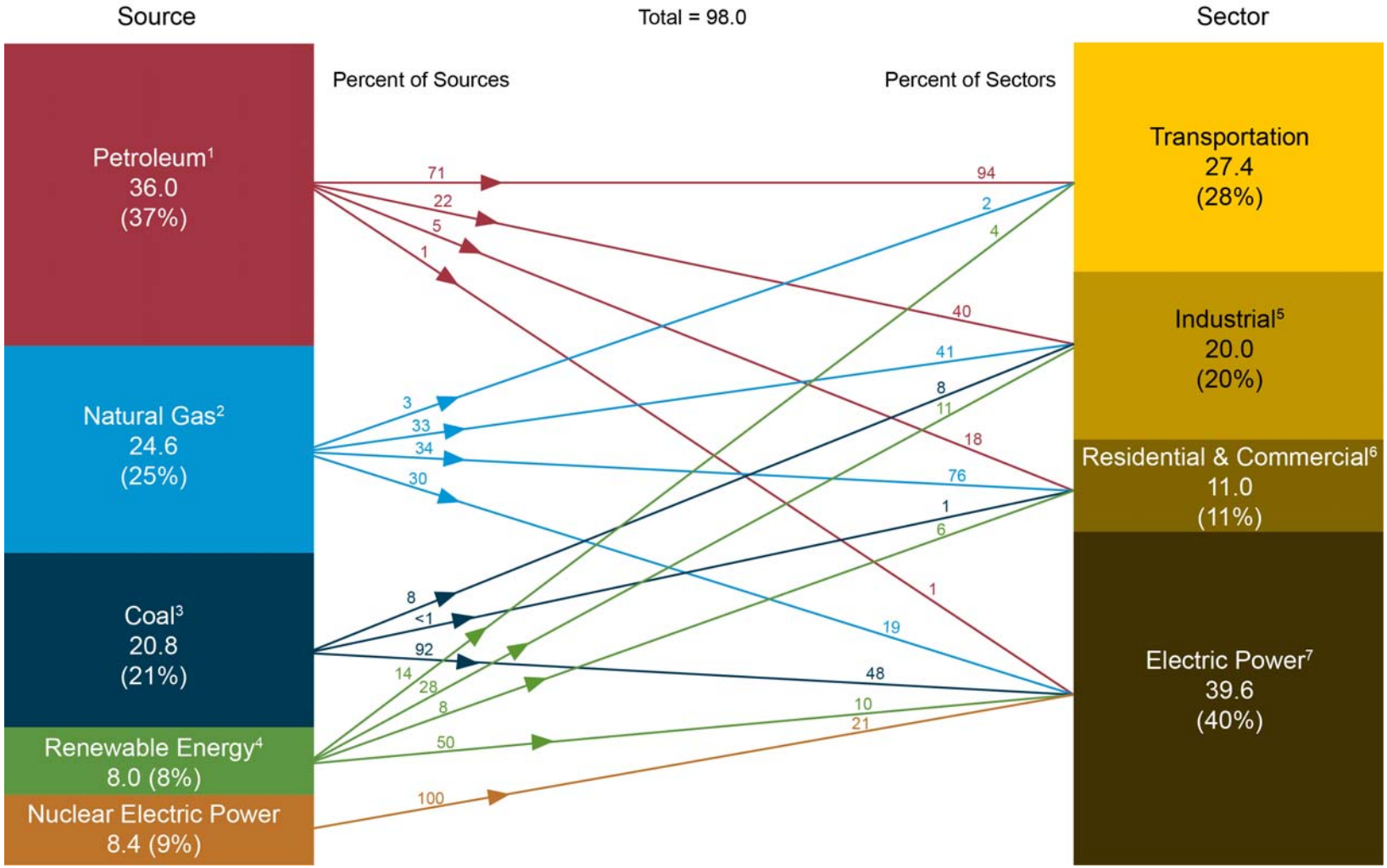
2. Energy Consumption by Sector

Figure 2.0 Primary Energy Consumption by Source and Sector, 2010

(Quadrillion Btu)



[1] Does not include biofuels that have been blended with petroleum—biofuels are included in "Renewable Energy."

[2] Excludes supplemental gaseous fuels.

[3] Includes less than 0.1 quadrillion Btu of coal coke net exports.

[4] Conventional hydroelectric power, geothermal, solar/PV, wind, and biomass.

[5] Includes industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

[6] Includes commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

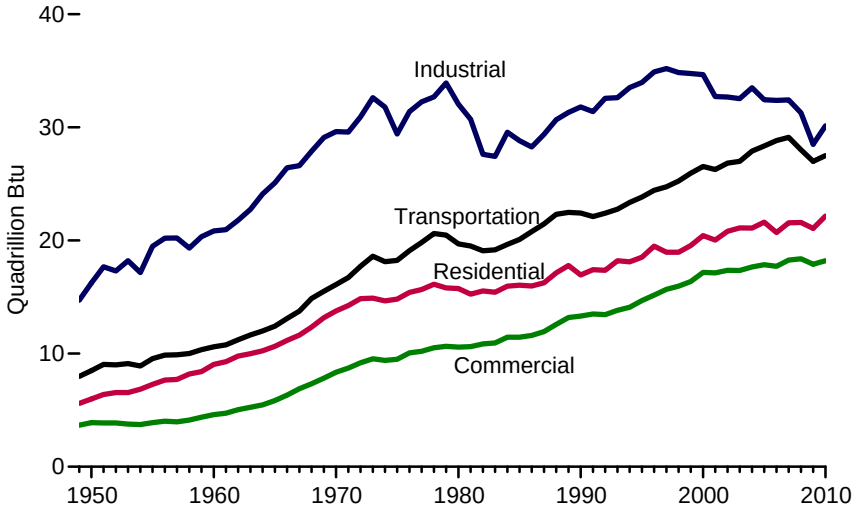
[7] Electricity-only and combined-heat-and-power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes 0.1 quadrillion Btu of electricity net imports not shown under "Source."

Notes: Primary energy in the form that it is first accounted for in a statistical energy balance, before any transformation to secondary or tertiary forms of energy (for example, coal is used to generate electricity). • Sum of components may not equal total due to independent rounding.

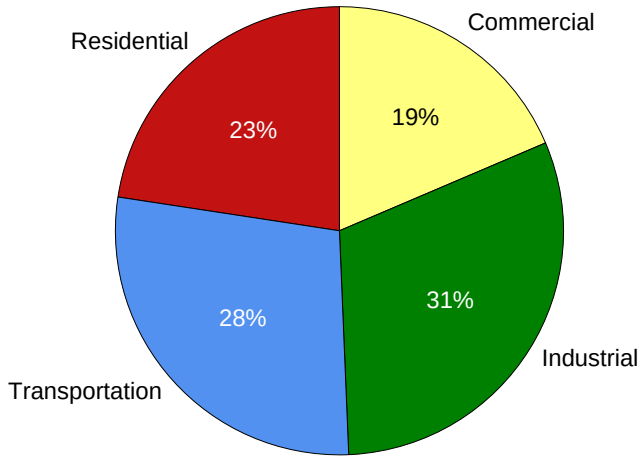
Sources: U.S. Energy Information Administration, *Annual Energy Review 2010*, Tables 1.3, 2.1b-2.1f , 10.3, and 10.4.

Figure 2.1a Energy Consumption Estimates by Sector Overview

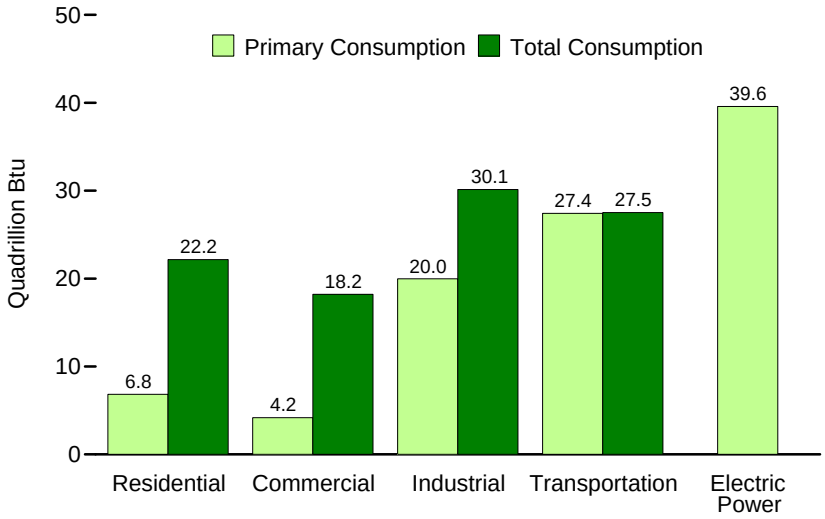
Total Consumption by End-Use Sector, 1949-2010



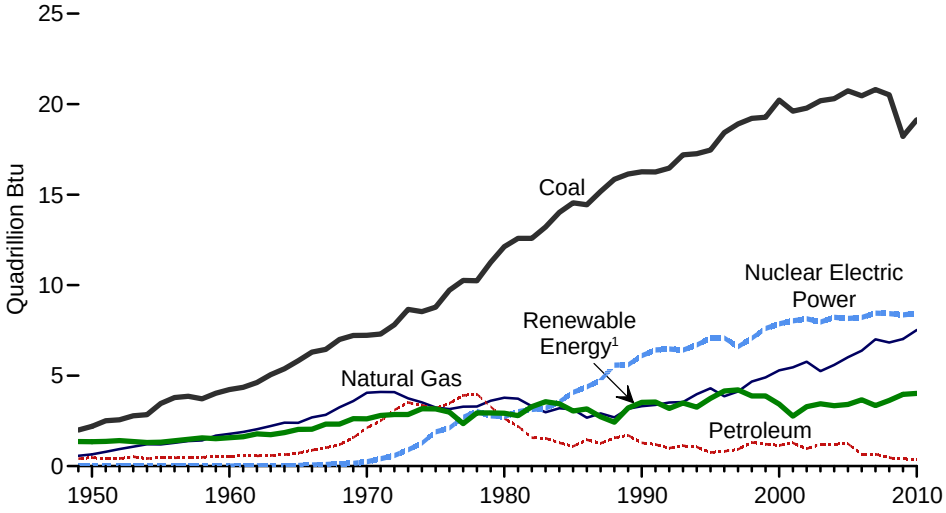
End-Use Sector Shares of Total Consumption, 2010



Primary and Total Consumption by Sector, 2010



Electric Power Sector, 1949-2010



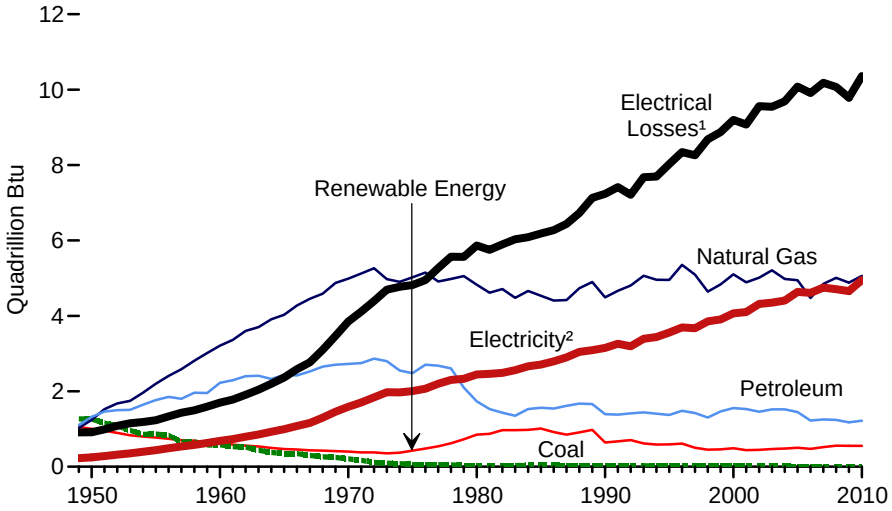
[1] Conventional hydroelectric power, geothermal, solar/photovoltaic, wind, and biomass.

Note: • See "Primary Energy Consumption" in Glossary. • Sum of components may not equal 100 percent due to independent rounding.

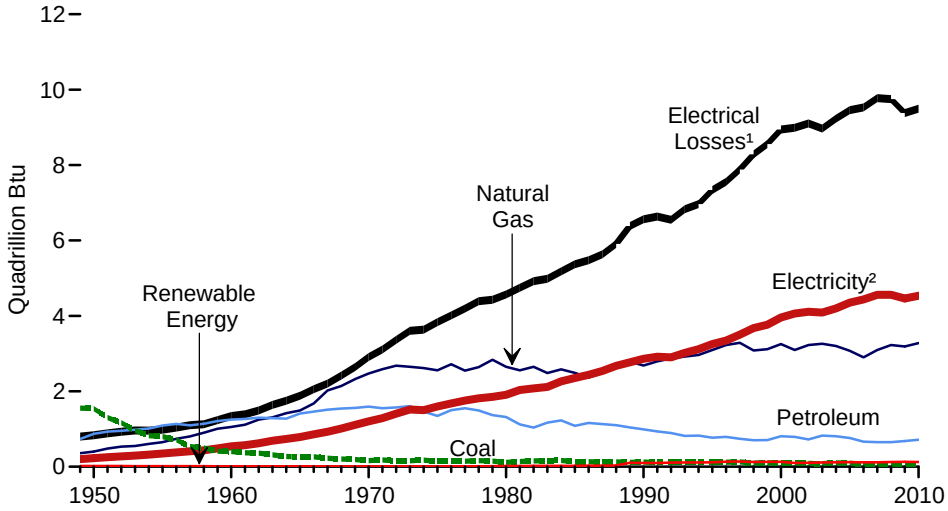
Sources: Tables 2.1a and 2.1f.

Figure 2.1b Energy Consumption Estimates by End-Use Sector, 1949-2010

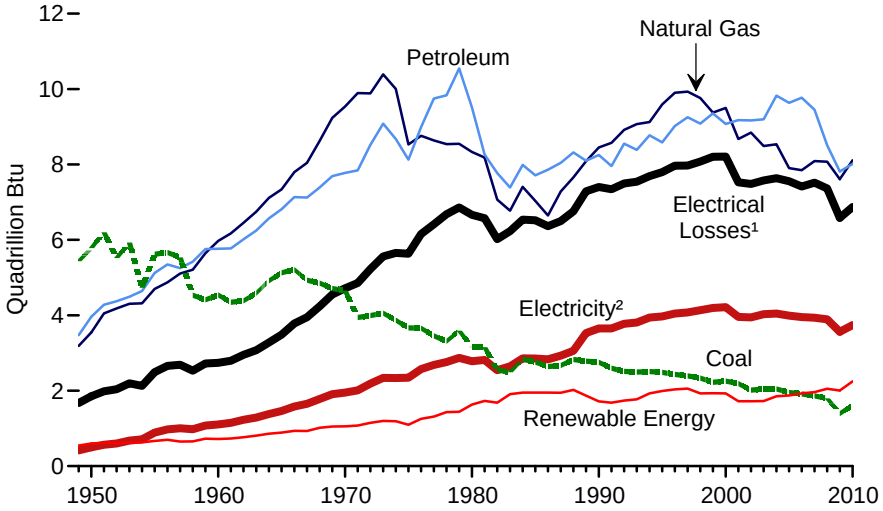
Residential, By Major Source



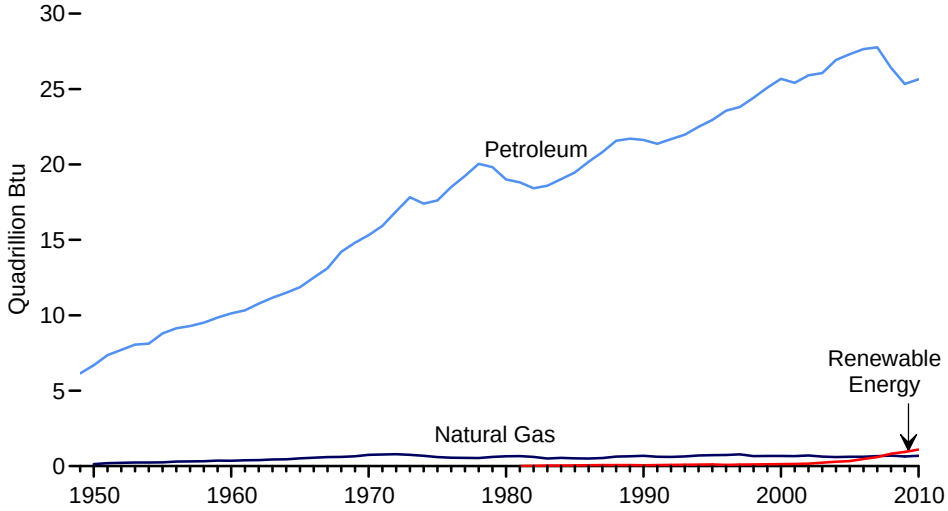
Commercial, By Major Source



Industrial, By Major Source



Transportation, By Major Source



¹ Electrical system energy losses associated with the generation, transmission, and distribution of energy in the form of electricity.

² Electricity retail sales.

Sources: Tables 2.1b–2.1e.

Table 2.1a Energy Consumption Estimates by Sector, Selected Years, 1949-2010

(Trillion Btu)

Year	End-Use Sectors								Electric Power Sector [3,4]	Balancing Item [7]	Total Primary [8]
	Residential		Commercial [1]		Industrial [2]		Transportation				
	Primary [5]	Total [6]	Primary [5]	Total [6]	Primary [5]	Total [6]	Primary [5]	Total [6]	Primary [5]		
1949	R4,460	R5,599	R2,669	R3,669	R12,633	R14,724	7,880	7,990	4,339	(s)	31,982
1950	R4,829	R5,989	R2,834	R3,893	R13,890	R16,241	R8,383	R8,492	4,679	(s)	34,616
1955	R5,608	R7,278	R2,561	R3,895	R16,103	R19,485	R9,474	R9,550	6,461	(s)	40,208
1960	R6,651	R9,039	R2,723	R4,609	R16,996	R20,842	10,560	R10,596	8,158	(s)	R45,086
1965	R7,279	R10,639	R3,177	R5,845	R20,148	R25,098	R12,399	R12,432	R11,012	(s)	R54,015
1970	R8,322	R13,766	R4,237	8,346	R22,964	R29,628	R16,062	16,098	R16,253	(s)	R67,838
1975	R7,990	R14,813	R4,059	R9,492	R21,434	R29,413	R18,210	R18,245	R20,270	1	R71,965
1976	R8,391	R15,410	R4,371	R10,063	R22,665	R31,393	R19,067	R19,101	R21,473	8	R75,975
1977	R8,194	R15,662	R4,258	R10,208	R23,165	R32,263	R19,786	R19,822	R22,551	7	R77,961
1978	R8,260	R16,132	R4,309	R10,512	R23,244	R32,688	R20,583	R20,617	R23,553	2	R79,950
1979	R7,919	15,813	R4,366	R10,648	R24,192	R33,925	R20,437	R20,472	R23,943	2	R80,859
1980	R7,439	R15,753	R4,105	R10,578	R22,595	R32,039	R19,659	R19,697	R24,269	-1	R78,067
1981	R7,045	R15,262	R3,837	R10,616	R21,318	R30,712	R19,478	R19,514	R24,425	3	R76,106
1982	R7,147	R15,531	R3,864	R10,860	R19,053	R27,614	R19,052	R19,089	R23,979	4	R73,099
1983	R6,832	R15,425	R3,840	R10,938	R18,548	R27,428	R19,134	R19,177	R24,614	3	R72,971
1984	R7,211	R15,960	R4,001	R11,444	R20,174	R29,570	R19,609	R19,656	R25,635	3	R76,632
1985	R7,148	R16,041	R3,732	R11,451	R19,443	R28,816	R20,041	R20,088	R26,032	-4	R76,392
1986	R6,906	R15,975	R3,693	R11,606	R19,078	R28,274	R20,740	R20,789	R26,227	3	R76,647
1987	R6,923	R16,263	R3,774	R11,946	R19,953	R29,379	R21,419	R21,469	R26,988	-3	R79,054
1988	R7,357	R17,133	R3,994	R12,578	R20,862	R30,677	R22,267	R22,318	R28,227	3	R82,709
1989	R7,567	R17,786	R4,043	R13,193	R20,874	R31,320	R22,424	R22,478	4,R29,869	9	R84,786
1990	R6,557	R16,945	R3,896	R13,320	R21,180	R31,810	R22,366	R22,420	R30,495	-9	R84,485
1991	R6,747	R17,420	R3,945	R13,500	R20,824	R31,399	R22,065	R22,118	R30,856	1	R84,438
1992	R6,950	R17,356	R3,991	R13,441	R21,756	R32,571	R22,363	R22,415	R30,723	(s)	R85,783
1993	R7,146	R18,218	R3,973	R13,820	R21,753	R32,629	R22,715	R22,768	R31,847	-10	R87,424
1994	R6,978	R18,112	R4,016	R14,098	R22,393	R33,521	R23,311	R23,366	R32,399	-6	R89,091
1995	R6,936	R18,519	R4,101	R14,690	R22,719	R33,971	R23,791	23,846	R33,479	3	R91,029
1996	R7,466	R19,504	R4,273	R15,172	R23,410	R34,904	R24,383	24,437	R34,485	4	R94,022
1997	R7,033	R18,965	R4,295	R15,681	R23,686	R35,200	R24,695	R24,750	R34,886	6	R94,602
1998	R6,413	R18,955	R4,005	R15,968	R23,177	R34,843	R25,201	R25,256	R36,225	-3	R95,018
1999	R6,775	R19,557	R4,053	R16,376	R22,950	R34,764	25,891	R25,949	R36,976	6	R96,652
2000	R7,159	R20,425	R4,278	R17,175	R22,824	R34,664	R26,489	26,548	R38,062	2	R98,815
2001	R6,868	R20,042	R4,084	R17,137	R21,794	R32,720	R26,213	26,275	R37,215	-6	R96,168
2002	R6,931	R20,810	R4,144	R17,358	R21,813	R32,676	R26,784	R26,845	R38,016	5	R97,693
2003	R7,211	R21,110	R4,283	R17,343	R21,503	R32,532	R26,920	26,994	R38,062	-1	R97,978
2004	R6,993	R21,093	R4,232	R17,659	R22,398	R33,506	R27,817	27,895	R38,713	-6	R100,148
2005	R6,909	R21,626	R4,051	R17,856	R21,407	R32,442	R28,272	R28,353	R39,638	(s)	R100,277
2006	R6,178	R20,698	R3,746	R17,710	R21,521	R32,386	R28,751	R28,830	R39,428	(s)	R99,624
2007	R6,633	R21,565	R3,931	R18,264	R21,395	R32,419	R29,031	R29,119	R40,377	-3	R101,363
2008	R6,817	R21,596	R4,073	R18,381	R20,474	R31,284	R27,925	R28,008	R39,978	(s)	R99,268
2009	R6,619	R21,063	R4,061	R17,899	R18,801	R28,513	R26,916	R26,998	R38,077	R (s)	R94,475
2010P	6,841	22,153	4,175	18,205	19,984	30,139	27,425	27,507	39,579	-2	98,003

[1] Commercial sector, including commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

[2] Industrial sector, including industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

[3] Electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

[4] Through 1988, data are for electric utilities only; beginning in 1989, data are for electric utilities and independent power producers.

[5] See "Primary Energy Consumption" in Glossary.

[6] Total energy consumption in the end-use sectors consists of primary energy consumption, electricity retail sales, and electrical system energy losses. See Note, "Electrical System Energy Losses," at end of section.

[7] A balancing item. The sum of primary consumption in the five energy-use sectors equals the sum of total consumption in the four end-use sectors. However, total energy consumption does not equal the sum of the sectoral components due to the use of sector-specific conversion factors for natural gas and coal.

[8] Primary energy consumption total. See Table 1.3.

R=Revised. P=Preliminary. (s)=Less than 0.5 trillion Btu and greater than -0.5 trillion Btu.

Notes: • See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 8. • Totals may not equal sum of components due to independent rounding.

Web Page: See http://www.eia.gov/totalenergy/data/annual/#consumption for all data beginning in 1949.

Sources: Tables 1.3 and 2.1b-2.1f.

Table 2.1b Residential Sector Energy Consumption Estimates, Selected Years, 1949-2010

(Trillion Btu)

Year	Primary Consumption [1]									Electricity Retail Sales [8]	Electrical System Energy Losses [9]	Total
	Fossil Fuels				Renewable Energy [2]				Total Primary			
	Coal	Natural Gas [3]	Petroleum [4]	Total	Geothermal [5]	Solar/PV [6]	Biomass [7]	Total				
1949	1,272	1,027	R1,106	R3,405	NA	NA	1,055	1,055	R4,460	228	911	R5,599
1950	1,261	1,240	R1,322	R3,824	NA	NA	1,006	1,006	R4,829	246	913	R5,989
1955	867	2,198	R1,767	R4,833	NA	NA	775	775	R5,608	438	1,232	R7,278
1960	585	3,212	R2,227	R6,024	NA	NA	627	627	R6,651	687	1,701	R9,039
1965	352	4,028	R2,432	R6,811	NA	NA	468	468	R7,279	993	R2,367	R10,639
1970	209	4,987	R2,725	R7,922	NA	NA	401	401	R8,322	1,591	R3,852	R13,766
1975	63	5,023	R2,479	R7,564	NA	NA	425	425	R7,990	2,007	R4,817	R14,813
1976	59	5,147	R2,703	R7,910	NA	NA	482	482	R8,391	2,069	R4,950	R15,410
1977	57	4,913	R2,681	R7,652	NA	NA	542	542	R8,194	2,202	R5,267	R15,662
1978	49	4,981	R2,607	R7,638	NA	NA	622	622	R8,260	2,301	R5,571	R16,132
1979	37	5,055	R2,099	R7,191	NA	NA	728	728	R7,919	2,330	R5,564	15,813
1980	31	4,825	R1,734	R6,589	NA	NA	850	850	R7,439	2,448	R5,866	R15,753
1981	30	4,614	R1,531	R6,175	NA	NA	870	870	R7,045	2,464	R5,752	R15,262
1982	32	4,711	R1,434	R6,177	NA	NA	970	970	R7,147	2,489	R5,895	R15,531
1983	31	4,478	R1,353	R5,862	NA	NA	970	970	R6,832	2,562	R6,031	R15,425
1984	40	4,661	R1,531	R6,231	NA	NA	980	980	R7,211	2,662	R6,087	R15,960
1985	39	4,534	R1,565	R6,138	NA	NA	1,010	1,010	R7,148	2,709	R6,184	R16,041
1986	40	4,405	R1,541	R5,986	NA	NA	920	920	R6,906	2,795	R6,274	R15,975
1987	37	4,420	R1,617	R6,073	NA	NA	850	850	R6,923	2,902	R6,438	R16,263
1988	37	4,735	R1,675	R6,447	NA	NA	910	910	R7,357	3,046	R6,729	R17,133
1989	31	4,899	R1,660	R6,590	5	R52	920	R977	R7,567	3,090	R7,129	R17,786
1990	31	4,491	R1,394	R5,916	6	56	580	641	R6,557	3,153	R7,235	R16,945
1991	25	4,667	R1,381	R6,073	6	R57	610	R673	R6,747	3,260	R7,414	R17,420
1992	26	4,805	R1,414	R6,244	6	R59	640	706	R6,950	3,193	R7,212	R17,356
1993	26	5,063	R1,439	R6,528	7	R61	550	618	R7,146	3,394	R7,677	R18,218
1994	21	4,960	R1,408	R6,389	6	R63	520	R589	R6,978	3,441	R7,693	R18,112
1995	17	4,954	R1,374	R6,345	7	R64	520	591	R6,936	3,557	R8,026	R18,519
1996	17	5,354	R1,484	R6,854	7	65	540	612	R7,466	3,694	R8,344	R19,504
1997	16	5,093	R1,422	R6,531	8	R64	430	R502	R7,033	3,671	R8,261	R18,965
1998	12	4,646	R1,304	R5,962	8	R64	380	452	R6,413	3,856	R8,686	R18,955
1999	14	4,835	R1,465	R6,314	9	R63	390	R461	R6,775	3,906	R8,875	R19,557
2000	11	5,105	R1,554	R6,670	9	R60	420	R489	R7,159	4,069	R9,197	R20,425
2001	12	4,889	R1,529	R6,430	9	R59	370	R438	R6,868	4,100	R9,074	R20,042
2002	12	5,014	R1,457	R6,484	10	R57	380	R448	R6,931	4,317	R9,562	R20,810
2003	12	5,209	R1,519	R6,741	13	R57	400	R470	R7,211	4,353	R9,546	R21,110
2004	11	4,981	R1,520	R6,513	14	R57	410	R481	R6,993	4,408	R9,691	R21,093
2005	8	4,946	R1,451	R6,406	16	R58	430	R504	R6,909	4,638	R10,079	R21,626
2006	6	4,476	R1,224	R5,706	18	R63	390	R472	R6,178	4,611	R9,909	R20,698
2007	8	4,850	R1,254	R6,111	22	R70	430	R522	R6,633	4,750	R10,182	R21,565
2008	8	R5,010	R1,243	R6,261	26	R80	450	R556	R6,817	4,708	R10,071	R21,596
2009	R8	R4,883	R1,176	R6,067	33	R89	430	R552	R6,619	R4,656	R9,789	R21,063
2010P	7	5,061	1,220	6,288	37	97	420	554	6,841	4,950	10,362	22,153

[1] See "Primary Energy Consumption" in Glossary.

[2] Data are estimates. See Table 10.2a for notes on series components.

[3] Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 1, "Supplemental Gaseous Fuels," at end of Section 6.

[4] Based on petroleum product supplied. For petroleum, product supplied is used as an approximation of petroleum consumption. See Note 1, "Petroleum Products Supplied and Petroleum Consumption," at end of Section 5.

[5] Geothermal heat pump and direct use energy.

[6] Solar thermal direct use energy, and photovoltaic (PV) electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6). Includes small amounts of distributed solar thermal and PV energy used in the commercial, industrial, and electric power sectors.

[7] Wood and wood-derived fuels.

[8] Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.

[9] Total losses are calculated as the primary energy consumed by the electric power sector minus the energy content of electricity retail sales. Total losses are allocated to the end-use sectors in proportion to each sector's share of total electricity retail sales. See Note, "Electrical System Energy Losses," at end of section.

R=Revised. P=Preliminary. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Web Page: See http://www.eia.gov/totalenergy/data/annual/#consumption for all data beginning in 1949.

Sources: Tables 2.1f, 5.14a, 6.5, 7.3, 8.9, 10.2a, A4, A5, and A6.

Table 2.1c Commercial Sector Energy Consumption Estimates, Selected Years, 1949-2010

(Trillion Btu)

Year	Primary Consumption [1]											Electricity Retail Sales [11]	Electrical System Energy Losses [12]	Total
	Fossil Fuels				Renewable Energy [2]						Total Primary			
	Coal	Natural Gas [3]	Petroleum [4,5]	Total	Hydroelectric Power [6]	Geothermal [7]	Solar/PV [8]	Wind [9]	Biomass [10]	Total				
1949	1,554	360	R735	R2,649	NA	NA	NA	NA	20	20	R2,669	200	800	R3,669
1950	1,542	401	R872	R2,815	NA	NA	NA	NA	19	19	R2,834	225	834	R3,893
1955	801	651	R1,095	R2,547	NA	NA	NA	NA	15	15	R2,561	350	984	R3,895
1960	407	1,056	R1,248	R2,711	NA	NA	NA	NA	12	12	R2,723	543	1,344	R4,609
1965	265	1,490	R1,413	R3,168	NA	NA	NA	NA	9	9	R3,177	789	1,880	R5,845
1970	165	2,473	R1,592	R4,229	NA	NA	NA	NA	8	8	R4,237	1,201	R2,908	8,346
1975	147	2,558	R1,346	R4,051	NA	NA	NA	NA	8	8	R4,059	1,598	R3,835	R9,492
1976	144	2,718	R1,500	R4,362	NA	NA	NA	NA	9	9	R4,371	1,678	R4,014	R10,063
1977	148	2,548	R1,552	R4,248	NA	NA	NA	NA	10	10	R4,258	1,754	R4,196	R10,208
1978	165	2,643	R1,490	R4,297	NA	NA	NA	NA	12	12	R4,309	1,813	R4,390	R10,512
1979	149	2,836	R1,367	R4,352	NA	NA	NA	NA	14	14	R4,366	1,854	R4,428	R10,648
1980	115	2,651	R1,318	R4,084	NA	NA	NA	NA	21	21	R4,105	1,906	R4,567	R10,578
1981	137	2,557	R1,122	R3,816	NA	NA	NA	NA	21	21	R3,837	2,033	R4,746	R10,616
1982	155	2,650	R1,037	R3,842	NA	NA	NA	NA	22	22	R3,864	2,077	R4,919	R10,860
1983	162	2,486	R1,170	R3,818	NA	NA	NA	NA	22	22	R3,840	2,116	R4,982	R10,938
1984	169	2,582	R1,227	R3,978	NA	NA	NA	NA	22	22	R4,001	2,264	R5,179	R11,444
1985	137	2,488	R1,083	R3,708	NA	NA	NA	NA	24	24	R3,732	2,351	R5,368	R11,451
1986	135	2,367	R1,162	R3,665	NA	NA	NA	NA	27	27	R3,693	2,439	R5,475	R11,606
1987	125	2,489	R1,131	R3,745	NA	NA	NA	NA	30	30	R3,774	2,539	R5,633	R11,946
1988	131	2,731	R1,099	R3,961	NA	NA	NA	NA	33	33	R3,994	2,675	R5,909	R12,578
1989	115	2,785	R1,041	R3,941	1	3	–	–	99	102	R4,043	2,767	R6,384	R13,193
1990	124	2,682	R991	R3,798	1	3	–	–	94	98	R3,896	2,860	R6,564	R13,320
1991	116	2,795	R935	R3,846	1	3	–	–	95	100	R3,945	2,918	R6,636	R13,500
1992	117	2,871	R893	R3,881	1	3	–	–	105	109	R3,991	2,900	R6,550	R13,441
1993	117	2,923	R819	R3,859	1	3	–	–	109	114	R3,973	3,019	R6,828	R13,820
1994	118	2,962	R825	R3,905	1	4	–	–	106	112	R4,016	3,116	R6,966	R14,098
1995	117	3,096	R769	R3,982	1	5	–	–	113	118	R4,101	3,252	R7,338	R14,690
1996	122	3,226	R790	R4,138	1	5	–	–	129	135	R4,273	3,344	R7,555	R15,172
1997	129	3,285	R743	R4,157	1	6	–	–	131	138	R4,295	3,503	R7,883	R15,681
1998	93	3,083	R702	R3,878	1	7	–	–	118	127	R4,005	3,678	R8,285	R15,968
1999	103	3,115	R707	R3,925	1	7	–	–	121	129	R4,053	3,766	R8,557	R16,376
2000	92	3,252	R807	R4,150	1	8	–	–	119	128	R4,278	3,956	R8,942	R17,175
2001	97	3,097	R790	R3,984	1	8	–	–	92	101	R4,084	4,062	R8,990	R17,137
2002	90	3,225	R726	R4,040	(s)	9	–	–	95	104	R4,144	4,110	R9,104	R17,358
2003	82	3,261	R827	R4,170	1	11	–	–	101	113	R4,283	4,090	R8,969	R17,343
2004	103	3,201	R809	R4,113	1	12	–	–	105	118	R4,232	4,198	R9,229	R17,659
2005	97	3,073	R761	R3,932	1	14	–	–	105	119	R4,051	4,351	R9,455	R17,856
2006	65	2,902	R663	R3,629	1	14	–	–	102	117	R3,746	4,435	R9,529	R17,710
2007	70	3,094	R649	R3,814	1	14	–	–	102	118	R3,931	4,560	R9,773	R18,264
2008	69	R3,228	R651	R3,948	1	15	(s)	–	109	125	R4,073	4,558	R9,749	R18,381
2009	R63	3,187	R682	R3,932	1	17	(s)	(s)	R112	R129	R4,061	R4,460	R9,378	R17,899
2010P	58	3,276	713	4,048	1	19	(s)	(s)	108	127	4,175	4,536	9,495	18,205

[1] See "Primary Energy Consumption" in Glossary.

[2] Most data are estimates. See Table 10.2a for notes on series components and estimation.

[3] Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 1, "Supplemental Gaseous Fuels," at end of Section 6.

[4] Based on petroleum product supplied. For petroleum, product supplied is used as an approximation of petroleum consumption. See Note 1, "Petroleum Products Supplied and Petroleum Consumption," at end of Section 5.

[5] Does not include biofuels that have been blended with petroleum—biofuels are included in "Biomass."

[6] Conventional hydroelectricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).

[7] Geothermal heat pump and direct use energy.

[8] Photovoltaic (PV) electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6) at commercial plants with capacity of 1 megawatt or greater.

[9] Wind electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).

[10] Wood and wood-derived fuels; municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels); and fuel ethanol (minus denaturant).

[11] Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.

[12] Total losses are calculated as the primary energy consumed by the electric power sector minus the energy content of electricity retail sales. Total losses are allocated to the end-use sectors in proportion to each sector's share of total electricity retail sales. See Note, "Electrical System Energy Losses," at end of section.

R=Revised. P=Preliminary. NA=Not available. – =No data reported. (s)=Less than 0.5 trillion Btu.

Notes: • The commercial sector includes commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 8. • Totals may not equal sum of components due to independent rounding.

Web Page: See http://www.eia.gov/totalenergy/data/annual/#consumption for all data beginning in 1949.

Sources: Tables 2.1f, 5.14a, 6.5, 7.3, 8.9, 10.2a, A4, A5, and A6.

Table 2.1d Industrial Sector Energy Consumption Estimates, Selected Years, 1949-2010

(Trillion Btu)

Year	Primary Consumption [1]													
	Fossil Fuels					Renewable Energy [2]								
	Coal	Coal Coke Net Imports	Natural Gas [3]	Petroleum [4,5]	Total	Hydroelectric Power [6]	Geothermal [7]	Solar/PV [8]	Biomass [9]	Total	Total Primary	Electricity Retail Sales [10]	Electrical System Energy Losses [11]	Total
1949	5,433	-7	3,188	R3,475	R12,090	76	NA	NA	468	544	R12,633	418	1,672	R14,724
1950	5,781	1	3,546	R3,960	R13,288	69	NA	NA	532	602	R13,890	500	1,852	R16,241
1955	5,620	-10	4,701	R5,123	R15,434	38	NA	NA	631	669	R16,103	887	2,495	R19,485
1960	4,543	-6	5,973	R5,766	R16,277	39	NA	NA	680	719	R16,996	1,107	2,739	R20,842
1965	5,127	-18	7,339	R6,813	R19,260	33	NA	NA	855	888	R20,148	1,463	R3,487	R25,098
1970	4,656	-58	9,536	R7,776	R21,911	34	NA	NA	1,019	1,053	R22,964	1,948	R4,716	R29,628
1975	3,667	14	8,532	R8,127	R20,339	32	NA	NA	1,063	1,096	R21,434	2,346	R5,632	R29,413
1976	3,661	(s)	8,762	R8,990	R21,412	33	NA	NA	1,220	1,253	R22,665	2,573	R6,155	R31,393
1977	3,454	15	8,635	R9,747	R21,851	33	NA	NA	1,281	1,314	R23,165	2,682	R6,416	R32,263
1978	3,314	125	8,539	R9,835	R21,812	32	NA	NA	1,400	1,432	R23,244	2,761	R6,683	R32,688
1979	3,593	63	8,549	R10,548	R22,753	34	NA	NA	1,405	1,439	R24,192	2,873	R6,860	R33,925
1980	3,155	-35	8,333	R9,509	R20,962	33	NA	NA	1,600	1,633	R22,595	2,781	R6,664	R32,039
1981	3,157	-16	8,185	R8,265	R19,590	33	NA	NA	1,695	1,728	R21,318	2,817	R6,576	R30,712
1982	2,552	-22	7,068	R7,772	R17,370	33	NA	NA	1,650	1,683	R19,053	2,542	R6,020	R27,614
1983	2,490	-16	6,776	R7,390	R16,640	33	NA	NA	1,874	1,908	R18,548	2,648	R6,232	R27,428
1984	2,842	-11	7,405	R7,987	R18,222	33	NA	NA	1,918	1,951	R20,174	2,859	R6,538	R29,570
1985	2,760	-13	7,032	R7,714	R17,492	33	NA	NA	1,918	1,951	R19,443	2,855	R6,518	R28,816
1986	2,641	-17	6,646	R7,860	R17,130	33	NA	NA	1,915	1,948	R19,078	2,834	R6,362	R28,274
1987	2,673	9	7,283	R8,042	R18,006	33	NA	NA	1,914	1,947	R19,953	2,928	R6,497	R29,379
1988	2,828	40	7,655	R8,317	R18,840	33	NA	NA	1,989	2,022	R20,862	3,059	R6,757	R30,677
1989	2,787	30	8,088	R8,098	R19,003	28	2	–	1,841	1,871	R20,874	3,158	R7,288	R31,320
1990	2,756	5	8,451	R8,251	R19,463	31	2	–	1,684	1,717	R21,180	3,226	R7,404	R31,810
1991	2,601	10	8,572	R7,958	R19,141	30	2	–	1,652	1,684	R20,824	3,230	R7,345	R31,399
1992	2,515	35	8,918	R8,552	R20,019	31	2	–	1,705	1,737	R21,756	3,319	R7,496	R32,571
1993	2,496	27	9,070	R8,386	R19,980	30	2	–	1,741	1,773	R21,753	3,334	R7,541	R32,629
1994	2,510	58	9,126	R8,771	R20,465	62	3	–	1,862	1,927	R22,393	3,439	R7,689	R33,521
1995	2,488	61	9,592	R8,586	R20,727	55	3	–	1,934	1,992	R22,719	3,455	R7,796	R33,971
1996	2,434	23	9,901	R9,019	R21,377	61	3	–	1,969	2,033	R23,410	3,527	R7,968	R34,904
1997	2,395	46	9,933	R9,255	R21,629	58	3	–	1,996	2,057	R23,686	3,542	R7,972	R35,200
1998	2,335	67	9,763	R9,082	R21,248	55	3	–	1,872	1,929	R23,177	3,587	R8,079	R34,843
1999	2,227	58	9,375	R9,356	R21,016	49	4	–	1,882	1,934	R22,950	3,611	R8,203	R34,764
2000	2,256	65	9,500	R9,075	R20,896	42	4	–	1,881	1,928	R22,824	3,631	R8,208	R34,664
2001	2,192	29	8,676	R9,178	R20,075	33	5	–	1,681	1,719	R21,794	3,400	R7,526	R32,720
2002	2,019	61	8,845	R9,168	R20,093	39	5	–	1,676	1,720	R21,813	3,379	R7,484	R32,676
2003	2,041	51	8,488	R9,197	R19,777	43	3	–	1,679	1,726	R21,503	3,454	R7,575	R32,532
2004	2,047	138	8,536	R9,825	R20,545	33	4	–	1,817	1,853	R22,398	3,473	R7,635	R33,506
2005	1,954	44	7,903	R9,633	R19,534	32	4	–	1,837	1,873	R21,407	3,477	R7,557	R32,442
2006	1,914	61	7,846	R9,770	R19,591	29	4	–	1,897	1,930	R21,521	3,451	R7,415	R32,386
2007	1,865	25	8,090	R9,451	R19,431	16	5	–	1,944	1,964	R21,395	3,507	R7,517	R32,419
2008	1,796	41	R8,074	R8,511	R18,422	17	5	–	2,031	2,053	R20,474	3,444	R7,365	R31,284
2009	1,396	-24	R7,609	R7,816	R16,796	18	4	–	R1,982	R2,005	R18,801	R3,130	R6,582	R28,513
2010P	1,618	-6	8,110	8,013	17,735	16	4	(s)	2,229	2,249	19,984	3,283	6,872	30,139

[1] See "Primary Energy Consumption" in Glossary.

[2] Most data are estimates. See Table 10.2b for notes on series components and estimation.

[3] Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 1, "Supplemental Gaseous Fuels," at end of Section 6.

[4] Based on petroleum product supplied. For petroleum, product supplied is used as an approximation of petroleum consumption. See Note 1, "Petroleum Products Supplied and Petroleum Consumption," at end of Section 5.

[5] Does not include biofuels that have been blended with petroleum—biofuels are included in "Biomass."

[6] Conventional hydroelectricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).

[7] Geothermal heat pump and direct use energy.

[8] Photovoltaic (PV) electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6) at industrial plants with capacity of 1 megawatt or greater.

[9] Wood and wood-derived fuels; municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels); fuel ethanol (minus denaturant); and losses and co-products from the production of fuel ethanol and biodiesel.

[10] Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.

[11] Total losses are calculated as the primary energy consumed by the electric power sector minus the energy content of electricity retail sales. Total losses are allocated to the end-use sectors in proportion to each sector's share of total electricity retail sales. See Note, "Electrical System Energy Losses," at end of section.

R=Revised. P=Preliminary. NA=Not available. – =No data reported. (s)=Less than +0.5 trillion Btu and greater than -0.5 trillion Btu.

Notes: • The industrial sector includes industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 8. • Totals may not equal sum of components due to independent rounding.

Web Page: See http://www.eia.gov/totalenergy/data/annual/#consumption for all data beginning in 1949.

Sources: Tables 2.1f, 5.14b, 6.5, 7.3, 7.7, 8.9, 10.2b, A4, A5, and A6.

Table 2.1e Transportation Sector Energy Consumption Estimates, Selected Years, 1949-2010

(Trillion Btu)

Year	Primary Consumption [1]						Electricity Retail Sales [7]	Electrical System Energy Losses [8]	Total
	Fossil Fuels				Renewable Energy [2]	Total Primary			
	Coal	Natural Gas [3]	Petroleum [4,5]	Total	Biomass [6]				
1949	1,727	NA	6,152	7,880	NA	7,880	22	88	7,990
1950	1,564	130	6,690	R8,383	NA	R8,383	23	86	R8,492
1955	421	254	R8,799	R9,474	NA	R9,474	20	56	R9,550
1960	75	359	R10,125	10,560	NA	10,560	10	26	R10,596
1965	16	517	R11,866	R12,399	NA	R12,399	10	24	R12,432
1970	7	745	15,310	R16,062	NA	R16,062	11	26	16,098
1975	1	595	R17,615	R18,210	NA	R18,210	10	24	R18,245
1976	(s)	559	R18,508	R19,067	NA	R19,067	10	24	R19,101
1977	(s)	543	R19,243	R19,786	NA	R19,786	10	25	R19,822
1978	([9])	539	R20,044	R20,583	NA	R20,583	10	24	R20,617
1979	([9])	612	19,825	R20,437	NA	R20,437	10	24	R20,472
1980	([9])	650	19,009	R19,659	NA	R19,659	11	27	R19,697
1981	([9])	658	R18,813	R19,471	7	R19,478	11	25	R19,514
1982	([9])	612	R18,422	R19,034	18	R19,052	11	26	R19,089
1983	([9])	505	R18,595	R19,100	34	R19,134	13	30	R19,177
1984	([9])	545	R19,023	R19,567	41	R19,609	14	33	R19,656
1985	([9])	519	R19,472	R19,992	50	R20,041	14	32	R20,088
1986	([9])	499	R20,183	R20,682	57	R20,740	15	34	R20,789
1987	([9])	535	R20,817	R21,353	66	R21,419	16	35	R21,469
1988	([9])	632	R21,568	R22,199	67	R22,267	16	35	R22,318
1989	([9])	649	R21,707	R22,356	68	R22,424	16	38	R22,478
1990	([9])	680	R21,626	R22,306	60	R22,366	16	37	R22,420
1991	([9])	620	R21,374	R21,995	70	R22,065	16	37	R22,118
1992	([9])	608	R21,675	R22,283	80	R22,363	16	R36	R22,415
1993	([9])	645	R21,977	R22,621	94	R22,715	16	37	R22,768
1994	([9])	709	R22,497	R23,206	105	R23,311	17	38	R23,366
1995	([9])	724	R22,955	R23,679	R112	R23,791	17	R38	23,846
1996	([9])	737	R23,565	R24,302	81	R24,383	17	38	24,437
1997	([9])	780	R23,813	R24,593	102	R24,695	17	38	R24,750
1998	([9])	666	R24,422	R25,088	113	R25,201	17	38	R25,256
1999	([9])	675	R25,098	R25,774	118	25,891	17	40	R25,949
2000	([9])	672	R25,682	R26,354	135	R26,489	18	42	26,548
2001	([9])	658	25,412	26,070	142	R26,213	20	43	26,275
2002	([9])	702	R25,913	26,614	170	R26,784	19	42	R26,845
2003	([9])	627	R26,063	R26,690	230	R26,920	23	51	26,994
2004	([9])	602	R26,925	R27,527	290	R27,817	25	R54	27,895
2005	([9])	624	R27,309	R27,933	339	R28,272	26	56	R28,353
2006	([9])	625	R27,651	R28,276	475	R28,751	25	54	R28,830
2007	([9])	665	R27,763	R28,429	R602	R29,031	28	60	R29,119
2008	([9])	R692	R26,407	R27,099	R826	R27,925	26	R56	R28,008
2009	([9])	R643	R25,339	R25,982	R934	R26,916	R27	56	R26,998
2010P	([9])	682	25,646	26,327	1,098	27,425	26	55	27,507

[1] See "Primary Energy Consumption" in Glossary.

[2] Data are estimates. See Table 10.2b for notes on series components.

[3] Natural gas only; does not include supplemental gaseous fuels—see Note 1, "Supplemental Gaseous Fuels," at end of Section 6. Data are for natural gas consumed in the operation of pipelines (primarily in compressors) and small amounts consumed as vehicle fuel—see Table 6.5.

[4] Based on petroleum product supplied. For petroleum, product supplied is used as an approximation of petroleum consumption. See Note 1, "Petroleum Products Supplied and Petroleum Consumption," at end of Section 5.

[5] Does not include biofuels that have been blended with petroleum—biofuels are included in "Biomass."

[6] Fuel ethanol (minus denaturant) and biodiesel.

[7] Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.

[8] Total losses are calculated as the primary energy consumed by the electric power sector minus the energy content of electricity retail sales. Total losses are allocated to the end-use sectors in proportion to each sector's share of total electricity retail sales. See Note, "Electrical System Energy Losses," at end of section.

[9] Beginning in 1978, the small amounts of coal consumed for transportation are reported as industrial sector consumption.

R=Revised. P=Preliminary. NA=Not available. (s)=Less than 0.5 trillion Btu.

Note: Totals may not equal sum of components due to independent rounding.

Web Page: See http://www.eia.gov/totalenergy/data/annual/#consumption for all data beginning in 1949.

Sources: Tables 2.1f, 5.14c, 6.5, 7.3, 8.9, 10.2b, A4, A5, and A6.

Table 2.1f Electric Power Sector Energy Consumption, Selected Years, 1949-2010

(Trillion Btu)

Year	Primary Consumption [1]												
	Fossil Fuels				Nuclear Electric Power [5]	Renewable Energy [2]						Electricity Net Imports [11]	Total Primary
	Coal	Natural Gas [3]	Petroleum [4]	Total		Hydroelectric Power [6]	Geothermal [7]	Solar/PV [8]	Wind [9]	Biomass [10]	Total		
1949	1,995	569	415	2,979	0	1,349	NA	NA	NA	6	1,355	5	4,339
1950	2,199	651	472	3,322	0	1,346	NA	NA	NA	5	1,351	6	4,679
1955	3,458	1,194	471	5,123	0	1,322	NA	NA	NA	3	1,325	14	6,461
1960	4,228	1,785	553	6,565	6	1,569	R (s)	NA	NA	2	1,571	15	8,158
1965	5,821	2,395	722	8,938	43	2,026	R2	NA	NA	3	R2,031	(s)	R11,012
1970	7,227	4,054	2,117	13,399	239	2,600	R6	NA	NA	4	R2,609	7	R16,253
1975	8,786	3,240	3,166	15,191	1,900	3,122	R34	NA	NA	2	R3,158	21	R20,270
1976	9,720	3,152	3,477	16,349	2,111	2,943	R38	NA	NA	3	R2,983	29	R21,473
1977	10,262	3,284	3,901	17,446	2,702	2,301	R37	NA	NA	5	R2,343	59	R22,551
1978	10,238	3,297	3,987	17,522	3,024	2,905	R31	NA	NA	3	R2,940	67	R23,553
1979	11,260	3,613	3,283	18,156	2,776	2,897	R40	NA	NA	5	R2,942	69	R23,943
1980	12,123	3,778	2,634	18,534	2,739	2,867	R53	NA	NA	5	R2,925	71	R24,269
1981	12,583	3,730	2,202	18,516	3,008	2,725	R59	NA	NA	4	R2,788	113	R24,425
1982	12,582	3,312	1,568	17,462	3,131	3,233	R51	NA	NA	3	R3,286	100	R23,979
1983	13,213	2,972	1,544	17,729	3,203	3,494	R64	NA	(s)	4	R3,562	121	R24,614
1984	14,019	3,199	1,286	18,504	3,553	3,353	R81	(s)	(s)	9	R3,443	135	R25,635
1985	14,542	3,135	1,090	18,767	4,076	2,937	R97	(s)	(s)	14	R3,049	140	R26,032
1986	14,444	2,670	1,452	18,566	4,380	3,038	R108	(s)	(s)	12	R3,158	122	R26,227
1987	15,173	2,916	1,257	19,346	4,754	2,602	R112	(s)	(s)	15	R2,729	158	R26,988
1988	15,850	2,693	1,563	20,106	5,587	2,302	R106	(s)	(s)	17	R2,425	108	R28,227
1989[12]	16,137	3,173	1,703	21,013	5,602	2,808	R152	3	22	232	R3,217	37	R29,869
1990	16,261	3,309	1,289	20,859	6,104	3,014	R161	4	29	317	R3,524	8	R30,495
1991	16,250	3,377	1,198	20,825	6,422	2,985	R167	5	31	354	R3,542	67	R30,856
1992	16,466	3,512	991	20,968	6,479	2,586	R167	4	30	402	R3,189	87	R30,723
1993	17,196	3,538	1,124	21,857	6,410	2,861	R173	5	31	415	R3,484	95	R31,847
1994	17,261	3,977	1,059	22,297	6,694	2,620	R160	5	36	434	R3,255	153	R32,399
1995	17,466	4,302	755	22,523	7,075	3,149	R138	5	33	422	R3,747	134	R33,479
1996	18,429	3,862	817	23,109	7,087	3,528	R148	5	33	438	R4,153	137	R34,485
1997	18,905	4,126	927	23,957	6,597	3,581	R150	5	34	446	R4,216	116	R34,886
1998	19,216	4,675	1,306	25,197	7,068	3,241	R151	5	31	444	R3,872	88	R36,225
1999	19,279	4,902	1,211	25,393	7,610	3,218	R152	5	46	453	R3,874	99	R36,976
2000	20,220	5,293	1,144	26,658	7,862	2,768	R144	5	57	453	R3,427	115	R38,062
2001	19,614	5,458	1,277	26,348	8,029	2,209	R142	6	70	337	R2,763	75	R37,215
2002	19,783	5,767	961	26,511	8,145	2,650	R147	6	105	380	R3,288	72	R38,016
2003	20,185	5,246	1,205	26,636	7,959	2,781	R148	5	115	397	R3,445	22	R38,062
2004	20,305	5,595	1,212	27,112	8,222	2,656	R148	6	142	388	R3,340	39	R38,713
2005	20,737	6,015	1,235	27,986	8,161	2,670	R147	6	178	406	R3,406	R85	R39,638
2006	20,462	6,375	648	27,485	8,215	2,839	R145	5	264	412	R3,665	63	R39,428
2007	20,808	7,005	657	28,470	8,455	2,430	R145	6	341	423	R3,345	107	R40,377
2008	20,513	6,829	468	27,810	8,427	2,494	R146	9	546	435	R3,630	112	R39,978
2009	R18,225	R7,022	390	R25,638	R8,356	R2,650	R146	R9	R721	R441	R3,967	R116	R38,077
2010[P]	19,133	7,517	378	27,028	8,441	2,492	153	13	924	440	4,022	88	39,579

[1] See "Primary Energy Consumption" in Glossary.

[2] See Table 10.2c for notes on series components.

[3] Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 1, "Supplemental Gaseous Fuels," at end of Section 6.

[4] See Table 5.14c for series components.

[5] Nuclear electricity net generation (converted to Btu using the nuclear heat rate—see Table A6).

[6] Conventional hydroelectricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).

[7] Geothermal electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).

[8] Solar thermal and photovoltaic (PV) electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).

[9] Wind electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).

[10] Wood and wood-derived fuels; and municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

[11] Net imports equal imports minus exports.

[12] Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.

R=Revised. P=Preliminary. NA=Not available. (s)=Less than 0.5 trillion Btu.

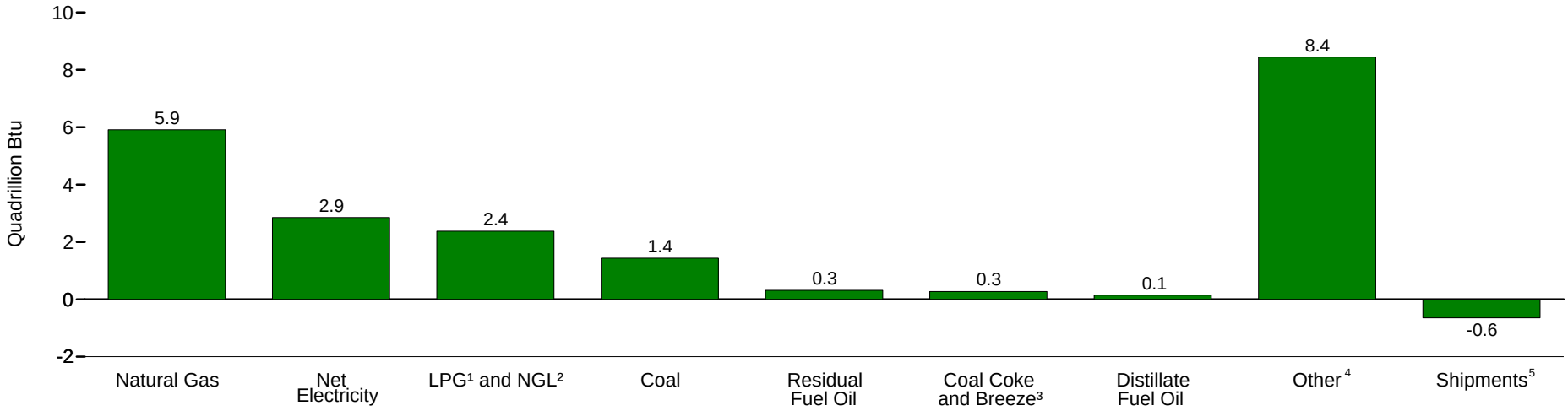
Notes: • Data are for fuels consumed to produce electricity and useful thermal output. • The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. • See Note 3, "Electricity Imports and Exports," at end of Section 8. • Totals may not equal sum of components due to independent rounding.

Web Page: See http://www.eia.gov/totalenergy/data/annual/#consumption for all data beginning in 1949.

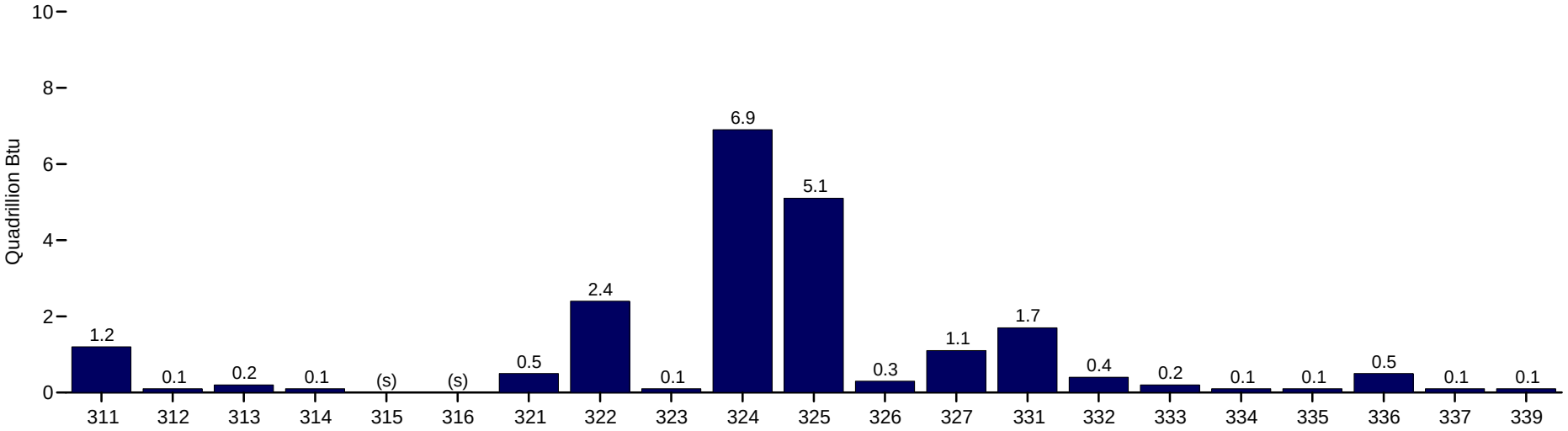
Sources: Tables 5.14c, 6.5, 7.3, 8.1, 8.2b, 10.2c, A4, A5, and A6.

Figure 2.2 Manufacturing Energy Consumption for All Purposes, 2006

By Energy Source



By North American Industry Classification System (NAICS) Code[6]



[1] Liquefied petroleum gases.
[2] Natural gas liquids.
[3] See "Breeze" in Glossary.
[4] Includes all other types of energy that respondents indicated were consumed or allocated.
[5] Energy sources produced onsite from the use of other energy sources but sold or transferred to another entity.
[6] See Table 2.2 for Manufacturing Group titles of industries that correspond to the 3-digit NAICS codes.
(s)=Less than 0.05 quadrillion Btu.
Source: Table 2.2.

Table 2.2 Manufacturing Energy Consumption for All Purposes, 2006

(Trillion Btu)

NAICS [1] Code	Manufacturing Group	Coal	Coal Coke and Breeze [2]	Natural Gas	Distillate Fuel Oil	LPG [3] and NGL [4]	Residual Fuel Oil	Net Electricity [5]	Other [6]	Shipments of Energy Sources [7]	Total [8]
311	Food	147	1	638	16	3	26	251	105	(s)	1,186
312	Beverage and Tobacco Products	20	0	41	1	1	3	30	11	-0	107
313	Textile Mills	32	0	65	(s)	(s)	2	66	12	-0	178
314	Textile Product Mills	3	0	46	(s)	1	Q	20	(s)	-0	72
315	Apparel	0	0	7	(s)	(s)	(s)	7	(s)	-0	14
316	Leather and Allied Products	0	0	1	(s)	(s)	(s)	1	(s)	-0	3
321	Wood Products	Q	Q	87	21	4	4	91	228	-0	451
322	Paper	221	0	474	13	5	91	247	1,302	-0	2,354
323	Printing and Related Support	0	0	39	(s)	1	(s)	45	(s)	-0	85
324	Petroleum and Coal Products	102	1	849	33	29	58	137	5,744	-89	6,864
325	Chemicals	182	3	1,746	8	2,304	87	517	707	-406	5,149
326	Plastics and Rubber Products	Q	0	128	3	5	9	182	(s)	-0	337
327	Nonmetallic Mineral Products	320	11	460	30	5	3	147	138	-0	1,114
331	Primary Metals	373	253	627	7	4	19	458	139	-145	1,736
332	Fabricated Metal Products	0	Q	240	2	5	(s)	143	Q	-0	396
333	Machinery	1	0	84	2	3	Q	111	2	-0	204
334	Computer and Electronic Products	0	0	45	1	(s)	(s)	94	2	-0	142
335	Electrical Equipment, Appliances, and Components	(s)	0	42	Q	1	0	44	21	-5	103
336	Transportation Equipment	5	Q	249	3	5	7	195	13	-0	477
337	Furniture and Related Products	3	0	17	Q	1	(s)	32	8	-0	61
339	Miscellaneous	0	0	25	(s)	1	Q	33	Q	-0	66
—	Total Manufacturing	1,433	272	5,911	143	2,376	314	2,851	8,443	-645	21,098

[1] North American Industry Classification System (NAICS).

[2] See "Breeze" in Glossary.

[3] Liquefied petroleum gases.

[4] Natural gas liquids.

[5] "Net Electricity" is the sum of purchases, transfers in, and onsite generation from noncombustible renewable energy sources, minus quantities sold and transferred out; it excludes onsite generation from combustible fuels.

[6] Includes all other types of energy that respondents indicated were consumed or allocated, such as asphalt and road oil, lubricants, naphtha less than 401 degrees Fahrenheit, other oils greater than or equal to 401 degrees Fahrenheit, special naphthas, waxes, and miscellaneous nonfuel products, which are nonfuel products assigned to the petroleum refining industry group (NAICS Code 324110).

[7] Energy sources produced onsite from the use of other energy sources but sold or transferred to another entity. Note that shipments of energy sources are subtracted from consumption.

[8] The sum of coal, coal coke and breeze, natural gas, distillate fuel oil, liquefied petroleum gases, natural gas liquids, residual fuel oil, net electricity, and other, minus shipments of energy sources.

(s)=Less than 0.5 trillion Btu and greater than -0.5 trillion Btu. Q=Data withheld because the relative standard error was greater than 50 percent.

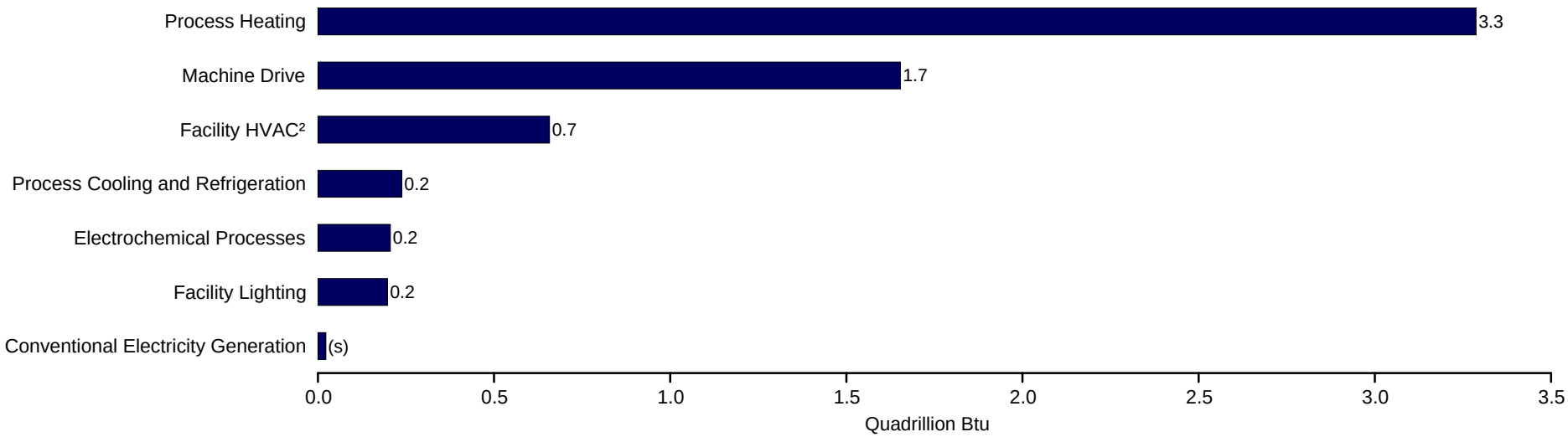
Notes: • Data are estimates for the first use of energy for heat and power and as feedstocks or raw material inputs. "First use" is the consumption of energy that was originally produced offsite or was produced onsite from input materials not classified as energy. • Totals may not equal sum of components due to independent rounding.

Web Page: For related information, see http://www.eia.gov/emeu/mecs.

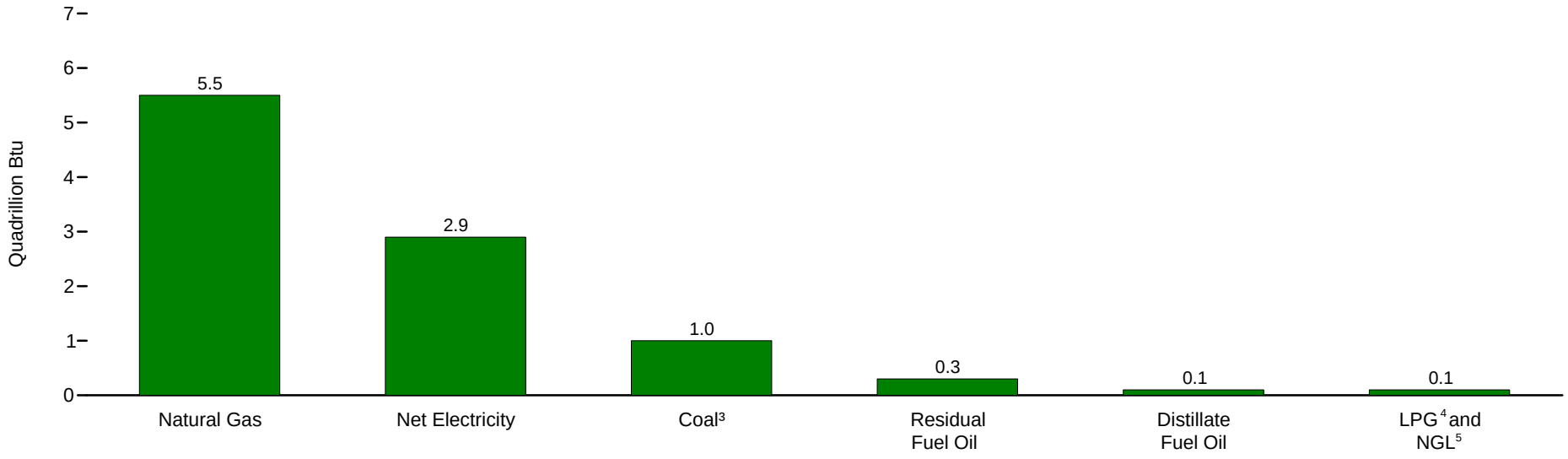
Source: U.S. Energy Information Administration, Form EIA-846, "2006 Manufacturing Energy Consumption Survey" and Form EIA-810, "Monthly Refinery Report" for 2006.

Figure 2.3 Manufacturing Energy Consumption for Heat, Power, and Electricity Generation, 2006

By Selected End Use[1]



By Energy Source



[1] Excludes inputs of unallocated energy sources (5,820 trillion Btu).
[2] Heating, ventilation, and air conditioning. Excludes steam and hot water.
[3] Excludes coal coke and breeze.
[4] Liquefied petroleum gases.
[5] Natural gas liquids.
(s)=Less than 0.05 quadrillion Btu.
Source: Table 2.3.

Table 2.3 Manufacturing Energy Consumption for Heat, Power, and Electricity Generation by End Use, 2006

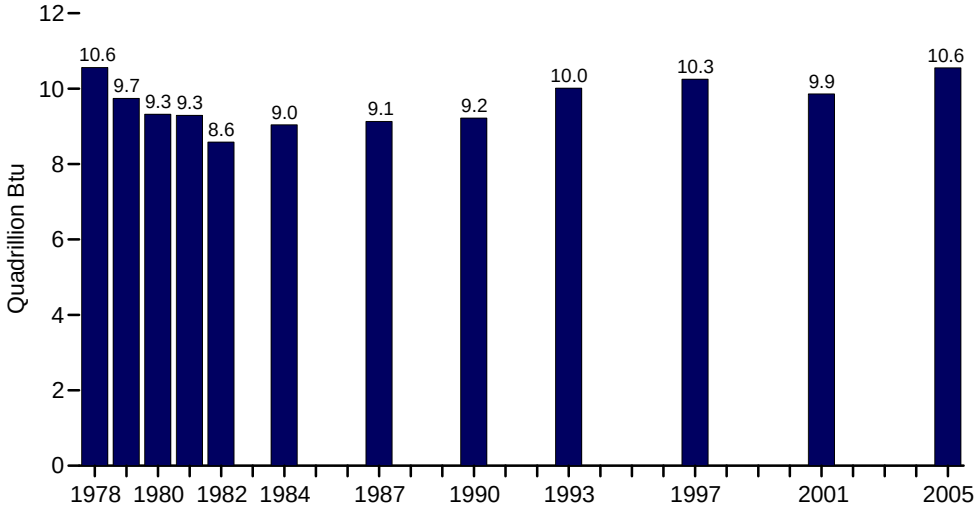
End-Use Category	Net Electricity [1]	Residual Fuel Oil	Distillate Fuel Oil	LPG [2] and NGL [3]	Natural Gas	Coal [4]	Total [5]
	Million Kilowatthours	Million Barrels			Billion Cubic Feet	Million Short Tons	
Indirect End Use (Boiler Fuel)	**12,109**	**21**	**4**	**2**	**2,059**	**25**	**– –**
Conventional Boiler Use	12,109	11	3	2	1,245	6	– –
CHP [6] and/or Cogeneration Process	– –	10	1	(s)	814	19	– –
Direct End Use							
All Process Uses	**657,810**	**10**	**9**	**10**	**2,709**	**19**	**– –**
Process Heating	101,516	9	3	8	2,417	16	– –
Process Cooling and Refrigeration	60,381	(s)	(s)	(s)	31	(s)	– –
Machine Drive	422,408	(s)	4	(s)	126	3	– –
Electrochemical Processes	60,323	– –	– –	– –	– –	– –	– –
Other Process Uses	13,181	(s)	1	1	136	(s)	– –
All Non-Process Uses	**157,829**	**1**	**9**	**7**	**426**	**(s)**	**– –**
Facility Heating, Ventilation, and Air Conditioning [7]	77,768	1	1	1	367	(s)	– –
Facility Lighting	58,013	– –	– –	– –	– –	– –	– –
Other Facility Support	17,644	(s)	(s)	(s)	29	(s)	– –
Onsite Transportation	2,197	– –	6	5	3	– –	– –
Conventional Electricity Generation	– –	(s)	1	(s)	19	(s)	– –
Other Non-Process Use	2,208	(s)	1	(s)	8	(s)	– –
End Use Not Reported	**7,634**	**8**	**1**	**1**	**164**	**2**	**– –**
Total	**835,382**	**40**	**22**	**21**	**5,357**	**46**	**– –**
	Trillion Btu						
Indirect End Use (Boiler Fuel)	**41**	**133**	**23**	**8**	**2,119**	**547**	**2,871**
Conventional Boiler Use	41	71	17	8	1,281	129	1,547
CHP [6] and/or Cogeneration Process	– –	62	6	1	838	417	1,324
Direct End Use							
All Process Uses	**2,244**	**62**	**52**	**39**	**2,788**	**412**	**5,597**
Process Heating	346	59	19	32	2,487	345	3,288
Process Cooling and Refrigeration	206	(s)	1	(s)	32	(s)	239
Machine Drive	1,441	2	24	2	129	56	1,654
Electrochemical Processes	206	– –	– –	– –	– –	– –	206
Other Process Uses	45	Q	8	5	140	10	208
All Non-Process Uses	**539**	**6**	**50**	**27**	**438**	**6**	**1,066**
Facility Heating, Ventilation, and Air Conditioning [7]	265	4	4	5	378	2	658
Facility Lighting	198	– –	– –	– –	– –	– –	198
Other Facility Support	60	1	(s)	(s)	30	(s)	91
Onsite Transportation	7	– –	35	20	3	– –	65
Conventional Electricity Generation	– –	(s)	4	(s)	19	3	26
Other Non-Process Use	8	(s)	6	1	8	(s)	23
End Use Not Reported	**26**	**49**	**4**	**5**	**168**	**52**	**304**
Total	**2,850**	**251**	**129**	**79**	**5,512**	**1,016**	**9,838**

[1] "Net Electricity" is the sum of purchases, transfers in, and onsite generation from noncombustible renewable energy sources, minus quantities sold and transferred out; it excludes onsite generation from combustible fuels.
[2] Liquefied petroleum gases.
[3] Natural gas liquids.
[4] Excludes coal coke and breeze.
[5] Total of listed energy sources. Excludes inputs of unallocated energy sources (5,820 trillion Btu).
[6] Combined-heat-and-power plants.
[7] Excludes steam and hot water.
– – = Not applicable. (s)=Estimate less than 0.5. Q=Withheld because relative standard error is greater than 50 percent.

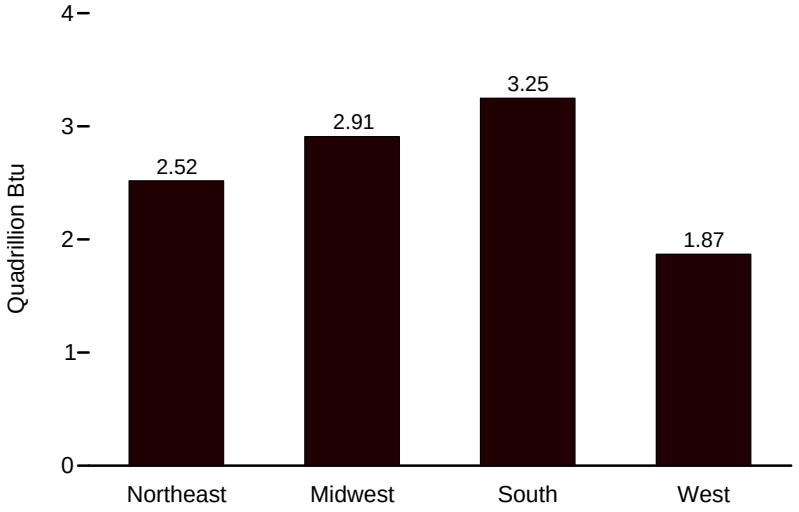
Notes: • Data are estimates for the total consumption of energy for the production of heat, power, and electricity generation, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced offsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy, or were extracted from captive (onsite) mines or wells. • Allocations to end uses are made on the basis of reasonable approximations by respondents. • Totals may not equal sum of components due to independent rounding, the presence of estimates that round to zero, and the presence of estimates that are withheld because the relative standard error is greater than 50 percent.
Web Page: For related information, see http://www.eia.gov/emeu/mecs.
Source: U.S. Energy Information Administration, Form EIA-846, "2006 Manufacturing Energy Consumption Survey."

Figure 2.4 Household Energy Consumption

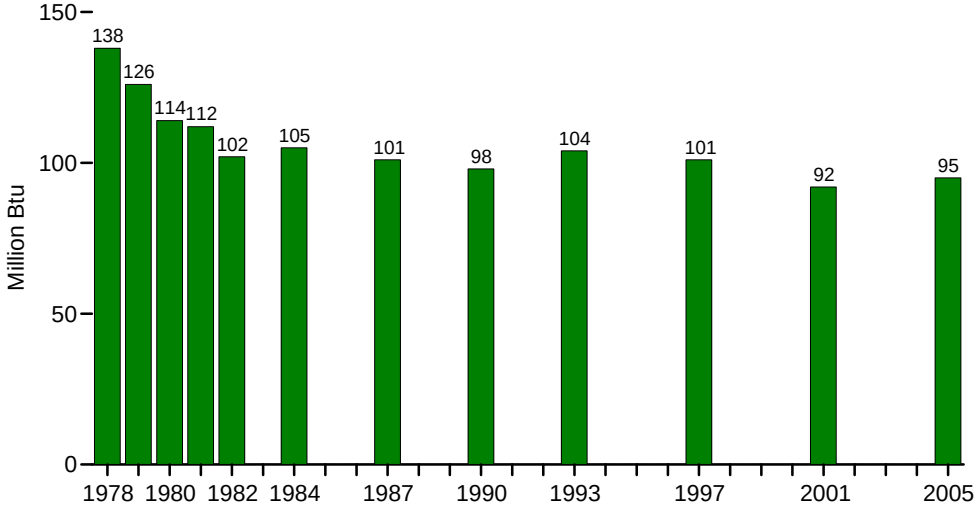
Consumption by All Households, Selected Years, 1978-2005[1]



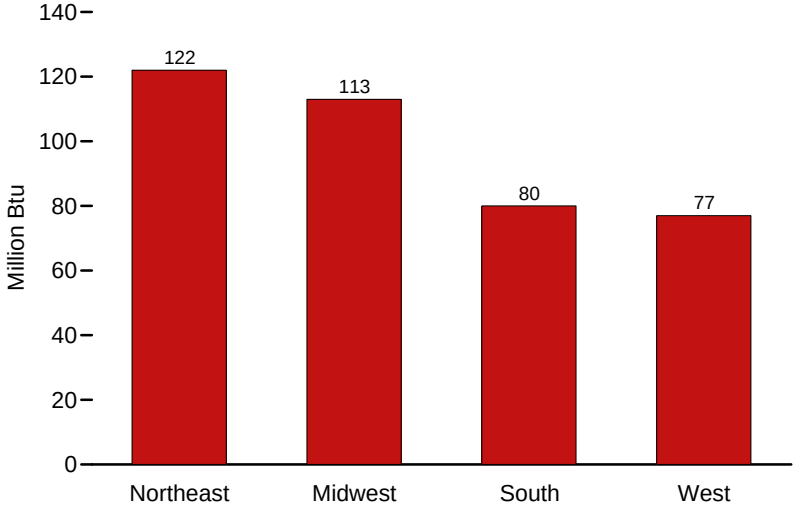
Consumption by All Households, by Census Region, 2005



Consumption per Household, Selected Years, 1978-2005[1]



Consumption per Household, by Census Region, 2005



[1] For years not shown, there are no data available.

Notes: • Data include natural gas, electricity, distillate fuel oil, kerosene, and liquefied petroleum gases; data do not include wood. • Data for 1978-1984 are for April of the year shown through March of following year; data for 1987 forward are for the calendar year. • See Appendix C for map of Census regions.

Source: Table 2.4.

Table 2.4 Household Energy Consumption by Census Region, Selected Years, 1978-2005

(Quadrillion Btu, Except as Noted)

Census Region [1]	1978	1979	1980	1981	1982	1984	1987	1990	1993	1997	2001	2005
Northeast (total does not include wood)	**2.89**	**2.50**	**2.44**	**2.36**	**2.19**	**2.29**	**2.37**	**2.30**	**2.38**	**2.38**	**2.16**	**2.52**
Natural Gas	1.14	1.05	.94	1.01	.96	.93	1.03	1.03	1.11	1.03	.98	1.15
Electricity [2]	.39	.39	.41	.40	.37	.41	.44	.47	.47	.49	.53	.58
Distillate Fuel Oil and Kerosene	1.32	1.03	1.07	.93	.83	.93	.87	.78	.78	.84	.60	.72
Liquefied Petroleum Gases	.03	.03	.03	.03	.02	.03	.02	.02	.03	.03	.05	.07
Wood [3]	NA	NA	.26	.27	.24	.21	.17	.12	.14	.14	.10	.09
Consumption per Household (million Btu) [3]	166	145	138	132	122	125	124	120	122	121	107	122
Midwest (total does not include wood)	**3.70**	**3.48**	**2.96**	**3.09**	**2.61**	**2.80**	**2.73**	**2.81**	**3.13**	**3.22**	**2.86**	**2.91**
Natural Gas	2.53	2.48	2.05	2.22	1.78	1.99	1.83	1.88	2.07	2.20	1.84	1.72
Electricity [2]	.60	.59	.60	.56	.56	.55	.61	.66	.74	.75	.81	.94
Distillate Fuel Oil and Kerosene	.46	.31	.17	.19	.16	.13	.16	.13	.13	.11	.06	.06
Liquefied Petroleum Gases	.12	.10	.15	.13	.11	.13	.13	.13	.19	.17	.15	.18
Wood [3]	NA	NA	.25	.25	.27	.27	.25	.17	.11	.08	.09	.13
Consumption per Household (million Btu) [3]	180	168	141	146	122	129	123	122	134	134	117	113
South (total does not include wood)	**2.43**	**2.30**	**2.57**	**2.41**	**2.45**	**2.50**	**2.61**	**2.60**	**2.95**	**3.01**	**3.21**	**3.25**
Natural Gas	.96	.91	1.12	1.15	1.14	1.15	1.09	1.03	1.18	1.13	1.13	.94
Electricity [2]	1.00	.97	1.06	1.01	1.01	1.06	1.22	1.36	1.51	1.67	1.89	2.07
Distillate Fuel Oil and Kerosene	.32	.28	.25	.14	.18	.16	.17	.11	.13	.10	.08	.07
Liquefied Petroleum Gases	.15	.14	.14	.12	.12	.12	.12	.10	.13	.12	.12	.18
Wood [3]	NA	NA	.23	.21	.33	.33	.26	.17	.17	.12	.09	.12
Consumption per Household (million Btu) [3]	99	92	95	87	87	85	84	81	88	84	83	80
West (total does not include wood)	**1.54**	**1.47**	**1.34**	**1.42**	**1.33**	**1.45**	**1.42**	**1.51**	**1.55**	**1.63**	**1.63**	**1.87**
Natural Gas	.95	.88	.86	.90	.85	.91	.88	.92	.91	.93	.90	.98
Electricity [2]	.48	.47	.41	.46	.41	.47	.48	.54	.56	.64	.66	.76
Distillate Fuel Oil and Kerosene	.09	.09	.04	.03	.03	.04	.02	.02	.03	.03	.02	.03
Liquefied Petroleum Gases	.03	.04	.04	.04	.04	.03	.05	.03	.04	.04	.06	.10
Wood [3]	NA	NA	.11	.13	.13	.17	.17	.12	.12	.10	.10	.09
Consumption per Household (million Btu) [3]	110	100	84	87	81	85	78	78	76	75	70	77
United States (total does not include wood)	**10.56**	**9.74**	**9.32**	**9.29**	**8.58**	**9.04**	**9.13**	**9.22**	**10.01**	**10.25**	**9.86**	**10.55**
Natural Gas	5.58	5.31	4.97	5.27	4.74	4.98	4.83	4.86	5.27	5.28	4.84	4.79
Electricity [2]	2.47	2.42	2.48	2.42	2.35	2.48	2.76	3.03	3.28	3.54	3.89	4.35
Distillate Fuel Oil and Kerosene	2.19	1.71	1.52	1.28	1.20	1.26	1.22	1.04	1.07	1.07	.75	.88
Liquefied Petroleum Gases	.33	.31	.35	.31	.29	.31	.32	.28	.38	.36	.38	.52
Wood [3]	NA	NA	.85	.87	.97	.98	.85	.58	.55	.43	.37	.43
Consumption per Household (million Btu) [3]	138	126	114	112	102	105	101	98	104	101	92	95

[1] See Appendix C for map of Census regions.
[2] Retail electricity. One kilowatthour = 3,412 Btu.
[3] Wood is not included in the region and U.S. totals, or in the consumption-per-household data.
NA=Not available.

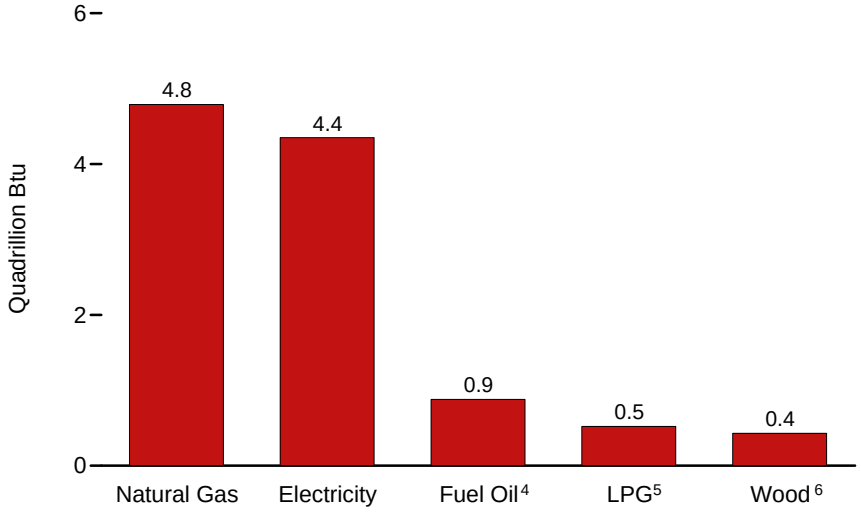
Notes: • Data are estimates, and are for major energy sources only. • For years not shown, there are no data available. • Data for 1978-1984 are for April of year shown through March of following year; data for 1987 forward are for the calendar year. • Totals may not equal sum of components due to independent rounding.

Web Page: For related information, see http://www.eia.gov/consumption/residential/.

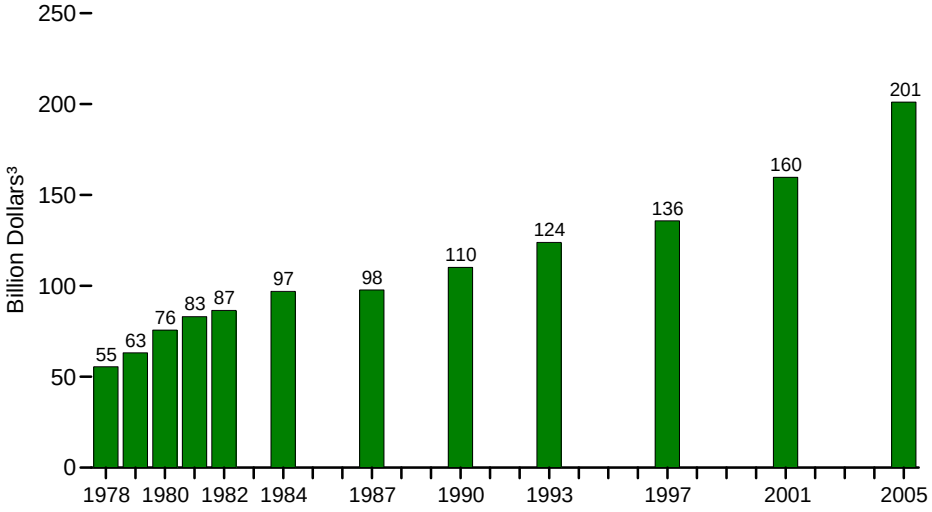
Sources: • 1978 and 1979—U.S. Energy Information Administration (EIA), Form EIA-84, "Residential Energy Consumption Survey." • 1980 forward—EIA, Form EIA-457, "Residential Energy Consumption Survey."

Figure 2.5 Household Energy Consumption and Expenditures

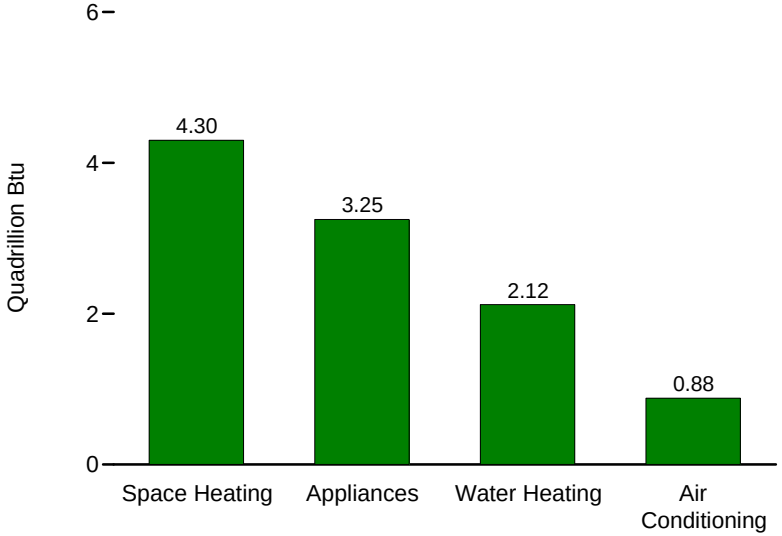
Consumption by Energy Source, 2005



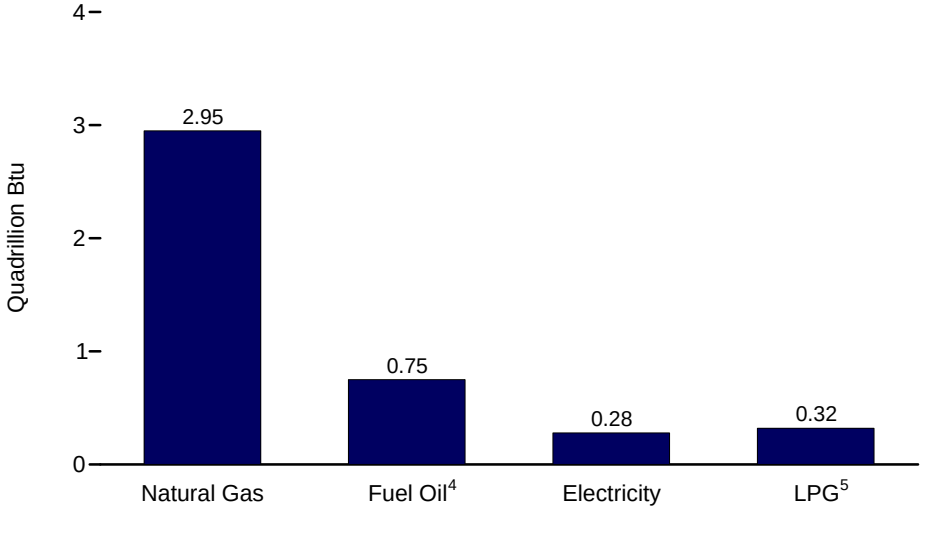
Expenditures[1], Selected Years, 1978-2005[2]



Consumption[1] by End Use, 2005



Consumption[1] for Space Heating, 2005



[1] Does not include wood, which is used for both space heating and ambiance.
[2] For years not shown, there are no data available.
[3] Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.
[4] Distillate fuel oil and kerosene.
[5] Liquefied petroleum gases.
[6] Used for both space heating and ambiance.
Source: Table 2.5.

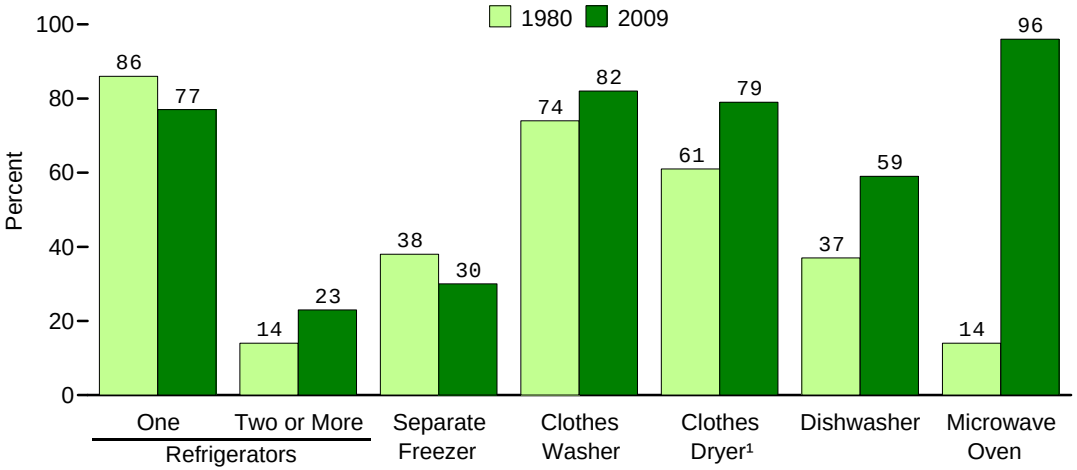
Table 2.5 Household Energy Consumption and Expenditures by End Use and Energy Source, Selected Years, 1978-2005

Year	Space Heating [1]				Air Conditioning [2]	Water Heating				Appliances [3,4]			Total				
	Natural Gas	Elec-tricity [5]	Fuel Oil [6]	LPG [7]	Electricity [5]	Natural Gas	Elec-tricity [5]	Fuel Oil [6]	LPG [7]	Natural Gas	Elec-tricity [5]	LPG [7]	Natural Gas [2]	Elec-tricity [5]	Fuel Oil [4,6]	LPG [7]	Wood [8]
	Consumption (quadrillion Btu)																
1978	4.26	0.40	2.05	0.23	0.31	1.04	0.29	0.14	0.06	0.28	1.46	0.03	5.58	2.47	2.19	0.33	NA
1979	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.31	2.42	1.71	.31	NA
1980	3.41	.27	1.30	.23	.36	1.15	.30	.22	.07	.36	1.54	.05	4.97	2.48	1.52	.35	.85
1981	3.69	.26	1.06	.21	.34	1.13	.30	.22	.06	.43	1.52	.05	5.27	2.42	1.28	.31	.87
1982	3.14	.25	1.04	.19	.31	1.15	.28	.15	.06	.43	1.50	.05	4.74	2.35	1.20	.29	.97
1984	3.51	.25	1.11	.21	.32	1.10	.32	.15	.06	.35	1.59	.04	4.98	2.48	1.26	.31	.98
1987	3.38	.28	1.05	.22	.44	1.10	.31	.17	.06	.34	1.72	.04	4.83	2.76	1.22	.32	.85
1990	3.37	.30	.93	.19	.48	1.16	.34	.11	.06	.33	1.91	.03	4.86	3.03	1.04	.28	.58
1993	3.67	.41	.95	.30	.46	1.31	.34	.12	.05	.29	2.08	.03	5.27	3.28	1.07	.38	.55
1997	3.61	.40	.91	.26	.42	1.29	.39	.16	.08	.37	2.33	.02	5.28	3.54	1.07	.36	.43
2001	3.32	.39	.62	.28	.62	1.15	.36	.13	.05	.37	2.52	.05	4.84	3.89	.75	.38	.37
2005	2.95	.28	.75	.32	.88	1.41	.42	.14	.15	.43	2.77	.05	4.79	4.35	.88	.52	.43
	Expenditures (billion dollars [9])																
1978	11.49	3.53	8.06	1.05	3.97	2.88	3.15	0.56	0.36	0.93	19.24	0.25	15.30	29.89	8.62	1.66	NA
1979	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17.84	32.56	10.73	2.06	NA
1980	13.22	3.78	10.48	1.78	5.84	4.51	4.45	1.76	.57	1.91	26.74	.44	19.77	40.81	12.24	2.80	NA
1981	16.62	3.93	9.44	1.78	6.23	5.13	4.94	1.94	.51	2.17	29.70	.52	24.03	44.80	11.39	2.81	NA
1982	17.74	4.21	8.80	1.69	6.23	6.51	5.00	1.28	.54	2.58	31.29	.52	26.96	46.74	10.07	2.75	NA
1984	20.66	4.62	8.51	2.00	7.06	6.63	6.44	1.09	.58	2.31	36.36	.54	29.78	54.48	9.60	3.12	NA
1987	18.05	5.53	6.25	1.85	9.77	6.02	6.45	.94	.50	2.02	39.83	.46	26.15	61.58	7.21	2.81	NA
1990	18.59	6.16	7.42	2.01	11.23	6.59	7.21	.83	.65	2.03	46.95	.48	27.26	71.54	8.25	3.14	NA
1993	21.95	8.66	6.24	2.81	11.31	8.08	7.58	.74	.58	1.98	53.52	.42	32.04	81.08	6.98	3.81	NA
1997	24.11	8.56	6.57	2.79	10.20	8.84	8.99	1.04	.89	2.86	60.57	.36	35.81	88.33	7.61	4.04	NA
2001	31.84	8.98	5.66	4.04	15.94	11.31	8.47	1.15	.69	3.83	66.94	.86	46.98	100.34	6.83	5.60	NA
2005	31.97	7.42	10.99	6.35	25.26	15.57	11.13	2.00	3.28	4.80	80.92	1.37	52.37	124.74	12.99	11.00	NA

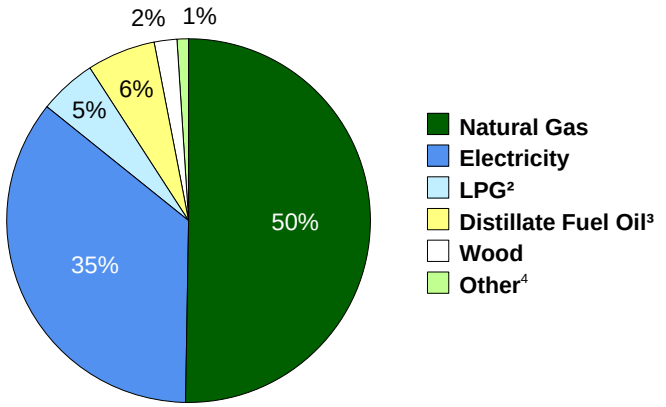
[1] Wood used for space heating is included in "Total Wood."
[2] A small amount of natural gas used for air conditioning is included in "Total Natural Gas."
[3] Includes refrigerators.
[4] A small amount of distillate fuel oil and kerosene used for appliances is included in "Fuel Oil" under "Total."
[5] Retail electricity. One kilowatthour=3,412 Btu.
[6] Distillate fuel oil and kerosene.
[7] Liquefied petroleum gases.
[8] Wood used for both space heating and ambiance.
[9] Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.
NA=Not available.
Notes: • Data are estimates. • For years not shown, there are no data available. • Totals may not equal sum of components due to independent rounding.
Web Page: For related information, see http://www.eia.gov/consumption/residential/.
Sources: • 1978 and 1979—U.S. Energy Information Administration (EIA), Form EIA-84, "Residential Energy Consumption Survey." • 1980 forward—EIA, Form EIA-457, "Residential Energy Consumption Survey."

Figure 2.6 Household End Uses: Fuel Types, Appliances, and Electronics

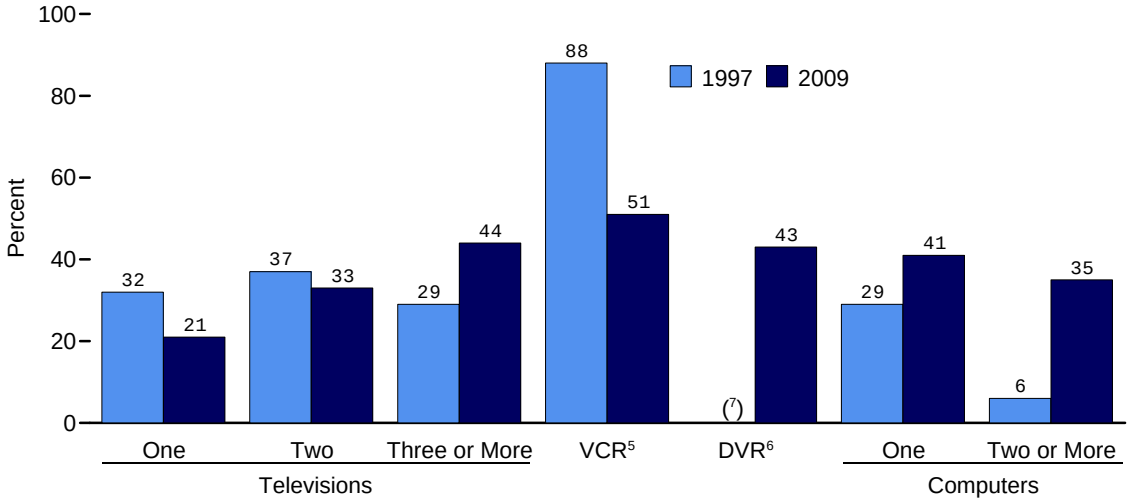
Share of Households With Selected Appliances, 1980 and 2009



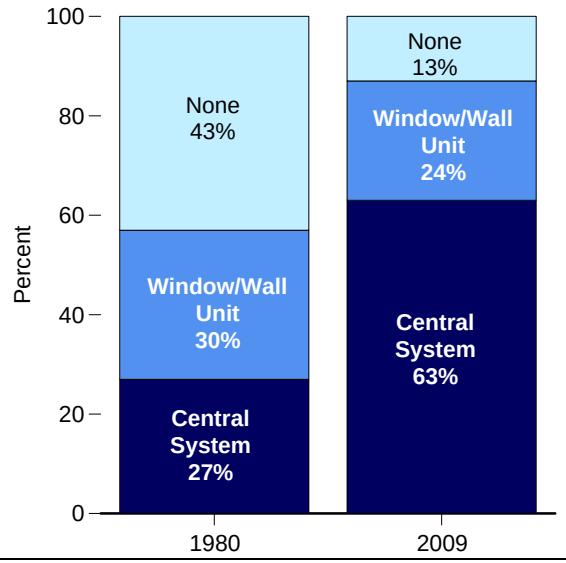
Space Heating by Main Fuel, 2009



Share of Households With Selected Electronics, 1997 and 2009



Air-Conditioning Equipment, 1980 and 2009



[1] Natural gas and electric.
[2] Liquefied petroleum gases.
[3] Includes kerosene.
[4] Coal, solar, other fuel, or no heating equipment.
[5] Video Cassette Recorder.
[6] Digital Video Recorder.
[7] Not collected in 1997.
Note: Total may not equal sum of components due to independent rounding.
Source: Table 2.6.

Table 2.6 Household End Uses: Fuel Types, Appliances, and Electronics, Selected Years, 1978-2009

Appliance	Year													Change
	1978	1979	1980	1981	1982	1984	1987	1990	1993	1997	2001	2005	2009	1980 to 2009
Total Households (millions)	77	78	82	83	84	86	91	94	97	101	107	111	114	32
	Percent of Households													
Space Heating - Main Fuel [1]														
Natural Gas	55	55	55	56	57	55	55	55	53	52	55	52	50	-5
Electricity [2]	16	17	18	17	16	17	20	23	26	29	29	30	35	17
Liquefied Petroleum Gases	4	5	5	4	5	5	5	5	5	5	5	5	5	0
Distillate Fuel Oil [3]	20	17	15	14	13	12	12	11	11	9	7	7	6	-9
Wood	2	4	6	6	7	7	6	4	3	2	2	3	2	-4
Other [4] or No Equipment	3	2	2	3	3	3	3	2	2	2	2	3	1	-1
Air Conditioning - Equipment														
Central System [5]	23	24	27	27	28	30	34	39	44	47	55	59	63	36
Window/Wall Unit [5]	33	31	30	31	30	30	30	29	25	25	23	25	24	-6
None	44	45	43	42	42	40	36	32	32	28	23	16	13	-30
Water Heating - Main Fuel														
Natural Gas	55	55	54	55	56	54	54	53	53	52	54	53	51	-3
Electricity [2]	33	33	32	33	32	33	35	37	38	39	38	39	41	9
Liquefied Petroleum Gases	4	4	4	4	4	4	3	3	3	3	3	4	4	0
Distillate Fuel Oil [3]	8	7	9	7	7	6	6	5	5	5	4	4	3	-6
Other or No Water Heating	0	0	1	1	1	1	1	1	1	1	0	0	1	0
Appliances														
Refrigerator [6]	100	NA	100	100	100	100	100	100	100	100	100	100	100	0
One	86	NA	86	87	86	88	86	84	85	85	83	78	77	-9
Two or More	14	NA	14	13	13	12	14	15	15	15	17	22	23	9
Separate Freezer	35	NA	38	38	37	37	34	34	35	33	32	32	30	-8
Clothes Washer	74	NA	74	73	71	73	75	76	77	77	79	83	82	8
Clothes Dryer	59	NA	61	61	60	62	66	69	70	71	74	79	79	18
Natural Gas	14	NA	14	16	15	16	15	16	14	15	16	17	15	1
Electric	45	NA	47	45	45	46	51	53	57	55	57	61	63	16
Dishwasher	35	NA	37	37	36	38	43	45	45	50	53	58	59	22
Range/Stove/Oven	99	NA	99	100	99	99	99	100	100	99	100	99	99	0
Natural Gas	48	NA	46	46	47	46	43	42	33	35	35	35	34	-12
Electric	53	NA	57	56	56	57	60	59	63	62	62	62	60	3
Microwave Oven	8	NA	14	17	21	34	61	79	84	83	86	88	96	82
Electronics														
Television	NA	NA	98	98	98	98	98	99	99	99	99	99	99	1
One	NA	NA	47	51	49	46	40	35	34	32	27	21	21	-26
Two	NA	NA	38	34	35	34	35	36	36	37	36	35	33	-5
Three or More	NA	NA	14	14	15	18	23	28	28	29	36	43	44	30
Video Cassette Recorder (VCR)	NA	NA	NA	NA	NA	NA	NA	NA	NA	88	[7] 90	80	51	NA
Digital Video Recorder (DVR)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	43	NA
Computer	NA	NA	NA	NA	NA	NA	NA	NA	NA	35	56	68	76	NA
One	NA	NA	NA	NA	NA	NA	NA	NA	NA	29	42	45	41	NA
Two or More	NA	NA	NA	NA	NA	NA	NA	NA	NA	6	15	23	35	NA
Printer	NA	NA	NA	NA	NA	NA	NA	NA	5	12	49	59	60	NA

[1] Includes households that have but do not use space heating equipment.
[2] Retail (delivered) electricity.
[3] Includes kerosene.
[4] Coal, solar, or other fuels.
[5] Households with both a central system and a window or wall unit are counted only under "Central System." Includes households that have but do not use air conditioning equipment.
[6] Fewer than 0.5 percent of the households do not have a refrigerator.
[7] The 2001 "Residential Energy Consumption Survey (RECS)" only had one question for VCRs and DVD players.

NA=Not available.

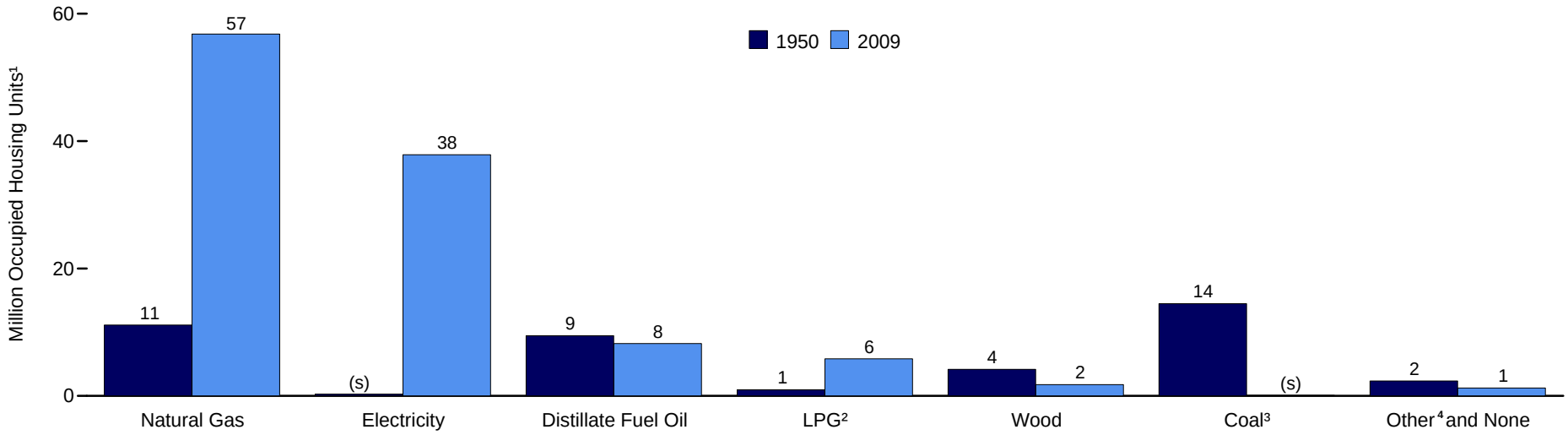
Notes: • Data are estimates. • For years not shown, there are no data available. • Totals may not equal sum of components due to independent rounding.

Web Page: For related information, see http://www.eia.gov/consumption/residential/.

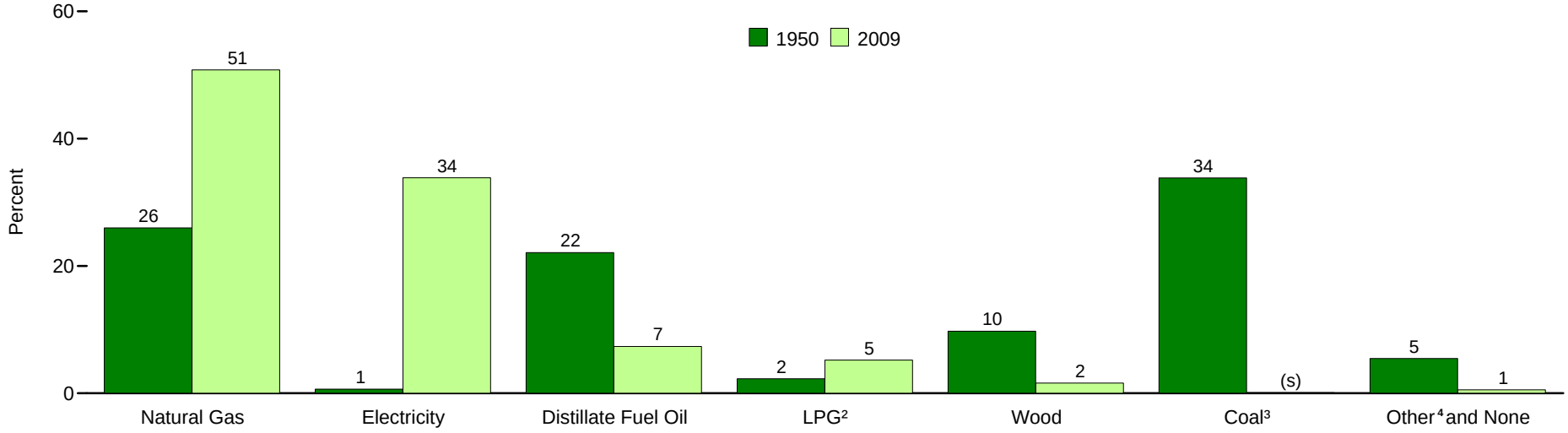
Sources: • 1978 and 1979—U.S. Energy Information Administration (EIA), Form EIA-84, "RECS." • 1980 forward—EIA, Form EIA-457, "RECS."

Figure 2.7 Type of Heating in Occupied Housing Units, 1950 and 2009

By Fuel Type



By Fuel Type, Share of Total



[1] Sum of components do not equal total due to independent rounding.
[2] Liquefied petroleum gases.
[3] Includes coal coke.
[4] Kerosene, solar, and other.
(s)=Less than 0.5.
Source: Table 2.7.

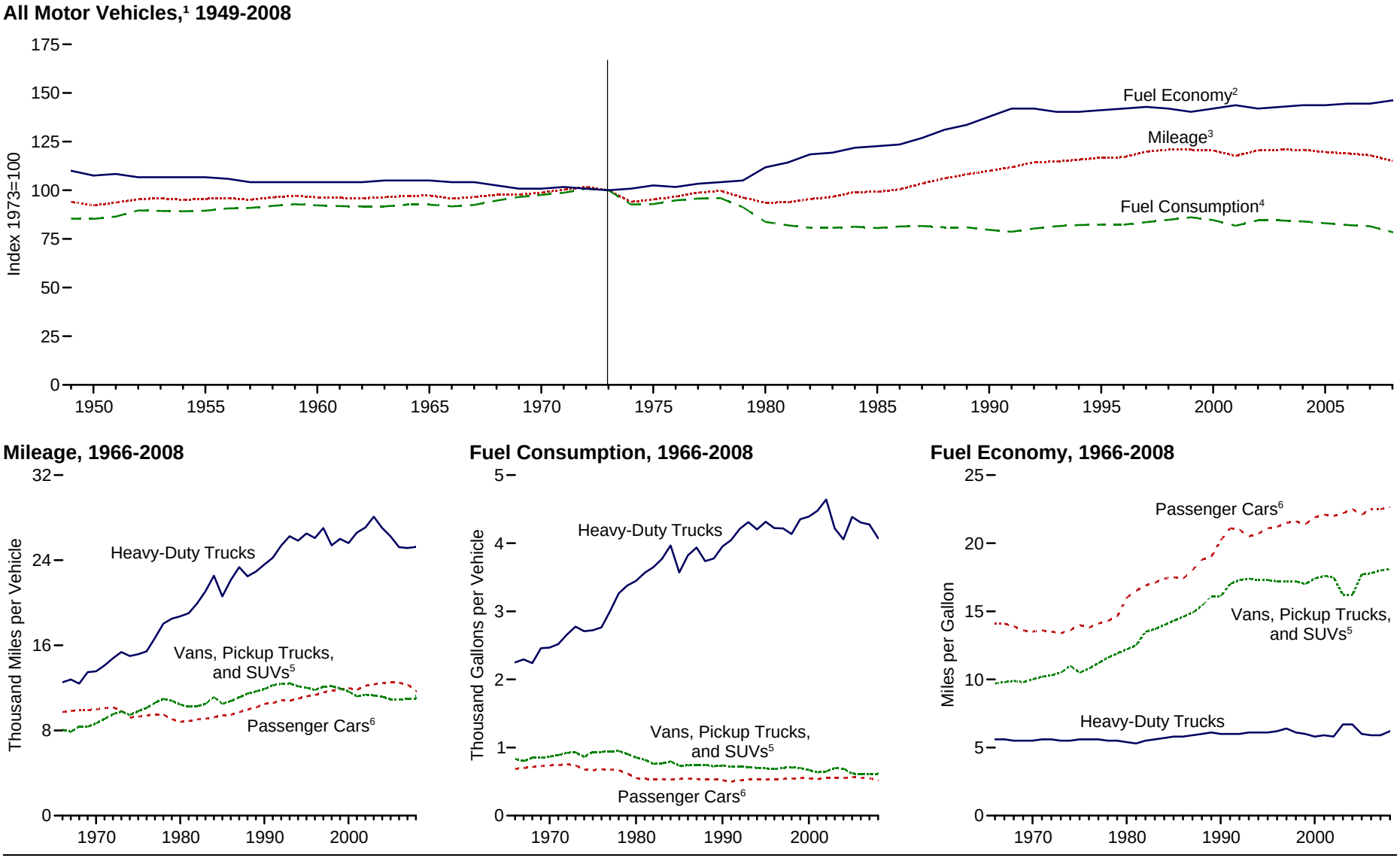
Table 2.7 Type of Heating in Occupied Housing Units, Selected Years, 1950-2009

Year	Coal [1]	Distillate Fuel Oil	Kerosene	Liquefied Petroleum Gases	Natural Gas	Electricity	Wood	Solar	Other [2]	None [3]	Total
	Million Occupied Housing Units										
1950	14.48	9.46	([4])	0.98	11.12	0.28	4.17	NA	0.77	1.57	42.83
1960	6.46	17.16	([4])	2.69	22.85	.93	2.24	NA	.22	.48	53.02
1970	1.82	16.47	([4])	3.81	35.01	4.88	.79	NA	.27	.40	63.45
1973	.80	17.24	([4])	4.42	38.46	7.21	.60	NA	.15	.45	69.34
1975	.57	16.30	([4])	4.15	40.93	9.17	.85	NA	.08	.47	72.52
1977	.45	15.62	.44	4.18	41.54	11.15	1.24	NA	.15	.51	75.28
1979	.36	15.30	.41	4.13	43.32	13.24	1.14	NA	.10	.57	78.57
1981	.36	14.13	.37	4.17	46.08	15.49	1.89	NA	.10	.59	83.18
1983 [5]	.43	12.59	.45	3.87	46.70	15.68	4.09	NA	.16	.68	84.64
1985	.45	12.44	1.06	3.58	45.33	18.36	6.25	.05	.37	.53	88.43
1987	.41	12.74	1.08	3.66	45.96	20.61	5.45	.05	.28	.66	90.89
1989	.34	12.47	1.07	3.66	47.40	23.06	4.59	.04	.40	.66	93.68
1991	.32	11.47	.99	3.88	47.02	23.71	4.44	.03	.41	.86	93.15
1993	.30	11.17	1.02	3.92	47.67	25.11	4.10	.03	.50	.91	94.73
1995	.21	10.98	1.06	4.25	49.20	26.77	3.53	.02	.64	1.04	97.69
1997	.18	10.10	.75	5.40	51.05	29.20	1.79	.03	.36	.62	99.49
1999	.17	10.03	.72	5.91	52.37	31.14	1.70	.02	.21	.54	102.80
2001 [6]	.13	9.81	.65	6.04	54.13	32.41	1.67	.02	.19	.39	105.44
2003	.13	9.50	.64	6.13	54.93	32.34	1.56	.02	.16	.44	105.84
2005	.10	9.38	.55	6.23	56.32	34.26	1.41	.02	.21	.40	108.87
2007	.09	8.74	.57	6.10	56.68	36.08	1.47	.02	.46	.48	110.69
2009	.10	8.21	.60	5.82	56.81	37.85	1.78	.01	.24	.38	111.81
	Percent										
1950	33.8	22.1	([4])	2.3	26.0	0.6	9.7	NA	1.8	3.7	100.0
1960	12.2	32.4	([4])	5.1	43.1	1.8	4.2	NA	.4	.9	100.0
1970	2.9	26.0	([4])	6.0	55.2	7.7	1.3	NA	.4	.6	100.0
1973	1.2	24.9	([4])	6.4	55.5	10.4	.9	NA	.2	.7	100.0
1975	.8	22.5	([4])	5.7	56.4	12.6	1.2	NA	.1	.6	100.0
1977	.6	20.7	.6	5.6	55.2	14.8	1.6	NA	.2	.7	100.0
1979	.5	19.5	.5	5.3	55.1	16.9	1.4	NA	.1	.7	100.0
1981	.4	17.0	.4	5.0	55.4	18.6	2.3	NA	.1	.7	100.0
1983 [5]	.5	14.9	.5	4.6	55.2	18.5	4.8	NA	.2	.8	100.0
1985	.5	14.1	1.2	4.1	51.3	20.8	7.1	.1	.4	.6	100.0
1987	.4	14.0	1.2	4.0	50.6	22.7	6.0	.1	.3	.7	100.0
1989	.4	13.3	1.1	3.9	50.6	24.6	4.9	(s)	.4	.7	100.0
1991	.3	12.3	1.1	4.2	50.5	25.5	4.8	(s)	.4	.9	100.0
1993	.3	11.8	1.1	4.1	50.3	26.5	4.3	(s)	.5	1.0	100.0
1995	.2	11.2	1.1	4.4	50.4	27.4	3.6	(s)	.7	1.1	100.0
1997	.2	10.2	.8	5.4	51.3	29.4	1.8	(s)	.4	.6	100.0
1999	.2	9.8	.7	5.7	50.9	30.3	1.7	(s)	.2	.5	100.0
2001 [6]	.1	9.3	.6	5.7	51.3	30.7	1.6	(s)	.2	.4	100.0
2003	.1	9.0	.6	5.8	51.9	30.6	1.5	(s)	.1	.4	100.0
2005	.1	8.6	.5	5.7	51.7	31.5	1.3	(s)	.2	.4	100.0
2007	.1	7.9	.5	5.5	51.2	32.6	1.3	(s)	.4	.4	100.0
2009	.1	7.3	.5	5.2	50.8	33.9	1.6	(s)	.2	.3	100.0

[1] Includes coal coke.
[2] Includes briquettes (made of pitch and sawdust), coal dust, waste material (such as corncobs), purchased steam, and other fuels not separately displayed.
[3] In 1950 and 1960, also includes nonreporting units, which totaled 997 and 2,000 units, respectively.
[4] Included in "Distillate Fuel Oil."
[5] Beginning in 1983, the *American Housing Survey for the United States* has been a biennial survey.
[6] Beginning in 2001, data are consistent with the 2000 Census. For 2001 data consistent with the 1990 Census, see *American Housing Survey for the United States: 2001.*
NA=Not available. (s)=Less than 0.05 percent.

Notes: • Includes mobile homes and individual housing units in apartment buildings. Housing units with more than one type of heating system are classified according to the principal type of heating system. • Totals may not equal sum of components due to independent rounding.
Web Pages: • See http://www.eia.gov/totalenergy/data/annual/#consumption for all data beginning in 1950. • For related information, see http://www.census.gov/hhes/www/ahs.html.
Sources: • 1950, 1960, and 1970—Bureau of the Census, *Census of Population and Housing.* • 1973 forward—Bureau of the Census, *American Housing Survey for the United States,* biennial surveys, Table 2-5.

Figure 2.8 Motor Vehicle Mileage, Fuel Consumption, and Fuel Economy



[1] Passenger cars, motorcycles, vans, pickup trucks, sport utility vehicles, trucks, and buses.
[2] Miles per gallon.
[3] Miles per vehicle.
[4] Gallons per vehicle.
[5] Sport utility vehicle.
[6] Through 1989, includes motorcycles
Source: Table 2.8.

Table 2.8 Motor Vehicle Mileage, Fuel Consumption, and Fuel Economy, Selected Years, 1949-2008

	Passenger Cars [1]			Vans, Pickup Trucks, and Sport Utility Vehicles [2]			Heavy-Duty Trucks [3]			All Motor Vehicles [4]		
	Mileage	Fuel Consumption	Fuel Economy	Mileage	Fuel Consumption	Fuel Economy	Mileage	Fuel Consumption	Fuel Economy	Mileage	Fuel Consumption	Fuel Economy
Year	Miles per Vehicle	Gallons per Vehicle	Miles per Gallon	Miles per Vehicle	Gallons per Vehicle	Miles per Gallon	Miles per vehicle	Gallons per vehicle	Miles per Gallon	Miles per Vehicle	Gallons per Vehicle	Miles per Gallon
1949	9,388	627	15.0	([5])	([5])	([5])	9,712	1,080	9.0	9,498	726	13.1
1950	9,060	603	15.0	([5])	([5])	([5])	10,316	1,229	8.4	9,321	725	12.8
1955	9,447	645	14.6	([5])	([5])	([5])	10,576	1,293	8.2	9,661	761	12.7
1960	9,518	668	14.3	([5])	([5])	([5])	10,693	1,333	8.0	9,732	784	12.4
1965	9,603	661	14.5	([5])	([5])	([5])	10,851	1,387	7.8	9,826	787	12.5
1970	9,989	737	13.5	8,676	866	10.0	13,565	2,467	5.5	9,976	830	12.0
1975	9,309	665	14.0	9,829	934	10.5	15,167	2,722	5.6	9,627	790	12.2
1976	9,418	681	13.8	10,127	934	10.8	15,438	2,764	5.6	9,774	806	12.1
1977	9,517	676	14.1	10,607	947	11.2	16,700	3,002	5.6	9,978	814	12.3
1978	9,500	665	14.3	10,968	948	11.6	18,045	3,263	5.5	10,077	816	12.4
1979	9,062	620	14.6	10,802	905	11.9	18,502	3,380	5.5	9,722	776	12.5
1980	8,813	551	16.0	10,437	854	12.2	18,736	3,447	5.4	9,458	712	13.3
1981	8,873	538	16.5	10,244	819	12.5	19,016	3,565	5.3	9,477	697	13.6
1982	9,050	535	16.9	10,276	762	13.5	19,931	3,647	5.5	9,644	686	14.1
1983	9,118	534	17.1	10,497	767	13.7	21,083	3,769	5.6	9,760	686	14.2
1984	9,248	530	17.4	11,151	797	14.0	22,550	3,967	5.7	10,017	691	14.5
1985	9,419	538	17.5	10,506	735	14.3	20,597	3,570	5.8	10,020	685	14.6
1986	9,464	543	17.4	10,764	738	14.6	22,143	3,821	5.8	10,143	692	14.7
1987	9,720	539	18.0	11,114	744	14.9	23,349	3,937	5.9	10,453	694	15.1
1988	9,972	531	18.8	11,465	745	15.4	22,485	3,736	6.0	10,721	688	15.6
1989	[1]10,157	[1]533	[1]19.0	11,676	724	16.1	22,926	3,776	6.1	10,932	688	15.9
1990	10,504	520	20.2	11,902	738	16.1	23,603	3,953	6.0	11,107	677	16.4
1991	10,571	501	21.1	12,245	721	17.0	24,229	4,047	6.0	11,294	669	16.9
1992	10,857	517	21.0	12,381	717	17.3	25,373	4,210	6.0	11,558	683	16.9
1993	10,804	527	20.5	12,430	714	17.4	26,262	4,309	6.1	11,595	693	16.7
1994	10,992	531	20.7	12,156	701	17.3	25,838	4,202	6.1	11,683	698	16.7
1995	11,203	530	21.1	12,018	694	17.3	26,514	4,315	6.1	11,793	700	16.8
1996	11,330	534	21.2	11,811	685	17.2	26,092	4,221	6.2	11,813	700	16.9
1997	11,581	539	21.5	12,115	703	17.2	27,032	4,218	6.4	12,107	711	17.0
1998	11,754	544	21.6	12,173	707	17.2	25,397	4,135	6.1	12,211	721	16.9
1999	11,848	553	21.4	11,957	701	17.0	26,014	4,352	6.0	12,206	732	16.7
2000	11,976	547	21.9	11,672	669	17.4	25,617	4,391	5.8	12,164	720	16.9
2001	11,831	534	22.1	11,204	636	17.6	26,602	4,477	5.9	11,887	695	17.1
2002	12,202	555	22.0	11,364	650	17.5	27,071	4,642	5.8	12,171	719	16.9
2003	12,325	556	22.2	11,287	697	16.2	28,093	4,215	6.7	12,208	718	17.0
2004	12,460	553	22.5	11,184	690	16.2	27,023	4,057	6.7	12,200	714	17.1
2005	12,510	567	22.1	10,920	617	17.7	26,235	4,385	6.0	12,082	706	17.1
2006	12,485	554	22.5	10,920	612	17.8	25,231	4,304	5.9	12,017	698	17.2
2007	12,304	547	22.5	10,962	609	18.0	25,152	4,275	5.9	11,920	693	17.2
2008[P]	11,788	522	22.6	10,951	605	18.1	25,254	4,075	6.2	11,619	667	17.4

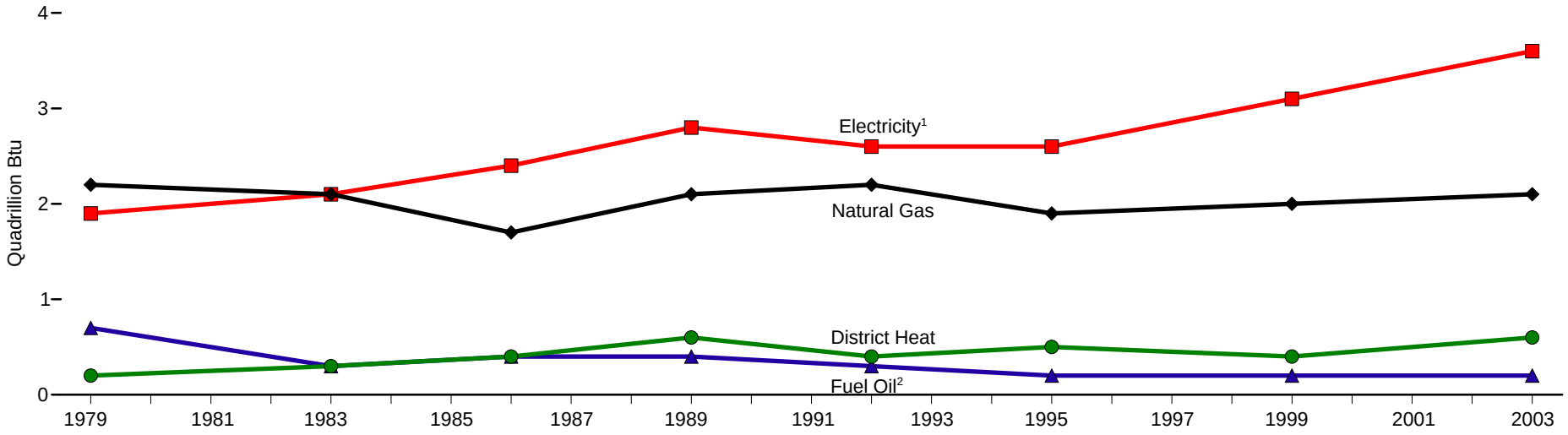
[1] Through 1989, includes motorcycles.
[2] Includes a small number of trucks with 2 axles and 4 tires, such as step vans.
[3] Single-unit trucks with 2 axles and 6 or more tires, and combination trucks.
[4] Includes buses and motorcycles, which are not separately displayed.
[5] Included in "Heavy-Duty Trucks."
P=Preliminary.

Web Pages: • See http://www.eia.gov/totalenergy/data/annual/#consumption for all data beginning in 1949. • For related information, see http://www.fhwa.dot.gov/policyinformation/statistics.cfm.

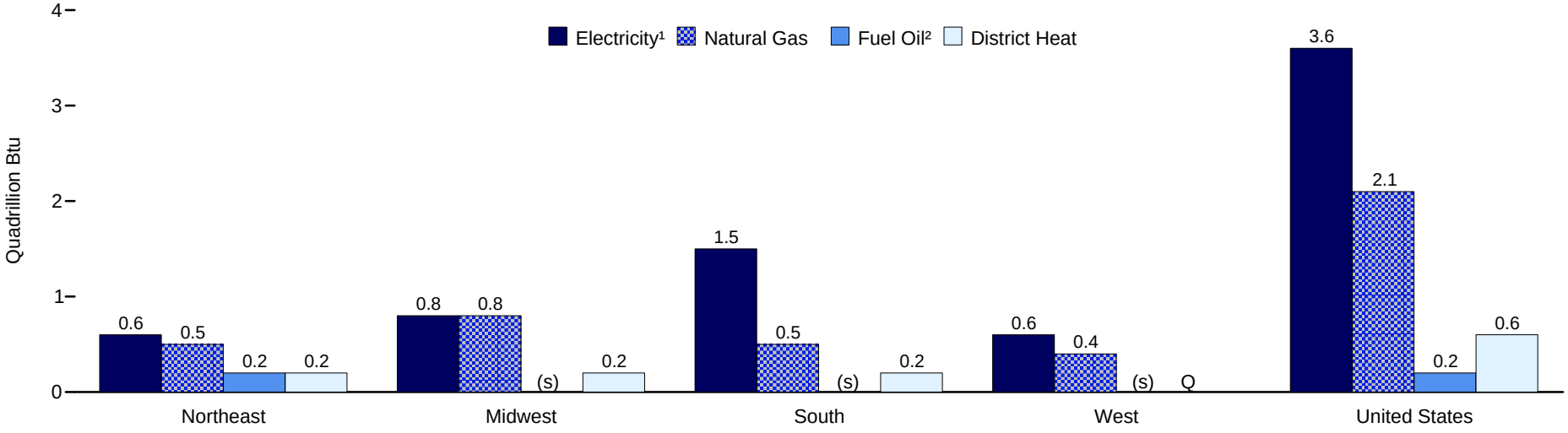
Sources: **Passenger Cars, 1990-1994:** U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics 1998,* Table 4-13. **All Other Data:** • 1949-1994—Federal Highway Administration (FHWA), *Highway Statistics Summary to 1995,* Table VM-201A. • 1995 forward—FHWA, *Highway Statistics,* annual reports, Table VM-1.

Figure 2.9 Commercial Buildings Consumption by Energy Source

By Survey Year, 1979-2003



By Census Region, 2003



[1] Electricity only; excludes electrical system energy losses.
[2] Distillate fuel oil, residual fuel oil, and kerosene.
(s)=Less than 0.05 quadrillion Btu.

Q=Data withheld because either the relative standard error was greater than 50 percent or fewer than 20 buildings were sampled.
Note: See Appendix C for map of Census regions.
Source: Table 2.9.

Table 2.9 Commercial Buildings Consumption by Energy Source, Selected Years, 1979-2003

(Trillion Btu)

Energy Source and Year	Square Footage Category			Principal Building Activity								Census Region [1]				All Buildings
	1,001 to 10,000	10,001 to 100,000	Over 100,000	Education	Food Sales	Food Service	Health Care	Lodging	Mercantile and Service	Office	All Other	Northeast	Midwest	South	West	
Major Sources [2]																
1979	1,255	2,202	1,508	511	([3])	336	469	278	894	861	1,616	1,217	1,826	1,395	526	4,965
1983	1,242	1,935	1,646	480	([3])	414	463	362	812	1,018	1,274	858	1,821	1,462	682	4,823
1986	1,273	2,008	1,696	633	147	247	456	299	985	1,008	1,202	1,037	1,585	1,459	896	4,977
1989	1,259	2,402	2,127	704	139	255	449	425	1,048	1,230	1,538	1,354	1,659	1,648	1,126	5,788
1992	1,258	2,301	1,932	637	137	307	403	463	892	1,247	1,404	1,090	1,578	1,825	998	5,490
1995 [4]	1,332	2,152	1,838	614	137	332	561	461	973	1,019	1,225	1,035	1,497	1,684	1,106	5,321
1999	1,381	2,300	2,053	649	201	447	515	450	1,145	1,089	1,237	1,116	1,509	1,961	1,147	5,733
2003	1,248	2,553	2,721	820	251	427	594	510	1,333	1,134	1,455	1,396	1,799	2,265	1,063	6,523
Electricity [5]																
1979	429	872	608	163	([3])	171	129	119	361	424	543	425	593	662	227	1,908
1983	469	903	758	152	([3])	212	147	151	426	509	532	324	673	801	331	2,129
1986	654	927	809	179	99	121	132	120	536	641	563	430	584	867	510	2,390
1989	572	1,145	1,056	217	105	113	154	138	550	781	715	586	609	975	604	2,773
1992	586	991	1,033	235	113	138	138	189	444	704	649	419	622	1,002	566	2,609
1995 [4]	618	1,064	926	221	119	166	211	187	508	676	521	436	558	1,027	587	2,608
1999	698	1,235	1,164	257	165	216	232	196	659	767	606	543	662	1,247	645	3,098
2003	685	1,405	1,469	371	208	217	248	235	883	719	679	587	799	1,542	631	3,559
Natural Gas																
1979	646	996	532	214	([3])	145	221	115	422	272	784	443	1,007	470	255	2,174
1983	684	809	597	246	([3])	188	218	170	327	365	576	278	978	523	311	2,091
1986	485	715	523	254	45	114	205	105	332	258	409	244	742	426	311	1,723
1989	568	836	670	323	27	128	186	187	417	238	566	353	831	498	391	2,073
1992	572	1,017	586	291	24	157	189	193	381	388	552	354	747	697	376	2,174
1995 [4]	535	830	580	245	18	158	258	213	395	239	420	297	750	528	371	1,946
1999	604	803	616	227	31	216	217	181	446	219	486	299	709	618	396	2,023
2003	482	909	709	268	39	203	243	215	403	269	460	462	751	527	360	2,100
Fuel Oil [6]																
1979	177	272	231	107	([3])	15	97	20	103	107	232	285	133	237	26	681
1983	85	140	90	61	([3])	Q	28	18	43	75	79	172	28	104	Q	314
1986	114	206	121	103	Q	Q	Q	20	105	39	130	270	63	86	23	442
1989	101	170	86	71	Q	Q	17	10	76	43	122	237	61	50	Q	357
1992	86	111	75	62	Q	Q	21	16	55	47	67	194	26	48	Q	272
1995 [4]	71	104	60	57	Q	Q	21	Q	49	28	70	168	16	45	7	235
1999	29	73	60	48	Q	Q	19	Q	18	29	65	138	5	29	8	179
2003	71	74	83	47	Q	Q	11	35	41	18	68	181	24	15	9	228
District Heat [7]																
1979	Q	61	136	27	([3])	Q	22	24	Q	58	57	64	93	Q	Q	201
1983	Q	83	202	21	([3])	Q	70	22	Q	68	87	84	141	34	30	289
1986	Q	159	243	97	Q	Q	80	Q	12	71	99	94	196	81	51	422
1989	19	252	315	Q	Q	Q	92	Q	Q	167	134	179	159	126	121	585
1992	Q	182	238	49	NC	Q	55	65	Q	109	135	123	183	78	51	435
1995 [4]	Q	154	271	91	Q	Q	70	57	Q	75	214	135	173	83	Q	533
1999	Q	158	213	117	Q	Q	46	68	Q	74	126	136	132	67	98	433
2003	Q	165	460	134	NC	Q	Q	Q	Q	128	247	166	225	182	Q	636

[1] See Appendix C for map of Census regions.
[2] Includes electricity, natural gas, fuel oil, and district heat.
[3] Included in "Food Service."
[4] Beginning in 1995, excludes commercial buildings at multi-building manufacturing facilities, and parking garages.
[5] Electricity only; excludes electricity system energy losses.
[6] Distillate fuel oil, residual fuel oil, and kerosene.
[7] Through 1983, includes purchased steam only. Beginning in 1986, includes purchased and non-purchased steam and hot water.
Q=Data withheld because either the relative standard error was greater than 50 percent or fewer than 20 buildings were sampled. NC=No cases in the sample.

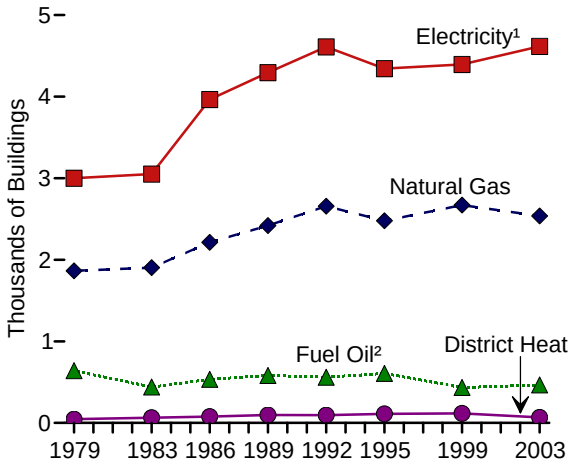
Note: Data are estimates. Statistics for individual fuels are for all buildings using each fuel. Statistics for "Major Sources" are for the sum of "Electricity," "Natural Gas," "Fuel Oil," and "District Heat," across all buildings using any of those fuels.

Web Page: For related information, see http://www.eia.gov/emeu/cbecs.

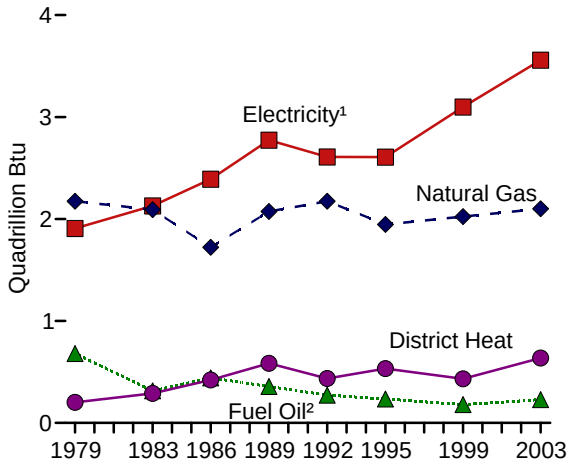
Sources: • 1979—U.S. Energy Information Administration (EIA), Form EIA-143, "Nonresidential Buildings Energy Consumption Survey." • 1983—EIA, Form EIA-788, "Nonresidential Buildings Energy Consumption Survey." • 1986—EIA, Form EIA-871, "Nonresidential Buildings Energy Consumption Survey." • 1989 forward—EIA, Form EIA-871A-F, "Commercial Buildings Energy Consumption Survey."

Figure 2.10 Commercial Buildings Energy Consumption and Expenditure Indicators, Selected Years, 1979-2003

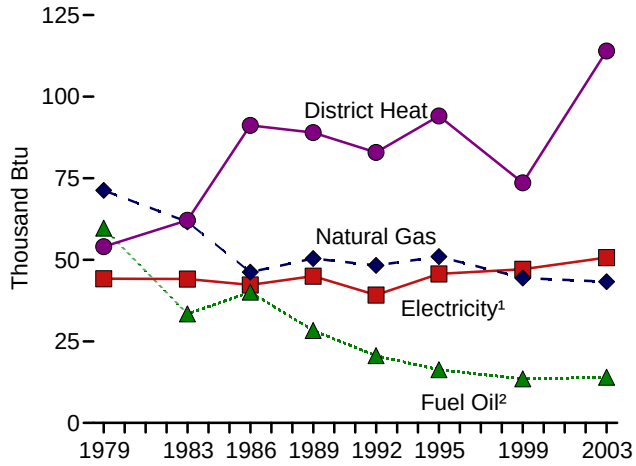
Buildings by Energy Source Used



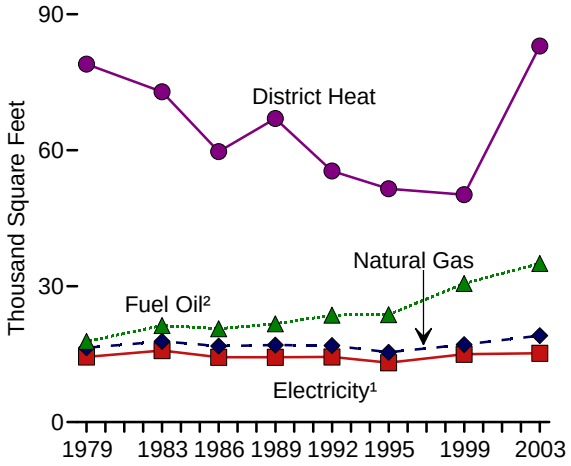
Consumption



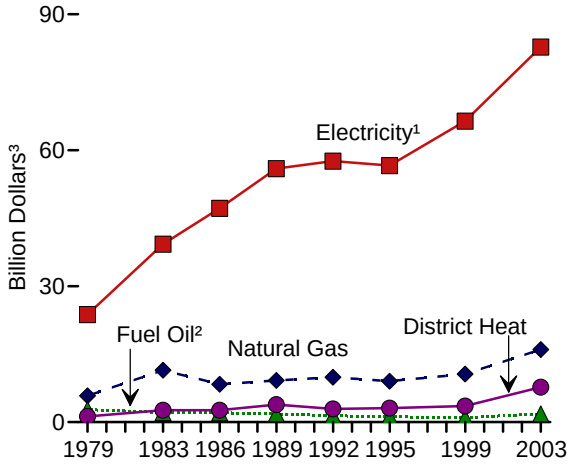
Consumption per Square Foot



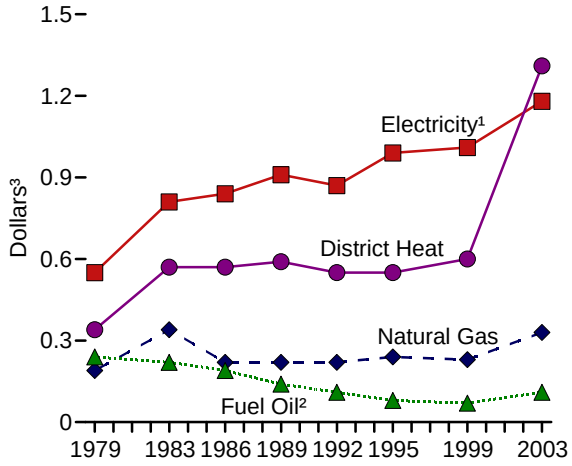
Square Footage per Building by Energy Source Used



Expenditures



Expenditures Per Square Foot



[1] Electricity only; excludes electrical system energy losses.
[2] Distillate fuel oil, residual fuel oil, and kerosene.
[3] Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.

Note: For years not shown, there are no data available.
Source: Table 2.10.

Table 2.10 Commercial Buildings Energy Consumption and Expenditure Indicators, Selected Years, 1979-2003

Energy Source and Year	Building Characteristics			Energy Consumption				Energy Expenditures			
	Number of Buildings	Total Square Feet	Square Feet per Building	Total	Per Building	Per Square Foot	Per Employee	Total	Per Building	Per Square Foot	Per Million Btu
	Thousands	Millions	Thousands	Trillion Btu	Million Btu	Thousand Btu	Million Btu	Million Dollars [1]	Thousand Dollars [1]	Dollars [1]	Dollars [1]
Major Sources [2]											
1979	3,073	43,546	14.2	5,008	1,630	115.0	85.0	33,821	11.0	0.78	6.75
1983	3,185	49,471	15.5	4,856	1,525	98.2	65.7	55,764	17.5	1.13	11.48
1986	4,154	58,199	14.0	5,040	1,213	86.6	68.6	60,762	14.6	1.04	12.06
1989	4,528	63,184	14.0	5,788	1,278	91.6	81.9	70,826	15.6	1.12	12.24
1992	4,806	67,876	14.1	5,490	1,142	80.9	77.1	71,821	14.9	1.06	13.08
1995 [3]	4,579	58,772	12.8	5,321	1,162	90.5	69.3	69,918	15.3	1.19	13.14
1999	4,657	67,338	14.5	5,733	1,231	85.1	70.0	81,552	17.5	1.21	14.22
2003	4,859	71,658	14.7	6,523	1,342	91.0	([5])	107,897	22.2	1.51	16.54
Electricity [4]											
1979	3,001	43,153	14.4	1,908	636	44.2	32.4	23,751	7.9	.55	12.45
1983	3,052	48,327	15.8	2,129	697	44.1	28.9	39,279	12.9	.81	18.45
1986	3,965	56,508	14.3	2,390	603	42.3	32.7	47,186	11.9	.84	19.74
1989	4,294	61,563	14.3	2,773	646	45.0	39.3	55,943	13.0	.91	20.17
1992	4,611	66,525	14.4	2,609	566	39.2	36.6	57,619	12.5	.87	22.09
1995 [3]	4,343	57,076	13.1	2,608	600	45.7	34.1	56,621	13.0	.99	21.71
1999	4,395	65,716	15.0	3,098	706	47.1	37.9	66,424	15.1	1.01	21.44
2003	4,617	70,181	15.2	3,559	771	50.7	([5])	82,783	17.9	1.18	23.26
Natural Gas											
1979	1,864	30,477	16.4	2,174	1,167	71.3	52.5	5,814	3.1	.19	2.67
1983	1,904	33,935	17.8	2,091	1,098	61.6	40.6	11,443	6.0	.34	5.47
1986	2,214	37,263	16.8	1,723	778	46.2	35.2	8,355	3.8	.22	4.85
1989	2,420	41,143	17.0	2,073	857	50.4	43.2	9,204	3.8	.22	4.44
1992	2,657	44,994	16.9	2,174	818	48.3	42.5	9,901	3.7	.22	4.55
1995 [3]	2,478	38,145	15.4	1,946	785	51.0	38.7	9,018	3.6	.24	4.63
1999	2,670	45,525	17.1	2,023	758	44.4	36.0	10,609	4.0	.23	5.24
2003	2,538	48,473	19.1	2,100	828	43.3	([5])	16,010	6.3	.33	7.62
Fuel Oil [6]											
1979	641	11,397	17.8	681	1,063	59.7	40.5	2,765	4.3	.24	4.06
1983	441	9,409	21.3	314	714	33.4	19.8	2,102	4.8	.22	6.68
1986	534	11,005	20.6	442	827	40.1	27.7	2,059	3.9	.19	4.66
1989	581	12,600	21.7	357	614	28.3	21.0	1,822	3.1	.14	5.11
1992	560	13,215	23.6	272	487	20.6	15.1	1,400	2.5	.11	5.14
1995 [3]	607	14,421	23.7	235	387	16.3	10.2	1,175	1.9	.08	5.00
1999	434	13,285	30.6	179	412	13.5	9.1	956	2.2	.07	5.35
2003	465	16,265	35.0	228	490	14.0	([5])	1,826	3.9	.11	8.01
District Heat [7]											
1979	47	3,722	79.0	201	4,267	54.0	26.5	1,267	26.9	.34	6.30
1983	64	4,643	72.9	289	4,530	62.1	34.4	2,627	41.2	.57	9.10
1986	77	4,625	59.7	422	5,446	91.2	52.4	2,620	33.8	.57	6.21
1989	98	6,578	67.0	585	5,964	89.0	56.5	3,857	39.3	.59	6.59
1992	95	5,245	55.4	435	4,596	82.9	60.9	2,901	30.7	.55	6.67
1995 [3]	110	5,658	51.5	533	4,849	94.1	51.2	3,103	28.3	.55	5.83
1999	117	5,891	50.2	433	3,692	73.6	50.1	3,564	30.4	.60	8.23
2003	67	5,576	83.0	636	9,470	114.0	([5])	7,279	108.4	1.31	11.45

[1] Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.
[2] Includes electricity, natural gas, fuel oil, and district heat.
[3] Beginning in 1995, excludes commercial buildings at multi-building manufacturing facilities, and parking garages.
[4] Electricity only; excludes electricity system energy losses.
[5] Total number of employees not collected in 2003.
[6] Distillate fuel oil, residual fuel oil, and kerosene.
[7] Through 1983, includes purchased steam only. Beginning in 1986, includes purchased and non-purchased steam and hot water.

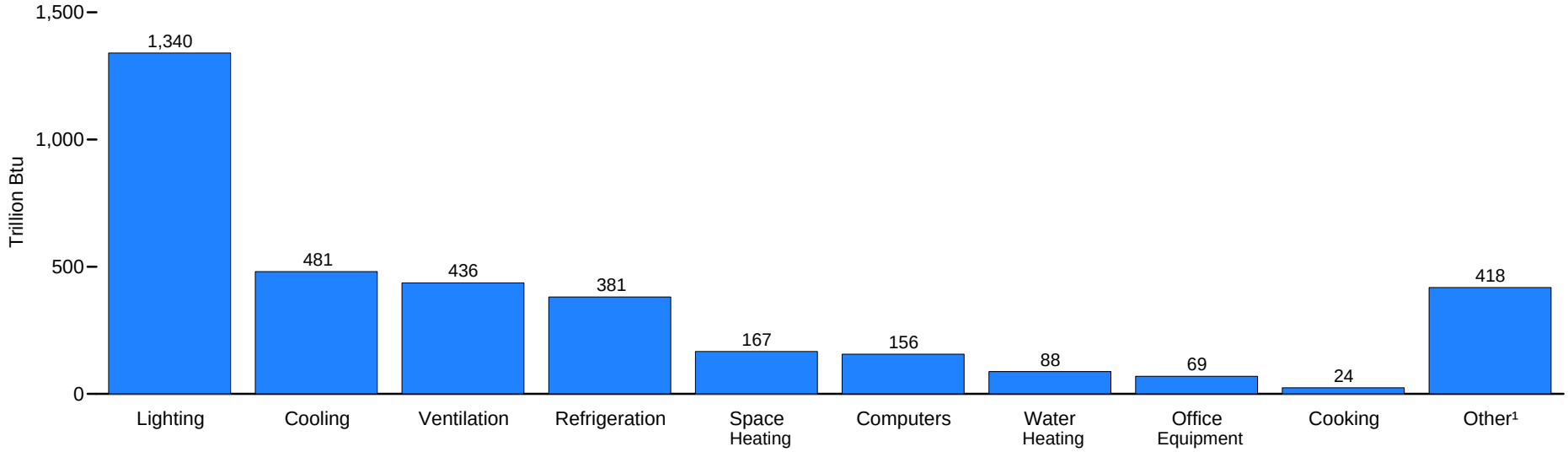
Note: Data are estimates. Statistics for individual fuels are for all buildings using each fuel. Statistics for major sources are for all buildings, even buildings using no major fuel.

Web Page: For related information, see http://www.eia.gov/emeu/cbecs.

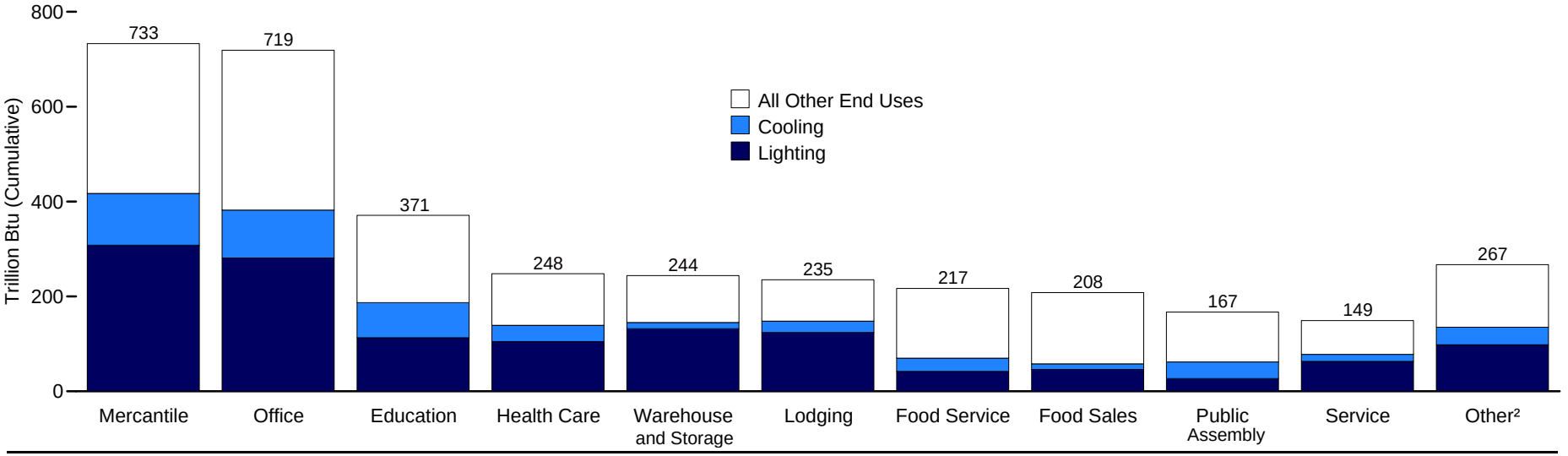
Sources: • 1979—U.S. Energy Information Administration (EIA), Form EIA-143, "Nonresidential Buildings Energy Consumption Survey." • 1983—EIA, Form EIA-788, "Nonresidential Buildings Energy Consumption Survey." • 1986—EIA, Form EIA-871, "Nonresidential Buildings Energy Consumption Survey." • 1989 forward—EIA, Form EIA-871A-F, "Commercial Buildings Energy Consumption Survey."

Figure 2.11 Commercial Buildings Electricity Consumption by End Use, 2003

By End Use



By Principal Building Activity



[1] Examples of "other" include medical, electronic, and testing equipment; conveyors, wrappers, hoists, and compactors; washers, disposals, dryers, and cleaning equipment; escalators, elevators, dumb waiters, and window washers; shop tools and electronic testing equipment; sign motors, time clocks, vending machines, phone equipment, and sprinkler controls; scoreboards, fire alarms, intercoms, television sets, radios, projectors, and door operators.

[2] Religious worship, public order and safety, vacant, and buildings that do not fit into any of the other named categories.

Note: Data are estimates for electricity consumption, excluding electrical system energy losses.

Source: Table 2.11.

Table 2.11 Commercial Buildings Electricity Consumption by End Use, 2003

(Trillion Btu)

End Use	Space Heating	Cooling	Ventilation	Water Heating	Lighting	Cooking	Refrigeration	Office Equipment	Computers	Other [1]	Total
All Buildings	167	481	436	88	1,340	24	381	69	156	418	3,559
Principal Building Activity											
Education	15	74	83	11	113	2	16	4	32	21	371
Food Sales	6	12	7	Q	46	2	119	2	2	10	208
Food Service	10	28	24	10	42	13	70	2	2	15	217
Health Care	6	34	42	2	105	1	8	4	10	36	248
Inpatient	3	25	38	2	76	1	4	2	7	21	178
Outpatient	3	9	4	(s)	28	(s)	4	2	3	15	69
Lodging	14	24	14	12	124	2	12	Q	6	24	235
Mercantile	58	109	68	38	308	2	49	8	11	83	733
Retail (Other Than Mall)	6	25	16	2	111	(s)	22	3	4	22	211
Enclosed and Strip Malls	52	84	51	36	197	2	27	5	8	61	523
Office	33	101	63	7	281	1	35	32	74	91	719
Public Assembly	5	35	63	(s)	27	(s)	9	Q	3	23	167
Public Order and Safety	2	8	10	3	18	(s)	3	1	2	10	57
Religious Worship	3	11	5	(s)	17	(s)	6	(s)	1	18	62
Service	6	15	24	(s)	63	Q	9	1	3	28	149
Warehouse and Storage	5	13	20	2	132	Q	36	2	5	30	244
Other [2]	2	16	11	Q	59	Q	10	Q	5	22	133
Vacant	1	2	1	Q	4	Q	(s)	Q	(s)	7	15

[1] Examples of "other" include medical, electronic, and testing equipment; conveyors, wrappers, hoists, and compactors; washers, disposals, dryers and cleaning equipment; escalators, elevators, dumb waiters, and window washers; shop tools and electronic testing equipment; sign motors, time clocks, vending machines, phone equipment, and sprinkler controls; scoreboards, fire alarms, intercoms, television sets, radios, projectors, and door operators.

[2] Includes buildings that do not fit into any of the other named categories.

(s)=Less than 0.5 trillion Btu. Q=Data withheld because either the relative standard error was greater than 50 percent or fewer than 20 buildings were sampled.

Notes:
- Data are estimates for electricity consumption, excluding electrical system energy losses.
- One kilowatthour = 3,412 Btu.

Web Page: For related information, see http://www.eia.gov/emeu/cbecs.

Source: U.S. Energy Information Administration, "Commercial Buildings Energy Consumption Survey 2003," Table E3A.

Energy Consumption by Sector

Note. Electrical System Energy Losses. Electrical system energy losses are calculated as the difference between total primary consumption by the electric power sector—see Table 2.1f—and the total energy content of electricity retail sales—see Tables 8.9 and A6. Most of these losses occur at steam-electric power plants (conventional and nuclear) in the conversion of heat energy into mechanical energy to turn electric generators. The loss is a thermodynamically necessary feature of the steam-electric cycle. Part of the energy input-to-output losses is a result of imputing fossil energy equivalent inputs for hydroelectric, geothermal, solar thermal, photovoltaic, and wind energy sources. In addition to conversion losses, other losses included power plant use of electricity, transmission and distribution of electricity from power plants to end-use consumers (also called "line losses"), and unaccounted for electricity. Total losses are allocated to the end-use sectors in proportion to each sector's share of total electricity sales. Overall, about two thirds of total energy input is lost in conversion. Currently, of electricity generated, approximately 5 percent is lost in plant use and 7 percent is lost in transmission and distribution.