

**Table CE4-2c. Water-Heating Energy Consumption in U.S. Households
by Year of Construction, 2001**

| | Total | Year of Construction | | | | | 1949 or Before | RSE Row Factors |
|---|-------|---------------------------------|--------------------|--------------------|--------------------|--------------------|----------------------|-----------------------|
| | | 1990 to 2001 ¹ | 1980 to 1989 | 1970 to 1979 | 1960 to 1969 | 1990 to 1999 | | |
| RSE Column Factor: | 0.5 | 1.5 | 1.2 | 1.0 | 1.2 | 1.1 | 0.9 | |
| Million Households | | | | | | | | |
| Total U.S. Households | 107.0 | 15.5 | 18.2 | 18.8 | 13.8 | 14.2 | 26.6 | 4.3 |
| No Water Heating | Q | Q | Q | Q | Q | Q | Q | NF |
| Water Heating | 106.9 | 15.5 | 18.2 | 18.7 | 13.8 | 14.2 | 26.5 | 4.3 |
| Not Using a Major Fuel ² | 0.2 | Q | Q | Q | Q | Q | Q | 84.9 |
| Using a Major Fuel ² | 106.7 | 15.4 | 18.2 | 18.7 | 13.7 | 14.2 | 26.4 | 4.3 |
| For Main Water Heating | 106.5 | 15.4 | 18.2 | 18.7 | 13.6 | 14.1 | 26.4 | 4.3 |
| Number of Households with Water Heating, Major Fuels Used: | | | | | | | | |
| Electricity | 41.6 | 6.5 | 9.8 | 9.8 | 4.2 | 4.4 | 6.9 | 6.6 |
| Natural Gas | 58.2 | 8.3 | 7.7 | 7.8 | 8.7 | 8.8 | 16.9 | 6.4 |
| Fuel Oil | 4.7 | 0.2 | 0.3 | 0.5 | 0.7 | 0.9 | 2.1 | 19.6 |
| LPG | 3.0 | 0.5 | 0.4 | 0.7 | 0.2 | 0.3 | 0.8 | 23.2 |
| Quadrillion Btu^a | | | | | | | | |
| Water-Heating Btu Consumption, Major Fuels Used: | | | | | | | | |
| Electricity | 0.36 | 0.06 | 0.08 | 0.08 | 0.04 | 0.04 | 0.06 | 7.7 |
| Natural Gas | 1.15 | 0.19 | 0.16 | 0.15 | 0.16 | 0.18 | 0.31 | 7.0 |
| Fuel Oil | 0.13 | 0.01 | 0.01 | 0.02 | 0.02 | 0.02 | 0.05 | 20.0 |
| LPG | 0.05 | 0.01 | 0.01 | 0.01 | (*) | (*) | 0.01 | 24.7 |
| Total ³ | 1.68 | 0.27 | 0.27 | 0.25 | 0.21 | 0.24 | 0.44 | 4.6 |
| Physical Units^a | | | | | | | | |
| Physical Units of Water-Heating Consumption, Major Fuels Used: | | | | | | | | |
| Electricity (billion kWh) | 104 | 18 | 25 | 24 | 10 | 10 | 17 | 7.7 |
| Natural Gas (billion cf) | 1,115 | 185 | 160 | 141 | 153 | 171 | 306 | 7.0 |
| Fuel Oil (million gallons) | 950 | 48 | 101 | 115 | 136 | 166 | 384 | 20.0 |
| LPG (million gallons) | 515 | 94 | 68 | 116 | 32 | 50 | 156 | 24.7 |
| Million Btu per Household^{5,a} | | | | | | | | |
| Average Water-Heating Btu Consumption per Household | | | | | | | | |
| Using a Major Fuel ² | 15.8 | 17.3 | 14.8 | 13.6 | 15.6 | 16.8 | 16.6 | 2.7 |
| For Main Water Heating | 15.8 | 17.3 | 14.8 | 13.6 | 15.7 | 16.9 | 16.6 | 2.7 |
| Million Households | | | | | | | | |
| Number of Households, Where the Main Water-Heating Fuel Is: | | | | | | | | |
| Electricity | 40.8 | 6.4 | 9.8 | 9.8 | 4.1 | 4.1 | 6.7 | 6.8 |
| Natural Gas | 58.0 | 8.3 | 7.7 | 7.8 | 8.6 | 8.8 | 16.9 | 6.4 |
| Fuel Oil | 4.6 | 0.2 | 0.3 | 0.5 | 0.7 | 0.9 | 2.0 | 20.2 |
| LPG | 2.9 | 0.5 | 0.4 | 0.7 | 0.2 | 0.3 | 0.8 | 23.2 |
| No Water Heating | Q | Q | Q | Q | Q | Q | Q | NF |

See footnotes at end of table.

Table CE4-2c. Water-Heating Energy Consumption in U.S. Households by Year of Construction, 2001 (Continued)

| | Year of Construction | | | | | | | RSE Row Factors |
|---|----------------------|---------------------------|--------------|--------------|--------------|--------------|----------------|-----------------|
| | Total | 1990 to 2001 ¹ | 1980 to 1989 | 1970 to 1979 | 1960 to 1969 | 1990 to 1999 | 1949 or Before | |
| RSE Column Factor: | 0.5 | 1.5 | 1.2 | 1.0 | 1.2 | 1.1 | 0.9 | |
| Million Btu per Household^{5,a} | | | | | | | | |
| Water-Heating Btu Consumption per Household,⁴ Where the Main Water-Heating Fuel Is: | | | | | | | | |
| Electricity | 8.7 | 9.4 | 8.6 | 8.5 | 8.7 | 8.6 | 8.6 | 3.4 |
| Natural Gas | 19.7 | 22.9 | 21.3 | 18.6 | 18.2 | 19.9 | 18.5 | 2.9 |
| Fuel Oil | 28.1 | 35.0 | 44.5 | 32.8 | 25.8 | 24.8 | 26.1 | 7.7 |
| LPG | 15.9 | 17.1 | 14.1 | 15.0 | 13.2 | 17.2 | 17.1 | 11.1 |
| Physical Units (PU) per Household^{5,a} | | | | | | | | |
| Physical Units of Water-Heating Consumption per Household,⁴ Where the Main Water-Heating Fuel Is: | | | | | | | | |
| Electricity (kWh) | 2,552 | 2,752 | 2,522 | 2,480 | 2,543 | 2,522 | 2,535 | 3.4 |
| Natural Gas (thousand cf) | 19 | 22 | 21 | 18 | 18 | 19 | 18 | 2.9 |
| Fuel Oil (gallons) | 203 | 252 | 321 | 237 | 186 | 179 | 188 | 7.7 |
| LPG (gallons) | 174 | 187 | 155 | 164 | 144 | 189 | 187 | 11.1 |
| Number of Household Members (NHM) per Household⁵ | | | | | | | | |
| Number of Household Members per Household, Where the Main Water-Heating Fuel Is: | | | | | | | | |
| Electricity | 2.4 | 2.7 | 2.4 | 2.3 | 2.4 | 2.4 | 2.5 | 3.2 |
| Natural Gas | 2.7 | 3.1 | 2.6 | 2.7 | 2.5 | 2.6 | 2.6 | 2.9 |
| Fuel Oil | 2.4 | 2.9 | 3.2 | 2.8 | 2.4 | 2.1 | 2.3 | 7.1 |
| LPG | 2.6 | 3.1 | 2.5 | 2.4 | 2.0 | 2.6 | 2.5 | 11.7 |
| Water-Heating Intensity^{5,a} (PU÷NHM) | | | | | | | | |
| Water-Heating Intensity, Where the Main Water-Heating Fuel Is: | | | | | | | | |
| Electricity | 1,048 | 1,023 | 1,042 | 1,061 | 1,080 | 1,071 | 1,033 | 2.7 |
| Natural Gas | 7.2 | 7.1 | 8.0 | 6.7 | 7.1 | 7.4 | 7.0 | 3.0 |
| Fuel Oil | 84 | 87 | 101 | 84 | 78 | 87 | 81 | 10.1 |
| LPG | 68 | 60 | 61 | 67 | 73 | 72 | 74 | 13.3 |

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

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

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

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

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

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

(*) = Value rounds to zero in the units displayed.
 NF = No applicable RSE row factor.
 Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

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

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