Residential Energy Consumption Surveys

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

		116, 2001					
				Climate Zone ¹			
			Fewer than 2,0	000 CDD and		2,000 CDD	
	Total	More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD	or More and Fewer than 4,000 HDD	
RSE Column Factor:	0.5	1.3	1.0	1.0	1.3	1.1	RSE Row Factors
			М	illion Households	3		
Total U.S. Households No Space Heating Space Heating Not Using a Major Fuel ² Using a Major Fuel ² For Main Space Heating For Secondary Space Heating Only	107.0 1.0 106.0 0.7 105.3 103.8 1.5	9.2 Q 9.2 0.1 9.1 8.6 0.5	28.6 Q 28.6 Q 28.5 28.3 0.2	24.0 Q 23.9 Q 23.7 23.3 0.4	21.0 0.3 20.7 0.2 20.4 20.2 0.2	24.1 0.5 23.6 Q 23.5 23.4 Q	8.4 14.1 8.4 34.1 8.5 8.5 26.6
Number of Households with Space Heating, Major Fuels Used (more than one may apply): Electricity Natural Gass Fuel Oil Kerosene LPG		2.7 4.9 1.8 0.4 1.0	8.1 20.4 2.8 0.6 1.7	8.9 12.7 3.5 0.7 1.4	9.4 12.2 Q 0.7 1.6	14.7 10.3 Q 0.3 1.0	9.1 9.1 17.6 22.9 25.8
				Billion Dollarsa			•
Space-Heating Expenditures, Major Fuels Used: Electricity Natural Gas Fuel Oil Kerosene LPG	5.17 0.49 4.04	0.51 2.86 1.28 0.11 0.67	1.89 13.47 2.00 0.12 1.21	2.56 7.76 1.80 0.11 0.88	1.89 4.59 Q 0.13 0.82	2.13 3.16 Q Q 0.46	11.5 11.3 20.6 33.7 27.7
Total	50.53	5.42	18.68	ars per Househol	7.53	5.78	8.5
			Doll	ars per nouseno	lu"		
Average Space-Heating Expenditures per Household Using a Major Fuel ² For Main Space Heating For Secondary Space Heating Only	480 484 216	595 615 228	656 659 297	553 559 191 illion Households	368 371 126	246 245 Q	4.0 4.0 19.3
				illion riouseriolus	•		
Number of Households, Where the Main Space-Heating Fuel Is: Electricity Natural Gas Fuel Oil Kerosene LPG Other No Space Heating	30.9 59.1 8.0 0.8 4.9 2.2 1.0	1.2 4.8 1.7 0.1 0.8 0.6 Q	3.9 20.2 2.7 Q 1.3 0.4 Q	6.3 12.4 3.5 Q 1.1 0.6 Q	6.9 11.8 Q 0.4 1.0 0.5 0.3	12.6 9.8 Q Q 0.9 Q	11.1 9.1 17.6 28.5 28.7 24.2 14.1

Table CE2-1e. Space-Heating Energy Expenditures in U.S. Households by Climate Zone, 2001 (Continued)

				Climate Zone ¹			
			Fewer than 2,	000 CDD and	ı	2,000 CDD or More	
	Total	More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD	and Fewer than 4,000 HDD	
RSE Column Factor:	0.5	1.3	1.0	1.0	1.3	1.1	RSE Row Factor
			Doll	ars per Househol	d ^{4,a}		
Space-Heating Expenditures per lousehold, ³ Where the Main Space-Heating Fuel Is:							
Electricity	271	364	434	389	257	161	5.9
Natural Gas		589	662	615	375	309	4.9
Fuel Oil		713	742	518	Q	Q	7.0
Kerosene		664	Q	Q	304	Q	15.5
LPG	713	824	825	737	673	458	7.4
			2001 Heating De	gree-Days (HDD)	per Household ⁴		
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is: Electricity Natural Gas Fuel Oil Kerosene LPG Average for All Heated Households	4,255 5,339 4,636 4,643	6,838 7,169 6,903 6,625 7,016 7,008	5,640 5,685 5,644 Q 6,060 5,690	4,238 4,332 4,437 Q 4,359 4,322	2,696 2,321 Q 3,976 3,179 2,549	1,371 2,119 Q Q 2,384 1,733	3.4 3.0 3.7 8.1 6.1 2.1
			Heated Square	Footage (HSF) pe	er Household ⁴		
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:							
Electricity	,	1,244	1,403	1,473	1,380	1,386	7.5
Natural Gas		2,130	2,003	1,863	1,560	1,645	3.7
Kerosene	,	2,005	2,404 Q	1,843 Q	Q 1,120	Q Q	6.9 9.3
LPG		1,529 1,674	1,687	1,657	1,506	1,263	8.8
Average for All Heated Households		1,954	1,935	1,741	1,490	1,490	3.5
		Sp	pace-Heating Inte	nsity ^{4,a} [Cents÷{ŀ	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		3.85	5.49	7.62	10.37	8.88	4.9
Fuel Oil		5.15	5.47	6.33	Q	Q	6.8
Kerosene		6.55	Q	Q	6.82	Q	21.6
LPG		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.

The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

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

				Year of Co	nstruction			
	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	RSE Row Factors
-				Million Hou	seholds		I	
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 Do	ollarsa			1
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
-			Г	Dollars per Ho	ouseholda			
-				Johans per m	ouscrioiu			
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 Hou	seholds			
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	7.3 0.4	7.8 0.8	6.5 1.1	9.2 1.8	3.7	15.8
Kerosene	0.8	Q Q	0.4 Q	0.8	Q	1.8 Q	3.7 Q	29.6
1/01/03/01/10			0.9	0.3	0.6	0.4	1.5	19.3
I PC								
LPG	4.9	0.8						1
LPG Other No Space Heating	4.9 2.2 1.0	0.8 0.2 Q	0.9 0.4 Q	0.5 Q	0.3 0.2	0.4 0.2 0.3	0.6 Q	23.8

Table CE2-2e. Space-Heating Energy Expenditures in U.S. Households by Year of Construction, 2001 (Continued)

				Year of Co	onstruction			
	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	RSE Row Factors
-			D	ollars per Ho	usehold ^{4,a}		•	
Space-Heating Expenditures per Household, ³ Where the Main Space-Heating Fuel Is:								
Electricity	271 530 630 411	232 464 601 Q	241 451 604 Q	286 431 563 389	296 463 525 Q	286 520 617 Q	366 675 687 Q	5.8 4.2 8.7 22.7
LPG	713	666	587 2001 Heating	697 Degree-Days	698 (HDD) per H	536 ousehold ⁴	866	8.1
2001 Heating Degree-Days per Household, Where the Main								
Household, Where the Main Space-Heating Fuel Is: Electricity Natural Gas Fuel Oil Kerosene LPG Average for All Heated Households	3,006 4,255 5,339 4,636 4,643 4,004	3,121 3,931 6,260 Q 5,309 3,776	2,799 4,260 6,060 Q 4,256 3,588	3,080 4,058 5,433 4,482 4,685 3,726	2,802 4,060 4,968 Q 4,261 3,880	2,761 4,096 5,167 Q 4,211 4.014	3,641 4,673 5,362 Q 4,752 4,680	5.2 3.1 4.7 10.9 7.9 2.5
-	,	·		are Footage (HSF) per Ho	usehold ⁴	,	
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:								
Electricity	1,399 1,836 2,043 1,076 1,570 1,707	1,607 2,510 3,225 Q 1,953 2,155	1,422 2,077 2,057 Q 1,671 1,731	1,313 1,650 2,251 1,039 1,577 1,524	1,412 1,584 1,901 Q 1,549 1,559	1,348 1,750 2,106 Q 1,513 1,721	1,196 1,657 1,931 Q 1,332 1,628	6.0 3.4 8.2 14.8 9.8 2.9
- -	,	Spa	ce-Heating Ir	ntensity ^{4,a} [C	ents÷{HDD×	(HSF÷1000)}	<u> </u>	
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:								
Electricity	6.45 6.78 5.78 8.24	4.62 4.70 2.98 Q	6.05 5.10 4.85 Q	7.07 6.43 4.60 8.35	7.49 7.20 5.56 Q	7.69 7.26 5.67 Q	8.41 8.72 6.64 Q	5.7 4.3 9.3 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.

The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

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

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.

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.

Table CE2-3e. Space-Heating Energy Expenditures in U.S. Households by Household Income, 2001

			2001 House	hold Income	Γ		Eli- gible for	
	Total	Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More	Below Poverty Line	Fed- eral Assist- ance ¹	
RSE Column Factor:	0.6	1.6	0.9	1.0	0.9	1.3	0.9	RSE Row Factors
				Million H	ouseholds	1		<u>'</u>
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 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 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	Dollarsa			
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	Househol	d 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 H	ouseholds			
•								
Number of Households Where the Main								
Number of Households, Where the Main Space-Heating Fuel Is:			0.4	8.1	9.7	4.9	10.3	7.3
Space-Heating Fuel Is:	30.9	3.7	9.4					
Space-Heating Fuel Is: Electricity	30.9 59.1	3.7 5.5	9.4 16.2			7.7		5.3
Space-Heating Fuel Is:		3.7 5.5 0.5	9.4 16.2 2.1	14.3 2.2	23.1 3.2		17.9 2.3	
Space-Heating Fuel Is: Electricity Natural Gas	59.1	5.5	16.2	14.3	23.1	7.7	17.9	5.3
Space-Heating Fuel Is: Electricity Natural Gas Fuel Oil	59.1 8.0	5.5 0.5	16.2 2.1	14.3 2.2	23.1 3.2	7.7 0.7	17.9 2.3	5.3 13.0
Space-Heating Fuel Is: Electricity Natural Gas Fuel Oil Kerosene	59.1 8.0 0.8	5.5 0.5 0.3	16.2 2.1 0.4	14.3 2.2 0.1	23.1 3.2 Q	7.7 0.7 0.4	17.9 2.3 0.6	5.3 13.0 25.1

Table CE2-3e. Space-Heating Energy Expenditures in U.S. Households by Household Income, 2001 (Continued)

			2001 Household Income			Eli- gible for			
	Total	Less than \$10,000	\$10,000 to \$29,999	\$30,000 to \$49,999	\$50,000 or More	Below Poverty Line	Fed- eral Assist- ance ¹		
RSE Column Factor:	0.6	0.6 1.6	0.9	1.0	0.9	1.3	0.9	RSE Row Factors	
_				Dollars per	Household	14,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	
_		2	001 Heating	Degree-Da	ays (HDD) p	er Household ⁴			
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 4 800	4,309	4,404	8.1	
LPGAverage for All Heated Households	4,643 4,004	3,852 3,940	4,630 4,006	4,840 4,063	4,800 3,980	4,072 3,836	4,557 4,084	6.9	
_	4,004 3,940 4,006 4,063 3,980 3,836 4,084 2.0 Heated Square Footage (HSF) per Household ⁴								
_					,- (,				
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 1,076	1,106 746	1,670	1,956 1,422	2,506 Q	1,235 800	1,544 968	7.2 11.2	
Kerosene	1,076	746 1,026	1,129 1,205	1,422	Q 2,127	1,040	1,232	7.9	
Average for All Heated Households	1,370	965	1,205	1,746	2,127	1,040	1,232	2.3	
- Treated Flouseholds	1,707	905	1,201	1,595	2,354	1,022	1,217	2.0	
-		Spa	ce-Heating	Intensity ^{4,a}	[Cents÷{H	DD×(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	
- 10"	5.78	6.97	6.39	5.94	5.36	6.54	6.87	7.8	
Fuel Oil									
Kerosene	8.24 9.78	9.78 12.23	7.55 12.33	7.92 8.67	Q 8.14	9.86 12.55	8.38 10.77	23.1 9.9	

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

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 Ho	ousing Unit		
			Apartments in	Buildings With		
	Total	Single-Family	Two to Four Units	Five or More Units	Mobile Homes	
RSE Column Factor:	0.6	0.6	1.4	1.1		RSE Row Factors
		<u> </u>	Million Househ	nolds		
Total U.S. Households	107.0	73.7	9.5	17.0	6.8	4.6
No Space Heating		0.3	Q	0.6	Q	18.6
Space Heating		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		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 Dolla	rs ^a		
Space-Heating Expenditures, Major Fuels Used:	0.00	5.70	0.70	4.05	0.00	0.5
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		0.28	Q	Q	0.19	25.2
LPG		3.33	Q 4.72	Q	0.68	19.0
Total	50.53	39.80	4.73	3.33	2.66	5.1
			Dollars per Hous	seholda		<u> </u>
Average Space-Heating Expenditures per						
Household						1
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 Housel	nolds		
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.U	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
110 Opado Floating	1.0	0.0	₩	0.0	ų.	10.0

Table CE2-4e. Space-Heating Energy Expenditures in U.S. Households by Type of Housing Unit, 2001 (Continued)

			Type of Ho	ousing Unit					
			Apartments in	Buildings With					
	Total	Single-Family	Two to Four Units	Five or More Units	Mobile Homes				
RSE Column Factor:	0.6	0.6	1.4	1.1	1.7	RSE Row Factors			
			Dollars per House	ehold ^{3,a}					
Space-Heating Expenditures per Household, ² Where the Main Space-Heating Fuel Is:									
ElectricityNatural Gas	271 530	310 577	235 621	204 204	271 397	5.5 4.6			
Fuel Oil Kerosene LPG	630 411 713	730 353 755	715 Q Q	157 Q Q	450 495 587	7.8 18.9 6.3			
_	2001 Heating Degree-Days (HDD) per Household ³								
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is: Electricity	3,006 4,255 5,339 4,636	2,815 4,184 5,474 4,583	3,267 4,686 5,674 Q	3,330 4,287 4,490 Q	2,955 4,498 5,873 4,581	5.5 2.9 5.3 9.8			
LPGAverage for All Heated Households	4,643 4,004	4,611 4,012	Q 4,274	Q 3,841	4,885 3,942	6.4 2.7			
_		Heated S	Square Footage (HS	F) per Household ³					
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:									
Electricity Natural Gas Fuel Oil Kerosene LPG	1,399 1,836 2,043 1,076 1,570	1,869 2,104 2,365 1,226 1,779	842 1,336 1,780 Q Q	745 810 847 Q Q	1,036 984 901 811 860	4.6 3.2 7.2 10.9 5.1			
Average for All Heated Households	1,707	2,047	1,197	785 ts÷{HDD×(HSF÷1000	979	2.6			
_		Зрасе-пеаш	ig intensity of [Cen	13-{1100/	0)/1				
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 Fuel Oil Kerosene	6.78 5.78 8.24 9.78	6.55 5.64 6.29 9.20	9.92 7.08 Q Q	5.89 4.13 Q Q	8.98 8.51 13.31 13.97	4.3 8.9 13.4 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.

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

		,								
			Four Most Po	pulated States						
	Total U.S.	New York	California	Texas	Florida					
RSE Column Factor:	0.4	1.2	0.9	1.5	1.8	RSE Row Factors				
			Million Housel	nolds	1	<u>'</u>				
Total U.S. Households	107.0	7.1	12.3	7.7	6.3	NE				
No Space Heating		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 For Secondary Space Heating Only	103.8 1.5	6.8 Q	11.6 Q	7.6 Q	6.2 Q	0.8 38.7				
, , , , , ,	1.0	•	•	•	•	00.7				
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		4.2	9.0	4.2	1.0	7.2				
Fuel Oil		2.2	Q	Q	Q	20.2				
Kerosene		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		3.12	2.45	1.35	0.17	12.3				
Fuel Oil		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 Hous	sehold ^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 Housel	nolds						
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 0.2	0.3 0.4	Q Q	Q Q	33.3 31.8				
Other										
Other No Space Heating	2.2 1.0	Q Q	0.3	Q	Q	22.6				

Table CE2-7e. Space-Heating Energy Expenditures in U.S. Households by Four Most Populated States, 2001 (Continued)

			Four Most Pop	oulated States					
	Total U.S.	New York	California	Texas	Florida				
RSE Column Factor:	0.4	1.2	0.9	1.5	1.8	RSE Row Factor			
_			Dollars per House	ehold ^{3,a}					
pace-Heating Expenditures per lousehold, 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	Q	8.4			
Kerosene	411	Q	Õ	ã	ã	30.			
LPG	713	Q	593	ã	ã	14.9			
-		2001 Heati	ng Degree-Days (HI	DD) per Household	J 3				
and Hard's a Reserve Reserve									
001 Heating Degree-Days per lousehold, Where the Main									
pace-Heating Fuel Is: Electricity	2.006	F 630	2.409	2.015	536	9.			
Natural Gas	3,006 4,255	5,632 5,183	2,409 2.113	2,015 2,211	536 818	4.9			
Fuel Oil	5,339	4.607	2,113 Q	2,211 Q	Q	6.			
Kerosene	4,636	4,007 Q	Q	Q	Q	17.			
LPG	4,643	Q	3,668	Q	Q	13.			
verage for All Heated Households	4,004	5,011	2,290	2,139	579	6.			
·	Heated Square Footage (HSF) per Household ³								
Heated Square Footage per Household, Where the Main Space-Heating Fuel Is:				4 000	4.400				
Electricity Natural Gas	1,399 1,836	1,091 1,788	928 1,394	1,382 1,716	1,492 1,958	12. 5.			
Fuel Oil	2,043	1,766	1,394 Q	1,716 Q	1,956 Q	9.			
Kerosene	1,076	1,551 Q	Q	Q	Q	23.			
LPG	1,570	Q	1,650	Q	Q	16.			
verage for All Heated Households	1,707	1,657	1,315	1,549	1,576	4.			
-		Space-Heatin	g Intensity ^{3,a} [Cent	s÷{HDDx(HSF÷100	00)31				
-			,	, (,,,				
pace-Heating Intensity, Where the Main pace-Heating Fuel Is:									
Electricity	6.45	9.45	8.75	8.72	10.66	8.			
Natural Gas	6.78	7.95	9.17	8.58	10.27	6.			
Fuel Oil	5.78	6.78	Q	Q	Q	8.			
Kerosene	8.24	Q	Q	Q	Q	31.			
LPG	9.78	Q	9.80	Q	Q	26			

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.

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 $\overline{0.0}$ 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

	Tarai Locati	T., 200 .				
			Urban/Rui	ral Location ¹		
	Total	City	Town	Suburbs	Rural	
RSE Column Factor:	0.6	1.0	1.3	1.2	1.0	RSE Row Factors
			Million House	holds		
Tablica in a late	407.0	40.0	40.0	04.0	47.0	4.0
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 Dolla	ars ^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 Hou	sehold ^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 House	holds		
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	4.5 10.0	13.1	3.6	6.0
Fuel Oil	8.0	32.3 2.4	2.0	1.3	2.3	13.6
Kerosene	0.8	Q.4 Q	Q.0	1.3 Q	2.3 0.5	23.7
		0.3	0.9	0.2		23.7
LPG	4.9 2.2				3.5	
Other No Space Heating	2.2 1.0	0.4 0.7	0.3	Q Q	1.4	19.9
INO OPACE MEANING	1.0	U. <i>1</i>	Q	Q	Q	15.4

Table CE2-8e. Space-Heating Energy Expenditures in U.S. Households by Urban/Rural Location, 2001 (Continued)

		Urban/Rural Location ¹							
	Total	City	Town	Suburbs	Rural	505			
RSE Column Factor:	0.6	1.0	1.3	1.2	1.0	RSE Row Factor			
	Dollars per Household ^{4,a}								
Space-Heating Expenditures per lousehold, 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 Heatii	ng Degree-Days (H	DD) per Household	4	l			
2001 Heating Degree-Days per									
lousehold, Where the Main									
Space-Heating Fuel Is:									
Electricity	3,006	2,742	3,526	2,673	3,520	4.9			
Natural Gas	4,255 5,339	4,069 5.259	4,685 5.683	4,339 4,750	4,430 5.467	2.5			
Kerosene	4,636	0,259 Q	0,063 Q	4,750 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 S	quare Footage (HS	F) per Household ⁴					
-									
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	g Intensity ^{4,a} [Cen	ts÷{HDD×(HSF÷100	0)}]				
Space-Heating Intensity, Where the Main Space-Heating Fuel Is:									
Electricity	6.45	6.98	6.60	6.29	5.70	5.0			
	6.78	7.52	6.75	5.70	6.11	4.5			
Natural Gas									
Natural Gas	5.78	5.98	5.60	6.15	5.59	5.6			
	5.78 8.24	5.98 Q	5.60 Q	6.15 Q	5.59 8.06	14.1			

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

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

		N	ortheast Census Regi	on		
			Census	Division		
	Total U.S.	Total	Middle Atlantic	New England		
RSE Column Factor:	0.6	1.0	1.2	1.5	RSE Row Factors	
		Millio	n Households			
_						
Total U.S. Households	107.0	20.3	14.8	5.4	NE	
No Space Heating	1.0	Q 20.4	Q 14.7	Q 5.4	17.3	
Space Heating	106.0	20.1	14.7	5.4	NE 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	
	6.6	0.6	0.3	0.3	18.7	
.PG	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		<u> </u>	
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	
-		Millio	n Households			
Number of Households, Where the Main Space-Heating Fuel Is:						
Electricity	30.9	2.3	1.8	0.5	11.2	
					1	
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	
_						

Table CE2-9e. Space-Heating Energy Expenditures in U.S. Households by Northeast Census Region, 2001 (Continued)

		Northeast Census Region					
			Census	Division			
	Total U.S.	Total	Middle Atlantic	New England			
RSE Column Factor:	0.6	1.0	1.2	1.5	RSE Row Factors		
		Dollars	s 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		
_	2	2001 Heating Degre	ee-Days (HDD) per H	ousehold ³			
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	5,260 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 Household ³						
_							
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		
_	Spa	ce-Heating Intens	ity ^{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		
		5.72	6.14	5.24	5.3		
Fuel Oil	5.78	3.72	0.14	5.24			
Fuel Oil Kerosene	5.78 8.24	8.68	12.51	5.28	14.4 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.

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

					1
			Midwest Census Region	on	
			Census	Division	
	Total U.S.	Total	East North Central	West North Central	
RSE Column Factor:	0.6	1.0	1.2	1.5	RSE Row Factors
			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
Tor occordary opace ricating only	1.0	0.0	Q	Q	25.5
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 Dollarsa		1
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		0.52	0.28	0.24	19.6
Kerosene	5.17	0.04	0.26 Q		35.5
LPG	0.49		0.78	Q 0.73	
	4.04	1.51 15.06	10.53	0.73	24.0 3.0
Total	50.53	13.00	10.55	4.53	3.0
		Do	ollars 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		•
			Willion Flousenoids		
Number of Households, Where the Main					
Space-Heating Fuel Is:	20.0	2.5	4 7	0.0	126
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

Table CE2-10e. Space-Heating Energy Expenditures in U.S. Households by Midwest Census Region, 2001 (Continued)

			Midwest Census Region					
			Census	Division				
	Total U.S.	Total	East North Central	West North Central				
RSE Column Factor:	0.6	1.0	1.2	1.5	RSE Row Factors			
		Dol	lars 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 Household ³							
_								
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 Ho	usehold ³				
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).

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

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.

Table CE2-11e. Space-Heating Energy Expenditures in U.S. Households by South Census Region, 2001

			Sout	th Census Region		
				Census Division		
	Total U.S.	Total	South Atlantic	East South Central	West south Central	505
RSE Column Factor:	0.4	0.8	1.1	1.7	1.6	RSE Row Factors
		ı	Million	Households		
Total II C. Hayroohalda	107.0	20.0	20.2	6.0	44.0	NE.
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
-				on Dollars ^a		1 1010
-			Billio	on Donars		
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	\tilde{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
		1 1.10			0.00	0.0
-			Dollars p	er 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
-			Willion	Households		
Number of Households, Where the Main						1
Number of Households, Where the Main Space-Heating Fuel Is: Electricity	30.9	19.3	11.0	3.4	4.9	7.6
Space-Heating Fuel Is: Electricity	30.9 59.1	19.3 15.7	11.0 6.8	3.4 2.4	4.9 6.5	7.6 7.8
Space-Heating Fuel Is: Electricity Natural Gas	59.1	15.7	6.8	2.4	6.5	7.8
Space-Heating Fuel Is: Electricity Natural Gas Fuel Oil	59.1 8.0	15.7 0.8	6.8 0.8	2.4 Q	6.5 Q	7.8 32.2
Space-Heating Fuel Is: Electricity Natural Gas Fuel Oil Kerosene	59.1 8.0 0.8	15.7 0.8 0.4	6.8 0.8 0.3	2.4 Q Q	6.5 Q Q	7.8 32.2 33.0
Space-Heating Fuel Is: Electricity Natural Gas Fuel Oil Kerosene LPG	59.1 8.0 0.8 4.9	15.7 0.8 0.4 2.0	6.8 0.8 0.3 0.9	2.4 Q Q 0.8	6.5 Q Q 0.3	7.8 32.2 33.0 22.3
Space-Heating Fuel Is: Electricity Natural Gas Fuel Oil Kerosene	59.1 8.0 0.8	15.7 0.8 0.4	6.8 0.8 0.3	2.4 Q Q	6.5 Q Q	7.8 32.2 33.0

Table CE2-11e. Space-Heating Energy Expenditures in U.S. Households by South Census Region, 2001 (Continued)

			Sou	th Census Region			
			Census Division				
	Total U.S.	Total	South Atlantic	East South Central	West south Central		
RSE Column Factor:	0.4	0.8	1.1	1.7	1.6	RSE Row Factor	
_			Dollars pe	er Household ^{3,a}			
Space-Heating Expenditures per							
Household, ² Where the Main							
Space-Heating Fuel Is:	074	000	004	004	007		
Electricity Natural Gas	271 530	228 449	204 517	291 458	237 375	5.5 7.2	
Fuel Oil	630	599	610	450 Q	Q Q	18.1	
Kerosene	411	263	214	Q	Q	23.0	
LPG	713	603	692	535	505	12.2	
-	710					12.2	
<u>-</u>	2001 Heating Degree-Days (HDD) per Household ³						
2001 Heating Degree-Days per Household, Where the Main Space-Heating Fuel Is: Electricity Natural Gas	3,006 4,255	2,155 2,779	1,922 3,079	3,021 3,109	2,082 2,340	5.8 5.2	
Fuel Oil	5,339	3,777	3,760	Q	Q	6.1	
Kerosene	4,636	3,261	3,247	Q 2.422	Q 0.000	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	
-		Н	leated Square Foot	age (HSF) per Househo	old ³		
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 4 005	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	e-Heating Intensity	B,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

			West Census Region		
			Census I	Division	
	Total U.S.	Total	Mountain	Pacific	
RSE Column Factor:	0.5	1.1	1.5	1.2	RSE Row Factors
		N	Million Households		
Total U.S. Households	107.0	23.3	6.7	16.6	NE
No Space Heating	1.0	0.7	Q Q	0.7	10.4
	106.0	22.6	6.7	15.9	NE
Space Heating Not Using a Major Fuel ¹					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 Dollarsa		
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
_		Do	llars per Household ^a		
Average Space-Heating Expenditures per					
Household	400	205	205	200	1 , -
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
_		N	Million Households		
Number of Households, Where the Main Space-Heating Fuel Is:					
Electricity	30.9	6.8	2.0	4.8	6.2
					I
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 No Space Heating	2.2 1.0	0.8 0.7	0.2 Q	0.7 0.7	17.0 10.4

Table CE2-12e. Space-Heating Energy Expenditures in U.S. Households by West Census Region, 2001 (Continued)

		West Census Region					
			Census	Division			
	Total U.S.	Total	Mountain	Pacific			
RSE Column Factor:	0.5	1.1	1.5	1.2	RSE Row Factors		
		Doll	ars per Household ^{3,a}				
Sanas Hasting Former diturns and Harrish and 2							
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 Household ³						
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 Ho	usehold ³			
Heated Square Footage per Household, Where the							
Main Space-Heating Fuel Is:	1 200	1.040	1 0 4 0	969	6.0		
Electricity Natural Gas	1,399 1,836	1,048 1.528	1,242 1.721	969 1.445	6.2 4.5		
Fuel Oil	2,043	2,121	1,721 Q	1,445 Q	11.8		
Kerosene	2,043 1,076	2,121 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))]						
-	<u> </u>	-pass manny mic	[55/115. [1155.	(
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		
14	8.24	Q	Q	Q	22.2		
Kerosene 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).

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

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.