8	16.3	17.7	2.4
Fuel Oil	28.1	27.7	22.9	26.5	32.1	26.8	28.9	6.2
LPG	15.9	6.2	16.4	17.6	16.6	10.0	15.4	9.8
Physical Units (PU) per Household^{5,a}								
Physical Units of Water-Heating Consumption per Household,⁴ Where the Main Water-Heating Fuel Is:								
Electricity (kWh)	2,552	1,850	2,231	2,593	3,122	2,282	2,367	2.7
Natural Gas (thousand cf)	19	15	17	19	22	16	17	2.4
Fuel Oil (gallons)	203	200	165	192	231	193	209	6.2
LPG (gallons)	174	68	180	192	182	110	168	9.8
Number of Household Members (NHM) per Household⁵								
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:								
Electricity	2.4	1.7	2.2	2.5	2.9	2.4	2.5	3.0
Natural Gas	2.7	2.0	2.4	2.7	3.0	2.8	2.8	2.6
Fuel Oil	2.4	2.1	1.7	2.5	2.8	2.3	2.5	7.2
LPG	2.6	1.3	2.5	2.8	2.9	2.5	2.7	10.7
Water-Heating Intensity^{5,a} (PU÷NHM)								
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:								
Electricity	1,048	1,060	1,008	1,053	1,073	970	962	2.6
Natural Gas	7.2	7.2	7.0	6.9	7.4	5.7	6.1	2.7
Fuel Oil	84	94	96	76	83	84	84	8.6
LPG	68	53	73	69	64	43	63	11.8

¹ Below 150 percent of poverty line or 60 percent of median State income.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes a small amount of kerosene use for water heating.

⁴ Includes only the water-heating consumption of the water-heating fuel. Not included are: 1) the consumption of the main water-heating fuel for uses other than water heating; 2) the consumption of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the consumption of other fuels that are used as secondary water-heating fuels.

⁵ Averages are for those households using each of the main water-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

(*) = Value rounds to zero in the units displayed.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-4c. Water-Heating Energy Consumption in U.S. Households by Type of Housing Unit, 2001

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Apartments in Buildings With		Mobile Homes	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.5	1.6	1.3	1.8	
Million Households						
Total U.S. Households	107.0	73.7	9.5	17.0	6.8	4.4
No Water Heating	Q	Q	Q	Q	Q	NF
Water Heating	106.9	73.6	9.5	17.0	6.8	4.4
Not Using a Major Fuel ¹	0.2	Q	Q	Q	Q	82.3
Using a Major Fuel ¹	106.7	73.5	9.5	16.9	6.8	4.4
For Main Water Heating	106.5	73.3	9.5	16.8	6.8	4.4
Number of Households with Water Heating, Major Fuels Used:						
Electricity	41.6	25.9	3.4	7.4	4.9	7.5
Natural Gas	58.2	42.8	5.7	8.2	1.5	6.7
Fuel Oil	4.7	3.0	0.4	1.3	Q	19.5
LPG	3.0	2.5	Q	Q	0.4	22.3
Quadrillion Btu^a						
Water-Heating Btu Consumption, Major Fuels Used:						
Electricity	0.36	0.24	0.02	0.04	0.05	8.4
Natural Gas	1.15	0.93	0.08	0.10	0.03	7.4
Fuel Oil	0.13	0.10	0.01	0.02	Q	20.5
LPG	0.05	0.04	Q	Q	(*)	23.4
Total ²	1.68	1.31	0.12	0.17	0.08	4.5
Physical Units^a						
Physical Units of Water-Heating Consumption, Major Fuels Used:						
Electricity (billion kWh)	104	71	7	13	14	8.4
Natural Gas (billion cf)	1,115	907	82	98	28	7.4
Fuel Oil (million gallons)	950	698	76	176	Q	20.5
LPG (million gallons)	515	458	Q	Q	51	23.4
Million Btu per Household^{4,a}						
Average Water-Heating Btu Consumption per Household						
Using a Major Fuel ¹	15.8	17.9	12.4	10.0	12.2	2.7
For Main Water Heating	15.8	17.9	12.4	10.0	12.2	2.7
Million Households						
Number of Households, Where the Main Water-Heating Fuel Is:						
Electricity	40.8	25.2	3.4	7.4	4.9	7.6
Natural Gas	58.0	42.7	5.7	8.1	1.5	6.7
Fuel Oil	4.6	2.9	0.4	1.3	Q	20.2
LPG	2.9	2.5	Q	Q	0.3	22.6
No Water Heating	Q	Q	Q	Q	Q	NF

See footnotes at end of table.

Table CE4-4c. Water-Heating Energy Consumption in U.S. Households by Type of Housing Unit, 2001 (Continued)

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Apartments in Buildings With		Mobile Homes	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.5	1.6	1.3	1.8	
Million Btu per Household^{4,a}						
Water-Heating Btu Consumption per Household,³ Where the Main Water-Heating Fuel Is:						
Electricity	8.7	9.6	6.7	5.9	10.0	3.1
Natural Gas	19.7	21.8	14.8	12.4	18.8	3.1
Fuel Oil	28.1	32.3	25.7	19.0	Q	5.9
LPG	15.9	16.7	Q	Q	12.6	8.8
Physical Units (PU) per Household^{4,a}						
Physical Units of Water-Heating Consumption per Household,³ Where the Main Water-Heating Fuel Is:						
Electricity (kWh)	2,552	2,804	1,953	1,716	2,927	3.1
Natural Gas (thousand cf)	19	21	14	12	18	3.1
Fuel Oil (gallons)	203	233	185	137	Q	5.9
LPG (gallons)	174	183	Q	Q	138	8.8
Number of Household Members (NHM) per Household⁴						
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:						
Electricity	2.4	2.6	2.2	1.9	2.7	3.1
Natural Gas	2.7	2.8	2.4	2.1	2.4	3.1
Fuel Oil	2.4	2.6	1.7	2.1	Q	7.3
LPG	2.6	2.7	Q	Q	2.2	8.6
Water-Heating Intensity^{4,a} (PU÷NHM)						
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:						
Electricity	1,048	1,082	895	925	1,094	2.7
Natural Gas	7.2	7.5	6.0	5.7	7.6	3.6
Fuel Oil	84	89	112	64	Q	9.1
LPG	68	68	Q	Q	62	9.3

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes a small amount of kerosene use for water heating.

³ Includes only the water-heating consumption of the water-heating fuel. Not included are: 1) the consumption of the main water-heating fuel for uses other than water heating; 2) the consumption of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the consumption of other fuels that are used as secondary water-heating fuels.

⁴ Averages are for those households using each of the main water-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

(*) = Value rounds to zero in the units displayed.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-5.1u. Water-Heating Energy Consumption and Expenditures by Household Member and Demographics, 2001

Household Demographics	Water-Heating Energy								RSE Row Factors
	Households (millions)	Total ^a		Per Household ^a			Per Household Member ^a		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (million Btu)	Expenditures (dollars)	
RSE Column Factor:	1.3	1.5	1.4	0.9	0.8	0.7	0.9	0.8	
Total Households Using a Major Water-Heating Fuel¹	106.7	1.68	21.61	15.8	203	2.6	6.2	79	1.2
Household Size									
1 Person	28.1	0.27	3.59	9.6	128	1.0	9.6	128	2.1
2 Persons	35.0	0.52	6.73	14.9	192	2.0	7.5	96	2.1
3 Persons	17.0	0.30	3.94	17.8	232	3.0	5.9	77	2.7
4 Persons	15.6	0.32	4.02	20.6	258	4.0	5.1	65	3.1
5 Persons	7.1	0.17	2.11	23.6	296	5.0	4.7	59	4.1
6 or More Persons	4.0	0.10	1.24	25.5	312	6.7	3.8	47	4.4
2001 Household Income Category									
Less than \$9,999	11.0	0.13	1.63	11.5	149	1.9	6.1	79	4.8
\$10,000 to \$14,999	7.6	0.09	1.25	11.8	164	2.1	5.6	77	5.2
\$15,000 to \$19,999	8.9	0.12	1.54	13.0	173	2.3	5.7	76	4.5
\$20,000 to \$29,999	14.0	0.20	2.62	14.1	188	2.3	6.0	80	3.5
\$30,000 to \$39,999	13.9	0.21	2.72	14.9	196	2.6	5.8	77	3.2
\$40,000 to \$49,999	13.1	0.21	2.80	16.2	213	2.7	6.0	79	3.8
\$50,000 to \$74,999	21.6	0.39	4.86	17.9	225	2.9	6.1	77	2.7
\$75,000 to \$99,999	8.1	0.16	1.94	19.3	241	2.9	6.6	82	4.1
\$100,000 or More	8.5	0.19	2.25	22.6	263	3.0	7.5	87	4.6
Income Relative to Poverty Line									
Below 100 Percent	14.9	0.19	2.54	12.9	170	2.6	5.0	66	3.6
100 to 150 Percent	11.4	0.17	2.28	14.7	200	2.7	5.4	74	4.2
Above 150 Percent	80.3	1.32	16.79	16.5	209	2.5	6.5	82	1.4
Eligible for Federal Assistance²									
Yes	33.7	0.47	6.20	14.0	184	2.7	5.3	69	2.3
No	73.0	1.21	15.41	16.6	211	2.5	6.6	84	1.5
Age of Householder									
Under 25 Years	6.1	0.08	1.15	12.8	188	2.6	4.8	71	5.1
25 to 34 Years	16.8	0.26	3.54	15.7	211	3.0	5.2	69	3.0
35 to 44 Years	22.3	0.41	5.14	18.4	230	3.3	5.6	70	2.6
45 to 54 Years	20.7	0.36	4.52	17.5	219	2.7	6.4	80	2.8
55 to 64 Years	14.5	0.23	3.00	15.7	207	2.1	7.3	97	3.2
65 to 74 Years	12.6	0.17	2.10	13.3	167	1.8	7.4	94	3.7
75 Years or More	11.2	0.14	1.69	12.2	151	1.5	8.2	101	4.2
No answer/refused	2.5	0.04	0.48	15.2	188	2.3	6.5	81	7.5
Race of Householder									
Non-Hispanic	96.6	1.52	19.70	15.8	204	2.5	6.4	82	1.4
Non-Hispanic White	78.5	1.22	15.88	15.6	202	2.4	6.5	84	1.6
Non-Hispanic Black	12.7	0.22	2.79	17.6	221	2.7	6.6	82	3.8
Multi-racial ³	0.9	0.01	0.21	16.7	236	2.8	5.9	84	16.1
Other ⁴	4.5	0.06	0.83	14.0	185	3.3	4.3	56	6.1
Hispanic	10.1	0.16	1.91	15.6	188	3.3	4.7	57	4.4

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Below 150 percent of poverty line or 60 percent of median State income.

³ Respondents could select one or more race categories to describe themselves.

⁴ Includes Native American, Native Alaskan, Asian, and Pacific Islander households.

^a The column factor in this section is underestimated because it contains no error for estimating the end-use.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-5.2u. Water-Heating Energy Consumption and Expenditures by Square Feet and Household Demographics, 2001

Household Demographics	Water-Heating Energy								RSE Row Factors
	Households (millions)	Total ^a		Per Household ^a			Per Square Feet ^a		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Square Feet	Consumption (1000 Btu)	Expenditures (dollars)	
RSE Column Factor:	1.2	1.4	1.3	0.8	0.7	0.8	1.0	1.0	
Total Households Using a Major Water-Heating Fuel¹	106.7	1.68	21.61	15.8	203	1,974	8.0	0.10	1.4
Household Size									
1 Person	28.1	0.27	3.59	9.6	128	1,430	6.7	0.09	2.5
2 Persons	35.0	0.52	6.73	14.9	192	2,081	7.2	0.09	2.4
3 Persons	17.0	0.30	3.94	17.8	232	2,097	8.5	0.11	3.1
4 Persons	15.6	0.32	4.02	20.6	258	2,342	8.8	0.11	3.4
5 Persons	7.1	0.17	2.11	23.6	296	2,317	10.2	0.13	4.8
6 or More Persons	4.0	0.10	1.24	25.5	312	2,301	11.1	0.14	5.4
2001 Household Income Category									
Less than \$9,999	11.0	0.13	1.63	11.5	149	1,173	9.8	0.13	4.7
\$10,000 to \$14,999	7.6	0.09	1.25	11.8	164	1,330	8.9	0.12	5.3
\$15,000 to \$19,999	8.9	0.12	1.54	13.0	173	1,494	8.7	0.12	4.5
\$20,000 to \$29,999	14.0	0.20	2.62	14.1	188	1,555	9.1	0.12	3.6
\$30,000 to \$39,999	13.9	0.21	2.72	14.9	196	1,724	8.6	0.11	3.5
\$40,000 to \$49,999	13.1	0.21	2.80	16.2	213	2,062	7.9	0.10	4.1
\$50,000 to \$74,999	21.6	0.39	4.86	17.9	225	2,362	7.6	0.10	3.2
\$75,000 to \$99,999	8.1	0.16	1.94	19.3	241	2,682	7.2	0.09	4.5
\$100,000 or More	8.5	0.19	2.25	22.6	263	3,395	6.7	0.08	4.4
Income Relative to Poverty Line									
Below 100 Percent	14.9	0.19	2.54	12.9	170	1,231	10.5	0.14	3.7
100 to 150 Percent	11.4	0.17	2.28	14.7	200	1,495	9.8	0.13	4.1
Above 150 Percent	80.3	1.32	16.79	16.5	209	2,181	7.5	0.10	1.6
Eligible for Federal Assistance²									
Yes	33.7	0.47	6.20	14.0	184	1,437	9.7	0.13	2.5
No	73.0	1.21	15.41	16.6	211	2,222	7.5	0.10	1.7
Age of Householder									
Under 25 Years	6.1	0.08	1.15	12.8	188	1,150	11.1	0.16	5.2
25 to 34 Years	16.8	0.26	3.54	15.7	211	1,667	9.4	0.13	3.4
35 to 44 Years	22.3	0.41	5.14	18.4	230	2,097	8.8	0.11	2.9
45 to 54 Years	20.7	0.36	4.52	17.5	219	2,305	7.6	0.09	3.0
55 to 64 Years	14.5	0.23	3.00	15.7	207	2,212	7.1	0.09	3.5
65 to 74 Years	12.6	0.17	2.10	13.3	167	1,928	6.9	0.09	4.0
75 Years or More	11.2	0.14	1.69	12.2	151	1,776	6.9	0.08	4.6
No answer/refused	2.5	0.04	0.48	15.2	188	1,974	7.7	0.10	7.9
Race of Householder									
Non-Hispanic	96.6	1.52	19.70	15.8	204	2,034	7.8	0.10	1.6
Non-Hispanic White	78.5	1.22	15.88	15.6	202	2,085	7.5	0.10	1.8
Non-Hispanic Black	12.7	0.22	2.79	17.6	221	1,830	9.6	0.12	4.7
Multi-racial ³	0.9	0.01	0.21	16.7	236	1,526	11.0	0.15	15.6
Other ⁴	4.5	0.06	0.83	14.0	185	1,816	7.7	0.10	7.4
Hispanic	10.1	0.16	1.91	15.6	188	1,407	11.1	0.13	4.6

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Below 150 percent of poverty line or 60 percent of median State income.

³ Respondents could select one or more race categories to describe themselves.

⁴ Includes Native American, Native Alaskan, Asian, and Pacific Islander households.

^a The column factor in this section is underestimated because it contains no error for estimating the end-use.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-6.1u. Water-Heating Energy Consumption and Expenditures by Household Member and Usage Indicators, 2001

Usage Indicators	Water-Heating Energy								RSE Row Factors
	Households (millions)	Total ^a		Per Household ^a			Per Household Member ^a		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (thousand Btu)	Expenditures (dollars)	
	RSE Column Factor:	1.4	1.6	1.6	0.8	0.7	0.7	0.9	
Total Households Using a Major Water-Heating Fuel¹ ..	106.7	1.68	21.61	15.8	203	2.6	6.2	79	1.2
Weekday Home Activities									
Home Used for Business									
Yes	7.5	0.14	1.82	18.3	243	2.9	6.3	84	4.6
No/Don't Know	99.2	1.54	19.79	15.6	200	2.5	6.1	79	1.3
Energy-Intensive Activity									
Yes	1.7	0.03	0.37	17.3	221	2.8	6.2	80	8.8
No/Don't Know	105.0	1.65	21.25	15.7	202	2.6	6.2	79	1.3
Someone Home All Day									
Yes	52.9	0.87	10.98	16.4	208	2.7	6.1	76	1.8
No/Don't Know	53.8	0.81	10.64	15.1	198	2.4	6.3	82	1.7
Total Floorspace Category² (square feet)									
Fewer than 500	3.8	0.03	0.48	8.7	126	1.8	4.8	70	8.0
500 to 999	21.7	0.24	3.44	11.2	159	2.1	5.4	77	3.1
1,000 to 1,499	22.7	0.32	4.33	14.0	191	2.5	5.6	77	3.0
1,500 to 1,999	16.6	0.27	3.47	16.2	209	2.7	6.1	78	3.1
2,000 to 2,499	13.5	0.24	2.99	17.9	222	2.7	6.6	82	3.4
2,500 to 2,999	9.3	0.16	1.97	17.6	211	2.7	6.5	78	3.7
3,000 to 3,499	6.8	0.14	1.74	20.8	256	3.1	6.7	82	5.2
3,500 to 3,999	4.1	0.09	1.08	22.2	266	3.2	7.0	83	6.4
4,000 or More	8.2	0.18	2.11	22.3	259	3.0	7.5	87	4.1
Year of Construction									
1939 or Before	18.8	0.31	3.64	16.5	193	2.5	6.7	78	3.6
1940 to 1949	7.6	0.13	1.54	17.0	203	2.7	6.4	76	5.0
1950 to 1959	14.2	0.24	2.84	16.8	200	2.5	6.7	80	3.3
1960 to 1969	13.7	0.21	2.59	15.6	189	2.4	6.4	78	3.3
1970 to 1979	18.7	0.25	3.68	13.6	196	2.5	5.4	78	3.2
1980 to 1989	18.2	0.27	3.86	14.8	212	2.5	5.9	85	3.4
1990 to 1999	14.5	0.25	3.26	17.1	225	2.9	5.9	77	4.9
2000 to 2001 ³	0.9	0.02	0.21	20.0	230	3.4	5.9	68	12.9
Housing Unit Type and Number of Bedrooms									
Mobile Homes	6.8	0.08	1.44	12.2	212	2.6	4.7	82	5.8
Less than 3 Bedrooms	3.7	0.04	0.71	11.0	192	2.0	5.5	95	7.1
3 or More Bedrooms	3.1	0.04	0.73	13.6	235	3.3	4.2	72	7.3
Single-Family Detached	63.0	1.12	14.05	17.8	223	2.7	6.5	82	1.8
Less than 3 Bedrooms	12.2	0.17	2.25	14.2	184	2.0	7.2	93	3.5
3 Bedrooms	33.5	0.57	7.22	17.1	215	2.7	6.4	81	2.3
4 Bedrooms	14.3	0.30	3.70	21.2	258	3.3	6.4	77	3.4
5 or More Bedrooms	2.9	0.07	0.88	25.7	303	3.8	6.9	81	7.1
Single-Family Attached	10.6	0.19	2.23	18.0	211	2.7	6.7	79	5.4
Less than 3 Bedrooms	3.9	0.06	0.71	15.7	181	2.1	7.5	87	8.3
3 Bedrooms	4.6	0.08	0.96	17.4	211	2.7	6.4	78	6.8
4 or More Bedrooms	2.1	0.05	0.56	23.6	269	3.8	6.3	71	11.9
Apartments in Buildings With 2 to 4 Units	9.5	0.12	1.57	12.4	165	2.3	5.4	73	4.9
Less than 2 Bedrooms	2.6	0.02	0.31	9.4	120	1.7	5.5	70	9.7
2 Bedrooms	5.0	0.06	0.84	11.8	167	2.1	5.5	78	5.4
3 or More Bedrooms	1.8	0.03	0.41	18.1	224	3.4	5.2	65	9.9

See footnotes at end of table.

Table CE4-6.1u. Water-Heating Energy Consumption and Expenditures by Household Member and Usage Indicators, 2001 (Continued)

Usage Indicators	Water-Heating Energy								RSE Row Factors
	Households (millions)	Total ^a		Per Household ^a			Per Household Member ^a		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Household Members	Consumption (thousand Btu)	Expenditures (dollars)	
	RSE Column Factor:	1.4	1.6	1.6	0.8	0.7	0.7	0.9	
Apartments in Buildings									
With 5 or More Units	16.9	0.17	2.33	10.0	138	2.0	5.0	69	4.8
Less than 2 Bedrooms	8.5	0.07	0.89	7.7	105	1.5	5.0	69	5.3
2 Bedrooms	7.0	0.08	1.13	12.0	163	2.3	5.3	71	8.7
3 or More Bedrooms	1.5	0.02	0.31	14.1	212	3.3	4.2	63	10.1

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Does **not** include floorspace for unheated garages.

³ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

^a The column factor in this section is underestimated because it contains no error for estimating the end-use.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-6.2u. Water-Heating Energy Consumption and Expenditures by Square Feet and Usage Indicators, 2001

Usage Indicators	Water-Heating Energy								RSE Row Factors
	Households (millions)	Total ^a		Per Household ^a			Per Square Feet ^a		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Square Feet	Consumption (1000 Btu)	Expenditures (dollars)	
	RSE Column Factor:	1.4	1.6	1.5	0.8	0.7	0.7	0.9	
Total Households Using a Major Water-Heating Fuel¹ ..	106.7	1.68	21.61	15.8	203	1,974	8.0	0.10	1.5
Weekday Home Activities									
Home Used for Business									
Yes	7.5	0.14	1.82	18.3	243	2,584	7.1	0.09	5.1
No/Don't Know	99.2	1.54	19.79	15.6	200	1,928	8.1	0.10	1.6
Energy-Intensive Activity									
Yes	1.7	0.03	0.37	17.3	221	2,529	6.8	0.09	8.9
No/Don't Know	105.0	1.65	21.25	15.7	202	1,966	8.0	0.10	1.5
Someone Home All Day									
Yes	52.9	0.87	10.98	16.4	208	2,064	8.0	0.10	2.1
No/Don't Know	53.8	0.81	10.64	15.1	198	1,886	8.0	0.10	1.9
Total Floorspace Category² (square feet)									
Fewer than 500	3.8	0.03	0.48	8.7	126	405	21.4	0.31	6.7
500 to 999	21.7	0.24	3.44	11.2	159	770	14.5	0.21	3.1
1,000 to 1,499	22.7	0.32	4.33	14.0	191	1,232	11.4	0.15	2.7
1,500 to 1,999	16.6	0.27	3.47	16.2	209	1,737	9.3	0.12	3.2
2,000 to 2,499	13.5	0.24	2.99	17.9	222	2,227	8.0	0.10	3.2
2,500 to 2,999	9.3	0.16	1.97	17.6	211	2,733	6.4	0.08	3.4
3,000 to 3,499	6.8	0.14	1.74	20.8	256	3,226	6.4	0.08	5.2
3,500 to 3,999	4.1	0.09	1.08	22.2	266	3,697	6.0	0.07	6.1
4,000 or More	8.2	0.18	2.11	22.3	259	5,282	4.2	0.05	3.9
Year of Construction									
1939 or Before	18.8	0.31	3.64	16.5	193	2,029	8.1	0.10	3.6
1940 to 1949	7.6	0.13	1.54	17.0	203	1,853	9.2	0.11	4.9
1950 to 1959	14.2	0.24	2.84	16.8	200	2,004	8.4	0.10	3.7
1960 to 1969	13.7	0.21	2.59	15.6	189	1,834	8.5	0.10	3.8
1970 to 1979	18.7	0.25	3.68	13.6	196	1,737	7.8	0.11	3.5
1980 to 1989	18.2	0.27	3.86	14.8	212	1,925	7.7	0.11	3.9
1990 to 1999	14.5	0.25	3.26	17.1	225	2,371	7.2	0.09	5.7
2000 to 2001 ³	0.9	0.02	0.21	20.0	230	3,036	6.6	0.08	15.7
Housing Unit Type and Number of Bedrooms									
Mobile Homes	6.8	0.08	1.44	12.2	212	1,055	11.6	0.20	5.7
Less than 3 Bedrooms	3.7	0.04	0.71	11.0	192	835	13.2	0.23	6.9
3 or More Bedrooms	3.1	0.04	0.73	13.6	235	1,319	10.3	0.18	7.2
Single-Family Detached	63.0	1.12	14.05	17.8	223	2,427	7.4	0.09	1.9
Less than 3 Bedrooms	12.2	0.17	2.25	14.2	184	1,611	8.8	0.11	3.9
3 Bedrooms	33.5	0.57	7.22	17.1	215	2,288	7.5	0.09	2.5
4 Bedrooms	14.3	0.30	3.70	21.2	258	3,063	6.9	0.08	3.7
5 or More Bedrooms	2.9	0.07	0.88	25.7	303	4,320	6.0	0.07	7.3
Single-Family Attached	10.6	0.19	2.23	18.0	211	2,192	8.2	0.10	5.6
Less than 3 Bedrooms	3.9	0.06	0.71	15.7	181	1,548	10.1	0.12	7.8
3 Bedrooms	4.6	0.08	0.96	17.4	211	2,301	7.5	0.09	7.1
4 or More Bedrooms	2.1	0.05	0.56	23.6	269	3,168	7.4	0.08	11.0
Apartments in Buildings With 2 to 4 Units	9.5	0.12	1.57	12.4	165	1,393	8.9	0.12	4.9
Less than 2 Bedrooms	2.6	0.02	0.31	9.4	120	899	10.5	0.13	9.2
2 Bedrooms	5.0	0.06	0.84	11.8	167	1,403	8.4	0.12	5.8
3 or More Bedrooms	1.8	0.03	0.41	18.1	224	2,061	8.8	0.11	10.7

See footnotes at end of table.

Table CE4-6.2u. Water-Heating Energy Consumption and Expenditures by Square Feet and Usage Indicators, 2001 (Continued)

Usage Indicators	Water-Heating Energy								RSE Row Factors
	Households (millions)	Total ^a		Per Household ^a			Per Square Feet ^a		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	Square Feet	Consumption (1000 Btu)	Expenditures (dollars)	
	RSE Column Factor:	1.4	1.6	1.5	0.8	0.7	0.7	0.9	
Apartments in Buildings									
With 5 or More Units	16.9	0.17	2.33	10.0	138	847	11.8	0.16	4.6
Less than 2 Bedrooms	8.5	0.07	0.89	7.7	105	640	12.0	0.16	4.9
2 Bedrooms	7.0	0.08	1.13	12.0	163	1,005	11.9	0.16	7.9
3 or More Bedrooms	1.5	0.02	0.31	14.1	212	1,294	10.9	0.16	10.4

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Does **not** include floorspace for unheated garages.

³ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

^a The column factor in this section is underestimated because it contains no error for estimating the end-use.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-7c. Water-Heating Energy Consumption in U.S. Households by Four Most Populated States, 2001

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.4	1.7	0.9	1.4	1.2	
Million Households						
Total U.S. Households	107.0	7.1	12.3	7.7	6.3	NE
No Water Heating	Q	Q	Q	Q	Q	NF
Water Heating	106.9	7.1	12.3	7.6	6.3	NE
Not Using a Major Fuel ¹	0.2	Q	Q	Q	Q	97.8
Using a Major Fuel ¹	106.7	7.0	12.2	7.6	6.3	NE
For Main Water Heating	106.5	7.0	12.1	7.6	6.3	1.2
Number of Households with Water Heating, Major Fuels Used:						
Electricity	41.6	0.9	2.3	3.0	5.2	7.9
Natural Gas	58.2	4.4	10.0	4.6	1.2	5.4
Fuel Oil	4.7	1.7	Q	Q	Q	15.3
LPG	3.0	Q	0.4	Q	Q	33.2
Quadrillion Btu^a						
Water-Heating Btu Consumption, Major Fuels Used:						
Electricity	0.36	0.01	0.01	0.03	0.04	11.2
Natural Gas	1.15	0.08	0.18	0.09	0.02	8.0
Fuel Oil	0.13	0.04	Q	Q	Q	14.5
LPG	0.05	Q	0.01	Q	Q	33.1
Total ²	1.68	0.13	0.20	0.12	0.06	3.6
Physical Units^a						
Physical Units of Water-Heating Consumption, Major Fuels Used:						
Electricity (billion kWh)	104	2	4	8	13	11.2
Natural Gas (billion cf)	1,115	76	175	92	17	8.0
Fuel Oil (million gallons)	950	295	Q	Q	Q	14.5
LPG (million gallons)	515	Q	61	Q	Q	33.1
Million Btu per Household^{4,a}						
Average Water-Heating Btu Consumption per Household						
Using a Major Fuel ¹	15.8	18.1	16.2	15.9	9.6	3.5
For Main Water Heating	15.8	18.1	16.2	15.9	9.7	3.6
Million Households						
Number of Households, Where the Main Water-Heating Fuel Is:						
Electricity	40.8	0.9	1.8	3.0	5.1	8.4
Natural Gas	58.0	4.4	9.9	4.5	1.2	5.5
Fuel Oil	4.6	1.6	Q	Q	Q	16.0
LPG	2.9	Q	0.4	Q	Q	33.3
No Water Heating	Q	Q	Q	Q	Q	NF

See footnotes at end of table.

Table CE4-7c. Water-Heating Energy Consumption in U.S. Households by Four Most Populated States, 2001 (Continued)

	Four Most Populated States					RSE Row Factors
	Total U.S.	New York	California	Texas	Florida	
RSE Column Factor:	0.4	1.7	0.9	1.4	1.2	
Million Btu per Household^{4,a}						
Water-Heating Btu Consumption per Household,³ Where the Main Water-Heating Fuel Is:						
Electricity	8.7	7.8	6.7	8.7	8.4	5.7
Natural Gas	19.7	17.5	18.1	20.6	15.2	4.2
Fuel Oil	28.1	24.8	Q	Q	Q	6.0
LPG	15.9	Q	12.9	Q	Q	14.3
Physical Units (PU) per Household^{4,a}						
Physical Units of Water-Heating Consumption per Household,³ Where the Main Water-Heating Fuel Is:						
Electricity (kWh)	2,552	2,292	1,967	2,537	2,450	5.7
Natural Gas (thousand cf)	19	17	18	20	15	4.2
Fuel Oil (gallons)	203	179	Q	Q	Q	6.0
LPG (gallons)	174	Q	141	Q	Q	14.3
Number of Household Members (NHM) per Household⁴						
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:						
Electricity	2.4	2.8	2.5	2.3	2.5	4.5
Natural Gas	2.7	2.5	3.1	3.0	2.7	2.7
Fuel Oil	2.4	2.3	Q	Q	Q	6.1
LPG	2.6	Q	2.4	Q	Q	13.1
Water-Heating Intensity^{4,a} (PU÷NHM)						
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:						
Electricity	1,048	814	802	1,124	989	4.0
Natural Gas	7.2	6.8	5.7	6.8	5.4	5.6
Fuel Oil	84	77	Q	Q	Q	8.7
LPG	68	Q	59	Q	Q	19.2

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes a small amount of kerosene use for water heating.

³ Includes only the water-heating consumption of the water-heating fuel. Not included are: 1) the consumption of the main water-heating fuel for uses other than water heating; 2) the consumption of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the consumption of other fuels that are used as secondary water-heating fuels.

⁴ Averages are for those households using each of the main water-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-8c. Water-Heating Energy Consumption in U.S. Households by Urban/Rural Location, 2001

	Urban/Rural Location ¹					RSE Row Factors
	Total	City	Town	Suburbs	Rural	
	0.5	0.9	1.4	1.2	1.2	
Million Households						
Total U.S. Households	107.0	49.9	18.0	21.2	17.9	4.2
No Water Heating	Q	Q	Q	Q	Q	NF
Water Heating	106.9	49.8	18.0	21.2	17.9	4.2
Not Using a Major Fuel ²	0.2	Q	Q	Q	Q	73.5
Using a Major Fuel ²	106.7	49.7	18.0	21.2	17.8	4.2
For Main Water Heating	106.5	49.5	18.0	21.1	17.8	4.2
Number of Households with Water Heating, Major Fuels Used:						
Electricity	41.6	15.8	7.0	7.1	11.6	6.6
Natural Gas	58.2	32.6	9.4	13.0	3.1	5.9
Fuel Oil	4.7	1.6	1.1	1.0	1.0	16.2
LPG	3.0	0.3	0.5	Q	2.1	21.3
Quadrillion Btu^a						
Water-Heating Btu Consumption, Major Fuels Used:						
Electricity	0.36	0.12	0.06	0.06	0.12	7.7
Natural Gas	1.15	0.61	0.19	0.28	0.06	6.3
Fuel Oil	0.13	0.04	0.03	0.03	0.04	15.5
LPG	0.05	(*)	0.01	Q	0.03	23.1
Total ³	1.68	0.77	0.29	0.37	0.25	3.9
Physical Units^a						
Physical Units of Water-Heating Consumption, Major Fuels Used:						
Electricity (billion kWh)	104	34	17	18	36	7.7
Natural Gas (billion cf)	1,115	592	189	275	60	6.3
Fuel Oil (million gallons)	950	269	231	196	254	15.5
LPG (million gallons)	515	43	76	Q	375	23.1
Million Btu per Household^{5,a}						
Average Water-Heating Btu Consumption per Household						
Using a Major Fuel ²	15.8	15.4	16.1	17.5	14.3	2.1
For Main Water Heating	15.8	15.4	16.1	17.6	14.3	2.1
Million Households						
Number of Households, Where the Main Water-Heating Fuel Is:						
Electricity	40.8	15.3	6.9	7.0	11.6	6.6
Natural Gas	58.0	32.5	9.4	13.0	3.1	5.9
Fuel Oil	4.6	1.5	1.1	1.0	1.0	16.5
LPG	2.9	0.2	0.5	Q	2.1	21.0
No Water Heating	Q	Q	Q	Q	Q	NF

See footnotes at end of table.

Table CE4-8c. Water-Heating Energy Consumption in U.S. Households by Urban/Rural Location, 2001 (Continued)

	Total	Urban/Rural Location ¹				RSE Row Factors
		City	Town	Suburbs	Rural	
RSE Column Factor:	0.5	0.9	1.4	1.2	1.2	
Million Btu per Household^{5,a}						
Water-Heating Btu Consumption per Household,⁴ Where the Main Water-Heating Fuel Is:						
Electricity	8.7	7.5	8.2	8.7	10.6	2.8
Natural Gas	19.7	18.7	20.4	21.7	19.7	2.5
Fuel Oil	28.1	23.6	29.2	27.2	34.7	6.4
LPG	15.9	15.6	13.1	Q	16.5	10.2
Physical Units (PU) per Household^{5,a}						
Physical Units of Water-Heating Consumption per Household,⁴ Where the Main Water-Heating Fuel Is:						
Electricity (kWh)	2,552	2,210	2,404	2,536	3,104	2.8
Natural Gas (thousand cf)	19	18	20	21	19	2.5
Fuel Oil (gallons)	203	170	211	196	250	6.4
LPG (gallons)	174	171	144	Q	181	10.2
Number of Household Members (NHM) per Household⁵						
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:						
Electricity	2.4	2.3	2.3	2.4	2.7	2.6
Natural Gas	2.7	2.6	2.7	2.8	2.4	2.7
Fuel Oil	2.4	2.1	2.5	2.5	2.8	5.7
LPG	2.6	2.5	2.1	Q	2.6	9.6
Water-Heating Intensity^{5,a} (PU÷NHM)						
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:						
Electricity	1,048	955	1,036	1,037	1,168	2.2
Natural Gas	7.2	6.9	7.4	7.6	8.0	2.9
Fuel Oil	84	81	86	80	90	6.9
LPG	68	69	67	Q	69	10.1

¹ Based on the household respondent's description rather than the Federal Government definition.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes a small amount of kerosene use for water heating.

⁴ Includes only the water-heating consumption of the water-heating fuel. Not included are: 1) the consumption of the main water-heating fuel for uses other than water heating; 2) the consumption of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the consumption of other fuels that are used as secondary water-heating fuels.

⁵ Averages are for those households using each of the main water-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

(*) = Value rounds to zero in the units displayed.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-9c. Water-Heating Energy Consumption in U.S. Households by Northeast Census Region, 2001

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.5	1.0	1.2	1.6	
Million Households					
Total U.S. Households	107.0	20.3	14.8	5.4	NE
No Water Heating	Q	Q	Q	Q	NF
Water Heating	106.9	20.2	14.8	5.4	NE
Not Using a Major Fuel ¹	0.2	Q	Q	Q	83.7
Using a Major Fuel ¹	106.7	20.2	14.8	5.4	NE
For Main Water Heating	106.5	20.2	14.8	5.4	NE
Number of Households with Water Heating, Major Fuels Used:					
Electricity	41.6	4.7	3.3	1.5	10.0
Natural Gas	58.2	10.8	8.9	1.9	8.7
Fuel Oil	4.7	4.4	2.6	1.9	13.1
LPG	3.0	0.3	Q	0.2	24.9
Quadrillion Btu^a					
Water-Heating Btu Consumption, Major Fuels Used:					
Electricity	0.36	0.04	0.03	0.01	11.1
Natural Gas	1.15	0.19	0.16	0.03	9.6
Fuel Oil	0.13	0.12	0.07	0.06	14.6
LPG	0.05	0.01	Q	(*)	21.4
Total ²	1.68	0.36	0.26	0.11	2.6
Physical Units^a					
Physical Units of Water-Heating Consumption, Major Fuels Used:					
Electricity (billion kWh)	104	11	8	3	11.1
Natural Gas (billion cf)	1,115	189	155	34	9.6
Fuel Oil (million gallons)	950	900	490	410	14.6
LPG (million gallons)	515	65	Q	34	21.4
Million Btu per Household^{4,a}					
Average Water-Heating Btu Consumption per Household					
Using a Major Fuel ¹	15.8	18.0	17.4	19.6	2.6
For Main Water Heating	15.8	18.0	17.4	19.6	2.7
Million Households					
Number of Households, Where the Main Water-Heating Fuel Is:					
Electricity	40.8	4.7	3.2	1.4	9.9
Natural Gas	58.0	10.8	8.9	1.9	8.7
Fuel Oil	4.6	4.4	2.5	1.8	13.7
LPG	2.9	0.3	Q	0.2	24.9
No Water Heating	Q	Q	Q	Q	NF

See footnotes at end of table.

Table CE4-9c. Water-Heating Energy Consumption in U.S. Households by Northeast Census Region, 2001 (Continued)

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.5	1.0	1.2	1.6	
Million Btu per Household^{4,a}					
Water-Heating Btu Consumption per Household,³ Where the Main Water-Heating Fuel Is:					
Electricity	8.7	8.0	8.3	7.3	4.2
Natural Gas	19.7	18.1	18.1	18.1	2.9
Fuel Oil	28.1	28.2	26.6	30.5	4.5
LPG	15.9	17.5	Q	19.1	11.8
Physical Units (PU) per Household^{4,a}					
Physical Units of Water-Heating Consumption per Household,³ Where the Main Water-Heating Fuel Is:					
Electricity (kWh)	2,552	2,342	2,428	2,149	4.2
Natural Gas (thousand cf)	19	18	18	18	2.9
Fuel Oil (gallons)	203	204	192	220	4.5
LPG (gallons)	174	192	Q	209	11.8
Number of Household Members (NHM) per Household⁴					
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:					
Electricity	2.4	2.5	2.6	2.3	3.7
Natural Gas	2.7	2.4	2.4	2.4	2.9
Fuel Oil	2.4	2.4	2.4	2.4	4.6
LPG	2.6	2.6	Q	2.5	10.2
Water-Heating Intensity^{4,a} (PU÷NHM)					
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:					
Electricity	1,048	929	925	937	3.3
Natural Gas	7.2	7.3	7.3	7.2	4.0
Fuel Oil	84	84	78	92	5.9
LPG	68	74	Q	84	10.9

1 The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).
 2 Includes a small amount of kerosene use for water heating.
 3 Includes only the water-heating consumption of the water-heating fuel. Not included are: 1) the consumption of the main water-heating fuel for uses other than water heating; 2) the consumption of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the consumption of other fuels that are used as secondary water-heating fuels.
 4 Averages are for those households using each of the main water-heating fuels.
 a The row factor in this section is underestimated because it contains no error for estimating the end-use.
 (*) = Value rounds to zero in the units displayed.
 NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.
 NF = No applicable RSE row factor.
 Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.
 Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.
 Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE4-10c. Water-Heating Energy Consumption in U.S. Households
by Midwest Census Region, 2001**

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
	0.6	0.9	1.3	1.5	
Million Households					
Total U.S. Households	107.0	24.5	17.1	7.4	NE
No Water Heating	Q	Q	Q	Q	NF
Water Heating	106.9	24.5	17.1	7.4	NE
Not Using a Major Fuel ¹	0.2	Q	Q	Q	72.5
Using a Major Fuel ¹	106.7	24.5	17.1	7.4	NE
For Main Water Heating	106.5	24.5	17.1	7.4	NE
Number of Households with Water Heating, Major Fuels Used:					
Electricity	41.6	6.4	4.2	2.2	6.8
Natural Gas	58.2	17.0	12.5	4.5	4.0
Fuel Oil	4.7	Q	Q	Q	19.4
LPG	3.0	1.3	0.5	0.7	23.0
Quadrillion Btu^a					
Water-Heating Btu Consumption, Major Fuels Used:					
Electricity	0.36	0.05	0.03	0.02	7.6
Natural Gas	1.15	0.35	0.26	0.09	4.8
Fuel Oil	0.13	Q	Q	Q	21.9
LPG	0.05	0.02	0.01	0.01	24.7
Total ²	1.68	0.43	0.30	0.12	2.6
Physical Units^a					
Physical Units of Water-Heating Consumption, Major Fuels Used:					
Electricity (billion kWh)	104	16	10	6	7.6
Natural Gas (billion cf)	1,115	341	253	88	4.8
Fuel Oil (million gallons)	950	Q	Q	Q	21.9
LPG (million gallons)	515	232	93	139	24.7
Million Btu per Household^{3,a}					
Average Water-Heating Btu Consumption per Household					
Using a Major Fuel ¹	15.8	17.4	17.7	16.8	2.6
For Main Water Heating	15.8	17.4	17.7	16.8	2.6
Million Households					
Number of Households, Where the Main Water-Heating Fuel Is:					
Electricity	40.8	6.3	4.2	2.2	6.8
Natural Gas	58.0	16.9	12.4	4.5	3.9
Fuel Oil	4.6	Q	Q	Q	20.2
LPG	2.9	1.3	0.5	0.7	23.0
No Water Heating	Q	Q	Q	Q	NF

See footnotes at end of table.

Table CE4-10c. Water-Heating Energy Consumption in U.S. Households by Midwest Census Region, 2001 (Continued)

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
RSE Column Factor:	0.6	0.9	1.3	1.5	
Million Btu per Household^{3,a}					
Water-Heating Btu Consumption per Household,³ Where the Main Water-Heating Fuel Is:					
Electricity	8.7	8.6	8.0	9.7	3.0
Natural Gas	19.7	20.6	20.8	20.1	2.7
Fuel Oil	28.1	Q	Q	Q	6.8
LPG	15.9	16.9	16.0	17.5	6.4
Physical Units (PU) per Household^{3,a}					
Physical Units of Water-Heating Consumption per Household,³ Where the Main Water-Heating Fuel Is:					
Electricity (kWh)	2,552	2,515	2,337	2,854	3.0
Natural Gas (thousand cf)	19	20	20	20	2.7
Fuel Oil (gallons)	203	Q	Q	Q	6.8
LPG (gallons)	174	185	175	192	6.4
Number of Household Members (NHM) per Household³					
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:					
Electricity	2.4	2.4	2.3	2.5	3.3
Natural Gas	2.7	2.6	2.6	2.4	3.3
Fuel Oil	2.4	Q	Q	Q	6.8
LPG	2.6	2.6	2.7	2.5	5.9
Water-Heating Intensity^{3,a} (PU÷NHM)					
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:					
Electricity	1,048	1,069	1,034	1,126	3.9
Natural Gas	7.2	7.8	7.7	8.0	2.1
Fuel Oil	84	Q	Q	Q	9.1
LPG	68	72	65	77	5.6

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes a small amount of kerosene use for water heating.

³ Includes only the water-heating consumption of the water-heating fuel. Not included are: 1) the consumption of the main water-heating fuel for uses other than water heating; 2) the consumption of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the consumption of other fuels that are used as secondary water-heating fuels.

³ Averages are for those households using each of the main water-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-11c. Water-Heating Energy Consumption in U.S. Households by South Census Region, 2001

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			West south Central	
		Total	South Atlantic	East South Central		
RSE Column Factor:	0.4	0.9	1.0	1.9	1.4	
Million Households						
Total U.S. Households	107.0	38.9	20.3	6.8	11.8	NE
No Water Heating	Q	Q	Q	Q	Q	NF
Water Heating	106.9	38.9	20.3	6.8	11.8	NE
Not Using a Major Fuel ¹	0.2	Q	Q	Q	Q	93.2
Using a Major Fuel ¹	106.7	38.9	20.3	6.8	11.8	NE
For Main Water Heating	106.5	38.8	20.2	6.8	11.7	NE
Number of Households with Water Heating, Major Fuels Used:						
Electricity	41.6	22.6	13.5	4.4	4.7	6.6
Natural Gas	58.2	15.5	6.3	2.2	7.0	8.4
Fuel Oil	4.7	Q	Q	Q	Q	25.0
LPG	3.0	0.7	0.3	0.2	Q	30.1
Quadrillion Btu^a						
Water-Heating Btu Consumption, Major Fuels Used:						
Electricity	0.36	0.20	0.12	0.05	0.04	7.7
Natural Gas	1.15	0.32	0.13	0.04	0.15	8.7
Fuel Oil	0.13	Q	Q	Q	Q	28.1
LPG	0.05	0.01	0.01	(*)	Q	28.5
Total ²	1.68	0.54	0.26	0.09	0.19	3.2
Physical Units^a						
Physical Units of Water-Heating Consumption, Major Fuels Used:						
Electricity (billion kWh)	104	60	35	13	12	7.7
Natural Gas (billion cf)	1,115	313	127	42	144	8.7
Fuel Oil (million gallons)	950	Q	Q	Q	Q	28.1
LPG (million gallons)	515	111	56	17	Q	28.5
Million Btu per Household^{3,a}						
Average Water-Heating Btu Consumption per Household						
Using a Major Fuel ¹	15.8	13.9	12.8	13.3	16.3	3.2
For Main Water Heating	15.8	14.0	12.9	13.3	16.3	3.2
Million Households						
Number of Households, Where the Main Water-Heating Fuel Is:						
Electricity	40.8	22.4	13.4	4.4	4.6	6.6
Natural Gas	58.0	15.4	6.3	2.2	6.9	8.4
Fuel Oil	4.6	Q	Q	Q	Q	26.0
LPG	2.9	0.6	Q	0.2	Q	27.3
No Water Heating	Q	Q	Q	Q	Q	NF

See footnotes at end of table.

Table CE4-11c. Water-Heating Energy Consumption in U.S. Households by South Census Region, 2001 (Continued)

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			RSE Row Factors	
		Total	South Atlantic	East South Central		
RSE Column Factor:	0.4	0.9	1.0	1.9	1.4	
Million Btu per Household^{3,a}						
Water-Heating Btu Consumption per Household,³ Where the Main Water-Heating Fuel Is:						
Electricity	8.7	9.1	8.8	10.3	8.7	3.0
Natural Gas	19.7	20.8	20.8	19.6	21.3	3.9
Fuel Oil	28.1	Q	Q	Q	Q	8.7
LPG	15.9	15.0	Q	8.3	Q	10.1
Physical Units (PU) per Household^{3,a}						
Physical Units of Water-Heating Consumption per Household,³ Where the Main Water-Heating Fuel Is:						
Electricity (kWh)	2,552	2,661	2,587	3,015	2,536	3.0
Natural Gas (thousand cf)	19	20	20	19	21	3.9
Fuel Oil (gallons)	203	Q	Q	Q	Q	8.7
LPG (gallons)	174	165	Q	91	Q	10.1
Number of Household Members (NHM) per Household³						
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:						
Electricity	2.4	2.5	2.5	2.5	2.2	2.9
Natural Gas	2.7	2.7	2.6	2.2	2.8	2.9
Fuel Oil	2.4	Q	Q	Q	Q	8.7
LPG	2.6	2.5	Q	1.4	Q	11.7
Water-Heating Intensity^{3,a} (PU÷NHM)						
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:						
Electricity	1,048	1,083	1,030	1,195	1,134	1.9
Natural Gas	7.2	7.6	7.7	8.5	7.3	3.9
Fuel Oil	84	Q	Q	Q	Q	11.7
LPG	68	66	Q	66	Q	11.3

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes a small amount of kerosene use for water heating.

³ Includes only the water-heating consumption of the water-heating fuel. Not included are: 1) the consumption of the main water-heating fuel for uses other than water heating; 2) the consumption of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the consumption of other fuels that are used as secondary water-heating fuels.

³ Averages are for those households using each of the main water-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

(*) = Value rounds to zero in the units displayed.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE4-12c. Water-Heating Energy Consumption in U.S. Households
by West Census Region, 2001**

	Total U.S.	West Census Region			RSE Row Factors
		Total	Census Division		
			Mountain	Pacific	
RSE Column Factor:	0.5	1.0	1.7	1.2	
Million Households					
Total U.S. Households	107.0	23.3	6.7	16.6	NE
No Water Heating	Q	Q	Q	Q	NF
Water Heating	106.9	23.3	6.7	16.6	NE
Not Using a Major Fuel ¹	0.2	Q	Q	Q	77.4
Using a Major Fuel ¹	106.7	23.2	6.7	16.5	NE
For Main Water Heating	106.5	23.0	6.7	16.3	NE
Number of Households with Water Heating, Major Fuels Used:					
Electricity	41.6	7.9	2.3	5.5	5.0
Natural Gas	58.2	15.0	4.1	10.9	2.7
Fuel Oil	4.7	Q	Q	Q	20.7
LPG	3.0	0.7	0.2	0.5	26.2
Quadrillion Btu^a					
Water-Heating Btu Consumption, Major Fuels Used:					
Electricity	0.36	0.06	0.02	0.04	7.0
Natural Gas	1.15	0.28	0.08	0.20	3.8
Fuel Oil	0.13	Q	Q	Q	23.3
LPG	0.05	0.01	(*)	0.01	26.4
Total ²	1.68	0.35	0.11	0.24	2.5
Physical Units^a					
Physical Units of Water-Heating Consumption, Major Fuels Used:					
Electricity (billion kWh)	104	18	5	12	7.0
Natural Gas (billion cf)	1,115	272	81	191	3.8
Fuel Oil (million gallons)	950	Q	Q	Q	23.3
LPG (million gallons)	515	108	40	68	26.4
Million Btu per Household^{4,a}					
Average Water-Heating Btu Consumption per Household					
Using a Major Fuel ¹	15.8	15.1	15.7	14.9	2.5
For Main Water Heating	15.8	15.2	15.8	14.9	2.5
Million Households					
Number of Households, Where the Main Water-Heating Fuel Is:					
Electricity	40.8	7.3	2.3	5.0	4.9
Natural Gas	58.0	14.9	4.1	10.8	2.8
Fuel Oil	4.6	Q	Q	Q	21.6
LPG	2.9	0.7	0.2	0.5	26.2
No Water Heating	Q	Q	Q	Q	NF

See footnotes at end of table.

Table CE4-12c. Water-Heating Energy Consumption in U.S. Households by West Census Region, 2001 (Continued)

	West Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	Mountain	Pacific	
RSE Column Factor:	0.5	1.0	1.7	1.2	
Million Btu per Household^{4,a}					
Water-Heating Btu Consumption per Household,³ Where the Main Water-Heating Fuel Is:					
Electricity	8.7	8.1	7.9	8.2	4.4
Natural Gas	19.7	18.7	20.2	18.1	2.7
Fuel Oil	28.1	Q	Q	Q	7.2
LPG	15.9	14.0	15.4	13.3	9.9
Physical Units (PU) per Household^{4,a}					
Physical Units of Water-Heating Consumption per Household,³ Where the Main Water-Heating Fuel Is:					
Electricity (kWh)	2,552	2,386	2,320	2,416	4.4
Natural Gas (thousand cf)	19	18	20	18	2.7
Fuel Oil (gallons)	203	Q	Q	Q	7.2
LPG (gallons)	174	153	169	146	9.9
Number of Household Members (NHM) per Household⁴					
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:					
Electricity	2.4	2.4	2.4	2.4	3.7
Natural Gas	2.7	3.0	2.9	3.0	2.3
Fuel Oil	2.4	Q	Q	Q	7.2
LPG	2.6	2.6	3.0	2.4	10.8
Water-Heating Intensity^{4,a} (PU÷NHM)					
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:					
Electricity	1,048	1,000	948	1,026	3.9
Natural Gas	7.2	6.1	6.8	5.9	2.9
Fuel Oil	84	Q	Q	Q	9.7
LPG	68	58	57	59	16.6

1 The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).
2 Includes a small amount of kerosene use for water heating.
3 Includes only the water-heating consumption of the water-heating fuel. Not included are: 1) the consumption of the main water-heating fuel for uses other than water heating; 2) the consumption of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the consumption of other fuels that are used as secondary water-heating fuels.
4 Averages are for those households using each of the main water-heating fuels.
^a The row factor in this section is underestimated because it contains no error for estimating the end-use.
(*) = Value rounds to zero in the units displayed.
NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.
NF = No applicable RSE row factor.
Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.
Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.
• See "Glossary" for definition of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

2001 Consumption and Expenditures Tables

Water-Heating Expenditures Tables

(21 pages, 95 kb)

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These data are from the 2001 Residential Energy Consumption Survey (RECS) which provides information on the use of energy in residential housing units in the United States. The RECS is a national statistical survey that collects energy-related data for occupied primary housing units. RECS was first conducted in 1978; the twelfth and most recent survey was conducted in 2001. In the 2001 RECS, data were collected from a sample of 4,822 households in housing units statistically selected to represent the 107.0 million housing units in the United States. The RECS data are available for the four Census regions, the nine Census divisions, and for the four most populous States--California, Florida, New York, and Texas.

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World Wide Web: <http://www.eia.doe.gov/emeu/consumption>

Table CE4-1e. Water-Heating Energy Expenditures in U.S. Households by Climate Zone, 2001 - Preliminary Data

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
		0.4	1.5	1.0	1.1		
RSE Column Factor:							
Million Households							
Total U.S. Households	107.0	9.2	28.6	24.0	21.0	24.1	8.1
No Water Heating	Q	Q	Q	Q	Q	Q	NF
Water Heating	106.9	9.2	28.6	24.0	20.9	24.0	8.1
Not Using a Major Fuel ²	0.2	Q	Q	Q	Q	Q	89.6
Using a Major Fuel ²	106.7	9.2	28.6	24.0	20.9	24.0	8.1
For Main Water Heating	106.5	9.2	28.6	24.0	20.8	23.9	8.2
Number of Households with Water Heating, Major Fuels Used:							
Electricity	41.6	4.1	7.4	8.6	8.6	13.0	10.3
Natural Gas	58.2	3.8	19.2	12.4	12.2	10.6	8.9
Fuel Oil	4.7	0.8	1.5	2.4	Q	Q	20.2
LPG	3.0	0.6	0.8	0.6	0.5	0.5	27.6
Billion Dollars							
Water-Heating Expenditures, Major Fuels Used:							
Electricity	8.94	0.85	1.54	1.74	1.80	3.00	11.1
Natural Gas	11.31	0.58	3.59	2.47	2.58	2.08	9.7
Fuel Oil	1.14	0.24	0.38	0.51	Q	Q	21.7
LPG	0.71	0.14	0.18	0.13	0.12	0.13	28.1
Total ³	22.10	1.81	5.71	4.87	4.50	5.21	6.9
Dollars per Household							
Average Water-Heating Expenditures per Household							
Using a Major Fuel ²	207	198	199	203	216	217	2.5
For Main Water Heating	207	198	199	203	216	218	2.5
Million Households							
Number of Households, Where the Main Water-Heating Fuel Is:							
Electricity	40.8	4.0	7.3	8.5	8.1	12.8	10.4
Natural Gas	58.0	3.7	19.1	12.4	12.2	10.6	8.9
Fuel Oil	4.6	0.8	1.4	2.4	Q	Q	20.8
LPG	2.9	0.6	0.8	0.6	0.5	0.4	27.7
Does Not Heat Water	Q	Q	Q	Q	Q	Q	NF
Dollars per Household							
Water-Heating Expenditures per Household,⁴ Where the Main Water-Heating Fuel Is:							
Electricity	219	213	211	204	223	233	3.2
Natural Gas	194	153	187	199	211	196	3.7
Fuel Oil	243	289	266	213	Q	Q	5.6
LPG	237	245	237	204	250	257	10.8

See footnotes at end of table.

Table CE4-1e. Water-Heating Energy Expenditures in U.S. Households by Climate Zone, 2001 - Preliminary Data (Continued)

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.4	1.5	1.0	1.1	1.2	1.0	
Number of Household Members (NHM) per Household⁵							
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:							
Electricity	2.4	2.6	2.3	2.5	2.5	2.4	3.1
Natural Gas	2.7	2.4	2.6	2.5	3.0	2.7	3.1
Fuel Oil	2.4	2.4	2.5	2.4	Q	Q	6.1
LPG	2.6	2.6	2.6	2.3	2.2	3.3	9.3
Water-Heating Intensity⁵ (Dollars÷NHM)							
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:							
Electricity	90	83	91	83	89	97	3.4
Natural Gas	73	63	73	79	70	72	3.7
Fuel Oil	101	119	109	90	Q	Q	7.3
LPG	92	94	93	89	113	78	13.2

¹ One of five climatically distinct areas, determined according to the 30-year average (1961-1990) of the annual heating and cooling degree-days. For this report, the heating or cooling degree-days are a measure of how cold or how hot a location is over a period of one year, relative to a base temperature of 65 degrees Fahrenheit. A household is assigned to a climate zone according to the 30-year average annual degree-days for an appropriate nearby weather station.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes a small amount of kerosene use for water heating.

⁴ Includes only the water-heating expenditures of the water-heating fuel. Not included are: 1) the expenditures of the main water-heating fuel for uses other than water heating; 2) the expenditures of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the expenditures of other fuels that are used as secondary water-heating fuels.

⁵ Averages are for those households using each of the main water-heating fuels.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE4-2e. Water-Heating Energy Expenditures in U.S. Households
by Year of Construction, 2001 - Preliminary Data**

	Total	Year of Construction					1949 or Before	RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1990 to 1999		
RSE Column Factor:	0.5	1.4	1.2	1.0	1.2	1.2	0.9	
Million Households								
Total U.S. Households	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3
No Water Heating	Q	Q	Q	Q	Q	Q	Q	NF
Water Heating	106.9	15.5	18.2	18.7	13.8	14.2	26.5	4.3
Not Using a Major Fuel ²	0.2	Q	Q	Q	Q	Q	Q	81.8
Using a Major Fuel ²	106.7	15.4	18.2	18.7	13.7	14.2	26.4	4.3
For Main Water Heating	106.5	15.4	18.2	18.7	13.6	14.1	26.4	4.3
Number of Households with Water Heating, Major Fuels Used:								
Electricity	41.6	6.5	9.8	9.8	4.2	4.4	6.9	6.6
Natural Gas	58.2	8.3	7.7	7.8	8.7	8.8	16.9	6.4
Fuel Oil	4.7	0.2	0.3	0.5	0.7	0.9	2.1	19.6
LPG	3.0	0.5	0.4	0.7	0.2	0.3	0.8	23.2
Billion Dollars								
Water-Heating Expenditures, Major Fuels Used:								
Electricity	8.94	1.45	2.11	2.14	0.88	0.89	1.47	7.5
Natural Gas	11.31	1.90	1.62	1.40	1.56	1.70	3.12	7.3
Fuel Oil	1.14	0.06	0.13	0.14	0.16	0.20	0.45	20.0
LPG	0.71	0.12	0.11	0.15	0.05	0.08	0.19	25.2
Total ³	22.10	3.53	3.97	3.84	2.65	2.87	5.23	4.3
Dollars per Household								
Average Water-Heating Expenditures per Household								
Using a Major Fuel ²	207	229	218	205	193	202	198	2.2
For Main Water Heating	207	229	218	205	195	203	198	2.2
Million Households								
Number of Households, Where the Main Water-Heating Fuel Is:								
Electricity	40.8	6.4	9.8	9.8	4.1	4.1	6.7	6.8
Natural Gas	58.0	8.3	7.7	7.8	8.6	8.8	16.9	6.4
Fuel Oil	4.6	0.2	0.3	0.5	0.7	0.9	2.0	20.2
LPG	2.9	0.5	0.4	0.7	0.2	0.3	0.8	23.2
Does Not Heat Water	Q	Q	Q	Q	Q	Q	Q	NF
Dollars per Household								
Water-Heating Expenditures per Household,⁴ Where the Main Water-Heating Fuel Is:								
Electricity	219	225	216	219	216	218	220	3.3
Natural Gas	194	229	210	179	181	193	184	3.2
Fuel Oil	243	302	402	296	217	213	223	8.8
LPG	237	240	257	212	237	294	227	12.1

See footnotes at end of table.

Table CE4-2e. Water-Heating Energy Expenditures in U.S. Households by Year of Construction, 2001 - Preliminary Data (Continued)

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1990 to 1999	1949 or Before	
RSE Column Factor:	0.5	1.4	1.2	1.0	1.2	1.2	0.9	
Number of Household Members (NHM) per Household⁵								
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:								
Electricity	2.4	2.7	2.4	2.3	2.4	2.4	2.5	3.2
Natural Gas	2.7	3.1	2.6	2.7	2.5	2.6	2.6	2.9
Fuel Oil	2.4	2.9	3.2	2.8	2.4	2.1	2.3	7.1
LPG	2.6	3.1	2.5	2.4	2.0	2.6	2.5	11.7
Water-Heating Intensity⁵ (Dollars÷NHM)								
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:								
Electricity	90	84	89	94	92	93	90	2.9
Natural Gas	73	73	82	67	73	73	72	3.6
Fuel Oil	101	105	127	105	91	104	96	11.1
LPG	92	77	101	87	120	113	90	13.8

¹ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes a small amount of kerosene use for water heating.

⁴ Includes only the water-heating expenditures of the water-heating fuel. Not included are: 1) the expenditures of the main water-heating fuel for uses other than water heating; 2) the expenditures of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the expenditures of other fuels that are used as secondary water-heating fuels.

⁵ Averages are for those households using each of the main water-heating fuels.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-3e. Water-Heating Energy Expenditures in U.S. Households by Household Income, 2001 - Preliminary Data

	Total	2001 Household Income				Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.7	1.0	0.9	0.8	1.5	0.9	
Million Households								
Total U.S. Households	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.3
No Water Heating	Q	Q	Q	Q	Q	Q	Q	NF
Water Heating	106.9	11.0	30.5	27.1	38.3	14.9	33.7	3.3
Not Using a Major Fuel ²	0.2	Q	Q	Q	Q	Q	Q	70.4
Using a Major Fuel ²	106.7	11.0	30.5	27.0	38.2	14.9	33.7	3.3
For Main Water Heating	106.5	11.0	30.4	27.0	38.1	14.9	33.7	3.3
Number of Households with Water Heating, Major Fuels Used:								
Electricity	41.6	4.7	13.4	10.8	12.7	6.4	14.3	6.0
Natural Gas	58.2	5.6	15.5	14.1	23.0	7.9	17.7	5.2
Fuel Oil	4.7	0.4	1.1	1.3	2.0	0.4	1.1	15.5
LPG	3.0	0.3	0.9	1.0	0.8	0.4	0.9	19.4
Billion Dollars								
Water-Heating Expenditures, Major Fuels Used:								
Electricity	8.94	0.77	2.50	2.41	3.26	1.22	2.85	6.2
Natural Gas	11.31	0.83	2.61	2.71	5.16	1.26	3.04	6.0
Fuel Oil	1.14	0.08	0.21	0.29	0.55	0.09	0.26	17.0
LPG	0.71	0.03	0.21	0.26	0.21	0.07	0.21	21.8
Total ³	22.10	1.71	5.53	5.67	9.19	2.63	6.37	3.5
Dollars per Household								
Average Water-Heating Expenditures per Household								
Using a Major Fuel ²	207	155	181	210	241	177	189	1.9
For Main Water Heating	207	155	182	210	241	177	189	1.9
Million Households								
Number of Households, Where the Main Water-Heating Fuel Is:								
Electricity	40.8	4.7	13.1	10.6	12.4	6.2	14.0	6.0
Natural Gas	58.0	5.6	15.4	14.1	23.0	7.8	17.6	5.2
Fuel Oil	4.6	0.4	1.0	1.3	1.9	0.4	1.1	15.9
LPG	2.9	0.3	0.9	1.0	0.8	0.4	0.9	19.5
Does Not Heat Water	Q	Q	Q	Q	Q	Q	Q	NF
Dollars per Household								
Water-Heating Expenditures per Household,⁴ Where the Main Water-Heating Fuel Is:								
Electricity	219	164	191	226	264	196	203	2.8
Natural Gas	194	146	169	192	224	160	172	2.9
Fuel Oil	243	222	195	228	283	212	250	6.9
LPG	237	99	225	270	258	162	224	10.0

See footnotes at end of table.

Table CE4-3e. Water-Heating Energy Expenditures in U.S. Households by Household Income, 2001 - Preliminary Data (Continued)

	Total	2001 Household Income				Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.7	1.0	0.9	0.8	1.5	0.9	
Number of Household Members (NHM) per Household⁵								
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:								
Electricity	2.4	1.7	2.2	2.5	2.9	2.4	2.5	3.0
Natural Gas	2.7	2.0	2.4	2.7	3.0	2.8	2.8	2.6
Fuel Oil	2.4	2.1	1.7	2.5	2.8	2.3	2.5	7.2
LPG	2.6	1.3	2.5	2.8	2.9	2.5	2.7	10.7
Water-Heating Intensity⁵ (Dollars÷NHM)								
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:								
Electricity	90	94	86	92	91	83	83	2.7
Natural Gas	73	73	72	70	75	58	61	3.3
Fuel Oil	101	105	113	91	102	93	101	10.2
LPG	92	77	91	96	90	64	83	11.8

¹ Below 150 percent of poverty line or 60 percent of median State income.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes a small amount of kerosene use for water heating.

⁴ Includes only the water-heating expenditures of the water-heating fuel. Not included are: 1) the expenditures of the main water-heating fuel for uses other than water heating; 2) the expenditures of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the expenditures of other fuels that are used as secondary water-heating fuels.

⁵ Averages are for those households using each of the main water-heating fuels.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-4e. Water-Heating Energy Expenditures in U.S. Households by Type of Housing Unit, 2001 - Preliminary Data

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Multifamily		Mobile Home	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.5	1.6	1.3	1.8	
Million Households						
Total U.S. Households	107.0	73.7	9.5	17.0	6.8	4.4
No Water Heating	Q	Q	Q	Q	Q	NF
Water Heating	106.9	73.6	9.5	17.0	6.8	4.4
Not Using a Major Fuel ¹	0.2	Q	Q	Q	Q	80.8
Using a Major Fuel ¹	106.7	73.5	9.5	16.9	6.8	4.4
For Main Water Heating	106.5	73.3	9.5	16.8	6.8	4.5
Number of Households with Water Heating, Major Fuels Used:						
Electricity	41.6	25.9	3.4	7.4	4.9	7.5
Natural Gas	58.2	42.8	5.7	8.2	1.5	6.7
Fuel Oil	4.7	3.0	0.4	1.3	Q	19.4
LPG	3.0	2.5	Q	Q	0.4	22.3
Billion Dollars						
Water-Heating Expenditures, Major Fuels Used:						
Electricity	8.94	5.93	0.62	1.30	1.09	8.5
Natural Gas	11.31	9.11	0.89	1.05	0.26	8.2
Fuel Oil	1.14	0.88	0.10	0.16	Q	20.6
LPG	0.71	0.63	Q	Q	0.07	23.1
Total ²	22.10	16.54	1.61	2.52	1.43	4.6
Dollars per Household						
Average Water-Heating Expenditures per Household						
Using a Major Fuel ¹	207	225	170	149	210	2.4
For Main Water Heating	207	225	170	150	210	2.4
Million Households						
Number of Households, Where the Main Water-Heating Fuel Is:						
Electricity	40.8	25.2	3.4	7.4	4.9	7.6
Natural Gas	58.0	42.7	5.7	8.1	1.5	6.7
Fuel Oil	4.6	2.9	0.4	1.3	Q	20.0
LPG	2.9	2.5	Q	Q	0.3	22.6
Does Not Heat Water	Q	Q	Q	Q	Q	NF
Dollars per Household						
Water-Heating Expenditures per Household,³ Where the Main Water-Heating Fuel Is:						
Electricity	219	235	184	177	224	3.3
Natural Gas	194	213	157	129	168	3.7
Fuel Oil	243	293	237	127	Q	6.0
LPG	237	251	Q	Q	178	8.7

See footnotes at end of table.

**Table CE4-4e. Water-Heating Energy Expenditures in U.S. Households
by Type of Housing Unit, 2001 - Preliminary Data (Continued)**

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Multifamily		Mobile Home	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.5	1.6	1.3	1.8	
Number of Household Members (NHM) per Household⁴						
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:						
Electricity	2.4	2.6	2.2	1.9	2.7	3.1
Natural Gas	2.7	2.8	2.4	2.1	2.4	3.1
Fuel Oil	2.4	2.6	1.7	2.1	Q	7.3
LPG	2.6	2.7	Q	Q	2.2	8.6
Water-Heating Intensity⁴ (Dollars÷NHM)						
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:						
Electricity	90	91	84	95	84	3.1
Natural Gas	73	75	66	61	70	4.4
Fuel Oil	101	111	143	59	Q	9.6
LPG	92	94	Q	Q	80	10.3

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes a small amount of kerosene use for water heating.

³ Includes only the water-heating expenditures of the water-heating fuel. Not included are: 1) the expenditures of the main water-heating fuel for uses other than water heating; 2) the expenditures of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the expenditures of other fuels that are used as secondary water-heating fuels.

⁴ Averages are for those households using each of the main water-heating fuels.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-7e. Water-Heating Energy Expenditures in U.S. Households by Four Most Populated States, 2001 - Preliminary Data

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.4	1.8	1.0	1.6	0.7	
Million Households						
Total U.S. Households	107.0	7.1	12.3	7.7	6.3	NF
No Water Heating	Q	Q	Q	Q	Q	NF
Water Heating	106.9	7.1	12.3	7.6	6.3	NF
Not Using a Major Fuel ¹	0.2	Q	Q	Q	Q	90.3
Using a Major Fuel ¹	106.7	7.0	12.2	7.6	6.3	NF
For Main Water Heating	106.5	7.0	12.1	7.6	6.3	1.1
Number of Households with Water Heating, Major Fuels Used:						
Electricity	41.6	0.9	2.3	3.0	5.2	7.9
Natural Gas	58.2	4.4	10.0	4.6	1.2	5.4
Fuel Oil	4.7	1.7	Q	Q	Q	14.2
LPG	3.0	Q	0.4	Q	Q	29.6
Billion Dollars						
Water-Heating Expenditures, Major Fuels Used:						
Electricity	8.94	0.25	0.40	0.70	1.21	11.4
Natural Gas	11.31	0.91	1.87	0.83	0.26	7.3
Fuel Oil	1.14	0.34	Q	Q	Q	13.5
LPG	0.71	Q	0.11	Q	Q	32.6
Total ²	22.10	1.52	2.37	1.55	1.48	3.6
Dollars per Household						
Average Water-Heating Expenditures per Household						
Using a Major Fuel ¹	207	216	194	202	234	3.5
For Main Water Heating	207	216	194	202	236	3.5
Million Households						
Number of Households, Where the Main Water-Heating Fuel Is:						
Electricity	40.8	0.9	1.8	3.0	5.1	8.4
Natural Gas	58.0	4.4	9.9	4.5	1.2	5.5
Fuel Oil	4.6	1.6	Q	Q	Q	14.9
LPG	2.9	Q	0.4	Q	Q	29.7
Does Not Heat Water	Q	Q	Q	Q	Q	NF
Dollars per Household						
Water-Heating Expenditures per Household,³ Where the Main Water-Heating Fuel Is:						
Electricity	219	273	223	231	237	5.0
Natural Gas	194	205	187	182	222	4.2
Fuel Oil	243	206	Q	Q	Q	6.3
LPG	237	Q	245	Q	Q	17.5

See footnotes at end of table.

Table CE4-7e. Water-Heating Energy Expenditures in U.S. Households by Four Most Populated States, 2001 - Preliminary Data (Continued)

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.4	1.8	1.0	1.6	0.7	
Number of Household Members (NHM) per Household³						
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:						
Electricity	2.4	2.8	2.5	2.3	2.5	4.5
Natural Gas	2.7	2.5	3.1	3.0	2.7	2.7
Fuel Oil	2.4	2.3	Q	Q	Q	5.7
LPG	2.6	Q	2.4	Q	Q	11.7
Water-Heating Intensity³ (Dollars÷NHM)						
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:						
Electricity	90	97	91	103	96	4.0
Natural Gas	73	82	61	62	81	5.2
Fuel Oil	101	88	Q	Q	Q	8.3
LPG	92	Q	102	Q	Q	22.8

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes a small amount of kerosene use for water heating.

³ Includes only the water-heating expenditures of the water-heating fuel. Not included are: 1) the expenditures of the main water-heating fuel for uses other than water heating; 2) the expenditures of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the expenditures of other fuels that are used as secondary water-heating fuels.

³ Averages are for those households using each of the main water-heating fuels.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE4-8e. Water-Heating Energy Expenditures in U.S. Households
by Urban/Rural Location, 2001 - Preliminary Data**

	Urban/Rural Location ¹					RSE Row Factors
	Total	City	Town	Suburbs	Rural	
	0.6	1.0	1.4	1.1	1.2	
Million Households						
Total U.S. Households	107.0	49.9	18.0	21.2	17.9	4.2
No Water Heating	Q	Q	Q	Q	Q	NF
Water Heating	106.9	49.8	18.0	21.2	17.9	4.2
Not Using a Major Fuel ²	0.2	Q	Q	Q	Q	72.5
Using a Major Fuel ²	106.7	49.7	18.0	21.2	17.8	4.2
For Main Water Heating	106.5	49.5	18.0	21.1	17.8	4.2
Number of Households with Water Heating, Major Fuels Used:						
Electricity	41.6	15.8	7.0	7.1	11.6	6.6
Natural Gas	58.2	32.6	9.4	13.0	3.1	5.9
Fuel Oil	4.7	1.6	1.1	1.0	1.0	16.2
LPG	3.0	0.3	0.5	Q	2.1	21.2
Billion Dollars						
Water-Heating Expenditures, Major Fuels Used:						
Electricity	8.94	3.11	1.42	1.60	2.81	7.6
Natural Gas	11.31	5.98	1.88	2.86	0.59	6.7
Fuel Oil	1.14	0.28	0.29	0.25	0.31	15.5
LPG	0.71	0.06	0.10	Q	0.52	22.6
Total ³	22.10	9.44	3.69	4.74	4.22	4.1
Dollars per Household						
Average Water-Heating Expenditures per Household						
Using a Major Fuel ²	207	190	205	223	238	1.9
For Main Water Heating	207	190	205	224	238	1.9
Million Households						
Number of Households, Where the Main Water-Heating Fuel Is:						
Electricity	40.8	15.3	6.9	7.0	11.6	6.6
Natural Gas	58.0	32.5	9.4	13.0	3.1	5.9
Fuel Oil	4.6	1.5	1.1	1.0	1.0	16.5
LPG	2.9	0.2	0.5	Q	2.1	20.9
Does Not Heat Water	Q	Q	Q	Q	Q	NF
Dollars per Household						
Water-Heating Expenditures per Household,⁴ Where the Main Water-Heating Fuel Is:						
Electricity	219	203	205	230	242	2.8
Natural Gas	194	183	198	219	189	2.9
Fuel Oil	243	179	268	253	302	7.3
LPG	237	232	194	Q	250	10.9

See footnotes at end of table.

Table CE4-8e. Water-Heating Energy Expenditures in U.S. Households by Urban/Rural Location, 2001 - Preliminary Data (Continued)

	Urban/Rural Location ¹					RSE Row Factors
	Total	City	Town	Suburbs	Rural	
RSE Column Factor:	0.6	1.0	1.4	1.1	1.2	
Number of Household Members (NHM) per Household⁵						
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:						
Electricity	2.4	2.3	2.3	2.4	2.7	2.6
Natural Gas	2.7	2.6	2.7	2.8	2.4	2.7
Fuel Oil	2.4	2.1	2.5	2.5	2.8	5.7
LPG	2.6	2.5	2.1	Q	2.6	9.6
Water-Heating Intensity⁵ (Dollars÷NHM)						
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:						
Electricity	90	88	88	94	91	2.8
Natural Gas	73	69	74	79	79	3.5
Fuel Oil	101	85	109	103	108	7.8
LPG	92	94	91	Q	95	13.1

¹ Based on the household respondent's description rather than the Federal Government definition.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes a small amount of kerosene use for water heating.

⁴ Includes only the water-heating expenditures of the water-heating fuel. Not included are: 1) the expenditures of the main water-heating fuel for uses other than water heating; 2) the expenditures of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the expenditures of other fuels that are used as secondary water-heating fuels.

⁵ Averages are for those households using each of the main water-heating fuels.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-9e. Water-Heating Energy Expenditures in U.S. Households by Northeast Census Region, 2001 - Preliminary Data

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.5	1.0	1.2	1.6	
Million Households					
Total U.S. Households	107.0	20.3	14.8	5.4	NF
No Water Heating	Q	Q	Q	Q	NF
Water Heating	106.9	20.2	14.8	5.4	NF
Not Using a Major Fuel ¹	0.2	Q	Q	Q	79.2
Using a Major Fuel ¹	106.7	20.2	14.8	5.4	NF
For Main Water Heating	106.5	20.2	14.8	5.4	NF
Number of Households with Water Heating, Major Fuels Used:					
Electricity	41.6	4.7	3.3	1.5	10.0
Natural Gas	58.2	10.8	8.9	1.9	8.7
Fuel Oil	4.7	4.4	2.6	1.9	13.1
LPG	3.0	0.3	Q	0.2	24.8
Billion Dollars					
Water-Heating Expenditures, Major Fuels Used:					
Electricity	8.94	1.18	0.81	0.37	10.6
Natural Gas	11.31	2.23	1.79	0.43	10.5
Fuel Oil	1.14	1.08	0.57	0.51	14.6
LPG	0.71	0.11	Q	0.06	21.2
Total ²	22.10	4.61	3.23	1.38	2.4
Dollars per Household					
Average Water-Heating Expenditures per Household					
Using a Major Fuel ¹	207	228	219	255	2.4
For Main Water Heating	207	229	219	256	2.4
Million Households					
Number of Households, Where the Main Water-Heating Fuel Is:					
Electricity	40.8	4.7	3.2	1.4	9.9
Natural Gas	58.0	10.8	8.9	1.9	8.7
Fuel Oil	4.6	4.4	2.5	1.8	13.7
LPG	2.9	0.3	Q	0.2	24.8
Does Not Heat Water	Q	Q	Q	Q	NF
Dollars per Household					
Water-Heating Expenditures per Household,³ Where the Main Water-Heating Fuel Is:					
Electricity	219	254	253	257	2.9
Natural Gas	194	207	203	227	3.9
Fuel Oil	243	244	223	273	4.8
LPG	237	334	Q	380	12.5

See footnotes at end of table.

Table CE4-9e. Water-Heating Energy Expenditures in U.S. Households by Northeast Census Region, 2001 - Preliminary Data (Continued)

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.5	1.0	1.2	1.6	
Number of Household Members (NHM) per Household⁴					
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:					
Electricity	2.4	2.5	2.6	2.3	3.7
Natural Gas	2.7	2.4	2.4	2.4	2.9
Fuel Oil	2.4	2.4	2.4	2.4	4.6
LPG	2.6	2.6	Q	2.5	10.2
Water-Heating Intensity⁴ (Dollars÷NHM)					
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:					
Electricity	90	101	96	112	3.1
Natural Gas	73	86	85	93	4.6
Fuel Oil	101	101	92	114	6.0
LPG	92	128	Q	153	11.7

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes a small amount of kerosene use for water heating.

³ Includes only the water-heating expenditures of the water-heating fuel. Not included are: 1) the expenditures of the main water-heating fuel for uses other than water heating; 2) the expenditures of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the expenditures of other fuels that are used as secondary water-heating fuels.

⁴ Averages are for those households using each of the main water-heating fuels.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE4-10e. Water-Heating Energy Expenditures in U.S. Households
by Midwest Census Region, 2001 - Preliminary Data**

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
	0.6	1.0	1.3	1.4	
Million Households					
Total U.S. Households	107.0	24.5	17.1	7.4	NF
No Water Heating	Q	Q	Q	Q	NF
Water Heating	106.9	24.5	17.1	7.4	NF
Not Using a Major Fuel ¹	0.2	Q	Q	Q	70.9
Using a Major Fuel ¹	106.7	24.5	17.1	7.4	NF
For Main Water Heating	106.5	24.5	17.1	7.4	NF
Number of Households with Water Heating, Major Fuels Used:					
Electricity	41.6	6.4	4.2	2.2	6.8
Natural Gas	58.2	17.0	12.5	4.5	4.0
Fuel Oil	4.7	Q	Q	Q	19.0
LPG	3.0	1.3	0.5	0.7	23.0
Billion Dollars					
Water-Heating Expenditures, Major Fuels Used:					
Electricity	8.94	1.30	0.82	0.49	7.5
Natural Gas	11.31	2.98	2.14	0.84	5.2
Fuel Oil	1.14	Q	Q	Q	21.5
LPG	0.71	0.27	0.11	0.16	24.9
Total ²	22.10	4.56	3.06	1.49	2.4
Dollars per Household					
Average Water-Heating Expenditures per Household					
Using a Major Fuel ¹	207	186	179	202	2.4
For Main Water Heating	207	186	179	202	2.4
Million Households					
Number of Households, Where the Main Water-Heating Fuel Is:					
Electricity	40.8	6.3	4.2	2.2	6.8
Natural Gas	58.0	16.9	12.4	4.5	3.9
Fuel Oil	4.6	Q	Q	Q	19.8
LPG	2.9	1.3	0.5	0.7	23.0
Does Not Heat Water	Q	Q	Q	Q	NF
Dollars per Household					
Water-Heating Expenditures per Household,³ Where the Main Water-Heating Fuel Is:					
Electricity	219	206	196	223	3.8
Natural Gas	194	175	171	188	3.4
Fuel Oil	243	Q	Q	Q	7.4
LPG	237	215	207	221	5.8

See footnotes at end of table.

**Table CE4-10e. Water-Heating Energy Expenditures in U.S. Households
by Midwest Census Region, 2001 - Preliminary Data (Continued)**

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
RSE Column Factor:	0.6	1.0	1.3	1.4	
Number of Household Members (NHM) per Household⁴					
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:					
Electricity	2.4	2.4	2.3	2.5	3.3
Natural Gas	2.7	2.6	2.6	2.4	3.3
Fuel Oil	2.4	Q	Q	Q	6.6
LPG	2.6	2.6	2.7	2.5	5.9
Water-Heating Intensity⁴ (Dollars÷NHM)					
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:					
Electricity	90	87	87	88	3.3
Natural Gas	73	68	65	77	3.6
Fuel Oil	101	Q	Q	Q	9.2
LPG	92	84	77	89	6.0

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes a small amount of kerosene use for water heating.

³ Includes only the water-heating expenditures of the water-heating fuel. Not included are: 1) the expenditures of the main water-heating fuel for uses other than water heating; 2) the expenditures of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the expenditures of other fuels that are used as secondary water-heating fuels.

⁴ Averages are for those households using each of the main water-heating fuels.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-11e. Water-Heating Energy Expenditures in U.S. Households by South Census Region, 2001 - Preliminary Data

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			Total	
		South Atlantic	East South Central	West South Central		
RSE Column Factor:	0.4	0.9	1.0	1.9	1.4	
Million Households						
Total U.S. Households	107.0	38.9	20.3	6.8	11.8	NF
No Water Heating	Q	Q	Q	Q	Q	NF
Water Heating	106.9	38.9	20.3	6.8	11.8	NF
Not Using a Major Fuel ¹	0.2	Q	Q	Q	Q	90.5
Using a Major Fuel ¹	106.7	38.9	20.3	6.8	11.8	NF
For Main Water Heating	106.5	38.8	20.2	6.8	11.7	NF
Number of Households with Water Heating, Major Fuels Used:						
Electricity	41.6	22.6	13.5	4.4	4.7	6.6
Natural Gas	58.2	15.5	6.3	2.2	7.0	8.4
Fuel Oil	4.7	Q	Q	Q	Q	24.3
LPG	3.0	0.7	0.3	0.2	Q	30.3
Billion Dollars						
Water-Heating Expenditures, Major Fuels Used:						
Electricity	8.94	5.01	3.08	0.90	1.03	7.8
Natural Gas	11.31	3.38	1.57	0.43	1.39	8.9
Fuel Oil	1.14	Q	Q	Q	Q	27.4
LPG	0.71	0.15	0.08	0.03	Q	29.1
Total ²	22.10	8.59	4.78	1.36	2.46	2.8
Dollars per Household						
Average Water-Heating Expenditures per Household						
Using a Major Fuel ¹	207	221	236	199	209	2.8
For Main Water Heating	207	222	236	199	210	2.8
Million Households						
Number of Households, Where the Main Water-Heating Fuel Is:						
Electricity	40.8	22.4	13.4	4.4	4.6	6.6
Natural Gas	58.0	15.4	6.3	2.2	6.9	8.4
Fuel Oil	4.6	Q	Q	Q	Q	25.2
LPG	2.9	0.6	Q	0.2	Q	27.2
Does Not Heat Water	Q	Q	Q	Q	Q	NF
Dollars per Household						
Water-Heating Expenditures per Household,³ Where the Main Water-Heating Fuel Is:						
Electricity	219	223	230	204	223	2.9
Natural Gas	194	218	248	193	199	5.4
Fuel Oil	243	Q	Q	Q	Q	9.5
LPG	237	222	Q	154	Q	8.7

See footnotes at end of table.

Table CE4-11e. Water-Heating Energy Expenditures in U.S. Households by South Census Region, 2001 - Preliminary Data (Continued)

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			Total	
		South Atlantic	East South Central	West South Central		
RSE Column Factor:	0.4	0.9	1.0	1.9	1.4	
Number of Household Members (NHM) per Household⁴						
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:						
Electricity	2.4	2.5	2.5	2.5	2.2	2.9
Natural Gas	2.7	2.7	2.6	2.2	2.8	2.9
Fuel Oil	2.4	Q	Q	Q	Q	8.5
LPG	2.6	2.5	Q	1.4	Q	11.7
Water-Heating Intensity⁴ (Dollars÷NHM)						
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:						
Electricity	90	91	91	81	100	3.0
Natural Gas	73	82	95	87	71	5.3
Fuel Oil	101	Q	Q	Q	Q	11.8
LPG	92	89	Q	111	Q	12.0

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes a small amount of kerosene use for water heating.

³ Includes only the water-heating expenditures of the water-heating fuel. Not included are: 1) the expenditures of the main water-heating fuel for uses other than water heating; 2) the expenditures of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the expenditures of other fuels that are used as secondary water-heating fuels.

⁴ Averages are for those households using each of the main water-heating fuels.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE4-12e. Water-Heating Energy Expenditures in U.S. Households
by West Census Region, 2001 - Preliminary Data**

	Total U.S.	West Census Region			RSE Row Factors
		Total	Census Division		
			Mountain	Pacific	
RSE Column Factor:	0.5	1.0	1.7	1.2	
Million Households					
Total U.S. Households	107.0	23.3	6.7	16.6	NF
No Water Heating	Q	Q	Q	Q	NF
Water Heating	106.9	23.3	6.7	16.6	NF
Not Using a Major Fuel ¹	0.2	Q	Q	Q	76.4
Using a Major Fuel ¹	106.7	23.2	6.7	16.5	NF
For Main Water Heating	106.5	23.0	6.7	16.3	NF
Number of Households with Water Heating, Major Fuels Used:					
Electricity	41.6	7.9	2.3	5.5	5.0
Natural Gas	58.2	15.0	4.1	10.9	2.7
Fuel Oil	4.7	Q	Q	Q	20.5
LPG	3.0	0.7	0.2	0.5	26.2
Billion Dollars					
Water-Heating Expenditures, Major Fuels Used:					
Electricity	8.94	1.44	0.45	0.98	6.3
Natural Gas	11.31	2.72	0.71	2.01	4.4
Fuel Oil	1.14	Q	Q	Q	23.2
LPG	0.71	0.17	0.05	0.12	28.1
Total ²	22.10	4.33	1.22	3.12	2.9
Dollars per Household					
Average Water-Heating Expenditures per Household					
Using a Major Fuel ¹	207	187	182	189	2.8
For Main Water Heating	207	188	182	190	2.8
Million Households					
Number of Households, Where the Main Water-Heating Fuel Is:					
Electricity	40.8	7.3	2.3	5.0	4.9
Natural Gas	58.0	14.9	4.1	10.8	2.8
Fuel Oil	4.6	Q	Q	Q	21.3
LPG	2.9	0.7	0.2	0.5	26.2
Does Not Heat Water	Q	Q	Q	Q	NF
Dollars per Household					
Water-Heating Expenditures per Household,³ Where the Main Water-Heating Fuel Is:					
Electricity	219	196	195	196	3.2
Natural Gas	194	181	172	185	3.8
Fuel Oil	243	Q	Q	Q	8.0
LPG	237	243	227	251	12.7

See footnotes at end of table.

Table CE4-12e. Water-Heating Energy Expenditures in U.S. Households by West Census Region, 2001 - Preliminary Data (Continued)

	West Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	Mountain	Pacific	
RSE Column Factor:	0.5	1.0	1.7	1.2	
Number of Household Members (NHM) per Household⁴					
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:					
Electricity	2.4	2.4	2.4	2.4	3.7
Natural Gas	2.7	3.0	2.9	3.0	2.3
Fuel Oil	2.4	Q	Q	Q	7.1
LPG	2.6	2.6	3.0	2.4	10.8
Water-Heating Intensity⁴ (Dollars÷NHM)					
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:					
Electricity	90	82	79	83	3.7
Natural Gas	73	61	60	62	3.9
Fuel Oil	101	Q	Q	Q	10.0
LPG	92	92	76	102	18.1

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes a small amount of kerosene use for water heating.

³ Includes only the water-heating expenditures of the water-heating fuel. Not included are: 1) the expenditures of the main water-heating fuel for uses other than water heating; 2) the expenditures of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the expenditures of other fuels that are used as secondary water-heating fuels.

⁴ Averages are for those households using each of the main water-heating fuels.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

2001 Consumption and Expenditures Tables

Water-Heating Expenditures Tables

(20 pages, 87 kb)

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These data are from the 2001 Residential Energy Consumption Survey (RECS) which provides information on the use of energy in residential housing units in the United States. The RECS is a national statistical survey that collects energy-related data for occupied primary housing units. RECS was first conducted in 1978; the twelfth and most recent survey was conducted in 2001. In the 2001 RECS, data were collected from a sample of 4,822 households in housing units statistically selected to represent the 107.0 million housing units in the United States. The RECS data are available for the four Census regions, the nine Census divisions, and for the four most populous States--California, Florida, New York, and Texas.

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World Wide Web: <http://www.eia.doe.gov/emeu/consumption>

Table CE4-1e. Water-Heating Energy Expenditures in U.S. Households by Climate Zone, 2001

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
		0.4	1.6	1.0	1.1	1.2	
Million Households							
Total U.S. Households	107.0	9.2	28.6	24.0	21.0	24.1	8.1
No Water Heating	Q	Q	Q	Q	Q	Q	NF
Water Heating	106.9	9.2	28.6	24.0	20.9	24.0	8.1
Not Using a Major Fuel ²	0.2	Q	Q	Q	Q	Q	90.3
Using a Major Fuel ²	106.7	9.2	28.6	24.0	20.9	24.0	8.1
For Main Water Heating	106.5	9.2	28.6	24.0	20.8	23.9	8.1
Number of Households with Water Heating, Major Fuels Used:							
Electricity	41.6	4.1	7.4	8.6	8.6	13.0	10.3
Natural Gas	58.2	3.8	19.2	12.4	12.2	10.6	8.9
Fuel Oil	4.7	0.8	1.5	2.4	Q	Q	20.0
LPG	3.0	0.6	0.8	0.6	0.5	0.5	27.6
Billion Dollars^a							
Water-Heating Expenditures, Major Fuels Used:							
Electricity	8.47	0.84	1.45	1.67	1.70	2.81	11.2
Natural Gas	11.31	0.58	3.59	2.47	2.58	2.08	9.7
Fuel Oil	1.14	0.24	0.38	0.51	Q	Q	21.5
LPG	0.69	0.14	0.19	0.13	0.11	0.12	26.6
Total ³	21.61	1.79	5.62	4.79	4.39	5.02	7.0
Dollars per Household^a							
Average Water-Heating Expenditures per Household							
Using a Major Fuel ²	203	196	196	200	210	209	2.6
For Main Water Heating	203	196	196	200	211	210	2.6
Million Households							
Number of Households, Where the Main Water-Heating Fuel Is:							
Electricity	40.8	4.0	7.3	8.5	8.1	12.8	10.4
Natural Gas	58.0	3.7	19.1	12.4	12.2	10.6	8.9
Fuel Oil	4.6	0.8	1.4	2.4	Q	Q	20.6
LPG	2.9	0.6	0.8	0.6	0.5	0.4	27.7
Does Not Heat Water	Q	Q	Q	Q	Q	Q	NF
Dollars per Household^a							
Water-Heating Expenditures per Household,⁴ Where the Main Water-Heating Fuel Is:							
Electricity	208	209	198	195	210	219	3.3
Natural Gas	194	153	187	199	211	196	3.7
Fuel Oil	243	289	266	213	Q	Q	5.5
LPG	233	239	242	207	219	261	9.6

See footnotes at end of table.

Table CE4-1e. Water-Heating Energy Expenditures in U.S. Households by Climate Zone, 2001 (Continued)

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.4	1.6	1.0	1.1	1.2	1.0	
Number of Household Members (NHM) per Household⁵							
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:							
Electricity	2.4	2.6	2.3	2.5	2.5	2.4	3.1
Natural Gas	2.7	2.4	2.6	2.5	3.0	2.7	3.1
Fuel Oil	2.4	2.4	2.5	2.4	Q	Q	6.0
LPG	2.6	2.6	2.6	2.3	2.2	3.3	9.3
Water-Heating Intensity^{5,a} (Dollars÷NHM)							
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:							
Electricity	85	81	86	80	84	91	3.2
Natural Gas	73	63	73	79	70	72	3.7
Fuel Oil	101	119	109	90	Q	Q	7.2
LPG	91	92	94	90	99	79	12.5

¹ One of five climatically distinct areas, determined according to the 30-year average (1961-1990) of the annual heating and cooling degree-days. For this report, the heating or cooling degree-days are a measure of how cold or how hot a location is over a period of one year, relative to a base temperature of 65 degrees Fahrenheit. A household is assigned to a climate zone according to the 30-year average annual degree-days for an appropriate nearby weather station.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes a small amount of kerosene use for water heating.

⁴ Includes only the water-heating expenditures of the water-heating fuel. Not included are: 1) the expenditures of the main water-heating fuel for uses other than water heating; 2) the expenditures of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the expenditures of other fuels that are used as secondary water-heating fuels.

⁵ Averages are for those households using each of the main water-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE4-2e. Water-Heating Energy Expenditures in U.S. Households
by Year of Construction, 2001**

	Total	Year of Construction					1990 to 1999	1949 or Before	RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1990 to 1999			
RSE Column Factor:	0.5	1.4	1.2	1.0	1.2	1.2	0.9		
Million Households									
Total U.S. Households	107.0	15.5	18.2	18.8	13.8	14.2	26.6	4.3	
No Water Heating	Q	Q	Q	Q	Q	Q	Q	NF	
Water Heating	106.9	15.5	18.2	18.7	13.8	14.2	26.5	4.3	
Not Using a Major Fuel ²	0.2	Q	Q	Q	Q	Q	Q	83.2	
Using a Major Fuel ²	106.7	15.4	18.2	18.7	13.7	14.2	26.4	4.3	
For Main Water Heating	106.5	15.4	18.2	18.7	13.6	14.1	26.4	4.3	
Number of Households with Water Heating, Major Fuels Used:									
Electricity	41.6	6.5	9.8	9.8	4.2	4.4	6.9	6.6	
Natural Gas	58.2	8.3	7.7	7.8	8.7	8.8	16.9	6.4	
Fuel Oil	4.7	0.2	0.3	0.5	0.7	0.9	2.1	19.6	
LPG	3.0	0.5	0.4	0.7	0.2	0.3	0.8	23.2	
Billion Dollars^a									
Water-Heating Expenditures, Major Fuels Used:									
Electricity	8.47	1.38	2.01	1.98	0.83	0.86	1.40	7.6	
Natural Gas	11.31	1.90	1.62	1.40	1.56	1.70	3.12	7.3	
Fuel Oil	1.14	0.06	0.13	0.14	0.16	0.20	0.45	20.0	
LPG	0.69	0.12	0.10	0.16	0.04	0.07	0.20	24.7	
Total ³	21.61	3.47	3.86	3.68	2.59	2.84	5.18	4.4	
Dollars per Household^{5,a}									
Average Water-Heating Expenditures per Household									
Using a Major Fuel ²	203	225	212	196	189	200	196	2.3	
For Main Water Heating	203	225	212	196	190	201	196	2.3	
Million Households									
Number of Households, Where the Main Water-Heating Fuel Is:									
Electricity	40.8	6.4	9.8	9.8	4.1	4.1	6.7	6.8	
Natural Gas	58.0	8.3	7.7	7.8	8.6	8.8	16.9	6.4	
Fuel Oil	4.6	0.2	0.3	0.5	0.7	0.9	2.0	20.2	
LPG	2.9	0.5	0.4	0.7	0.2	0.3	0.8	23.2	
Does Not Heat Water	Q	Q	Q	Q	Q	Q	Q	NF	
Dollars per Household^{5,a}									
Water-Heating Expenditures per Household,⁴ Where the Main Water-Heating Fuel Is:									
Electricity	208	215	206	202	204	212	210	3.4	
Natural Gas	194	229	210	179	181	193	184	3.2	
Fuel Oil	243	302	402	296	217	213	223	8.8	
LPG	233	242	229	219	184	280	238	11.6	

See footnotes at end of table.

Table CE4-2e. Water-Heating Energy Expenditures in U.S. Households by Year of Construction, 2001 (Continued)

	Total	Year of Construction						RSE Row Factors
		1990 to 2001 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1990 to 1999	1949 or Before	
RSE Column Factor:	0.5	1.4	1.2	1.0	1.2	1.2	0.9	
Number of Household Members (NHM) per Household⁵								
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:								
Electricity	2.4	2.7	2.4	2.3	2.4	2.4	2.5	3.2
Natural Gas	2.7	3.1	2.6	2.7	2.5	2.6	2.6	2.9
Fuel Oil	2.4	2.9	3.2	2.8	2.4	2.1	2.3	7.1
LPG	2.6	3.1	2.5	2.4	2.0	2.6	2.5	11.7
Water-Heating Intensity^{5,a} (Dollars÷NHM)								
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:								
Electricity	85	80	85	87	87	90	86	2.7
Natural Gas	73	73	82	67	73	73	72	3.6
Fuel Oil	101	105	127	105	91	104	96	11.1
LPG	91	78	90	90	93	108	94	13.8

¹ New construction for 2001 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes a small amount of kerosene use for water heating.

⁴ Includes only the water-heating expenditures of the water-heating fuel. Not included are: 1) the expenditures of the main water-heating fuel for uses other than water heating; 2) the expenditures of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the expenditures of other fuels that are used as secondary water-heating fuels.

⁵ Averages are for those households using each of the main water-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-3e. Water-Heating Energy Expenditures in U.S. Households by Household Income, 2001

	Total	2001 Household Income				Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.6	1.0	0.9	0.8	1.5	1.0	
Million Households								
Total U.S. Households	107.0	11.0	30.6	27.1	38.3	15.0	33.8	3.3
No Water Heating	Q	Q	Q	Q	Q	Q	Q	NF
Water Heating	106.9	11.0	30.5	27.1	38.3	14.9	33.7	3.3
Not Using a Major Fuel ²	0.2	Q	Q	Q	Q	Q	Q	71.3
Using a Major Fuel ²	106.7	11.0	30.5	27.0	38.2	14.9	33.7	3.3
For Main Water Heating	106.5	11.0	30.4	27.0	38.1	14.9	33.7	3.3
Number of Households with Water Heating, Major Fuels Used:								
Electricity	41.6	4.7	13.4	10.8	12.7	6.4	14.3	6.0
Natural Gas	58.2	5.6	15.5	14.1	23.0	7.9	17.7	5.2
Fuel Oil	4.7	0.4	1.1	1.3	2.0	0.4	1.1	15.5
LPG	3.0	0.3	0.9	1.0	0.8	0.4	0.9	19.4
Billion Dollars^a								
Water-Heating Expenditures, Major Fuels Used:								
Electricity	8.47	0.69	2.38	2.27	3.13	1.13	2.69	6.2
Natural Gas	11.31	0.83	2.61	2.71	5.16	1.26	3.04	6.0
Fuel Oil	1.14	0.08	0.21	0.29	0.55	0.09	0.26	17.0
LPG	0.69	0.02	0.21	0.25	0.20	0.06	0.20	21.2
Total ³	21.61	1.63	5.41	5.52	9.05	2.54	6.20	3.5
Dollars per Household^{5,a}								
Average Water-Heating Expenditures per Household								
Using a Major Fuel ²	203	149	177	204	237	170	184	1.9
For Main Water Heating	203	149	178	205	238	170	184	1.9
Million Households								
Number of Households, Where the Main Water-Heating Fuel Is:								
Electricity	40.8	4.7	13.1	10.6	12.4	6.2	14.0	6.0
Natural Gas	58.0	5.6	15.4	14.1	23.0	7.8	17.6	5.2
Fuel Oil	4.6	0.4	1.0	1.3	1.9	0.4	1.1	15.9
LPG	2.9	0.3	0.9	1.0	0.8	0.4	0.9	19.5
Does Not Heat Water	Q	Q	Q	Q	Q	Q	Q	NF
Dollars per Household^{5,a}								
Water-Heating Expenditures per Household,⁴ Where the Main Water-Heating Fuel Is:								
Electricity	208	149	182	213	253	182	191	2.7
Natural Gas	194	146	169	192	224	160	172	2.9
Fuel Oil	243	222	195	228	283	212	250	6.9
LPG	233	89	233	259	250	140	220	9.3

See footnotes at end of table.

Table CE4-3e. Water-Heating Energy Expenditures in U.S. Households by Household Income, 2001 (Continued)

	Total	2001 Household Income				Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
		Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.6	1.0	0.9	0.8	1.5	1.0	
Number of Household Members (NHM) per Household⁵								
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:								
Electricity	2.4	1.7	2.2	2.5	2.9	2.4	2.5	3.0
Natural Gas	2.7	2.0	2.4	2.7	3.0	2.8	2.8	2.6
Fuel Oil	2.4	2.1	1.7	2.5	2.8	2.3	2.5	7.2
LPG	2.6	1.3	2.5	2.8	2.9	2.5	2.7	10.7
Water-Heating Intensity^{5,a} (Dollars÷NHM)								
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:								
Electricity	85	85	82	87	87	77	78	2.7
Natural Gas	73	73	72	70	75	58	61	3.3
Fuel Oil	101	105	113	91	102	93	101	10.2
LPG	91	69	95	92	88	55	82	11.8

¹ Below 150 percent of poverty line or 60 percent of median State income.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes a small amount of kerosene use for water heating.

⁴ Includes only the water-heating expenditures of the water-heating fuel. Not included are: 1) the expenditures of the main water-heating fuel for uses other than water heating; 2) the expenditures of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the expenditures of other fuels that are used as secondary water-heating fuels.

⁵ Averages are for those households using each of the main water-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE4-4e. Water-Heating Energy Expenditures in U.S. Households
by Type of Housing Unit, 2001**

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Apartments in Buildings With		Mobile Homes	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.5	1.6	1.3	1.8	
Million Households						
Total U.S. Households	107.0	73.7	9.5	17.0	6.8	4.4
No Water Heating	Q	Q	Q	Q	Q	NF
Water Heating	106.9	73.6	9.5	17.0	6.8	4.4
Not Using a Major Fuel ¹	0.2	Q	Q	Q	Q	81.2
Using a Major Fuel ¹	106.7	73.5	9.5	16.9	6.8	4.4
For Main Water Heating	106.5	73.3	9.5	16.8	6.8	4.5
Number of Households with Water Heating, Major Fuels Used:						
Electricity	41.6	25.9	3.4	7.4	4.9	7.5
Natural Gas	58.2	42.8	5.7	8.2	1.5	6.7
Fuel Oil	4.7	3.0	0.4	1.3	Q	19.5
LPG	3.0	2.5	Q	Q	0.4	22.2
Billion Dollars^a						
Water-Heating Expenditures, Major Fuels Used:						
Electricity	8.47	5.68	0.57	1.11	1.11	8.5
Natural Gas	11.31	9.11	0.89	1.05	0.26	8.2
Fuel Oil	1.14	0.88	0.10	0.16	Q	20.7
LPG	0.69	0.61	Q	Q	0.07	22.2
Total ²	21.61	16.27	1.57	2.33	1.44	4.6
Dollars per Household^{4,a}						
Average Water-Heating Expenditures per Household						
Using a Major Fuel ¹	203	221	165	138	212	2.4
For Main Water Heating	203	222	165	138	212	2.4
Million Households						
Number of Households, Where the Main Water-Heating Fuel Is:						
Electricity	40.8	25.2	3.4	7.4	4.9	7.6
Natural Gas	58.0	42.7	5.7	8.1	1.5	6.7
Fuel Oil	4.6	2.9	0.4	1.3	Q	20.1
LPG	2.9	2.5	Q	Q	0.3	22.5
Does Not Heat Water	Q	Q	Q	Q	Q	NF
Dollars per Household^{4,a}						
Water-Heating Expenditures per Household,³ Where the Main Water-Heating Fuel Is:						
Electricity	208	225	171	151	227	3.2
Natural Gas	194	213	157	129	168	3.7
Fuel Oil	243	293	237	127	Q	6.0
LPG	233	245	Q	Q	179	7.9

See footnotes at end of table.

Table CE4-4e. Water-Heating Energy Expenditures in U.S. Households by Type of Housing Unit, 2001 (Continued)

	Type of Housing Unit					RSE Row Factors
	Total	Single-Family	Apartments in Buildings With		Mobile Homes	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.5	1.6	1.3	1.8	
Number of Household Members (NHM) per Household⁴						
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:						
Electricity	2.4	2.6	2.2	1.9	2.7	3.1
Natural Gas	2.7	2.8	2.4	2.1	2.4	3.1
Fuel Oil	2.4	2.6	1.7	2.1	Q	7.3
LPG	2.6	2.7	Q	Q	2.2	8.5
Water-Heating Intensity^{4,a} (Dollars÷NHM)						
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:						
Electricity	85	87	78	81	85	2.9
Natural Gas	73	75	66	61	70	4.4
Fuel Oil	101	111	143	59	Q	9.6
LPG	91	92	Q	Q	81	9.4

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes a small amount of kerosene use for water heating.

³ Includes only the water-heating expenditures of the water-heating fuel. Not included are: 1) the expenditures of the main water-heating fuel for uses other than water heating; 2) the expenditures of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the expenditures of other fuels that are used as secondary water-heating fuels.

⁴ Averages are for those households using each of the main water-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE4-7e. Water-Heating Energy Expenditures in U.S. Households
by Four Most Populated States, 2001**

	Four Most Populated States					RSE Row Factors
	Total U.S.	New York	California	Texas	Florida	
	0.5	1.9	1.0	1.6	0.7	
Million Households						
Total U.S. Households	107.0	7.1	12.3	7.7	6.3	NE
No Water Heating	Q	Q	Q	Q	Q	NF
Water Heating	106.9	7.1	12.3	7.6	6.3	NE
Not Using a Major Fuel ¹	0.2	Q	Q	Q	Q	88.8
Using a Major Fuel ¹	106.7	7.0	12.2	7.6	6.3	NE
For Main Water Heating	106.5	7.0	12.1	7.6	6.3	1.1
Number of Households with Water Heating, Major Fuels Used:						
Electricity	41.6	0.9	2.3	3.0	5.2	7.9
Natural Gas	58.2	4.4	10.0	4.6	1.2	5.4
Fuel Oil	4.7	1.7	Q	Q	Q	13.9
LPG	3.0	Q	0.4	Q	Q	29.8
Billion Dollars^a						
Water-Heating Expenditures, Major Fuels Used:						
Electricity	8.47	0.23	0.36	0.65	1.12	11.5
Natural Gas	11.31	0.91	1.87	0.83	0.26	7.3
Fuel Oil	1.14	0.34	Q	Q	Q	13.2
LPG	0.69	Q	0.09	Q	Q	28.1
Total ²	21.61	1.51	2.32	1.49	1.39	3.5
Dollars per Household^{3,a}						
Average Water-Heating Expenditures per Household						
Using a Major Fuel ¹	203	214	190	196	220	3.4
For Main Water Heating	203	214	190	196	221	3.5
Million Households						
Number of Households, Where the Main Water-Heating Fuel Is:						
Electricity	40.8	0.9	1.8	3.0	5.1	8.4
Natural Gas	58.0	4.4	9.9	4.5	1.2	5.5
Fuel Oil	4.6	1.6	Q	Q	Q	14.6
LPG	2.9	Q	0.4	Q	Q	29.8
Does Not Heat Water	Q	Q	Q	Q	Q	NF
Dollars per Household^{3,a}						
Water-Heating Expenditures per Household,³ Where the Main Water-Heating Fuel Is:						
Electricity	208	261	202	214	220	5.7
Natural Gas	194	205	187	182	222	4.2
Fuel Oil	243	206	Q	Q	Q	6.2
LPG	233	Q	219	Q	Q	11.4

See footnotes at end of table.

Table CE4-7e. Water-Heating Energy Expenditures in U.S. Households by Four Most Populated States, 2001 (Continued)

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.5	1.9	1.0	1.6	0.7	
Number of Household Members (NHM) per Household³						
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:						
Electricity	2.4	2.8	2.5	2.3	2.5	4.5
Natural Gas	2.7	2.5	3.1	3.0	2.7	2.7
Fuel Oil	2.4	2.3	Q	Q	Q	5.6
LPG	2.6	Q	2.4	Q	Q	11.7
Water-Heating Intensity^{3,a} (Dollars÷NHM)						
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:						
Electricity	85	93	83	95	89	4.0
Natural Gas	73	82	61	62	81	5.2
Fuel Oil	101	88	Q	Q	Q	8.2
LPG	91	Q	91	Q	Q	17.2

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes a small amount of kerosene use for water heating.

³ Includes only the water-heating expenditures of the water-heating fuel. Not included are: 1) the expenditures of the main water-heating fuel for uses other than water heating; 2) the expenditures of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the expenditures of other fuels that are used as secondary water-heating fuels.

³ Averages are for those households using each of the main water-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE4-8e. Water-Heating Energy Expenditures in U.S. Households
by Urban/Rural Location, 2001**

	Urban/Rural Location ¹					RSE Row Factors
	Total	City	Town	Suburbs	Rural	
	0.6	1.0	1.4	1.1	1.2	
Million Households						
Total U.S. Households	107.0	49.9	18.0	21.2	17.9	4.2
No Water Heating	Q	Q	Q	Q	Q	NF
Water Heating	106.9	49.8	18.0	21.2	17.9	4.2
Not Using a Major Fuel ²	0.2	Q	Q	Q	Q	72.8
Using a Major Fuel ²	106.7	49.7	18.0	21.2	17.8	4.2
For Main Water Heating	106.5	49.5	18.0	21.1	17.8	4.2
Number of Households with Water Heating, Major Fuels Used:						
Electricity	41.6	15.8	7.0	7.1	11.6	6.6
Natural Gas	58.2	32.6	9.4	13.0	3.1	5.9
Fuel Oil	4.7	1.6	1.1	1.0	1.0	16.2
LPG	3.0	0.3	0.5	Q	2.1	21.2
Billion Dollars^a						
Water-Heating Expenditures, Major Fuels Used:						
Electricity	8.47	2.84	1.35	1.51	2.77	7.7
Natural Gas	11.31	5.98	1.88	2.86	0.59	6.7
Fuel Oil	1.14	0.28	0.29	0.25	0.31	15.5
LPG	0.69	0.06	0.10	Q	0.50	22.3
Total ³	21.61	9.17	3.62	4.65	4.17	4.1
Dollars per Household^{5,a}						
Average Water-Heating Expenditures per Household						
Using a Major Fuel ²	203	185	201	219	235	1.9
For Main Water Heating	203	185	201	220	235	1.9
Million Households						
Number of Households, Where the Main Water-Heating Fuel Is:						
Electricity	40.8	15.3	6.9	7.0	11.6	6.6
Natural Gas	58.0	32.5	9.4	13.0	3.1	5.9
Fuel Oil	4.6	1.5	1.1	1.0	1.0	16.5
LPG	2.9	0.2	0.5	Q	2.1	20.9
Does Not Heat Water	Q	Q	Q	Q	Q	NF
Dollars per Household^{5,a}						
Water-Heating Expenditures per Household,⁴ Where the Main Water-Heating Fuel Is:						
Electricity	208	185	195	217	239	2.8
Natural Gas	194	183	198	219	189	2.9
Fuel Oil	243	179	268	253	302	7.3
LPG	233	230	192	Q	242	9.8

See footnotes at end of table.

Table CE4-8e. Water-Heating Energy Expenditures in U.S. Households by Urban/Rural Location, 2001 (Continued)

	Total	Urban/Rural Location ¹				RSE Row Factors
		City	Town	Suburbs	Rural	
RSE Column Factor:	0.6	1.0	1.4	1.1	1.2	
Number of Household Members (NHM) per Household⁵						
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:						
Electricity	2.4	2.3	2.3	2.4	2.7	2.6
Natural Gas	2.7	2.6	2.7	2.8	2.4	2.7
Fuel Oil	2.4	2.1	2.5	2.5	2.8	5.7
LPG	2.6	2.5	2.1	Q	2.6	9.5
Water-Heating Intensity^{5,a} (Dollars÷NHM)						
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:						
Electricity	85	80	84	89	90	2.6
Natural Gas	73	69	74	79	79	3.5
Fuel Oil	101	85	109	103	108	7.8
LPG	91	94	90	Q	92	11.5

¹ Based on the household respondent's description rather than the Federal Government definition.

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes a small amount of kerosene use for water heating.

⁴ Includes only the water-heating expenditures of the water-heating fuel. Not included are: 1) the expenditures of the main water-heating fuel for uses other than water heating; 2) the expenditures of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the expenditures of other fuels that are used as secondary water-heating fuels.

⁵ Averages are for those households using each of the main water-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-9e. Water-Heating Energy Expenditures in U.S. Households by Northeast Census Region, 2001

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
	RSE Column Factor:	0.5	1.0	1.2	
Million Households					
Total U.S. Households	107.0	20.3	14.8	5.4	100.0
No Water Heating	Q	Q	Q	Q	Q
Water Heating	106.9	20.2	14.8	5.4	100.0
Not Using a Major Fuel ¹	0.2	Q	Q	Q	81.0
Using a Major Fuel ¹	106.7	20.2	14.8	5.4	100.0
For Main Water Heating	106.5	20.2	14.8	5.4	100.0
Number of Households with Water Heating, Major Fuels Used:					
Electricity	41.6	4.7	3.3	1.5	10.0
Natural Gas	58.2	10.8	8.9	1.9	8.7
Fuel Oil	4.7	4.4	2.6	1.9	13.1
LPG	3.0	0.3	Q	0.2	24.9
Billion Dollars^a					
Water-Heating Expenditures, Major Fuels Used:					
Electricity	8.47	1.13	0.77	0.36	11.1
Natural Gas	11.31	2.23	1.79	0.43	10.5
Fuel Oil	1.14	1.08	0.57	0.51	14.6
LPG	0.69	0.11	Q	0.06	20.5
Total ²	21.61	4.55	3.18	1.36	2.5
Dollars per Household^{4,a}					
Average Water-Heating Expenditures per Household					
Using a Major Fuel ¹	203	225	215	253	2.5
For Main Water Heating	203	226	215	253	2.5
Million Households					
Number of Households, Where the Main Water-Heating Fuel Is:					
Electricity	40.8	4.7	3.2	1.4	9.9
Natural Gas	58.0	10.8	8.9	1.9	8.7
Fuel Oil	4.6	4.4	2.5	1.8	13.7
LPG	2.9	0.3	Q	0.2	24.9
Does Not Heat Water	Q	Q	Q	Q	Q
Dollars per Household^{4,a}					
Water-Heating Expenditures per Household,³ Where the Main Water-Heating Fuel Is:					
Electricity	208	242	238	250	3.2
Natural Gas	194	207	203	227	3.9
Fuel Oil	243	244	223	273	4.8
LPG	233	324	Q	363	12.0

See footnotes at end of table.

Table CE4-9e. Water-Heating Energy Expenditures in U.S. Households by Northeast Census Region, 2001 (Continued)

	Northeast Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.5	1.0	1.2	1.6	
Number of Household Members (NHM) per Household⁴					
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:					
Electricity	2.4	2.5	2.6	2.3	3.7
Natural Gas	2.7	2.4	2.4	2.4	2.9
Fuel Oil	2.4	2.4	2.4	2.4	4.6
LPG	2.6	2.6	Q	2.5	10.2
Water-Heating Intensity^{4,a} (Dollars÷NHM)					
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:					
Electricity	85	96	91	109	2.8
Natural Gas	73	86	85	93	4.6
Fuel Oil	101	101	92	114	6.0
LPG	91	125	Q	146	11.9

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes a small amount of kerosene use for water heating.

³ Includes only the water-heating expenditures of the water-heating fuel. Not included are: 1) the expenditures of the main water-heating fuel for uses other than water heating; 2) the expenditures of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the expenditures of other fuels that are used as secondary water-heating fuels.

⁴ Averages are for those households using each of the main water-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

**Table CE4-10e. Water-Heating Energy Expenditures in U.S. Households
by Midwest Census Region, 2001**

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
	0.6	1.0	1.3	1.4	
RSE Column Factor:					
Million Households					
Total U.S. Households	107.0	24.5	17.1	7.4	NE
No Water Heating	Q	Q	Q	Q	NF
Water Heating	106.9	24.5	17.1	7.4	NE
Not Using a Major Fuel ¹	0.2	Q	Q	Q	73.1
Using a Major Fuel ¹	106.7	24.5	17.1	7.4	NE
For Main Water Heating	106.5	24.5	17.1	7.4	NE
Number of Households with Water Heating, Major Fuels Used:					
Electricity	41.6	6.4	4.2	2.2	6.8
Natural Gas	58.2	17.0	12.5	4.5	4.0
Fuel Oil	4.7	Q	Q	Q	19.6
LPG	3.0	1.3	0.5	0.7	23.0
Billion Dollars^a					
Water-Heating Expenditures, Major Fuels Used:					
Electricity	8.47	1.24	0.77	0.47	7.7
Natural Gas	11.31	2.98	2.14	0.84	5.2
Fuel Oil	1.14	Q	Q	Q	22.2
LPG	0.69	0.27	0.11	0.16	24.8
Total ²	21.61	4.50	3.02	1.47	2.5
Dollars per Household^{4,a}					
Average Water-Heating Expenditures per Household					
Using a Major Fuel ¹	203	184	177	199	2.5
For Main Water Heating	203	184	177	199	2.5
Million Households					
Number of Households, Where the Main Water-Heating Fuel Is:					
Electricity	40.8	6.3	4.2	2.2	6.8
Natural Gas	58.0	16.9	12.4	4.5	3.9
Fuel Oil	4.6	Q	Q	Q	20.4
LPG	2.9	1.3	0.5	0.7	23.0
Does Not Heat Water	Q	Q	Q	Q	NF
Dollars per Household^{4,a}					
Water-Heating Expenditures per Household,³ Where the Main Water-Heating Fuel Is:					
Electricity	208	196	186	214	3.8
Natural Gas	194	175	171	188	3.4
Fuel Oil	243	Q	Q	Q	7.7
LPG	233	218	213	222	5.6

See footnotes at end of table.

Table CE4-10e. Water-Heating Energy Expenditures in U.S. Households by Midwest Census Region, 2001 (Continued)

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
RSE Column Factor:	0.6	1.0	1.3	1.4	
Number of Household Members (NHM) per Household⁴					
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:					
Electricity	2.4	2.4	2.3	2.5	3.3
Natural Gas	2.7	2.6	2.6	2.4	3.3
Fuel Oil	2.4	Q	Q	Q	6.8
LPG	2.6	2.6	2.7	2.5	5.9
Water-Heating Intensity^{4,a} (Dollars÷NHM)					
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:					
Electricity	85	83	82	85	3.7
Natural Gas	73	68	65	77	3.6
Fuel Oil	101	Q	Q	Q	9.5
LPG	91	85	79	89	5.8

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes a small amount of kerosene use for water heating.

³ Includes only the water-heating expenditures of the water-heating fuel. Not included are: 1) the expenditures of the main water-heating fuel for uses other than water heating; 2) the expenditures of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the expenditures of other fuels that are used as secondary water-heating fuels.

⁴ Averages are for those households using each of the main water-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-11e. Water-Heating Energy Expenditures in U.S. Households by South Census Region, 2001

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			West South Central	
		Total	South Atlantic	East South Central		
RSE Column Factor:	0.4	0.9	1.0	1.9	1.4	
Million Households						
Total U.S. Households	107.0	38.9	20.3	6.8	11.8	NE
No Water Heating	Q	Q	Q	Q	Q	NF
Water Heating	106.9	38.9	20.3	6.8	11.8	NE
Not Using a Major Fuel ¹	0.2	Q	Q	Q	Q	91.5
Using a Major Fuel ¹	106.7	38.9	20.3	6.8	11.8	NE
For Main Water Heating	106.5	38.8	20.2	6.8	11.7	NE
Number of Households with Water Heating, Major Fuels Used:						
Electricity	41.6	22.6	13.5	4.4	4.7	6.6
Natural Gas	58.2	15.5	6.3	2.2	7.0	8.4
Fuel Oil	4.7	Q	Q	Q	Q	24.5
LPG	3.0	0.7	0.3	0.2	Q	30.4
Billion Dollars^a						
Water-Heating Expenditures, Major Fuels Used:						
Electricity	8.47	4.76	2.91	0.87	0.97	7.8
Natural Gas	11.31	3.38	1.57	0.43	1.39	8.9
Fuel Oil	1.14	Q	Q	Q	Q	27.7
LPG	0.69	0.15	0.08	0.02	Q	27.8
Total ²	21.61	8.34	4.61	1.32	2.41	2.8
Dollars per Household^{4,a}						
Average Water-Heating Expenditures per Household						
Using a Major Fuel ¹	203	215	227	194	204	2.8
For Main Water Heating	203	215	228	194	205	2.8
Million Households						
Number of Households, Where the Main Water-Heating Fuel Is:						
Electricity	40.8	22.4	13.4	4.4	4.6	6.6
Natural Gas	58.0	15.4	6.3	2.2	6.9	8.4
Fuel Oil	4.6	Q	Q	Q	Q	25.5
LPG	2.9	0.6	Q	0.2	Q	27.3
Does Not Heat Water	Q	Q	Q	Q	Q	NF
Dollars per Household^{4,a}						
Water-Heating Expenditures per Household,³ Where the Main Water-Heating Fuel Is:						
Electricity	208	212	217	197	211	3.1
Natural Gas	194	218	248	193	199	5.4
Fuel Oil	243	Q	Q	Q	Q	9.6
LPG	233	229	Q	129	Q	9.2

See footnotes at end of table.

Table CE4-11e. Water-Heating Energy Expenditures in U.S. Households by South Census Region, 2001 (Continued)

	South Census Region					RSE Row Factors
	Total U.S.	Census Division			Total	
		South Atlantic	East South Central	West South Central		
RSE Column Factor:	0.4	0.9	1.0	1.9	1.4	
Number of Household Members (NHM) per Household⁴						
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:						
Electricity	2.4	2.5	2.5	2.5	2.2	2.9
Natural Gas	2.7	2.7	2.6	2.2	2.8	2.9
Fuel Oil	2.4	Q	Q	Q	Q	8.6
LPG	2.6	2.5	Q	1.4	Q	11.7
Water-Heating Intensity^{4,a} (Dollars÷NHM)						
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:						
Electricity	85	86	86	78	94	2.7
Natural Gas	73	82	95	87	71	5.3
Fuel Oil	101	Q	Q	Q	Q	11.9
LPG	91	92	Q	93	Q	10.3

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes a small amount of kerosene use for water heating.

³ Includes only the water-heating expenditures of the water-heating fuel. Not included are: 1) the expenditures of the main water-heating fuel for uses other than water heating; 2) the expenditures of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the expenditures of other fuels that are used as secondary water-heating fuels.

⁴ Averages are for those households using each of the main water-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

NE = RSE row factor not estimated because RSE's for all statistics in this row are between 0.0 and 1.0 percent.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

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Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

Table CE4-12e. Water-Heating Energy Expenditures in U.S. Households by West Census Region, 2001

	Total U.S.	West Census Region			RSE Row Factors
		Total	Census Division		
			Mountain	Pacific	
RSE Column Factor:	0.5	1.0	1.7	1.1	
Million Households					
Total U.S. Households	107.0	23.3	6.7	16.6	NE
No Water Heating	Q	Q	Q	Q	NF
Water Heating	106.9	23.3	6.7	16.6	NE
Not Using a Major Fuel ¹	0.2	Q	Q	Q	76.6
Using a Major Fuel ¹	106.7	23.2	6.7	16.5	NE
For Main Water Heating	106.5	23.0	6.7	16.3	NE
Number of Households with Water Heating, Major Fuels Used:					
Electricity	41.6	7.9	2.3	5.5	5.0
Natural Gas	58.2	15.0	4.1	10.9	2.7
Fuel Oil	4.7	Q	Q	Q	20.5
LPG	3.0	0.7	0.2	0.5	26.2
Billion Dollars^a					
Water-Heating Expenditures, Major Fuels Used:					
Electricity	8.47	1.35	0.43	0.92	6.6
Natural Gas	11.31	2.72	0.71	2.01	4.4
Fuel Oil	1.14	Q	Q	Q	23.2
LPG	0.69	0.15	0.05	0.11	25.3
Total ²	21.61	4.23	1.19	3.04	2.9
Dollars per Household^{4,a}					
Average Water-Heating Expenditures per Household					
Using a Major Fuel ¹	203	183	177	185	2.8
For Main Water Heating	203	183	177	186	2.8
Million Households					
Number of Households, Where the Main Water-Heating Fuel Is:					
Electricity	40.8	7.3	2.3	5.0	4.9
Natural Gas	58.0	14.9	4.1	10.8	2.8
Fuel Oil	4.6	Q	Q	Q	21.4
LPG	2.9	0.7	0.2	0.5	26.2
Does Not Heat Water	Q	Q	Q	Q	NF
Dollars per Household^{4,a}					
Water-Heating Expenditures per Household,³ Where the Main Water-Heating Fuel Is:					
Electricity	208	184	183	184	3.9
Natural Gas	194	181	172	185	3.8
Fuel Oil	243	Q	Q	Q	8.0
LPG	233	218	202	226	8.8

See footnotes at end of table.

Table CE4-12e. Water-Heating Energy Expenditures in U.S. Households by West Census Region, 2001 (Continued)

	West Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	Mountain	Pacific	
RSE Column Factor:	0.5	1.0	1.7	1.1	
Number of Household Members (NHM) per Household⁴					
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:					
Electricity	2.4	2.4	2.4	2.4	3.7
Natural Gas	2.7	3.0	2.9	3.0	2.3
Fuel Oil	2.4	Q	Q	Q	7.2
LPG	2.6	2.6	3.0	2.4	10.8
Water-Heating Intensity^{4,a} (Dollars÷NHM)					
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:					
Electricity	85	77	75	78	3.5
Natural Gas	73	61	60	62	3.9
Fuel Oil	101	Q	Q	Q	10.0
LPG	91	83	68	92	16.1

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² Includes a small amount of kerosene use for water heating.

³ Includes only the water-heating expenditures of the water-heating fuel. Not included are: 1) the expenditures of the main water-heating fuel for uses other than water heating; 2) the expenditures of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the expenditures of other fuels that are used as secondary water-heating fuels.

⁴ Averages are for those households using each of the main water-heating fuels.

^a The row factor in this section is underestimated because it contains no error for estimating the end-use.

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• See "Glossary" for definition of terms used in this report.

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