

**3.1.2 2002 Buildings Energy End-Use Carbon Dioxide Emissions Splits, by Fuel Type  
(10<sup>6</sup> metric tons of carbon equivalent) (1)**

	Natural	Petroleum					Coal	Electricity (3)	Total	Percent
	Gas	Distil.	Resid.	LPG	Oth(2)	Total				
Space Heating (4)	71.4	18.6	1.7	5.1	1.6	27.1	2.8	35.4	136.6	22.8%
Lighting								109.4	109.4	18.3%
Space Cooling	0.2							73.8	74.0	12.4%
Water Heating	25.0	3.8		0.8		4.7		28.3	58.0	9.7%
Refrigeration (5)								39.1	39.1	6.5%
Electronics (6)								32.0	32.0	5.3%
Cooking	6.8			0.5		0.5		12.9	20.2	3.4%
Wet Clean (7)	1.0							15.1	16.1	2.7%
Ventilation (8)								16.2	16.2	2.7%
Computers								10.4	10.4	1.7%
Other (9)	5.5	0.4		4.1	0.9	5.4		24.9	35.8	6.0%
Adjust to SEDS (10)	9.3	4.4				4.4		37.5	51.1	8.5%
<b>Total</b>	<b>119.1</b>	<b>27.2</b>	<b>1.7</b>	<b>10.6</b>	<b>2.5</b>	<b>42.0</b>	<b>2.8</b>	<b>434.9</b>	<b>598.8</b>	<b>100%</b>

Note(s): 1) Excludes emissions of buildings-related energy consumption in the industrial sector. Emissions assume complete combustion from energy consumption, excluding gas flaring, coal mining, and cement production. Emissions exclude wood since it is assumed that the carbon released from combustion is reabsorbed in a future carbon cycle. Carbon emissions calculated from EIA, Assumptions to the AEO 2004 and differ by as much as 0.1% from EIA, AEO 2004, Table A19. Buildings sector total varies by 0.1% from EIA, AEO 2004. 2) Includes kerosene space (1.6 MMTCE) heating and motor gasoline other uses (0.9 MMTCE). 3) Excludes electric imports by utilities. 4) Includes residential furnace fans (3.9 MMTCE). 5) Includes refrigerators (28.7 MMTCE) and freezers (10.4 MMTCE). 6) Includes color television (6.3) MMTCE) and other office equipment. 7) Includes clothes washers (1.6 MMTCE), natural gas clothes dryers (1.0 MMTCE), electric clothes dryers (12.2 MMTCE), and dishwashers (1.2 MMTCE). Does not include water heating energy. 8) Commercial only; residential fan and pump energy use included proportionately in space heating and cooling. 9) Includes residential small electric devices, heating elements, motors, swimming pool heaters, hot tub heaters, outdoor grills and natural gas outdoor lighting. Includes commercial service station equipment, automated teller machines, telecommunications equipment, medical equipment, pumps, lighting, emergency electric generators, and manufacturing performed in commercial buildings. 10) Emissions related to a discrepancy between data sources. Energy attributable to the buildings sector, but not directly to specific end-uses.

Source(s): EIA, AEO 2004, Jan. 2004, Table A2, p. 134-136, Table A4, p. 139-140 and Table A5, p. 141-142 for energy consumption, and Table A19, p. 158 for emissions; EIA, National Energy Modeling System for AEO 2004, Jan. 2004; EIA, Assumptions to the AEO 2004, Jan. 2004 p. 9 for emission coefficients; BTS/A.D. Little, Electricity Consumption by Small End-Uses in Residential Buildings, Aug. 1998, Appendix A for residential electric end-uses; BTS/A.D. Little, Energy Consumption Characteristics of Commercial Building HVAC Systems, Volume II: Thermal Distribution, Auxiliary Equipment, and Ventilation, Oct. 1999, p. 1-2; and BTP/Navigant Consulting, U.S. Lighting Market Characterization, Volume I, Sept. 2002, Table 8-2, p.63.