

**3.4.2 2008 Commercial Buildings Energy End-Use Carbon Dioxide Emissions Splits, by Fuel Type
(Million Metric Tons) (1)**

	Natural Gas	Petroleum				Coal	Electricity (3)	Total	Percent	
		Distil.	Resid.	LPG	Oth(2)					Total
Lighting							259.7	259.7	24.3%	
Space Heating	82.8	11.1	5.8		0.3	17.2	6.9	52.2	159.2	14.9%
Space Cooling	1.8							142.7	144.4	13.5%
Ventilation								98.3	98.3	9.2%
Refrigeration								74.9	74.9	7.0%
Electronics								44.0	44.0	4.1%
Water Heating	23.2	1.4				1.4		17.4	42.0	3.9%
Computers								41.0	41.0	3.8%
Cooking	8.8							4.3	13.1	1.2%
Other (4)	15.3			9.3	3.2	13.6		109.1	137.9	12.9%
Adjust to SEDS (5)	38.9					13.5		0.0	52.4	4.9%
Total	170.8	27.0	5.8	9.3	3.6	45.6	6.9	843.7	1,067.0	100%

Note(s): 1) 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 2010 and differs from EIA, AEO 2011 Early Release, Table A18. Commercial sector total varies by 0.1% from EIA, AEO 2008. 2) Includes kerosene space heating (0.3 MMT) and motor gasoline other uses (3.2 MMT). 3) Excludes electric imports by utilities. 4) Includes commercial service station equipment, ATMs, telecommunications equipment, medical equipment, pumps, emergency electric generators, and manufacturing performed in commercial buildings. 5) Emissions related to a discrepancy between data sources. Energy attributable to the buildings sector, but not directly to specific end-uses.

Source(s): EIA, Annual Energy Outlook 2011 Early Release, Dec. 2010, Summary Reference Case Tables, Table A2, p. 3-5, Table A4, p. 9-10 and Table A5, p. 11-12 for energy consumption, and Table A18, p. 36 for emissions; EIA, National Energy Modeling System (NEMS) for AEO 2011 Early Release, Dec. 2010; EIA, Assumptions to the Annual Energy Outlook 2010, May 2010, Table 1.2, p. 12 for carbon 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; BTP/Navigant Consulting, U.S. Lighting Market Characterization, Volume I, Sept. 2002, Table 8-2, p.63; and EIA, AEO 1999, Dec. 1998, Table A4, p. 118-119 and Table A5, p. 120-121 for 1996 data.