

Table CE4-1c. Water-Heating Energy Consumption in U.S. Households by Climate Zone, 2001

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.4	1.6	1.0	1.1	1.2	1.1	
Million Households							
Total U.S. Households	107.0	9.2	28.6	24.0	21.0	24.1	8.1
No Water Heating	Q	Q	Q	Q	Q	Q	NF
Water Heating	106.9	9.2	28.6	24.0	20.9	24.0	8.1
Not Using a Major Fuel ²	0.2	Q	Q	Q	Q	Q	91.7
Using a Major Fuel ²	106.7	9.2	28.6	24.0	20.9	24.0	8.1
For Main Water Heating	106.5	9.2	28.6	24.0	20.8	23.9	8.1
Number of Households with Water Heating, Major Fuels Used:							
Electricity	41.6	4.1	7.4	8.6	8.6	13.0	10.3
Natural Gas	58.2	3.8	19.2	12.4	12.2	10.6	8.9
Fuel Oil	4.7	0.8	1.5	2.4	Q	Q	20.5
LPG	3.0	0.6	0.8	0.6	0.5	0.5	27.6
Quadrillion Btu^a							
Water-Heating Btu Consumption, Major Fuels Used:							
Electricity	0.36	0.04	0.06	0.08	0.07	0.11	11.9
Natural Gas	1.15	0.07	0.39	0.24	0.24	0.21	9.3
Fuel Oil	0.13	0.03	0.04	0.06	Q	Q	22.0
LPG	0.05	0.01	0.01	Q	0.01	0.01	25.6
Total ³	1.68	0.14	0.51	0.38	0.32	0.33	7.0
Physical Units^a							
Physical Units of Water-Heating Consumption, Major Fuels Used:							
Electricity (billion kWh)	104	11	18	22	21	32	11.9
Natural Gas (billion cf)	1,115	68	383	231	229	204	9.3
Fuel Oil (million gallons)	950	193	311	445	Q	Q	22.0
LPG (million gallons)	515	111	144	Q	73	88	25.6
Million Btu per Household^a							
Average Water-Heating Btu Consumption per Household							
Using a Major Fuel ²	15.8	15.7	17.9	16.0	15.1	13.6	2.9
For Main Water Heating	15.8	15.7	17.9	16.0	15.2	13.7	2.9
Million Households							
Number of Households, Where the Main Water-Heating Fuel Is:							
Electricity	40.8	4.0	7.3	8.5	8.1	12.8	10.4
Natural Gas	58.0	3.7	19.1	12.4	12.2	10.6	8.9
Fuel Oil	4.6	0.8	1.4	2.4	Q	Q	21.1
LPG	2.9	0.6	0.8	0.6	0.5	0.4	27.7
No Water Heating	Q	Q	Q	Q	Q	Q	NF

See footnotes at end of table.

Table CE4-1c. Water-Heating Energy Consumption in U.S. Households by Climate Zone, 2001 (Continued)

	Climate Zone ¹						RSE Row Factors
	Total	Fewer than 2,000 CDD and --				2,000 CDD or More and Fewer than 4,000 HDD	
		More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.4	1.6	1.0	1.1	1.2	1.1	
Million Btu per Household^{5,a}							
Water-Heating Btu Consumption per Household,⁴ Where the Main Water-Heating Fuel Is:							
Electricity	8.7	9.2	8.3	8.9	9.0	8.5	3.6
Natural Gas	19.7	18.5	20.5	19.1	19.3	19.7	2.9
Fuel Oil	28.1	32.7	29.9	25.5	Q	Q	5.2
LPG	15.9	17.4	16.9	14.2	13.5	17.0	10.1
Physical Units (PU) per Household^{5,a}							
Physical Units of Water-Heating Consumption per Household,⁴ Where the Main Water-Heating Fuel Is:							
Electricity (kWh)	2,552	2,700	2,429	2,607	2,636	2,486	3.6
Natural Gas (thousand cf)	19	18	20	19	19	19	2.9
Fuel Oil (gallons)	203	236	215	184	Q	Q	5.2
LPG (gallons)	174	190	186	156	148	186	10.1
Number of Household Members (NHM) per Household⁵							
Number of Household Members per Household, Where the Main Water-Heating Fuel Is:							
Electricity	2.4	2.6	2.3	2.5	2.5	2.4	3.1
Natural Gas	2.7	2.4	2.6	2.5	3.0	2.7	3.1
Fuel Oil	2.4	2.4	2.5	2.4	Q	Q	6.2
LPG	2.6	2.6	2.6	2.3	2.2	3.3	9.3
Water-Heating Intensity^{5,a} (PU÷NHM)							
Water-Heating Intensity, Where the Main Water-Heating Fuel Is:							
Electricity	1,048	1,049	1,050	1,063	1,055	1,031	3.2
Natural Gas	7.2	7.4	7.8	7.4	6.3	7.1	2.9
Fuel Oil	84	97	88	77	Q	Q	7.1
LPG	68	73	72	68	67	56	11.1

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

² The major fuels are electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas (LPG).

³ Includes a small amount of kerosene use for water heating.

⁴ Includes only the water-heating consumption of the water-heating fuel. Not included are: 1) the consumption of the main water-heating fuel for uses other than water heating; 2) the consumption of the main water-heating fuel where it is the secondary, and not the main, water-heating fuel, and; 3) the consumption of other fuels that are used as secondary water-heating fuels.

⁵ Averages are for those households using each of the main water-heating fuels.

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

NF = No applicable RSE row factor.

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

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

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

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