

1997 Consumption and Expenditures Tables

Water-Heating Consumption Tables

(33 pages, 95 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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Contact: Robert Latta, Survey Manager (rlatta@eia.doe.gov)

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

Table CE4-1c. Water-Heating Energy Consumption 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	1.5	1.1	1.1	1.2	1.1	
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	77.3
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	57.1
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	17.6
Kerosene	Q	Q	Q	Q	Q	Q	NF
LPG	3.2	0.5	0.8	0.7	0.6	0.5	24.4
Quadrillion Btu							
Water-Heating Btu Consumption, Major Fuels Used:							
Electricity	0.39	0.04	0.08	0.09	0.07	0.11	11.3
Natural Gas	1.29	0.11	0.46	0.23	0.27	0.23	9.5
Fuel Oil	0.16	0.02	0.05	0.09	Q	Q	17.3
Kerosene	Q	Q	Q	Q	Q	Q	NF
LPG	0.08	0.01	0.02	0.02	0.02	0.01	25.4
Total	1.92	0.18	0.61	0.43	0.35	0.34	7.3
Physical Units							
Physical Units of Water-Heating Consumption, Major Fuels Used:							
Electricity (billion kWh)	114	11	23	28	22	32	11.3
Natural Gas (billion cf)	1,260	104	451	224	259	222	9.5
Fuel Oil (million gallons)	1,139	175	340	621	Q	Q	17.4
Kerosene (million gallons)	Q	Q	Q	Q	Q	Q	NF
LPG (million gallons)	847	148	227	197	169	107	25.4
Million Btu per Household							
Average Water-Heating Btu Consumption per Household							
Using a Major Fuel ²	19.0	19.7	21.8	19.2	18.3	15.7	2.9
For Main Water Heating	19.1	19.8	21.8	19.2	18.3	15.8	2.9

See footnotes at end of table.

Table CE4-1c. Water-Heating Energy Consumption 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		
		0.4	1.5	1.1	1.1		
RSE Column Factor:							
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	17.7
Kerosene	Q	Q	Q	Q	Q	Q	NF
LPG	3.1	0.5	0.8	0.7	0.6	0.5	24.8
No Water Heating	0.2	Q	Q	Q	Q	Q	77.3
Million Btu per Household⁴							
Water-Heating Btu Consumption per Household,³ Where the Main Water-Heating Fuel Is:							
Electricity	9.8	9.8	10.0	10.5	9.7	9.2	2.9
Natural Gas	24.6	25.5	26.1	23.4	23.7	23.5	2.8
Fuel Oil	30.6	32.3	28.6	31.4	Q	Q	4.2
Kerosene	Q	Q	Q	Q	Q	Q	NF
LPG	24.4	27.3	25.1	25.3	24.5	18.6	9.7
Physical Units (PU) per Household⁴							
Physical Units of Water-Heating Consumption per Household,³ Where the Main Water-Heating Fuel Is:							
Electricity (kWh)	2,871	2,881	2,918	3,070	2,834	2,707	2.9
Natural Gas (thousand cf)	24	25	25	23	23	23	2.8
Fuel Oil (gallons)	221	233	206	226	Q	Q	4.2
Kerosene (gallons)	Q	Q	Q	Q	Q	Q	NF
LPG (gallons)	267	299	274	277	268	203	9.7
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	3.7
Kerosene	Q	Q	Q	Q	Q	Q	NF
LPG	2.6	2.9	2.5	2.3	2.6	2.9	8.5

See footnotes at end of table.

Table CE4-1c. Water-Heating Energy Consumption 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	1.5	1.1	1.1	1.2	1.1	

Water-Heating Intensity (PU÷NHHM)⁴

Water-Heating Intensity, Where the Main Water-Heating Fuel Is:

Electricity	1,169	1,144	1,241	1,225	1,166	1,091	2.7
Natural Gas	8.8	9.2	9.4	9.2	8.2	8.2	2.7
Fuel Oil	90	101	85	91	Q	Q	5.5
Kerosene	Q	Q	Q	Q	Q	Q	NF
LPG	103	104	110	118	104	70	8.7

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

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 1997 Residential Energy Consumption Survey.

**Table CE4-2c. Water-Heating Energy Consumption 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	72.5
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	53.6
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	17.5
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
Quadrillion Btu								
Water-Heating Btu Consumption, Major Fuels Used:								
Electricity	0.39	0.05	0.09	0.10	0.04	0.03	0.07	7.4
Natural Gas	1.29	0.12	0.17	0.20	0.20	0.19	0.41	7.1
Fuel Oil	0.16	Q	0.01	0.01	0.03	0.03	0.08	18.7
Kerosene	Q	Q	Q	Q	Q	Q	Q	NF
LPG	0.08	0.01	0.02	0.01	0.01	(*)	0.03	20.2
Total	1.92	0.18	0.29	0.33	0.28	0.25	0.58	4.7
Physical Units								
Physical Units of Water-Heating Consumption, Major Fuels Used:								
Electricity (billion kWh)	114	14	28	31	13	9	19	7.4
Natural Gas (billion cf)	1,260	122	167	197	190	183	401	7.1
Fuel Oil (million gallons)	1,139	Q	91	91	183	206	548	18.7
Kerosene (million gallons)	Q	Q	Q	Q	Q	Q	Q	NF
LPG (million gallons)	847	74	165	146	123	45	296	20.2
Million Btu per Household								
Average Water-Heating Btu Consumption per Household								
Using a Major Fuel ²	19.0	19.0	17.1	17.2	19.2	20.2	21.0	2.7
For Main Water Heating	19.1	19.0	17.1	17.2	19.2	20.2	21.0	2.7

See footnotes at end of table.

Table CE4-2c. Water-Heating Energy Consumption 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	
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	17.8
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
No Water Heating	0.2	Q	Q	Q	Q	Q	Q	72.5
Million Btu per Household⁴								
Water-Heating Btu Consumption per Household,³ Where the Main Water-Heating Fuel Is:								
Electricity	9.8	10.3	9.5	10.4	9.0	9.2	9.9	2.8
Natural Gas	24.6	27.2	27.1	24.5	23.5	24.2	23.6	2.8
Fuel Oil	30.6	Q	33.7	28.2	30.8	29.5	31.0	6.2
Kerosene	Q	Q	Q	Q	Q	Q	Q	NF
LPG	24.4	29.1	28.9	23.6	27.1	15.9	22.7	9.5
Physical Units (PU) per Household⁴								
Physical Units of Water-Heating Consumption per Household,³ Where the Main Water-Heating Fuel Is:								
Electricity (kWh)	2,871	3,009	2,787	3,038	2,650	2,700	2,895	2.8
Natural Gas (thousand cf)	24	27	26	24	23	24	23	2.8
Fuel Oil (gallons)	221	Q	243	203	222	213	223	6.2
Kerosene (gallons)	Q	Q	Q	Q	Q	Q	Q	NF
LPG (gallons)	267	319	316	259	297	174	248	9.5
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

See footnotes at end of table.

Table CE4-2c. Water-Heating Energy Consumption 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	

Water-Heating Intensity (PU-NHM)⁴

Water-Heating Intensity, Where the Main Water-Heating Fuel Is:								
Electricity	1,169	1,136	1,169	1,209	1,168	1,126	1,158	2.4
Natural Gas	8.8	8.7	9.1	8.9	8.9	8.6	8.8	2.7
Fuel Oil	90	Q	100	84	92	89	90	9.5
Kerosene	Q	Q	Q	Q	Q	Q	Q	NF
LPG	103	91	101	97	118	82	108	10.2

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 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 1997 Residential Energy Consumption Survey.

Table CE4-3c. Water-Heating Energy Consumption 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	57.9
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	37.4
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
Quadrillion Btu								
Water-Heating Btu Consumption, Major Fuels Used:								
Electricity	0.39	0.04	0.11	0.13	0.11	0.05	0.13	6.1
Natural Gas	1.29	0.13	0.31	0.40	0.46	0.18	0.39	5.4
Fuel Oil	0.16	0.03	0.03	0.05	0.05	0.03	0.06	11.4
Kerosene	Q	Q	Q	Q	Q	Q	Q	NF
LPG	0.08	0.01	0.02	0.02	0.02	0.01	0.03	17.4
Total	1.92	0.21	0.48	0.59	0.64	0.27	0.61	3.3
Physical Units								
Physical Units of Water-Heating Consumption, Major Fuels Used:								
Electricity (billion kWh)	114	12	34	37	32	16	39	6.1
Natural Gas (billion cf)	1,260	125	303	385	447	171	384	5.4
Fuel Oil (million gallons)	1,139	208	236	342	353	223	435	11.4
Kerosene (million gallons)	Q	Q	Q	Q	Q	Q	Q	NF
LPG (million gallons)	847	76	246	266	260	98	278	17.4
Million Btu per Household								
Average Water-Heating Btu Consumption per Household								
Using a Major Fuel ²	19.0	15.8	16.6	19.1	23.1	18.8	18.1	2.3
For Main Water Heating	19.1	15.8	16.6	19.1	23.1	18.8	18.2	2.3

See footnotes at end of table.

Table CE4-3c. Water-Heating Energy Consumption 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	
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
No Water Heating	0.2	Q	Q	Q	Q	Q	Q	57.9
Million Btu per Household⁴								
Water-Heating Btu Consumption per Household,³ Where the Main Water-Heating Fuel Is:								
Electricity	9.8	7.6	9.1	10.1	11.7	9.6	9.6	2.4
Natural Gas	24.6	20.6	22.0	24.6	28.2	24.2	23.5	2.3
Fuel Oil	30.6	30.2	25.7	31.0	35.1	33.2	30.3	5.4
Kerosene	Q	Q	Q	Q	Q	Q	Q	NF
LPG	24.4	17.3	23.3	23.6	30.4	18.2	22.8	9.3
Physical Units (PU) per Household⁴								
Physical Units of Water-Heating Consumption per Household,³ Where the Main Water-Heating Fuel Is:								
Electricity (kWh)	2,871	2,233	2,657	2,953	3,430	2,824	2,801	2.4
Natural Gas (thousand cf)	24	20	21	24	27	24	23	2.3
Fuel Oil (gallons)	221	218	186	224	253	239	219	5.3
Kerosene (gallons)	Q	Q	Q	Q	Q	Q	Q	NF
LPG (gallons)	267	189	255	259	333	199	249	9.3
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

See footnotes at end of table.

Table CE4-3c. Water-Heating Energy Consumption 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	

Water-Heating Intensity (PU÷NHM)⁴

Water-Heating Intensity, Where the Main Water-Heating Fuel Is:								
Electricity	1,169	1,235	1,145	1,149	1,198	1,060	1,094	2.3
Natural Gas	8.8	9.0	8.8	8.7	8.9	7.4	8.1	2.3
Fuel Oil	90	110	93	89	81	100	96	6.7
Kerosene	Q	Q	Q	Q	Q	Q	Q	NF
LPG	103	114	95	107	103	75	95	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 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 1997 Residential Energy Consumption Survey.

**Table CE4-4c. Water-Heating Energy Consumption 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	0.6	2.0	1.1	1.7	
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	68.5
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	46.8
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	15.8
Kerosene	Q	Q	Q	Q	Q	NF
LPG	3.2	2.6	Q	Q	0.5	17.0
Quadrillion Btu						
Water-Heating Btu Consumption, Major Fuels Used:						
Electricity	0.39	0.28	0.01	0.05	0.05	7.8
Natural Gas	1.29	1.04	0.08	0.14	0.03	7.6
Fuel Oil	0.16	0.10	0.01	0.05	Q	16.9
Kerosene	Q	Q	Q	Q	Q	NF
LPG	0.08	0.06	Q	Q	0.01	17.3
Total	1.92	1.48	0.10	0.24	0.09	4.4
Physical Units						
Physical Units of Water-Heating Consumption, Major Fuels Used:						
Electricity (billion kWh)	114	81	4	15	13	7.8
Natural Gas (billion cf)	1,260	1,016	75	139	30	7.6
Fuel Oil (million gallons)	1,139	717	66	356	Q	16.9
Kerosene (million gallons)	Q	Q	Q	Q	Q	NF
LPG (million gallons)	847	694	Q	Q	142	17.3
Million Btu per Household						
Average Water-Heating Btu Consumption per Household						
Using a Major Fuel ¹	19.0	20.2	18.0	15.8	14.2	3.0
For Main Water Heating	19.1	20.2	18.0	15.8	14.2	3.0

See footnotes at end of table.

Table CE4-4c. Water-Heating Energy Consumption 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	0.6	2.0	1.1	1.7	
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	15.9
Kerosene	Q	Q	Q	Q	Q	NF
LPG	3.1	2.6	Q	Q	0.5	17.3
No Water Heating	0.2	Q	Q	Q	Q	68.5
Million Btu per Household³						
Water-Heating Btu Consumption per Household,² Where the Main Water-Heating Fuel Is:						
Electricity	9.8	10.4	8.0	7.6	10.5	2.7
Natural Gas	24.6	25.5	22.4	20.5	21.5	3.2
Fuel Oil	30.6	30.6	29.0	31.1	Q	4.7
Kerosene	Q	Q	Q	Q	Q	NF
LPG	24.4	24.4	Q	Q	24.3	8.1
Physical Units (PU) per Household³						
Physical Units of Water-Heating Consumption per Household,² Where the Main Water-Heating Fuel Is:						
Electricity (kWh)	2,871	3,047	2,332	2,215	3,066	2.7
Natural Gas (thousand cf)	24	25	22	20	21	3.2
Fuel Oil (gallons)	221	220	209	224	Q	4.7
Kerosene (gallons)	Q	Q	Q	Q	Q	NF
LPG (gallons)	267	267	Q	Q	266	8.1
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	7.5

See footnotes at end of table.

Table CE4-4c. Water-Heating Energy Consumption in U.S. Households by Type of Housing Unit, 1997 (Continued)

	Total	Type of Housing Unit				RSE Row Factors
		Single-Family	Multifamily		Mobile Home	
			Two to Four Units	Five or More Units		
RSE Column Factor:	0.5	0.6	2.0	1.1	1.7	

Water-Heating Intensity (PU÷NHH)³

Water-Heating Intensity, Where the Main Water-Heating Fuel Is:

Electricity	1,169	1,170	1,166	1,141	1,199	2.4
Natural Gas	8.8	8.8	8.9	9.4	9.0	2.9
Fuel Oil	90	84	128	100	Q	7.0
Kerosene	Q	Q	Q	Q	Q	NF
LPG	103	105	Q	Q	94	9.3

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

² 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 1997 Residential Energy Consumption Survey.

Table CE4-5u. Water-Heating Energy Consumption and Expenditures in U.S. Households by Household Demographics, 1997

Household Demographics	Water-Heating Energy					RSE Row Factors
	Households (millions)	Total		Per Household		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	
	RSE Column Factor:	1.1	1.4	1.2	0.8	
Total	100.8	1.92	19.76	19.0	196	1.4
Household Size						
1 Person	25.3	0.28	2.93	11.0	116	2.4
2 Persons	32.8	0.55	5.99	16.8	183	2.0
3 Persons	17.3	0.39	3.99	22.6	230	2.6
4 Persons	15.1	0.39	3.96	25.8	261	2.9
5 Persons	6.4	0.19	1.75	29.0	274	4.5
6 or More Persons	3.8	0.12	1.15	31.8	300	6.7
1997 Household Income Category						
Less than \$5,000	3.7	0.06	0.61	16.9	166	6.3
\$5,000 to \$9,999	9.4	0.14	1.47	15.4	157	4.9
\$10,000 to \$14,999	10.3	0.17	1.73	16.5	168	4.6
\$15,000 to \$19,999	10.3	0.17	1.90	16.2	184	4.3
\$20,000 to \$24,999	8.4	0.14	1.59	17.1	189	4.1
\$25,000 to \$34,999	15.6	0.29	3.04	18.3	195	3.3
\$35,000 to \$49,999	15.5	0.31	3.10	19.9	200	2.7
\$50,000 to \$74,999	16.4	0.36	3.67	21.9	224	3.6
\$75,000 or More	11.3	0.28	2.65	24.7	234	4.4
Below Poverty Line						
100 Percent	14.4	0.27	2.71	18.8	189	3.7
125 Percent	19.3	0.36	3.69	18.5	191	3.5
150 Percent	26.4	0.49	5.12	18.4	194	3.0
Eligible for Federal Assistance¹						
	33.7	0.61	6.40	18.1	190	2.6
Age of Householder						
Under 25 Years	5.7	0.10	1.12	18.4	198	5.7
25 to 34 Years	18.4	0.37	3.86	20.3	210	3.1
35 to 44 Years	23.0	0.52	5.26	22.4	229	2.5
45 to 59 Years	25.4	0.51	5.29	20.2	208	2.3
60 Years and Over	28.4	0.41	4.24	14.5	149	2.7
Race of Householder						
White	78.1	1.43	15.07	18.3	193	1.5
Black	12.6	0.28	2.75	22.0	218	4.4
Other ²	10.1	0.21	1.95	21.1	192	5.1
Householder of Hispanic Descent						
Yes	9.3	0.20	1.82	21.1	197	5.6
No	91.5	1.72	17.94	18.8	196	1.5

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

² Includes 5.4 million householders who described themselves as Hispanic rather than White, Black, or other.

Notes: • To obtain the RSE percentage for any table cell, multiply the 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 CE4-6u. Water-Heating Energy Consumption and Expenditures in U.S. Households by Usage Indicators, 1997

Usage Indicators	Water-Heating Energy					RSE Row Factors
	Households (millions)	Total		Per Household		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	
	RSE Column Factor:	1.2	1.4	1.3	0.7	
Total	100.8	1.92	19.76	19.0	196	1.4
Household Size						
1 Person	25.3	0.28	2.93	11.0	116	2.5
2 Persons	32.8	0.55	5.99	16.8	183	2.0
3 Persons	17.3	0.39	3.99	22.6	230	2.6
4 Persons	15.1	0.39	3.96	25.8	261	2.9
5 Persons	6.4	0.19	1.75	29.0	274	4.5
6 or More Persons	3.8	0.12	1.15	31.8	300	6.7
Someone Home All Day						
Yes	50.9	0.99	10.18	19.5	200	2.0
No	49.9	0.93	9.58	18.6	192	1.8
Number of Showers/Baths Taken Each Week						
Less than 10	28.1	0.35	3.49	12.6	124	2.1
10 to 20	46.5	0.90	9.40	19.3	202	1.8
21 or More	26.2	0.67	6.87	25.6	262	2.1
Dishwasher Use Each Week						
Use a Dishwasher	50.7	1.02	10.58	20.0	209	2.1
Less than 4 Times	28.6	0.47	5.30	16.5	185	2.6
4 to 6 Times	12.8	0.29	2.83	22.7	221	3.5
Once a Week	9.3	0.25	2.45	27.3	264	4.3
Loads of Laundry Washed Each Week						
Use a Clothes Washer	78.2	1.55	16.03	19.8	205	1.5
1 to 4 Loads	35.0	0.56	6.00	16.0	172	2.2
5 to 9 Loads	29.8	0.63	6.40	21.2	215	2.5
10 to 15 Loads	10.1	0.26	2.66	26.0	263	3.7
16 or More Loads	3.3	0.10	0.96	29.6	291	6.7
Age of Water Heater						
One Housing Unit						
Less than 2 Years	11.2	0.21	2.23	19.0	199	4.2
2 to 4 Years	17.0	0.34	3.55	20.2	209	3.3
5 to 9 Years	25.2	0.49	5.15	19.4	204	2.6
10 to 19 Years	20.2	0.36	4.00	17.9	198	3.2
20 Years or More	7.1	0.12	1.29	16.3	182	5.1
Don't Know	7.1	0.13	1.41	17.7	197	5.5
Water Heaters for Two or More Units						
More Units	10.0	0.20	1.60	20.4	160	4.7
No Separate Water Heater	7.9	0.15	1.24	19.7	159	5.7
Size of Water Heater						
One Housing Unit						
Small	15.5	0.23	2.75	14.9	177	3.5
Medium	47.1	0.90	9.19	19.0	195	1.9
Large	21.5	0.45	4.94	21.2	230	3.3
Don't Know	3.4	0.06	0.64	17.0	192	8.5
Water Heaters for Two or More Units						
More Units	10.0	0.20	1.60	20.4	160	4.7
No Separate Water Heater	7.9	0.15	1.24	19.7	159	5.7

See footnotes at end of table.

Table CE4-6u. Water-Heating Energy Consumption and Expenditures in U.S. Households by Usage Indicators, 1997 (Continued)

Usage Indicators	Water-Heating Energy					RSE Row Factors
	Households (millions)	Total		Per Household		
		Consumption (quadrillion Btu)	Expenditures (billion dollars)	Consumption (million Btu)	Expenditures (dollars)	
	RSE Column Factor:	1.2	1.4	1.3	0.7	
Average Electricity Cost for Water Heating (cents per kWh)						
Less than 6	6.1	0.08	1.15	12.3	187	6.9
6 to 8.99	23.4	0.24	5.29	10.2	226	3.7
9 or More	10.7	0.09	2.67	8.3	250	5.6
Average Natural Gas Cost for Water Heating (dollars per 1000 cf)						
Less than 4.50	1.4	0.05	0.18	34.1	132	17.2
4.50 to 5.99	13.0	0.35	1.83	26.7	141	5.4
6 or More	38.5	0.90	6.86	23.5	179	3.1
Average Fuel Oil Cost for Water Heating (dollars per gallon)						
Less than .95	2.2	0.07	0.35	30.7	160	5.9
.95 to 1.09	2.5	0.08	0.58	30.7	233	9.3
1.10 or More	0.5	0.02	0.15	33.1	295	14.2
Average LPG Cost for Water Heating (dollars per gallon)						
Less than .75	0.3	0.01	0.06	28.2	203	24.2
.75 to .99	1.3	0.03	0.34	26.5	265	11.5
1.00 or More	1.6	0.04	0.50	22.3	315	9.6
Main Water Heating Fuel Paid by Household						
All Major Fuels¹						
Yes	89.2	1.68	17.98	18.8	202	1.5
No	11.4	0.24	1.77	20.7	155	4.4
Electricity						
Yes	38.2	0.38	8.77	10.0	230	2.5
No	1.4	0.01	0.24	7.2	166	15.8
Natural Gas						
Yes	45.1	1.13	7.72	25.1	171	2.6
No	7.6	0.16	1.11	21.1	147	5.0
Fuel Oil						
Yes	3.2	0.10	0.71	30.5	224	7.5
No	1.9	0.06	0.32	30.6	165	6.9
LPG						
Yes	3.2	0.08	0.87	23.9	274	7.5
No	Q	Q	Q	Q	Q	NF
Kerosene						
Yes	Q	Q	Q	Q	Q	NF
No	Q	Q	Q	Q	Q	NF

¹ The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (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 1997 Residential Energy Consumption Survey.

Table CE4-7c. Water-Heating Energy Consumption in U.S. Households by Four Most Populated States, 1997

	Four Most Populated States					RSE Row Factors
	Total U.S.	New York	California	Texas	Florida	
	0.4	1.3	1.1	1.2	1.4	
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	88.2
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	65.2
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	0.9
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	15.2
Kerosene	Q	Q	Q	Q	Q	NF
LPG	3.2	0.2	0.3	0.2	Q	26.9
Quadrillion Btu						
Water-Heating Btu Consumption, Major Fuels Used:						
Electricity	0.39	0.01	0.01	0.03	0.04	12.6
Natural Gas	1.29	0.08	0.21	0.11	0.01	10.8
Fuel Oil	0.16	0.07	Q	Q	Q	15.3
Kerosene	Q	Q	Q	Q	Q	NF
LPG	0.08	0.01	0.01	0.01	Q	26.3
Total	1.92	0.17	0.24	0.14	0.06	4.2
Physical Units						
Physical Units of Water-Heating Consumption, Major Fuels Used:						
Electricity (billion kWh)	114	3	4	7	12	12.6
Natural Gas (billion cf)	1,260	80	208	109	14	10.8
Fuel Oil (million gallons)	1,139	523	Q	Q	Q	15.3
Kerosene (million gallons)	Q	Q	Q	Q	Q	NF
LPG (million gallons)	847	65	84	65	Q	26.3
Million Btu per Household						
Average Water-Heating Btu Consumption per Household						
Using a Major Fuel ¹	19.0	25.1	20.7	20.5	9.8	4.2
For Main Water Heating	19.1	25.1	20.7	20.5	9.8	4.2

See footnotes at end of table.

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

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.4	1.3	1.1	1.2	1.4	
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	15.2
Kerosene	Q	Q	Q	Q	Q	NF
LPG	3.1	0.2	0.3	0.2	Q	27.0
No Water Heating	0.2	Q	Q	Q	Q	88.2
Million Btu per Household³						
Water-Heating Btu Consumption per Household,² Where the Main Water-Heating Fuel Is:						
Electricity	9.8	9.2	8.0	10.4	8.8	4.1
Natural Gas	24.6	24.7	22.9	26.0	15.2	4.2
Fuel Oil	30.6	33.2	Q	Q	Q	4.4
Kerosene	Q	Q	Q	Q	Q	NF
LPG	24.4	28.6	25.0	25.2	Q	11.4
Physical Units (PU) per Household³						
Physical Units of Water-Heating Consumption per Household,² Where the Main Water-Heating Fuel Is:						
Electricity (kWh)	2,871	2,696	2,349	3,049	2,568	4.1
Natural Gas (thousand cf)	24	24	22	25	15	4.2
Fuel Oil (gallons)	221	240	Q	Q	Q	4.4
Kerosene (gallons)	Q	Q	Q	Q	Q	NF
LPG (gallons)	267	313	273	275	Q	11.4
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	2.6	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	2.9
Kerosene	Q	Q	Q	Q	Q	NF
LPG	2.6	2.6	2.8	3.2	Q	13.7

See footnotes at end of table.

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

	Total U.S.	Four Most Populated States				RSE Row Factors
		New York	California	Texas	Florida	
RSE Column Factor:	0.4	1.3	1.1	1.2	1.4	
Water-Heating Intensity (PU÷NHM)³						
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:						
Electricity	1,169	1,105	910	1,247	1,006	4.0
Natural Gas	8.8	9.8	7.9	8.3	6.1	4.4
Fuel Oil	90	98	Q	Q	Q	6.2
Kerosene	Q	Q	Q	Q	Q	NF
LPG	103	118	99	87	Q	14.3

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

² 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 1997 Residential Energy Consumption Survey.

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

	Urban/Rural Location ¹					RSE Row Factors
	Total	City	Town	Suburbs	Rural	
	0.6	1.0	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	61.1
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	39.9
Using a Major Fuel ²	100.8	47.8	18.2	18.6	16.2	4.1
For Main Water Heating	100.6	47.8	18.1	18.5	16.2	4.1
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	17.5
Quadrillion Btu						
Water-Heating Btu Consumption, Major Fuels Used:						
Electricity	0.39	0.13	0.07	0.07	0.11	6.9
Natural Gas	1.29	0.74	0.21	0.28	0.06	6.8
Fuel Oil	0.16	0.06	0.04	0.03	0.03	13.8
Kerosene	Q	Q	Q	Q	Q	NF
LPG	0.08	0.01	0.01	Q	0.06	17.9
Total	1.92	0.95	0.33	0.37	0.27	4.1
Physical Units						
Physical Units of Water-Heating Consumption, Major Fuels Used:						
Electricity (billion kWh)	114	39	22	19	34	6.9
Natural Gas (billion cf)	1,260	725	203	272	60	6.8
Fuel Oil (million gallons)	1,139	450	266	191	232	13.8
Kerosene (million gallons)	Q	Q	Q	Q	Q	NF
LPG (million gallons)	847	58	153	Q	616	17.9
Million Btu per Household						
Average Water-Heating Btu Consumption per Household						
Using a Major Fuel ²	19.0	19.8	18.4	20.1	16.3	2.3
For Main Water Heating	19.1	19.8	18.4	20.2	16.3	2.3

See footnotes at end of table.

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

	Urban/Rural Location ¹					RSE Row Factors
	Total	City	Town	Suburbs	Rural	
RSE Column Factor:	0.6	1.0	1.3	1.2	1.2	
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	17.9
No Water Heating	0.2	Q	Q	Q	Q	61.1
Million Btu per Household⁴						
Water-Heating Btu Consumption per Household,³ Where the Main Water-Heating Fuel Is:						
Electricity	9.8	9.0	9.7	9.8	10.9	2.1
Natural Gas	24.6	24.4	23.9	25.6	24.1	2.3
Fuel Oil	30.6	29.6	29.8	30.3	34.2	4.4
Kerosene	Q	Q	Q	Q	Q	NF
LPG	24.4	18.3	22.0	Q	26.1	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)	2,871	2,644	2,846	2,887	3,202	2.1
Natural Gas (thousand cf)	24	24	23	25	24	2.3
Fuel Oil (gallons)	221	213	215	219	247	4.4
Kerosene (gallons)	Q	Q	Q	Q	Q	NF
LPG (gallons)	267	201	241	Q	286	10.2
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	7.7

See footnotes at end of table.

Table CE4-8c. Water-Heating Energy Consumption 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	1.0	1.3	1.2	1.2	
Water-Heating Intensity (PU±NHM)⁴						
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:						
Electricity	1,169	1,132	1,167	1,191	1,206	2.0
Natural Gas	8.8	8.9	8.5	8.9	8.6	2.3
Fuel Oil	90	96	90	78	92	5.8
Kerosene	Q	Q	Q	Q	Q	NF
LPG	103	72	123	Q	103	9.9

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 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 1997 Residential Energy Consumption Survey.

Table CE4-9c. Water-Heating Energy Consumption in U.S. Households by Northeast Census Region, 1997

	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	101.5	19.7	14.4	5.3	NF
No Water Heating	0.2	Q	Q	Q	66.4
Water Heating	101.3	19.7	14.4	5.3	NF
Not Using a Major Fuel ¹	0.5	Q	Q	Q	49.1
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
Quadrillion Btu					
Water-Heating Btu Consumption, Major Fuels Used:					
Electricity	0.39	0.05	0.03	0.01	8.5
Natural Gas	1.29	0.21	0.17	0.04	9.9
Fuel Oil	0.16	0.15	0.10	0.06	10.5
Kerosene	Q	Q	Q	Q	NF
LPG	0.08	0.01	0.01	(*)	20.9
Total	1.92	0.42	0.31	0.11	2.6
Physical Units					
Physical Units of Water-Heating Consumption, Major Fuels Used:					
Electricity (billion kWh)	114	14	10	4	8.5
Natural Gas (billion cf)	1,260	205	169	36	9.9
Fuel Oil (million gallons)	1,139	1,093	691	402	10.5
Kerosene (million gallons)	Q	Q	Q	Q	NF
LPG (million gallons)	847	105	81	24	20.9
Million Btu per Household					
Average Water-Heating Btu Consumption per Household					
Using a Major Fuel ¹	19.0	21.4	21.6	20.9	2.7
For Main Water Heating	19.1	21.4	21.6	20.9	2.7

See footnotes at end of table.

Table CE4-9c. Water-Heating Energy Consumption 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	
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
No Water Heating	0.2	Q	Q	Q	66.4
Million Btu per Household³					
Water-Heating Btu Consumption per Household,² Where the Main Water-Heating Fuel Is:					
Electricity	9.8	9.4	9.7	8.7	3.4
Natural Gas	24.6	22.9	22.9	22.8	2.9
Fuel Oil	30.6	30.9	31.2	30.3	3.5
Kerosene	Q	Q	Q	Q	NF
LPG	24.4	23.9	26.4	17.7	8.6
Physical Units (PU) per Household³					
Physical Units of Water-Heating Consumption per Household,² Where the Main Water-Heating Fuel Is:					
Electricity (kWh)	2,871	2,746	2,841	2,555	3.4
Natural Gas (thousand cf)	24	22	22	22	2.9
Fuel Oil (gallons)	221	223	225	219	3.5
Kerosene (gallons)	Q	Q	Q	Q	NF
LPG (gallons)	267	261	289	194	8.6
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

See footnotes at end of table.

Table CE4-9c. Water-Heating Energy Consumption 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	

Water-Heating Intensity (PU÷NHM)³

Water-Heating Intensity, Where the Main Water-Heating Fuel Is:					
Electricity	1,169	1,101	1,138	1,028	2.2
Natural Gas	8.8	8.8	9.0	8.0	3.6
Fuel Oil	90	90	89	93	4.8
Kerosene	Q	Q	Q	Q	NF
LPG	103	104	118	73	7.6

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

² 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 1997 Residential Energy Consumption Survey.

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

	Midwest Census Region				RSE Row Factors
	Total U.S.	Total	Census Division		
			East North Central	West North Central	
	0.5	1.0	1.1	1.7	
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	67.0
Water Heating	101.3	24.1	16.9	7.2	NF
Not Using a Major Fuel ¹	0.5	Q	Q	Q	49.5
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	16.8
Kerosene	Q	Q	Q	Q	NF
LPG	3.2	1.1	0.6	0.6	18.3
Quadrillion Btu					
Water-Heating Btu Consumption, Major Fuels Used:					
Electricity	0.39	0.06	0.04	0.03	11.0
Natural Gas	1.29	0.43	0.32	0.10	4.9
Fuel Oil	0.16	Q	Q	Q	17.3
Kerosene	Q	Q	Q	Q	NF
LPG	0.08	0.03	0.02	0.01	18.3
Total	1.92	0.53	0.38	0.14	2.6
Physical Units					
Physical Units of Water-Heating Consumption, Major Fuels Used:					
Electricity (billion kWh)	114	19	12	7	11.0
Natural Gas (billion cf)	1,260	417	316	101	4.9
Fuel Oil (million gallons)	1,139	Q	Q	Q	17.4
Kerosene (million gallons)	Q	Q	Q	Q	NF
LPG (million gallons)	847	330	186	144	18.3
Million Btu per Household					
Average Water-Heating Btu Consumption per Household					
Using a Major Fuel ¹	19.0	22.0	22.7	20.3	2.5
For Main Water Heating	19.1	22.0	22.7	20.3	2.5

See footnotes at end of table.

Table CE4-10c. Water-Heating Energy Consumption 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	1.1	1.7	
RSE Column Factor:					
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	16.8
Kerosene	Q	Q	Q	Q	NF
LPG	3.1	1.1	0.6	0.6	18.4
No Water Heating	0.2	Q	Q	Q	67.0
Million Btu per Household³					
Water-Heating Btu Consumption per Household,² Where the Main Water-Heating Fuel Is:					
Electricity	9.8	10.1	9.7	10.9	4.0
Natural Gas	24.6	26.3	26.8	24.9	2.7
Fuel Oil	30.6	Q	Q	Q	5.8
Kerosene	Q	Q	Q	Q	NF
LPG	24.4	26.7	29.6	23.7	8.7
Physical Units (PU) per Household³					
Physical Units of Water-Heating Consumption per Household,² Where the Main Water-Heating Fuel Is:					
Electricity (kWh)	2,871	2,969	2,847	3,181	4.0
Natural Gas (thousand cf)	24	26	26	24	2.7
Fuel Oil (gallons)	221	Q	Q	Q	5.8
Kerosene (gallons)	Q	Q	Q	Q	NF
LPG (gallons)	267	292	324	260	8.7
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	4.4
Kerosene	Q	Q	Q	Q	NF
LPG	2.6	2.5	2.7	2.2	6.2

See footnotes at end of table.

Table CE4-10c. Water-Heating Energy Consumption 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	1.1	1.7	
RSE Column Factor:					
Water-Heating Intensity (PU÷NHM)³					
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:					
Electricity	1,169	1,212	1,168	1,288	3.0
Natural Gas	8.8	9.6	9.7	9.2	2.3
Fuel Oil	90	Q	Q	Q	7.8
Kerosene	Q	Q	Q	Q	NF
LPG	103	118	119	116	6.2

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

² 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 1997 Residential Energy Consumption Survey.

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

	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	1.3	1.4	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	71.5
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	52.8
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	17.9
Kerosene	Q	Q	Q	Q	Q	NF
LPG	3.2	1.1	0.5	0.3	0.3	19.4
Quadrillion Btu						
Water-Heating Btu Consumption, Major Fuels Used:						
Electricity	0.39	0.21	0.12	0.05	0.04	7.3
Natural Gas	1.29	0.32	0.11	0.05	0.17	9.3
Fuel Oil	0.16	Q	Q	Q	Q	18.5
Kerosene	Q	Q	Q	Q	Q	NF
LPG	0.08	0.02	0.01	0.01	0.01	20.1
Total	1.92	0.56	0.24	0.10	0.22	3.5
Physical Units						
Physical Units of Water-Heating Consumption, Major Fuels Used:						
Electricity (billion kWh)	114	61	36	14	12	7.3
Natural Gas (billion cf)	1,260	315	107	44	164	9.3
Fuel Oil (million gallons)	1,139	Q	Q	Q	Q	18.5
Kerosene (million gallons)	Q	Q	Q	Q	Q	NF
LPG (million gallons)	847	255	100	71	84	20.1
Million Btu per Household						
Average Water-Heating Btu Consumption per Household						
Using a Major Fuel ¹	19.0	15.7	13.2	15.6	20.0	3.5
For Main Water Heating	19.1	15.7	13.3	15.6	20.0	3.4

See footnotes at end of table.

Table CE4-11c. Water-Heating Energy Consumption in U.S. Households by South Census Region, 1997 (Continued)

	South Census Region					RSE Row Factors
	Total U.S.	Census Division				
		Total	South Atlantic	East South Central	West South Central	
RSE Column Factor:	0.5	0.8	1.3	1.4	1.4	
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	18.0
Kerosene	Q	Q	Q	Q	Q	NF
LPG	3.1	1.1	0.5	0.3	0.3	20.3
No Water Heating	0.2	Q	Q	Q	Q	71.5
Million Btu per Household³						
Water-Heating Btu Consumption per Household,² Where the Main Water-Heating Fuel Is:						
Electricity	9.8	10.0	9.5	11.3	10.3	2.2
Natural Gas	24.6	24.1	22.1	24.0	25.7	2.9
Fuel Oil	30.6	Q	Q	Q	Q	6.2
Kerosene	Q	Q	Q	Q	Q	NF
LPG	24.4	20.8	18.1	22.6	23.4	6.9
Physical Units (PU) per Household³						
Physical Units of Water-Heating Consumption per Household,² Where the Main Water-Heating Fuel Is:						
Electricity (kWh)	2,871	2,931	2,784	3,315	3,004	2.2
Natural Gas (thousand cf)	24	23	22	23	25	2.9
Fuel Oil (gallons)	221	Q	Q	Q	Q	6.2
Kerosene (gallons)	Q	Q	Q	Q	Q	NF
LPG (gallons)	267	227	198	247	256	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	2.5	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	4.7
Kerosene	Q	Q	Q	Q	Q	NF
LPG	2.6	2.6	2.4	2.3	3.1	9.9

See footnotes at end of table.

Table CE4-11c. Water-Heating Energy Consumption in U.S. Households by South Census Region, 1997 (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	1.4	1.4	

Water-Heating Intensity (PU÷NHH)³

Water-Heating Intensity, Where the Main Water-Heating Fuel Is:

Electricity	1,169	1,187	1,128	1,297	1,260	2.2
Natural Gas	8.8	8.7	8.1	10.0	8.8	3.2
Fuel Oil	90	Q	Q	Q	Q	8.3
Kerosene	Q	Q	Q	Q	Q	NF
LPG	103	88	82	106	84	12.4

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

² 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 1997 Residential Energy Consumption Survey.

**Table CE4-12c. Water-Heating Energy Consumption 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	1.7	1.2	
Million Households					
Total U.S. Households	101.5	21.8	6.2	15.6	NF
No Water Heating	0.2	Q	Q	Q	71.4
Water Heating	101.3	21.8	6.2	15.6	NF
Not Using a Major Fuel ¹	0.5	Q	Q	Q	52.7
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	17.9
Kerosene	Q	Q	Q	Q	NF
LPG	3.2	0.5	Q	0.4	20.4
Quadrillion Btu					
Water-Heating Btu Consumption, Major Fuels Used:					
Electricity	0.39	0.07	0.02	0.05	6.6
Natural Gas	1.29	0.33	0.09	0.24	5.8
Fuel Oil	0.16	Q	Q	Q	18.5
Kerosene	Q	Q	Q	Q	NF
LPG	0.08	0.01	0.01	0.01	23.4
Total	1.92	0.41	0.12	0.30	3.8
Physical Units					
Physical Units of Water-Heating Consumption, Major Fuels Used:					
Electricity (billion kWh)	114	20	5	14	6.6
Natural Gas (billion cf)	1,260	324	91	233	5.8
Fuel Oil (million gallons)	1,139	Q	Q	Q	18.5
Kerosene (million gallons)	Q	Q	Q	Q	NF
LPG (million gallons)	847	157	62	95	23.4
Million Btu per Household					
Average Water-Heating Btu Consumption per Household					
Using a Major Fuel ¹	19.0	19.1	19.2	19.1	3.8
For Main Water Heating	19.1	19.1	19.2	19.1	3.8

See footnotes at end of table.

Table CE4-12c. Water-Heating Energy Consumption 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	1.7	1.2	
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	17.9
Kerosene	Q	Q	Q	Q	NF
LPG	3.1	0.5	Q	0.4	20.5
No Water Heating	0.2	Q	Q	Q	71.4
Million Btu per Household³					
Water-Heating Btu Consumption per Household,² Where the Main Water-Heating Fuel Is:					
Electricity	9.8	9.2	8.7	9.4	2.8
Natural Gas	24.6	24.0	24.4	23.8	3.5
Fuel Oil	30.6	Q	Q	Q	6.2
Kerosene	Q	Q	Q	Q	NF
LPG	24.4	27.1	32.2	24.6	11.4
Physical Units (PU) per Household³					
Physical Units of Water-Heating Consumption per Household,² Where the Main Water-Heating Fuel Is:					
Electricity (kWh)	2,871	2,699	2,552	2,761	2.8
Natural Gas (thousand cf)	24	23	24	23	3.5
Fuel Oil (gallons)	221	Q	Q	Q	6.2
Kerosene (gallons)	Q	Q	Q	Q	NF
LPG (gallons)	267	297	353	269	11.4
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	4.7
Kerosene	Q	Q	Q	Q	NF
LPG	2.6	3.0	3.2	2.8	9.0

See footnotes at end of table.

Table CE4-12c. Water-Heating Energy Consumption 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	1.7	1.2	
Water-Heating Intensity (PU÷NHM)³					
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:					
Electricity	1,169	1,130	1,065	1,157	3.2
Natural Gas	8.8	8.2	8.5	8.1	3.0
Fuel Oil	90	Q	Q	Q	8.3
Kerosene	Q	Q	Q	Q	NF
LPG	103	100	110	95	10.0

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

² 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 1997 Residential Energy Consumption Survey.