Buildings Energy Data Book: 1.1 Buildings Sector Energy Consumption

March 2012

1.1.4 2010 U.S. E	Buildings E	Energy	End-Us	se Splits	s, by Fi	uel Type	(Quadri	llion E	Btu)				
	Natural	Fuel	Other		Renw.	Site	S		te		Primary	Primary	
	<u>Gas</u>	<u>Oil (1)</u>	<u>LPG</u>	<u>Fuel(2)</u>	<u>En.(3)</u>	<u>Electric</u>]	<u>Fotal</u>	Percent		Electric (4)	Total	Percent
Space Heating (5)	5.14	0.76	0.30	0.10	0.54	0.72		7.56	37.0%		2.24	9.07	22.5%
Space Cooling	0.04					1.92		1.96	9.6%		5.94	5.98	14.8%
Lighting						1.88		1.88	9.2%		5.82	5.82	14.4%
Water Heating	1.73	0.13	0.07		0.04	0.54		2.51	12.3%		1.67	3.63	9.0%
Refrigeration (6)						0.84		0.84	4.1%		2.62	2.62	6.5%
Electronics (7)						0.81		0.81	3.9%		2.49	2.49	6.2%
Ventilation (8)						0.54		0.54	2.6%		1.66	1.66	4.1%
Computers						0.38		0.38	1.9%		1.19	1.19	2.9%
Cooking	0.39		0.03			0.21		0.63	3.1%		0.64	1.06	2.6%
Wet Cleaning (9)	0.06					0.33		0.38	1.9%	Ι	1.01	1.06	2.6%
Other (10)	0.30	0.01	0.30	0.05	0.02	0.89		1.58	7.7%	Ì	2.76	3.45	8.6%
Adjust to SEDS (11)	0.68	0.25				0.44		1.37	6.7%	Ì	1.35	2.28	5.7%
Total	8.35	1.14	0.70	0.15	0.59	9.49		20.43	100%	Т	29.39	40.33	100%

Note(s): 1) Includes distillate fuel oil (1.06 quad) and residual fuel oil (0.08 quad). 2) Kerosene (0.04 quad) and coal (0.07 quad) are assumed attributable to space heating. Motor gasoline (0.05 quad) assumed attributable to other end-uses. 3) Comprised of wood space heating (0.42 quad), biomass (0.11), solar water heating (0.04 quad), geothermal space heating (less than 0.01 quad), solar photovoltaics (PV) less than 0.02 quad), and wind (less than 0.01 quad). 4) Site-to-source electricity conversion (due to generation and transmission losses) = 3.10. 5) Includes furnace fans (0.42 quad). 6) Includes refrigerators (2.36 quad) and freezers (0.26 quad). Includes commercial refrigeration. 7) Includes color television (1.02 quad) and other office equipment (0.81 quad). 8) Commercial only; residential fan and pump energy use included proportionately in space heating and cooling. 9) Includes clothes washers (0.10 quad), natural gas clothes dryers (0.06 quad), electric clothes dryers (0.60 quad) and dishwashers (0.31 quad). Does not include water heating energy. 10) 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, ATMs, telecommunications equipment, medical equipment, pumps, emergency electric generators, combined heat and power in commercial buildings, and manufacturing performed in commercial buildings. 11) Energy adjustment EIA uses to relieve discrepancies between data sources. Energy attributable to the residential and commercial buildings sector, but not directly to specific end-uses.

Source(s): EIA, Annual Energy Outlook 2012 Early Release, Jan. 2012, Summary Reference Case Tables, Tables A2, Table A4, Table A5, and Table A17; EIA, National Energy Modeling System (NEMS) for AEO 2012 Early Release, Jan. 2012; EIA, Supplement to the Annual Energy Outlook 2012 Early Release, Jan. 2012, Table 32; 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 5-25 - 5-26; EIA, Annual Energy Outlook 1998, Dec. 1997, Table A5, p. 108-109 for 1995 ventilation; and BTP/Navigant Consulting, U.S. Lighting Market Characterization, Volume I, Sept. 2002, Table 8-2, p. 63.