

1997 Consumption and Expenditures Tables

Water-Heating Expenditures Tables

(20 pages, 67 kb)

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These data are from the 1997 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 data for occupied primary housing units. RECS was first conducted in 1978; the sixth and most recent survey was conducted in 1997 RECS. The data were collected from a sample of 5,900 housing units statistically selected to represent the 101.5 million units in the United States. The 1997 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, 1997

	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	1.2	1.1	1.1	1.0	
Million Households							
Total U.S. Households	101.5	9.3	28.0	22.5	19.5	22.2	8.1
No Water Heating	0.2	Q	Q	Q	Q	Q	77.4
Water Heating	101.3	9.3	28.0	22.5	19.5	22.1	8.1
Not Using a Major Fuel ²	0.5	Q	Q	Q	Q	Q	57.2
Using a Major Fuel ²	100.8	9.2	27.9	22.3	19.4	21.9	8.2
For Main Water Heating	100.6	9.1	27.9	22.3	19.4	21.9	8.2
Number of Households with Water Heating, Major Fuels Used:							
Electricity	40.2	3.7	7.9	9.1	7.8	11.8	10.2
Natural Gas	52.8	4.2	17.8	9.9	11.2	9.7	8.8
Fuel Oil	5.2	0.8	1.6	2.7	Q	Q	16.9
Kerosene	Q	Q	Q	Q	Q	Q	NF
LPG	3.2	0.5	0.8	0.7	0.6	0.5	24.4
Billion Dollars							
Water-Heating Expenditures, Major Fuels Used:							
Electricity	8.99	0.80	1.84	2.10	1.69	2.57	10.7
Natural Gas	8.84	0.63	3.00	1.78	1.83	1.60	9.5
Fuel Oil	1.04	0.16	0.33	0.54	Q	Q	17.4
Kerosene	Q	Q	Q	Q	Q	Q	NF
LPG	0.89	0.15	0.23	0.21	0.18	0.12	24.1
Total	19.76	1.74	5.40	4.63	3.70	4.28	6.9
Dollars per Household							
Average Water-Heating Expenditures per Household							
Using a Major Fuel ²	196	190	194	207	191	195	2.5
For Main Water Heating	196	190	194	207	191	196	2.5
Million Households							
Number of Households, Where the Main Water-Heating Fuel Is:							
Electricity	39.6	3.7	7.7	9.0	7.6	11.6	10.3
Natural Gas	52.6	4.2	17.8	9.8	11.2	9.7	8.8
Fuel Oil	5.1	0.8	1.6	2.7	Q	Q	17.0
Kerosene	Q	Q	Q	Q	Q	Q	NF
LPG	3.1	0.5	0.8	0.7	0.6	0.5	24.8
Does Not Heat Water	0.2	Q	Q	Q	Q	Q	77.4

See footnotes at end of table.

Table CE4-1e. Water-Heating Energy Expenditures in U.S. Households by Climate Zone, 1997 (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	1.2	1.1	1.1	1.0	
Dollars per Household							
Water-Heating Expenditures per Household,³ Where the Main Water-Heating Fuel Is:							
Electricity	227	218	238	233	221	220	3.5
Natural Gas	168	149	169	181	163	165	3.1
Fuel Oil	201	218	202	196	Q	Q	4.7
Kerosene	Q	Q	Q	Q	Q	Q	NF
LPG	279	304	276	291	290	225	9.2
Number of Household Members (NHM) per Household⁴							
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:							
Electricity	2.5	2.5	2.4	2.5	2.4	2.5	3.1
Natural Gas	2.7	2.7	2.7	2.5	2.8	2.8	2.8
Fuel Oil	2.4	2.3	2.4	2.5	Q	Q	3.6
Kerosene	Q	Q	Q	Q	Q	Q	NF
LPG	2.6	2.9	2.5	2.3	2.6	2.9	8.5
Water-Heating Intensity (Dollars÷NHM)⁴							
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:							
Electricity	92	86	101	93	91	89	3.7
Natural Gas	62	55	62	73	58	59	3.0
Fuel Oil	82	94	83	79	Q	Q	6.1
Kerosene	Q	Q	Q	Q	Q	Q	NF
LPG	107	106	111	124	112	77	8.4

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 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 1997 Residential Energy Consumption Survey.

**Table CE4-2e. Water-Heating Energy Expenditures in U.S. Households
by Year of Construction, 1997**

	Total	Year of Construction						RSE Row Factors
		1990 to 1997 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.6	1.3	1.0	1.0	1.1	0.9	
Million Households								
Total U.S. Households	101.5	9.7	17.3	19.6	14.4	12.5	27.9	4.2
No Water Heating	0.2	Q	Q	Q	Q	Q	Q	71.9
Water Heating	101.3	9.7	17.3	19.5	14.4	12.5	27.8	4.2
Not Using a Major Fuel ²	0.5	Q	Q	Q	Q	Q	Q	53.1
Using a Major Fuel ²	100.8	9.7	17.2	19.4	14.3	12.5	27.7	4.2
For Main Water Heating	100.6	9.7	17.2	19.3	14.3	12.5	27.7	4.2
Number of Households with Water Heating, Major Fuels Used:								
Electricity	40.2	4.7	10.1	10.2	4.9	3.6	6.7	6.6
Natural Gas	52.8	4.6	6.4	8.3	8.3	7.8	17.5	6.4
Fuel Oil	5.2	Q	0.4	0.5	0.8	1.0	2.4	17.6
Kerosene	Q	Q	Q	Q	Q	Q	Q	NF
LPG	3.2	0.2	0.5	0.6	0.4	0.3	1.2	18.3
Billion Dollars								
Water-Heating Expenditures, Major Fuels Used:								
Electricity	8.99	1.07	2.19	2.35	1.03	0.77	1.58	7.3
Natural Gas	8.84	0.88	1.17	1.32	1.31	1.30	2.87	7.1
Fuel Oil	1.04	Q	0.09	0.08	0.17	0.20	0.48	18.0
Kerosene	Q	Q	Q	Q	Q	Q	Q	NF
LPG	0.89	0.08	0.17	0.15	0.12	0.05	0.32	20.3
Total	19.76	2.04	3.62	3.90	2.63	2.32	5.25	4.2
Dollars per Household								
Average Water-Heating Expenditures per Household								
Using a Major Fuel ²	196	211	210	202	184	185	190	2.2
For Main Water Heating	196	211	210	202	184	185	190	2.2
Million Households								
Number of Households, Where the Main Water-Heating Fuel Is:								
Electricity	39.6	4.7	10.0	10.0	4.8	3.5	6.6	6.7
Natural Gas	52.6	4.6	6.3	8.2	8.3	7.7	17.4	6.5
Fuel Oil	5.1	Q	0.4	0.4	0.8	1.0	2.4	17.9
Kerosene	Q	Q	Q	Q	Q	Q	Q	NF
LPG	3.1	0.2	0.5	0.5	0.4	0.3	1.2	18.6
Does Not Heat Water	0.2	Q	Q	Q	Q	Q	Q	71.9

See footnotes at end of table.

Table CE4-2e. Water-Heating Energy Expenditures in U.S. Households by Year of Construction, 1997 (Continued)

	Total	Year of Construction						RSE Row Factors
		1990 to 1997 ¹	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.6	1.3	1.0	1.0	1.1	0.9	
Dollars per Household								
Water-Heating Expenditures per Household,³ Where the Main Water-Heating Fuel Is:								
Electricity	227	226	219	234	214	219	239	3.0
Natural Gas	168	191	184	159	158	167	164	3.0
Fuel Oil	201	Q	239	175	202	207	197	7.7
Kerosene	Q	Q	Q	Q	Q	Q	Q	NF
LPG	279	337	328	270	289	187	266	8.8
Number of Household Members (NHM) per Household⁴								
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:								
Electricity	2.5	2.6	2.4	2.5	2.3	2.4	2.5	3.0
Natural Gas	2.7	3.0	2.9	2.7	2.6	2.7	2.6	2.9
Fuel Oil	2.4	Q	2.4	2.4	2.4	2.4	2.5	7.6
Kerosene	Q	Q	Q	Q	Q	Q	Q	NF
LPG	2.6	3.5	3.1	2.7	2.5	2.1	2.3	10.0
Water-Heating Intensity (Dollars÷NHM)⁴								
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:								
Electricity	92	85	92	93	94	91	96	2.8
Natural Gas	62	63	63	60	62	61	63	3.1
Fuel Oil	82	Q	98	73	84	86	79	9.7
Kerosene	Q	Q	Q	Q	Q	Q	Q	NF
LPG	107	96	105	101	115	88	116	9.4

¹ New construction for 1997 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 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 1997 Residential Energy Consumption Survey.

Table CE4-3e. Water-Heating Energy Expenditures in U.S. Households by Household Income, 1997

	Total	1997 Household Income				Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
		Less than \$10,000	\$10,000 to \$24,999	\$25,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.5	1.0	0.9	1.0	1.4	1.0	
Million Households								
Total U.S. Households	101.5	13.3	29.1	31.1	27.9	14.6	34.1	2.7
No Water Heating	0.2	Q	Q	Q	Q	Q	Q	57.0
Water Heating	101.3	13.2	29.1	31.1	27.9	14.6	33.9	2.8
Not Using a Major Fuel ²	0.5	Q	Q	Q	Q	0.2	0.2	37.3
Using a Major Fuel ²	100.8	13.0	29.0	31.0	27.7	14.4	33.7	2.8
For Main Water Heating	100.6	13.0	29.0	31.0	27.6	14.4	33.7	2.8
Number of Households with Water Heating, Major Fuels Used:								
Electricity	40.2	5.4	12.8	12.5	9.4	5.7	13.9	5.3
Natural Gas	52.8	6.2	14.1	16.1	16.3	7.3	16.8	4.9
Fuel Oil	5.2	1.0	1.3	1.5	1.4	0.9	2.0	11.1
Kerosene	Q	Q	Q	Q	Q	Q	Q	NF
LPG	3.2	0.4	1.0	1.0	0.8	0.5	1.1	15.9
Billion Dollars								
Water-Heating Expenditures, Major Fuels Used:								
Electricity	8.99	0.94	2.66	2.85	2.53	1.25	3.06	6.1
Natural Gas	8.84	0.90	2.11	2.70	3.14	1.19	2.70	5.6
Fuel Oil	1.04	0.16	0.20	0.32	0.36	0.17	0.36	12.2
Kerosene	Q	Q	Q	Q	Q	Q	Q	NF
LPG	0.89	0.08	0.25	0.27	0.30	0.10	0.28	16.9
Total	19.76	2.08	5.22	6.14	6.33	2.71	6.40	3.0
Dollars per Household								
Average Water-Heating Expenditures per Household								
Using a Major Fuel ²	196	160	180	198	228	189	190	1.8
For Main Water Heating	196	160	180	198	229	189	190	1.8
Million Households								
Number of Households, Where the Main Water-Heating Fuel Is:								
Electricity	39.6	5.4	12.6	12.4	9.2	5.7	13.8	5.4
Natural Gas	52.6	6.2	14.1	16.0	16.2	7.3	16.8	4.9
Fuel Oil	5.1	0.9	1.3	1.5	1.4	0.9	2.0	11.1
Kerosene	Q	Q	Q	Q	Q	Q	Q	NF
LPG	3.1	0.4	0.9	1.0	0.8	0.5	1.1	16.1
Does Not Heat Water	0.2	Q	Q	Q	Q	Q	Q	57.0

See footnotes at end of table.

Table CE4-3e. Water-Heating Energy Expenditures in U.S. Households by Household Income, 1997 (Continued)

	Total	1997 Household Income				Below Poverty Line	Eligible for Federal Assistance ¹	RSE Row Factors
		Less than \$10,000	\$10,000 to \$24,999	\$25,000 to \$49,999	\$50,000 or More			
RSE Column Factor:	0.6	1.5	1.0	0.9	1.0	1.4	1.0	
Dollars per Household								
Water-Heating Expenditures per Household,³ Where the Main Water-Heating Fuel Is:								
Electricity	227	174	211	230	275	220	222	2.6
Natural Gas	168	144	149	168	193	164	161	2.4
Fuel Oil	201	167	161	207	256	183	181	6.3
Kerosene	Q	Q	Q	Q	Q	Q	Q	NF
LPG	279	195	254	258	382	203	247	7.9
Number of Household Members (NHM) per Household⁴								
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:								
Electricity	2.5	1.8	2.3	2.6	2.9	2.7	2.6	2.4
Natural Gas	2.7	2.2	2.4	2.7	3.1	3.2	2.8	2.4
Fuel Oil	2.4	2.0	2.0	2.5	3.1	2.4	2.3	5.4
Kerosene	Q	Q	Q	Q	Q	Q	Q	NF
LPG	2.6	1.7	2.7	2.4	3.2	2.7	2.6	8.1
Water-Heating Intensity (Dollars÷NHM)⁴								
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:								
Electricity	92	96	91	89	96	83	87	2.5
Natural Gas	62	65	61	61	62	52	57	2.5
Fuel Oil	82	84	81	82	82	76	79	7.3
Kerosene	Q	Q	Q	Q	Q	Q	Q	NF
LPG	107	118	94	107	118	77	94	8.9

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 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 1997 Residential Energy Consumption Survey.

Table CE4-4e. Water-Heating Energy Expenditures in U.S. Households by Type of Housing Unit, 1997

	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	1.9	1.2	1.6	
Million Households						
Total U.S. Households	101.5	73.7	5.6	15.8	6.3	4.0
No Water Heating	0.2	Q	Q	Q	Q	68.2
Water Heating	101.3	73.7	5.6	15.7	6.3	4.0
Not Using a Major Fuel ¹	0.5	0.3	Q	0.2	Q	45.5
Using a Major Fuel ¹	100.8	73.4	5.6	15.5	6.3	4.1
For Main Water Heating	100.6	73.3	5.6	15.5	6.3	4.1
Number of Households with Water Heating, Major Fuels Used:						
Electricity	40.2	27.1	1.8	7.0	4.3	7.2
Natural Gas	52.8	40.9	3.4	7.0	1.4	6.9
Fuel Oil	5.2	3.3	0.3	1.6	Q	15.7
Kerosene	Q	Q	Q	Q	Q	NF
LPG	3.2	2.6	Q	Q	0.5	17.3
Billion Dollars						
Water-Heating Expenditures, Major Fuels Used:						
Electricity	8.99	6.35	0.35	1.29	1.00	7.7
Natural Gas	8.84	7.08	0.55	1.02	0.19	7.8
Fuel Oil	1.04	0.73	0.06	0.25	Q	17.7
Kerosene	Q	Q	Q	Q	Q	NF
LPG	0.89	0.73	Q	Q	0.15	17.7
Total	19.76	14.89	0.97	2.57	1.34	4.0
Dollars per Household						
Average Water-Heating Expenditures per Household						
Using a Major Fuel ¹	196	203	173	165	213	2.3
For Main Water Heating	196	203	173	166	213	2.3
Million Households						
Number of Households, Where the Main Water-Heating Fuel Is:						
Electricity	39.6	26.6	1.8	6.9	4.3	7.3
Natural Gas	52.6	40.9	3.4	6.9	1.4	6.9
Fuel Oil	5.1	3.2	0.3	1.6	Q	15.8
Kerosene	Q	Q	Q	Q	Q	NF
LPG	3.1	2.6	Q	Q	0.5	17.6
Does Not Heat Water	0.2	Q	Q	Q	Q	68.2

See footnotes at end of table.

Table CE4-4e. Water-Heating Energy Expenditures in U.S. Households by Type of Housing Unit, 1997 (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	1.9	1.2	1.6	
Dollars per Household						
Water-Heating Expenditures per Household,² Where the Main Water-Heating Fuel Is:						
Electricity	227	238	191	187	232	3.1
Natural Gas	168	173	160	147	133	3.2
Fuel Oil	201	224	204	154	Q	6.2
Kerosene	Q	Q	Q	Q	Q	NF
LPG	279	281	Q	Q	269	6.9
Number of Household Members (NHM) per Household³						
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:						
Electricity	2.5	2.6	2.0	1.9	2.6	2.9
Natural Gas	2.7	2.8	2.4	2.1	2.3	3.1
Fuel Oil	2.4	2.6	1.6	2.2	Q	4.6
Kerosene	Q	Q	Q	Q	Q	NF
LPG	2.6	2.6	Q	Q	2.8	7.6
Water-Heating Intensity (Dollars÷NHM)³						
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:						
Electricity	92	92	95	96	91	2.8
Natural Gas	62	61	65	69	57	3.2
Fuel Oil	82	85	125	69	Q	7.8
Kerosene	Q	Q	Q	Q	Q	NF
LPG	107	110	Q	Q	95	8.1

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² 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 1997 Residential Energy Consumption Survey.

**Table CE4-7e. Water-Heating Energy Expenditures in U.S. Households
by Four Most Populated States, 1997**

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.4	1.4	0.9	1.5	1.3	
Million Households						
Total U.S. Households	101.5	6.8	11.5	7.0	5.9	NF
No Water Heating	0.2	Q	Q	Q	Q	82.1
Water Heating	101.3	6.8	11.4	6.9	5.9	NF
Not Using a Major Fuel ¹	0.5	Q	Q	Q	Q	60.7
Using a Major Fuel ¹	100.8	6.8	11.4	6.9	5.8	NF
For Main Water Heating	100.6	6.8	11.4	6.9	5.7	1.0
Number of Households with Water Heating, Major Fuels Used:						
Electricity	40.2	1.0	2.0	2.4	4.7	10.4
Natural Gas	52.8	3.4	9.3	4.3	0.9	8.0
Fuel Oil	5.2	2.2	Q	Q	Q	14.5
Kerosene	Q	Q	Q	Q	Q	NF
LPG	3.2	0.2	0.3	0.2	Q	26.1
Billion Dollars						
Water-Heating Expenditures, Major Fuels Used:						
Electricity	8.99	0.33	0.46	0.55	0.99	12.6
Natural Gas	8.84	0.78	1.44	0.67	0.17	9.9
Fuel Oil	1.04	0.44	Q	Q	Q	15.9
Kerosene	Q	Q	Q	Q	Q	NF
LPG	0.89	0.09	0.10	0.06	Q	26.3
Total	19.76	1.65	2.00	1.28	1.19	3.0
Dollars per Household						
Average Water-Heating Expenditures per Household						
Using a Major Fuel ¹	196	244	175	185	206	2.9
For Main Water Heating	196	244	175	185	207	2.9
Million Households						
Number of Households, Where the Main Water-Heating Fuel Is:						
Electricity	39.6	1.0	1.8	2.4	4.7	10.8
Natural Gas	52.6	3.3	9.3	4.3	0.9	8.0
Fuel Oil	5.1	2.2	Q	Q	Q	14.6
Kerosene	Q	Q	Q	Q	Q	NF
LPG	3.1	0.2	0.3	0.2	Q	26.2
Does Not Heat Water	0.2	Q	Q	Q	Q	82.1
Dollars per Household						
Water-Heating Expenditures per Household,² Where the Main Water-Heating Fuel Is:						
Electricity	227	332	255	227	212	4.1
Natural Gas	168	234	155	157	189	3.4
Fuel Oil	201	204	Q	Q	Q	5.1
Kerosene	Q	Q	Q	Q	Q	NF
LPG	279	418	311	264	Q	10.5

See footnotes at end of table.

Table CE4-7e. Water-Heating Energy Expenditures in U.S. Households by Four Most Populated States, 1997 (Continued)

	Four Most Populated States				RSE Row Factors	
	Total U.S.	New York	California	Texas		Florida
RSE Column Factor:	0.4	1.4	0.9	1.5	1.3	
Number of Household Members (NHM) per Household³						
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:						
Electricity	2.5	2.4	2.6	2.4	2.6	3.8
Natural Gas	2.7	2.5	2.8	3.0	2.4	4.7
Fuel Oil	2.4	2.5	Q	Q	Q	2.8
Kerosene	Q	Q	Q	Q	Q	NF
LPG	2.6	2.6	2.8	3.2	Q	13.4
Water-Heating Intensity (Dollars÷NHM)³						
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:						
Electricity	92	136	99	93	83	4.1
Natural Gas	62	95	55	52	78	5.1
Fuel Oil	82	83	Q	Q	Q	6.9
Kerosene	Q	Q	Q	Q	Q	NF
LPG	107	158	112	83	Q	8.7

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² 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 1997 Residential Energy Consumption Survey.

Table CE4-8e. Water-Heating Energy Expenditures in U.S. Households by Urban/Rural Location, 1997

	Urban/Rural Location ¹					RSE Row Factors
	Total	City	Town	Suburbs	Rural	
	0.6	0.9	1.3	1.2	1.2	
Million Households						
Total U.S. Households	101.5	48.2	18.2	18.6	16.5	4.1
No Water Heating	0.2	Q	Q	Q	Q	60.6
Water Heating	101.3	48.2	18.2	18.6	16.4	4.1
Not Using a Major Fuel ²	0.5	0.3	Q	Q	Q	40.4
Using a Major Fuel ²	100.8	47.8	18.2	18.6	16.2	4.2
For Main Water Heating	100.6	47.8	18.1	18.5	16.2	4.2
Number of Households with Water Heating, Major Fuels Used:						
Electricity	40.2	15.2	7.7	6.7	10.6	6.3
Natural Gas	52.8	30.5	8.7	10.9	2.6	6.2
Fuel Oil	5.2	2.1	1.2	0.9	0.9	13.0
Kerosene	Q	Q	Q	Q	Q	NF
LPG	3.2	0.3	0.6	Q	2.2	17.4
Billion Dollars						
Water-Heating Expenditures, Major Fuels Used:						
Electricity	8.99	3.13	1.76	1.53	2.57	6.9
Natural Gas	8.84	5.01	1.43	1.98	0.42	7.0
Fuel Oil	1.04	0.36	0.26	0.20	0.22	14.1
Kerosene	Q	Q	Q	Q	Q	NF
LPG	0.89	0.07	0.15	Q	0.64	18.1
Total	19.76	8.57	3.60	3.74	3.86	3.9
Dollars per Household						
Average Water-Heating Expenditures per Household						
Using a Major Fuel ²	196	179	198	202	238	1.8
For Main Water Heating	196	179	198	202	238	1.8
Million Households						
Number of Households, Where the Main Water-Heating Fuel Is:						
Electricity	39.6	14.9	7.6	6.6	10.5	6.3
Natural Gas	52.6	30.5	8.7	10.9	2.5	6.1
Fuel Oil	5.1	2.1	1.2	0.9	0.9	13.2
Kerosene	Q	Q	Q	Q	Q	NF
LPG	3.1	0.3	0.6	Q	2.1	17.7
Does Not Heat Water	0.2	Q	Q	Q	Q	60.6
Dollars per Household						
Water-Heating Expenditures per Household,³ Where the Main Water-Heating Fuel Is:						
Electricity	227	209	230	231	245	2.6
Natural Gas	168	164	164	181	162	2.6
Fuel Oil	201	169	208	229	239	4.5
Kerosene	Q	Q	Q	Q	Q	NF
LPG	279	240	235	Q	298	8.9

See footnotes at end of table.

Table CE4-8e. Water-Heating Energy Expenditures in U.S. Households by Urban/Rural Location, 1997 (Continued)

	Total	Urban/Rural Location ¹				RSE Row Factors
		City	Town	Suburbs	Rural	
RSE Column Factor:	0.6	0.9	1.3	1.2	1.2	
Number of Household Members (NHM) per Household⁴						
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:						
Electricity	2.5	2.3	2.4	2.4	2.7	2.4
Natural Gas	2.7	2.7	2.7	2.8	2.7	2.5
Fuel Oil	2.4	2.2	2.4	2.8	2.7	4.3
Kerosene	Q	Q	Q	Q	Q	NF
LPG	2.6	2.8	1.9	Q	2.8	7.6
Water-Heating Intensity (Dollars÷NHM)⁴						
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:						
Electricity	92	90	94	95	92	2.6
Natural Gas	62	62	60	64	59	2.7
Fuel Oil	82	76	87	82	89	6.1
Kerosene	Q	Q	Q	Q	Q	NF
LPG	107	86	121	Q	107	8.9

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 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 1997 Residential Energy Consumption Survey.

**Table CE4-9e. Water-Heating Energy Expenditures in U.S. Households
by Northeast Census Region, 1997**

	Total U.S.	Northeast Census Region			RSE Row Factors
		Total	Census Division		
			Middle Atlantic	New England	
RSE Column Factor:	0.5	1.0	1.2	1.7	
Million Households					
Total U.S. Households	101.5	19.7	14.4	5.3	NF
No Water Heating	0.2	Q	Q	Q	65.8
Water Heating	101.3	19.7	14.4	5.3	NF
Not Using a Major Fuel ¹	0.5	Q	Q	Q	48.6
Using a Major Fuel ¹	100.8	19.6	14.3	5.3	0.6
For Main Water Heating	100.6	19.6	14.3	5.3	0.6
Number of Households with Water Heating, Major Fuels Used:					
Electricity	40.2	5.2	3.5	1.7	8.6
Natural Gas	52.8	9.2	7.6	1.6	9.1
Fuel Oil	5.2	4.9	3.1	1.8	9.6
Kerosene	Q	Q	Q	Q	NF
LPG	3.2	0.4	0.3	0.1	22.2
Billion Dollars					
Water-Heating Expenditures, Major Fuels Used:					
Electricity	8.99	1.55	1.02	0.53	8.3
Natural Gas	8.84	1.88	1.52	0.36	10.2
Fuel Oil	1.04	0.99	0.60	0.39	10.9
Kerosene	Q	Q	Q	Q	NF
LPG	0.89	0.14	0.11	0.03	21.2
Total	19.76	4.56	3.26	1.30	2.0
Dollars per Household					
Average Water-Heating Expenditures per Household					
Using a Major Fuel ¹	196	233	227	248	2.0
For Main Water Heating	196	233	227	248	2.0
Million Households					
Number of Households, Where the Main Water-Heating Fuel Is:					
Electricity	39.6	5.1	3.4	1.7	8.7
Natural Gas	52.6	9.1	7.5	1.6	9.1
Fuel Oil	5.1	4.8	3.0	1.8	9.5
Kerosene	Q	Q	Q	Q	NF
LPG	3.1	0.4	0.3	0.1	23.7
Does Not Heat Water	0.2	Q	Q	Q	65.8

See footnotes at end of table.

Table CE4-9e. Water-Heating Energy Expenditures in U.S. Households by Northeast Census Region, 1997 (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	
Dollars per Household					
Water-Heating Expenditures per Household,²					
Where the Main Water-Heating Fuel Is:					
Electricity	227	302	299	308	3.8
Natural Gas	168	205	202	219	3.1
Fuel Oil	201	201	196	211	4.0
Kerosene	Q	Q	Q	Q	NF
LPG	279	352	391	257	9.0
Number of Household Members (NHM) per Household³					
Number of Household Members per Household,					
Where the Main Water-Heating Fuel Is:					
Electricity	2.5	2.5	2.5	2.5	3.2
Natural Gas	2.7	2.5	2.5	2.8	2.7
Fuel Oil	2.4	2.5	2.5	2.4	2.8
Kerosene	Q	Q	Q	Q	NF
LPG	2.6	2.5	2.5	2.7	9.1
Water-Heating Intensity (Dollars÷NHM)³					
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:					
Electricity	92	121	120	124	3.9
Natural Gas	62	81	81	79	4.0
Fuel Oil	82	82	77	89	5.3
Kerosene	Q	Q	Q	Q	NF
LPG	107	140	159	96	5.8

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² 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 1997 Residential Energy Consumption Survey.

**Table CE4-10e. Water-Heating Energy Expenditures in U.S. Households
by Midwest Census Region, 1997**

	Total U.S.	Midwest Census Region			RSE Row Factors
		Total	Census Division		
			East North Central	West North Central	
		0.5	1.0	1.2	
RSE Column Factor:					
Million Households					
Total U.S. Households	101.5	24.1	16.9	7.2	NF
No Water Heating	0.2	Q	Q	Q	68.7
Water Heating	101.3	24.1	16.9	7.2	NF
Not Using a Major Fuel ¹	0.5	Q	Q	Q	50.7
Using a Major Fuel ¹	100.8	23.9	16.8	7.1	NF
For Main Water Heating	100.6	23.9	16.8	7.1	NF
Number of Households with Water Heating, Major Fuels Used:					
Electricity	40.2	6.5	4.1	2.3	8.2
Natural Gas	52.8	16.3	12.1	4.2	4.8
Fuel Oil	5.2	Q	Q	Q	17.2
Kerosene	Q	Q	Q	Q	NF
LPG	3.2	1.1	0.6	0.6	18.3
Billion Dollars					
Water-Heating Expenditures, Major Fuels Used:					
Electricity	8.99	1.44	0.91	0.53	11.4
Natural Gas	8.84	2.53	1.90	0.63	5.0
Fuel Oil	1.04	Q	Q	Q	18.6
Kerosene	Q	Q	Q	Q	NF
LPG	0.89	0.30	0.17	0.12	19.0
Total	19.76	4.28	2.99	1.29	3.2
Dollars per Household					
Average Water-Heating Expenditures per Household					
Using a Major Fuel ¹	196	179	178	182	3.2
For Main Water Heating	196	179	178	182	3.2
Million Households					
Number of Households, Where the Main Water-Heating Fuel Is:					
Electricity	39.6	6.4	4.1	2.3	8.1
Natural Gas	52.6	16.3	12.1	4.2	4.8
Fuel Oil	5.1	Q	Q	Q	17.3
Kerosene	Q	Q	Q	Q	NF
LPG	3.1	1.1	0.6	0.6	18.4
Does Not Heat Water	0.2	Q	Q	Q	68.7

See footnotes at end of table.

Table CE4-10e. Water-Heating Energy Expenditures in U.S. Households by Midwest Census Region, 1997 (Continued)

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
	0.5	1.0	1.2	1.6	
RSE Column Factor:	0.5	1.0	1.2	1.6	
Dollars per Household					
Water-Heating Expenditures per Household,²					
Where the Main Water-Heating Fuel Is:					
Electricity	227	225	224	228	4.9
Natural Gas	168	155	157	151	2.4
Fuel Oil	201	Q	Q	Q	6.9
Kerosene	Q	Q	Q	Q	NF
LPG	279	263	301	223	8.3
Number of Household Members (NHM) per Household³					
Number of Household Members per Household,					
Where the Main Water-Heating Fuel Is:					
Electricity	2.5	2.4	2.4	2.5	3.1
Natural Gas	2.7	2.7	2.7	2.6	2.5
Fuel Oil	2.4	Q	Q	Q	4.5
Kerosene	Q	Q	Q	Q	NF
LPG	2.6	2.5	2.7	2.2	6.2
Water-Heating Intensity (Dollars÷NHM)³					
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:					
Electricity	92	92	92	92	3.7
Natural Gas	62	58	58	57	2.3
Fuel Oil	82	Q	Q	Q	8.8
Kerosene	Q	Q	Q	Q	NF
LPG	107	106	111	100	6.0

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² 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 1997 Residential Energy Consumption Survey.

**Table CE4-11e. Water-Heating Energy Expenditures in U.S. Households
by South Census Region, 1997**

	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	1.6	1.4	
Million Households						
Total U.S. Households	101.5	35.9	18.7	6.3	10.8	NF
No Water Heating	0.2	Q	Q	Q	Q	74.3
Water Heating	101.3	35.8	18.6	6.3	10.8	NF
Not Using a Major Fuel ¹	0.5	Q	Q	Q	Q	54.9
Using a Major Fuel ¹	100.8	35.7	18.5	6.3	10.8	NF
For Main Water Heating	100.6	35.6	18.4	6.3	10.8	NF
Number of Households with Water Heating, Major Fuels Used:						
Electricity	40.2	21.0	12.9	4.2	4.0	6.0
Natural Gas	52.8	13.4	5.0	1.9	6.6	8.1
Fuel Oil	5.2	Q	Q	Q	Q	18.6
Kerosene	Q	Q	Q	Q	Q	NF
LPG	3.2	1.1	0.5	0.3	0.3	19.4
Billion Dollars						
Water-Heating Expenditures, Major Fuels Used:						
Electricity	8.99	4.59	2.85	0.86	0.87	7.3
Natural Gas	8.84	2.34	0.97	0.31	1.06	8.9
Fuel Oil	1.04	Q	Q	Q	Q	20.1
Kerosene	Q	Q	Q	Q	Q	NF
LPG	0.89	0.29	0.13	0.07	0.08	20.8
Total	19.76	7.25	3.98	1.25	2.02	2.7
Dollars per Household						
Average Water-Heating Expenditures per Household						
Using a Major Fuel ¹	196	203	215	197	187	2.7
For Main Water Heating	196	204	216	197	187	2.7
Million Households						
Number of Households, Where the Main Water-Heating Fuel Is:						
Electricity	39.6	20.9	12.8	4.2	3.9	6.1
Natural Gas	52.6	13.4	4.9	1.9	6.6	8.1
Fuel Oil	5.1	Q	Q	Q	Q	18.7
Kerosene	Q	Q	Q	Q	Q	NF
LPG	3.1	1.1	0.5	0.3	0.3	20.3
Does Not Heat Water	0.2	Q	Q	Q	Q	74.3

See footnotes at end of table.

Table CE4-11e. Water-Heating Energy Expenditures in U.S. Households by South Census Region, 1997 (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	0.8	1.2	1.6	1.4	
Dollars per Household						
Water-Heating Expenditures per Household,² Where the Main Water-Heating Fuel Is:						
Electricity	227	219	222	208	222	3.2
Natural Gas	168	174	194	164	162	3.8
Fuel Oil	201	Q	Q	Q	Q	7.5
Kerosene	Q	Q	Q	Q	Q	NF
LPG	279	257	260	256	253	8.5
Number of Household Members (NHM) per Household³						
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:						
Electricity	2.5	2.5	2.5	2.6	2.4	2.0
Natural Gas	2.7	2.7	2.7	2.3	2.8	3.5
Fuel Oil	2.4	Q	Q	Q	Q	4.9
Kerosene	Q	Q	Q	Q	Q	NF
LPG	2.6	2.6	2.4	2.3	3.1	9.9
Water-Heating Intensity (Dollars÷NHM)³						
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:						
Electricity	92	89	90	81	93	3.1
Natural Gas	62	64	73	70	57	3.6
Fuel Oil	82	Q	Q	Q	Q	9.5
Kerosene	Q	Q	Q	Q	Q	NF
LPG	107	100	107	110	83	11.4

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² 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 1997 Residential Energy Consumption Survey.

**Table CE4-12e. Water-Heating Energy Expenditures in U.S. Households
by West Census Region, 1997**

	West Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			Mountain	Pacific	
RSE Column Factor:	0.5	1.0	1.9	1.1	
Million Households					
Total U.S. Households	101.5	21.8	6.2	15.6	NF
No Water Heating	0.2	Q	Q	Q	66.6
Water Heating	101.3	21.8	6.2	15.6	NF
Not Using a Major Fuel ¹	0.5	Q	Q	Q	49.2
Using a Major Fuel ¹	100.8	21.6	6.1	15.5	NF
For Main Water Heating	100.6	21.6	6.1	15.5	NF
Number of Households with Water Heating, Major Fuels Used:					
Electricity	40.2	7.5	2.2	5.3	6.1
Natural Gas	52.8	13.9	3.8	10.1	3.4
Fuel Oil	5.2	Q	Q	Q	16.7
Kerosene	Q	Q	Q	Q	NF
LPG	3.2	0.5	Q	0.4	20.9
Billion Dollars					
Water-Heating Expenditures, Major Fuels Used:					
Electricity	8.99	1.41	0.40	1.02	7.6
Natural Gas	8.84	2.09	0.51	1.58	6.2
Fuel Oil	1.04	Q	Q	Q	18.0
Kerosene	Q	Q	Q	Q	NF
LPG	0.89	0.16	0.05	0.11	22.7
Total	19.76	3.67	0.96	2.71	2.5
Dollars per Household					
Average Water-Heating Expenditures per Household					
Using a Major Fuel ¹	196	169	157	174	2.4
For Main Water Heating	196	170	157	175	2.5
Million Households					
Number of Households, Where the Main Water-Heating Fuel Is:					
Electricity	39.6	7.2	2.1	5.1	6.3
Natural Gas	52.6	13.9	3.8	10.0	3.4
Fuel Oil	5.1	Q	Q	Q	16.7
Kerosene	Q	Q	Q	Q	NF
LPG	3.1	0.5	Q	0.4	21.0
Does Not Heat Water	0.2	Q	Q	Q	66.6

See footnotes at end of table.

Table CE4-12e. Water-Heating Energy Expenditures in U.S. Households by West Census Region, 1997 (Continued)

	West Census Region				RSE Row Factors
	Total U.S.	Census Division			
		Total	Mountain	Pacific	
RSE Column Factor:	0.5	1.0	1.9	1.1	
Dollars per Household					
Water-Heating Expenditures per Household,² Where the Main Water-Heating Fuel Is:					
Electricity	227	195	187	199	3.1
Natural Gas	168	151	134	157	3.9
Fuel Oil	201	Q	Q	Q	6.7
Kerosene	Q	Q	Q	Q	NF
LPG	279	304	298	307	8.4
Number of Household Members (NHM) per Household³					
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:					
Electricity	2.5	2.4	2.4	2.4	3.4
Natural Gas	2.7	2.8	2.8	2.9	2.6
Fuel Oil	2.4	Q	Q	Q	4.4
Kerosene	Q	Q	Q	Q	NF
LPG	2.6	3.0	3.2	2.8	9.0
Water-Heating Intensity (Dollars÷NHM)³					
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:					
Electricity	92	82	78	83	4.0
Natural Gas	62	53	48	55	3.4
Fuel Oil	82	Q	Q	Q	8.5
Kerosene	Q	Q	Q	Q	NF
LPG	107	103	93	108	6.8

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

² 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 1997 Residential Energy Consumption Survey.