

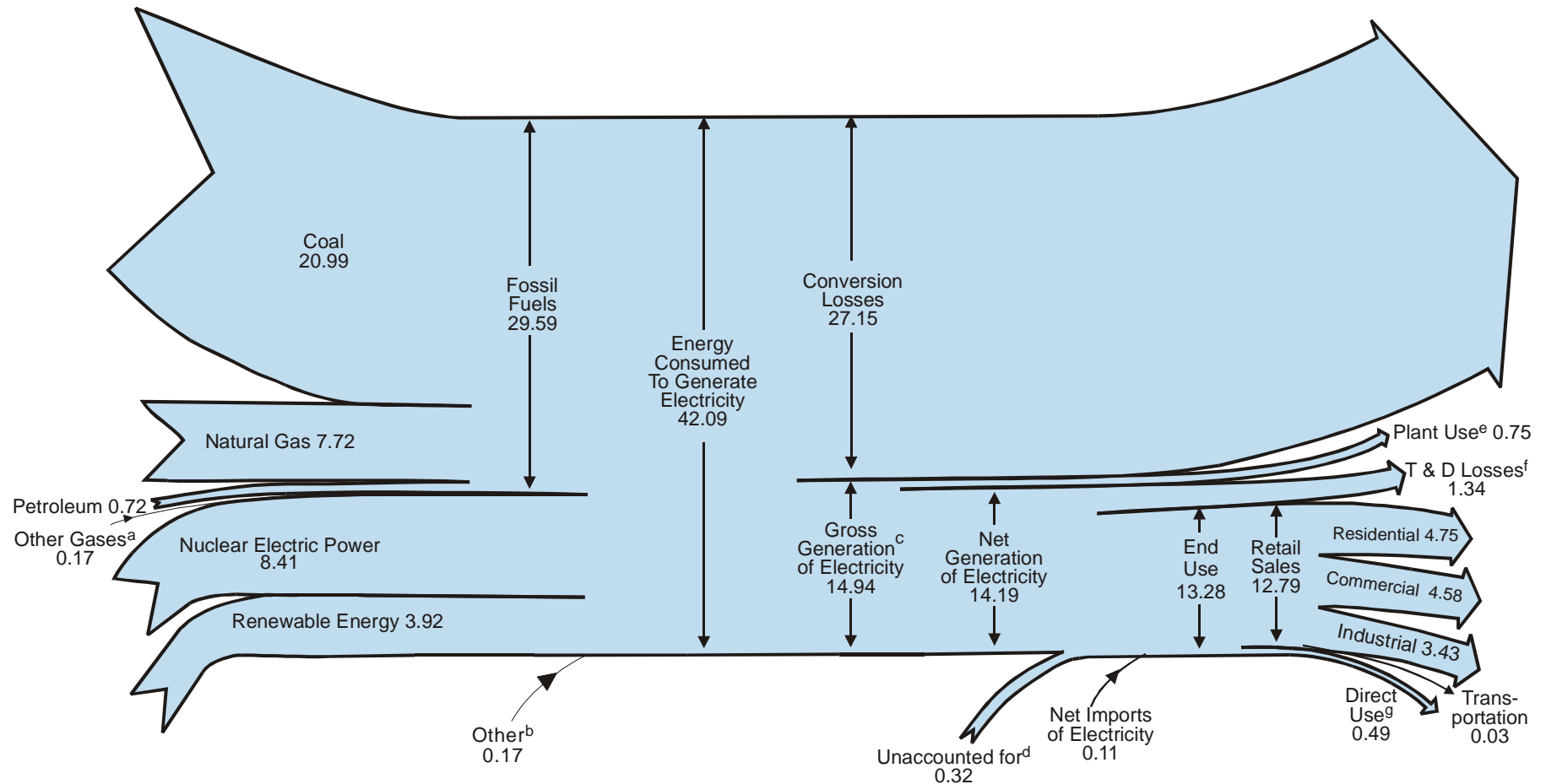
8

Electricity



High-tension power lines and towers. Source: U.S. Department of Energy.

Diagram 5. Electricity Flow, 2007
(Quadrillion Btu)



^a Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

^b Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

^c Estimated as net generation divided by 0.95.

^d Data collection frame differences and nonsampling error. Derived for the diagram by subtracting the "T & D Losses" estimate from "T & D Losses and Unaccounted for" derived from Table 8.1.

^e Electric energy used in the operation of power plants, estimated as 5 percent of gross generation.

^f Transmission and distribution losses (electricity losses that occur between the point of generation and delivery to the customer) are estimated as 9 percent of gross generation.

^g Use of electricity that is 1) self-generated, 2) produced by either the same entity that consumes the power or an affiliate, and 3) used in direct support of a service or industrial process located within the same facility or group of facilities that house the generating equipment. Direct use is exclusive of station use.

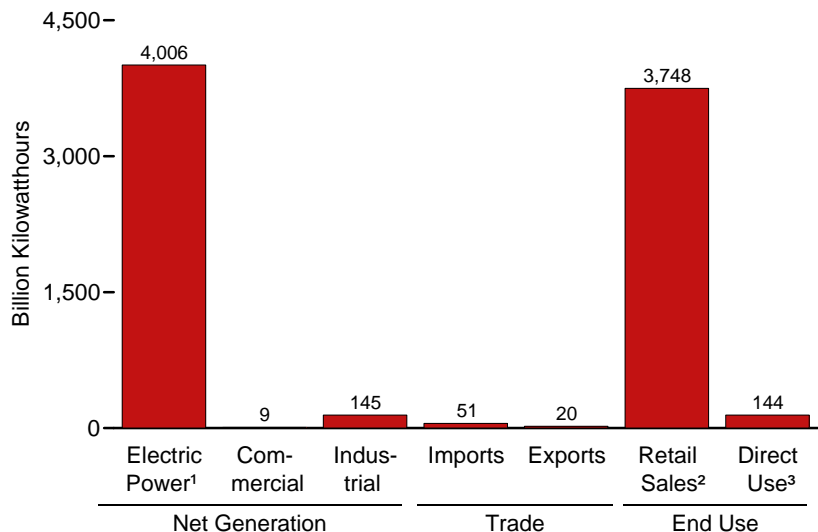
Notes: • Data are preliminary. • See Note, "Electrical System Energy Losses," at the end of Section 2. • Values are derived from source data prior to rounding for publication.

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

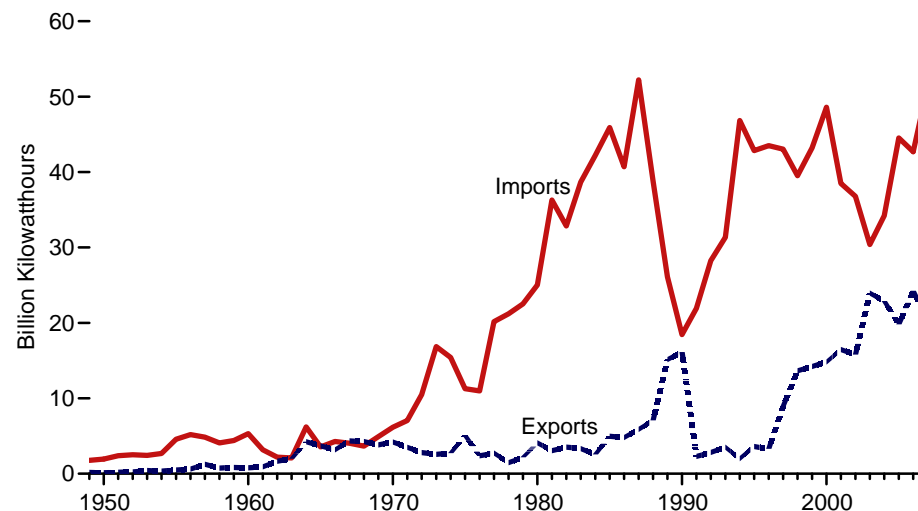
Sources: Tables 8.1, 8.4a, 8.9, and A6 (column 4).

Figure 8.1 Electricity Overview

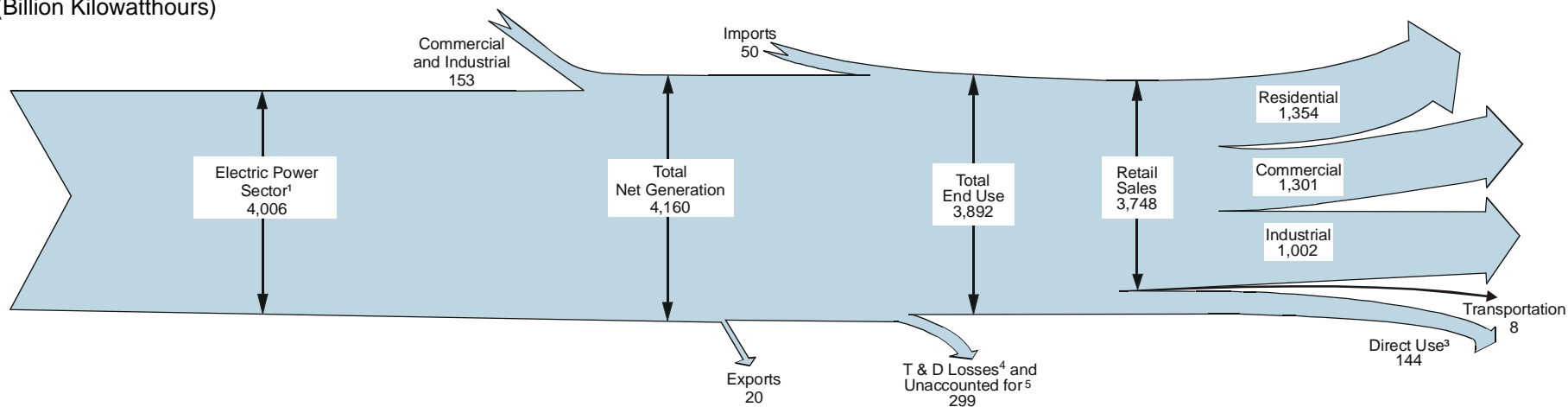
Overview, 2007



Electricity Trade, 1949-2007



Net-Generation-to-End-Use Flow, 2007 (Billion Kilowatthours)



¹ Electricity-only and combined-heat-and-power plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

² Electricity retail sales to ultimate customers reported by electric utilities and other energy service providers.

³ See Table 8.1, footnote 8.

⁴ Transmission and distribution losses (electricity losses that occur between the point of

generation and delivery to the customer). See Note, "Electrical System Energy Losses," at the end of Section 2.

⁵ Data collection frame differences and nonsampling error. Note: Because vertical scales differ, graphs should not be compared.

Sources: Tables 8.1 and 8.9.

Table 8.1 Electricity Overview, Selected Years, 1949-2007
(Billion Kilowatthours)

Year	Net Generation				Trade					T & D Losses ⁵ and Unaccounted for ⁶	End Use		
	Electric Power Sector ²	Commercial Sector ³	Industrial Sector ⁴	Total	Imports ¹		Exports ¹		Net Imports ¹		Retail Sales ⁷	Direct Use ⁸	Total
					From Canada	Total	To Canada	Total	Total				
1949	291	NA	5	296	NA	2	NA	(s)	2	43	255	NA	255
1950	329	NA	5	334	NA	2	NA	(s)	2	44	291	NA	291
1955	547	NA	3	550	NA	5	NA	(s)	4	58	497	NA	497
1960	756	NA	4	759	NA	5	NA	1	5	76	688	NA	688
1965	1,055	NA	3	1,058	NA	4	NA	4	(s)	104	954	NA	954
1970	1,532	NA	3	1,535	NA	6	NA	4	2	145	1,392	NA	1,392
1971	1,613	NA	3	1,616	NA	7	NA	4	4	150	1,470	NA	1,470
1972	1,750	NA	3	1,753	NA	10	NA	3	8	166	1,595	NA	1,595
1973	1,861	NA	3	1,864	NA	17	NA	3	14	165	1,713	NA	1,713
1974	1,867	NA	3	1,870	NA	15	NA	3	13	177	1,706	NA	1,706
1975	1,918	NA	3	1,921	NA	11	NA	5	6	180	1,747	NA	1,747
1976	2,038	NA	3	2,041	NA	11	NA	2	9	194	1,855	NA	1,855
1977	2,124	NA	3	2,127	NA	20	NA	3	17	197	1,948	NA	1,948
1978	2,206	NA	3	2,209	NA	21	NA	1	20	211	2,018	NA	2,018
1979	2,247	NA	3	2,251	NA	23	NA	2	20	200	2,071	NA	2,071
1980	2,286	NA	3	2,290	NA	25	NA	4	21	216	2,094	NA	2,094
1981	2,295	NA	3	2,298	NA	36	NA	3	33	184	2,147	NA	2,147
1982	2,241	NA	3	2,244	NA	33	NA	4	29	187	2,086	NA	2,086
1983	2,310	NA	3	2,313	NA	39	NA	3	35	198	2,151	NA	2,151
1984	2,416	NA	3	2,419	NA	42	NA	3	40	173	2,286	NA	2,286
1985	2,470	NA	3	2,473	NA	46	NA	5	41	190	2,324	NA	2,324
1986	2,487	NA	3	2,490	NA	41	NA	5	36	158	2,369	NA	2,369
1987	2,572	NA	3	2,575	NA	52	NA	6	46	164	2,457	NA	2,457
1988	2,704	NA	3	2,707	NA	39	NA	7	32	161	2,578	NA	2,578
1989	² 2,848	4	⁴ 115	2,967	NA	26	NA	15	11	223	2,647	109	2,756
1990	2,901	6	131	3,038	16	18	16	16	2	203	2,713	125	2,837
1991	2,936	6	133	3,074	20	22	2	2	20	207	2,762	124	2,886
1992	2,934	6	143	3,084	26	28	2	3	25	212	2,763	134	2,897
1993	3,044	7	146	3,197	29	31	3	4	28	224	2,861	139	3,001
1994	3,089	8	151	3,248	45	47	1	2	45	211	2,935	146	3,081
1995	3,194	8	151	3,353	41	43	2	4	39	229	3,013	151	3,164
1996	3,284	9	151	3,444	42	43	2	3	40	231	3,101	153	3,254
1997	3,329	9	154	3,492	43	43	7	9	34	224	3,146	156	3,302
1998	3,457	9	154	3,620	40	40	12	14	26	221	3,264	161	3,425
1999	3,530	9	156	3,695	43	43	13	14	29	240	3,312	172	3,484
2000	3,638	8	157	3,802	49	49	13	15	34	244	3,421	171	3,592
2001	3,580	7	149	3,737	38	39	16	16	22	202	3,394	163	3,557
2002	3,698	7	153	3,858	37	37	15	16	21	248	3,465	166	3,632
2003	3,721	7	155	3,883	29	30	24	24	6	228	3,494	168	3,662
2004	3,808	8	154	3,971	33	34	22	23	11	266	3,547	168	3,716
2005	3,902	8	145	4,055	43	45	19	20	25	^R 269	3,661	^R 150	^R 3,811
2006	^R 3,908	8	^R 148	^R 4,065	^R 42	^R 43	^R 23	^R 24	18	^R 266	^R 3,670	^R 147	^R 3,817
2007 ^P	4,006	9	145	4,160	50	51	20	20	31	299	3,748	^E 144	3,892

¹ Electricity transmitted across U.S. borders. Net imports equal imports minus exports.

² 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. Through 1988, data are for electric utilities only; beginning in 1989, data are for electric utilities and independent power producers.

³ Commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

⁴ Industrial combined-heat-and-power (CHP) and industrial electricity-only plants. Through 1988, data are for industrial hydroelectric power only.

⁵ Transmission and distribution losses (electricity losses that occur between the point of generation and delivery to the customer). See Note, "Electrical System Energy Losses," at end of Section 2.

⁶ Data collection frame differences and nonsampling error.

⁷ Electricity retail sales to ultimate customers by electric utilities and, beginning in 1996, other energy

service providers.

⁸ Use of electricity that is 1) self-generated, 2) produced by either the same entity that consumes the power or an affiliate, and 3) used in direct support of a service or industrial process located within the same facility or group of facilities that house the generating equipment. Direct use is exclusive of station use.

R=Revised. P=Preliminary. E=Estimate. NA=Not available. (s)=Less than 0.5 billion kilowatthours.

Notes: • See Note 1, "Coverage of Electricity Statistics," and Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Totals may not equal sum of components due to independent rounding.

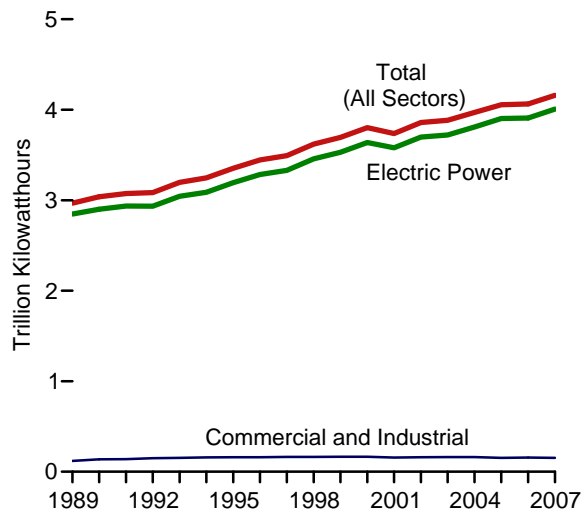
Web Pages: • For all data beginning in 1949, see <http://www.eia.doe.gov/emeu/aer/elect.html>.

• For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

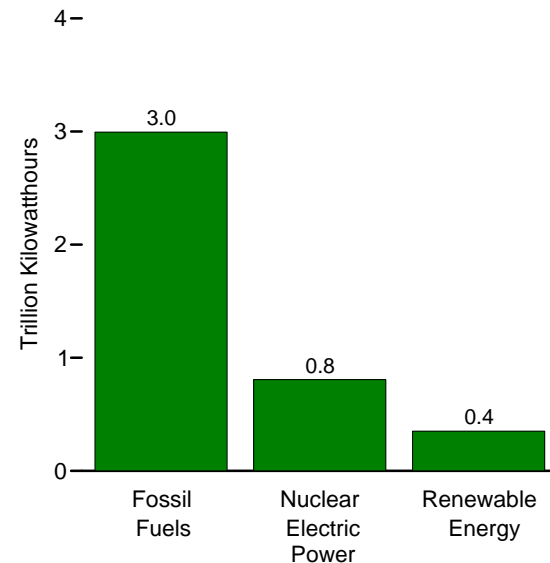
Sources: See end of section.

Figure 8.2a Electricity Net Generation, Total (All Sectors)

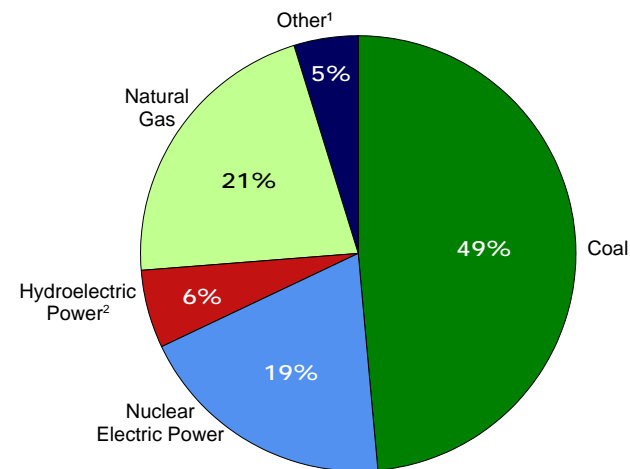
Total (All Sectors) and Sectors, 1989-2007



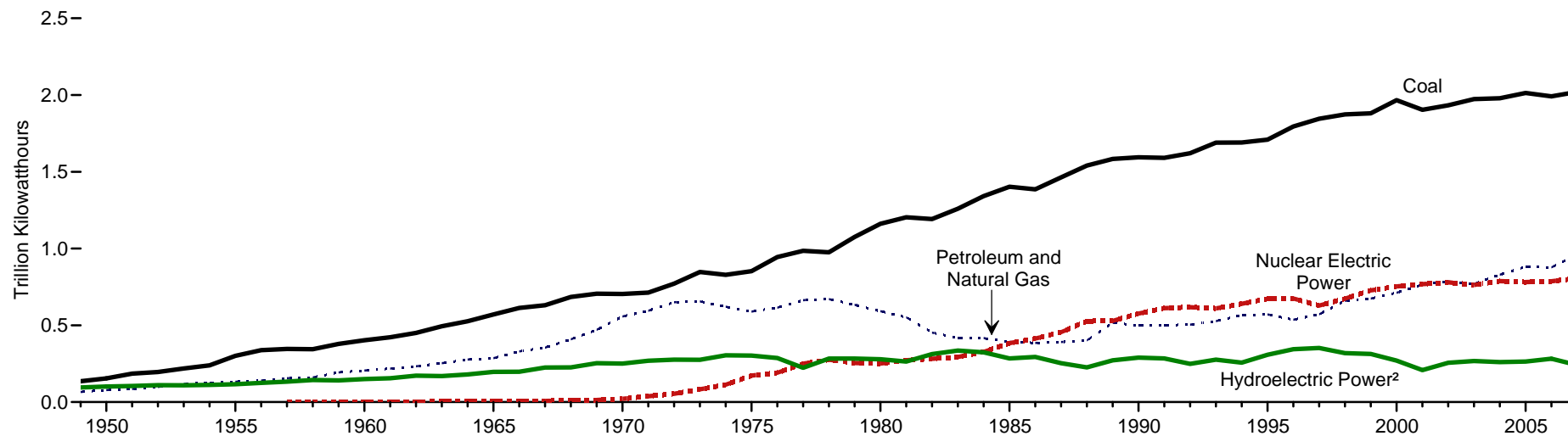
By Source Category, 2007



By Source, 2007



By Major Sources, 1949-2007

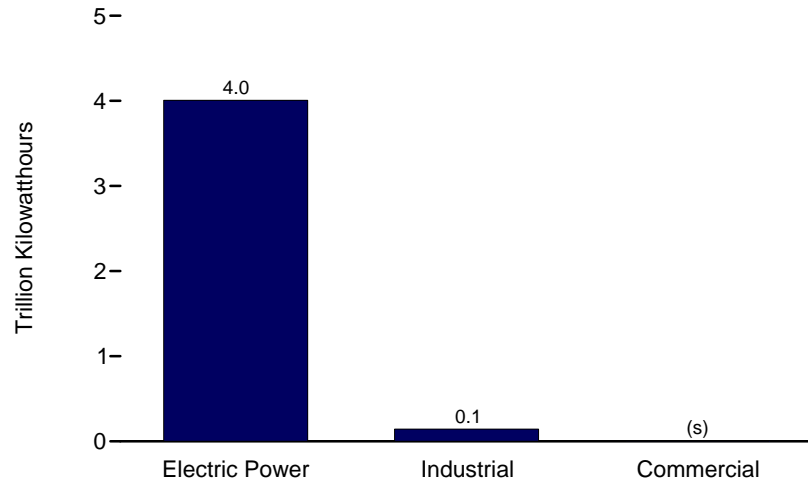


¹ Petroleum, wood, wind, waste, other gases, geothermal, solar, batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

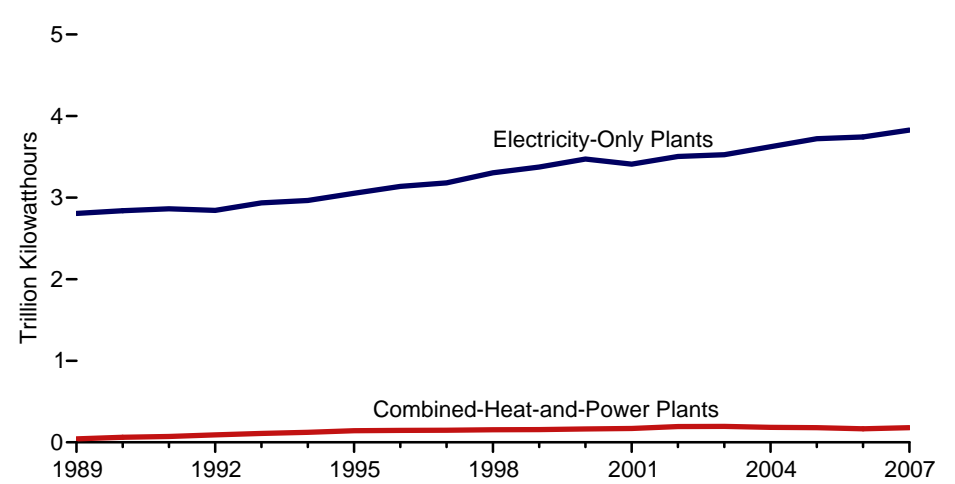
² Conventional hydroelectric power and pumped storage.
 Note: Because vertical scales differ, graphs should not be compared.
 Sources: Tables 8.2a, 8.2b, and 8.2d.

Figure 8.2b Electricity Net Generation by Sector

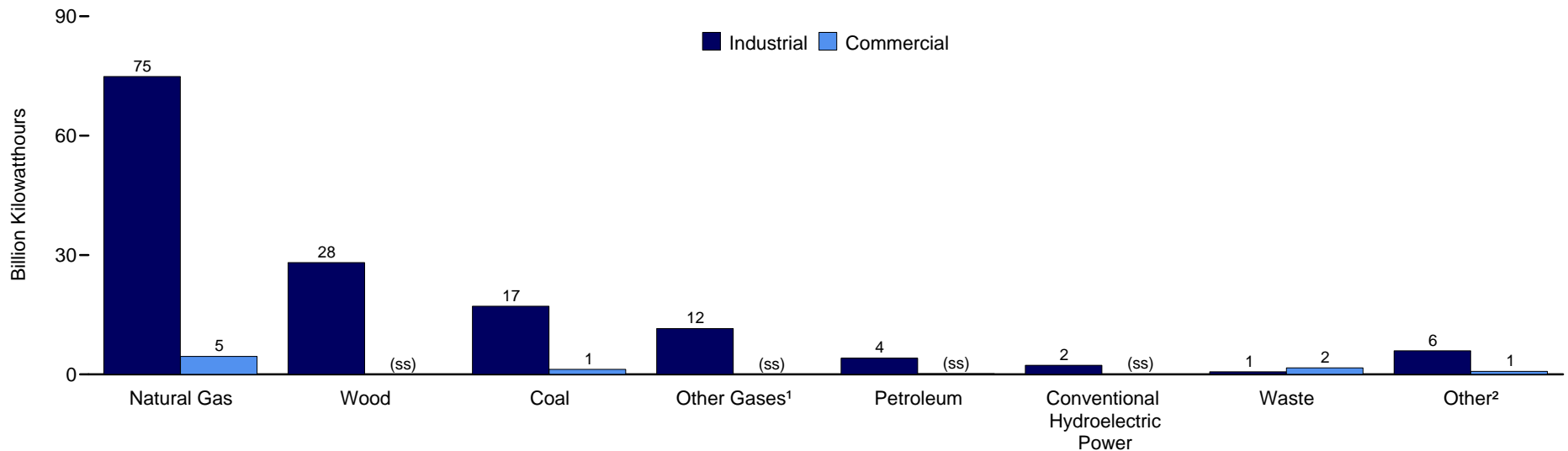
By Sector, 2007



Electric Power Sector by Plant Type, 1989-2007



Industrial and Commercial Sectors, 2007



¹ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

² Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

(s) = Less than 0.05 trillion kilowatt-hours.

(ss) = Less than 0.5 billion kilowatt-hours.

Note: Because vertical scales differ, graphs should not be compared.

Sources: Tables 8.2b-8.2d.

Table 8.2a Electricity Net Generation: Total (All Sectors), Selected Years, 1949-2007
(Sum of Tables 8.2b and 8.2d; Billion Kilowatthours)

Year	Fossil Fuels					Nuclear Electric Power	Hydro-electric Pumped Storage ⁵	Renewable Energy							Other ⁹	Total
	Coal ¹	Petroleum ²	Natural Gas ³	Other Gases ⁴	Total			Conventional Hydroelectric Power	Biomass		Geo-thermal	Solar/PV ⁸	Wind	Total		
									Wood ⁶	Waste ⁷						
1949	135.5	28.5	37.0	NA	201.0	0.0	(¹⁰)	94.8	0.4	NA	NA	NA	NA	95.2	NA	296.1
1950	154.5	33.7	44.6	NA	232.8	.0	(¹⁰)	100.9	.4	NA	NA	NA	NA	101.3	NA	334.1
1955	301.4	37.1	95.3	NA	433.8	.0	(¹⁰)	116.2	.3	NA	NA	NA	NA	116.5	NA	550.3
1960	403.1	48.0	158.0	NA	609.0	.5	(¹⁰)	149.4	.1	NA	(s)	NA	NA	149.6	NA	759.2
1965	570.9	64.8	221.6	NA	857.3	3.7	(¹⁰)	197.0	.3	NA	.2	NA	NA	197.4	NA	1,058.4
1970	704.4	184.2	372.9	NA	1,261.5	21.8	(¹⁰)	251.0	.2	.2	.5	NA	NA	251.8	NA	1,535.1
1971	713.1	220.2	374.0	NA	1,307.4	38.1	(¹⁰)	269.5	.1	.2	.5	NA	NA	270.4	NA	1,615.9
1972	771.1	274.3	375.7	NA	1,421.2	54.1	(¹⁰)	275.9	.1	.2	1.5	NA	NA	277.7	NA	1,753.0
1973	847.7	314.3	340.9	NA	1,502.9	83.5	(¹⁰)	275.4	.1	.2	2.0	NA	NA	277.7	NA	1,864.1
1974	828.4	300.9	320.1	NA	1,449.4	114.0	(¹⁰)	304.2	.1	.2	2.5	NA	NA	306.9	NA	1,870.3
1975	852.8	289.1	299.8	NA	1,441.7	172.5	(¹⁰)	303.2	(s)	.2	3.2	NA	NA	306.6	NA	1,920.8
1976	944.4	320.0	294.6	NA	1,559.0	191.1	(¹⁰)	286.9	.1	.2	3.6	NA	NA	290.8	NA	2,040.9
1977	985.2	358.2	305.5	NA	1,648.9	250.9	(¹⁰)	223.6	.3	.2	3.6	NA	NA	227.7	NA	2,127.4
1978	975.7	365.1	305.4	NA	1,646.2	276.4	(¹⁰)	283.5	.2	.1	3.0	NA	NA	286.8	NA	2,209.4
1979	1,075.0	303.5	329.5	NA	1,708.0	255.2	(¹⁰)	283.1	.3	.2	3.9	NA	NA	287.5	NA	2,250.7
1980	1,161.6	246.0	346.2	NA	1,753.8	251.1	(¹⁰)	279.2	.3	.2	5.1	NA	NA	284.7	NA	2,289.6
1981	1,203.2	206.4	345.8	NA	1,755.4	272.7	(¹⁰)	263.8	.2	.1	5.7	NA	NA	269.9	NA	2,298.0
1982	1,192.0	146.8	305.3	NA	1,644.1	282.8	(¹⁰)	312.4	.2	.1	4.8	NA	NA	317.5	NA	2,244.4
1983	1,259.4	144.5	274.1	NA	1,678.0	293.7	(¹⁰)	335.3	.2	.2	6.1	NA	(s)	341.7	NA	2,313.4
1984	1,341.7	119.8	297.4	NA	1,758.9	327.6	(¹⁰)	324.3	.5	.4	7.7	(s)	(s)	332.9	NA	2,419.5
1985	1,402.1	100.2	291.9	NA	1,794.3	383.7	(¹⁰)	284.3	.7	.6	9.3	(s)	(s)	295.0	NA	2,473.0
1986	1,385.8	136.6	248.5	NA	1,770.9	414.0	(¹⁰)	294.0	.5	.7	10.3	(s)	(s)	305.5	NA	2,490.5
1987	1,463.8	118.5	272.6	NA	1,854.9	455.3	(¹⁰)	252.9	.8	.7	10.8	(s)	(s)	265.1	NA	2,575.3
1988	1,540.7	148.9	252.8	NA	1,942.4	527.0	(¹⁰)	226.1	.9	.7	10.3	(s)	(s)	238.1	NA	2,707.4
1989 ¹¹	1,583.8	164.5	352.6	7.9	2,108.8	529.4	(¹⁰)	272.0	27.2	9.2	14.6	.3	2.1	325.3	3.8	2,967.3
1990	1,594.0	126.6	372.8	10.4	2,103.8	576.9	-3.5	292.9	32.5	13.3	15.4	.4	2.8	357.2	3.6	3,038.0
1991	1,590.6	119.8	381.6	11.3	2,103.3	612.6	-4.5	289.0	33.7	15.7	16.0	.5	3.0	357.8	4.7	3,073.8
1992	1,621.2	100.2	404.1	13.3	2,138.7	618.8	-4.2	253.1	36.5	17.8	16.1	.4	2.9	326.9	3.7	3,083.9
1993	1,690.1	112.8	414.9	13.0	2,230.7	610.3	-4.0	280.5	37.6	18.3	16.8	.5	3.0	356.7	3.5	3,197.2
1994	1,690.7	105.9	460.2	13.3	2,270.1	640.4	-3.4	260.1	37.9	19.1	15.5	.5	3.4	336.7	3.7	3,247.5
1995	1,709.4	74.6	496.1	13.9	2,293.9	673.4	-2.7	310.8	36.5	20.4	13.4	.5	3.2	384.8	4.1	3,353.5
1996	1,795.2	81.4	455.1	14.4	2,346.0	674.7	-3.1	347.2	36.8	20.9	14.3	.5	3.2	423.0	3.6	3,444.2
1997	1,845.0	92.6	479.4	13.4	2,430.3	628.6	-4.0	356.5	36.9	21.7	14.7	.5	3.3	433.6	3.6	3,492.2
1998	1,873.5	128.8	531.3	13.5	2,547.1	673.7	-4.5	323.3	36.3	22.4	14.8	.5	3.0	400.4	3.6	3,620.3
1999	1,881.1	118.1	556.4	14.1	2,569.7	728.3	-6.1	319.5	37.0	22.6	14.8	.5	4.5	399.0	4.0	3,694.8
2000	1,966.3	111.2	601.0	14.0	2,692.5	753.9	-5.5	275.6	37.6	23.1	14.1	.5	5.6	356.5	4.8	3,802.1
2001	1,904.0	124.9	639.1	9.0	2,677.0	768.8	-8.8	217.0	35.2	14.5	13.7	.5	6.7	287.7	11.9	3,736.6
2002	1,933.1	94.6	691.0	11.5	2,730.2	780.1	-8.7	264.3	38.7	15.0	14.5	.6	10.4	343.4	13.5	3,858.5
2003	1,973.7	119.4	649.9	15.6	2,758.6	763.7	-8.5	275.8	37.5	15.8	14.4	.5	11.2	355.3	14.0	3,883.2
2004	1,978.6	^R 120.8	^R 708.9	16.8	2,825.0	788.5	-8.5	268.4	37.6	15.5	14.8	.6	14.1	351.0	14.5	3,970.6
2005	2,013.2	122.5	758.0	16.3	2,910.0	782.0	-6.6	270.3	38.7	15.5	14.7	.6	17.8	357.5	12.5	4,055.4
2006	^R 1,990.9	^R 64.4	^R 813.0	^R 16.1	^R 2,884.4	787.2	^R -6.6	^R 289.2	^R 38.6	^R 16.1	^R 14.6	.5	^R 26.6	^R 385.7	^R 14.0	^R 4,064.7
2007 ^P	2,020.6	65.7	893.2	15.4	2,994.9	806.5	-7.0	248.3	38.5	16.9	14.8	.6	32.1	351.3	13.8	4,159.5

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

² Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.

³ Natural gas, plus a small amount of supplemental gaseous fuels.

⁴ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁵ Pumped storage facility production minus energy used for pumping.

⁶ Wood and wood-derived fuels.

⁷ 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).

⁸ Solar thermal and photovoltaic energy.

⁹ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived

fuels).

¹⁰ Included in "Conventional Hydroelectric Power."

¹¹ Through 1988, all data except hydroelectric are for electric utilities only; hydroelectric data through 1988 include industrial plants as well as electric utilities. Beginning in 1989, data are for electric utilities, independent power producers, commercial plants, and industrial plants.

R=Revised. P=Preliminary. NA=Not available. (s)=Less than 0.05 billion kilowatthours.

Notes: • See Note 1, "Coverage of Electricity Statistics," at end of section. • Totals may not equal sum of components due to independent rounding.

Web Pages: • For all data beginning in 1949, see <http://www.eia.doe.gov/emeu/aer/elect.html>.

• For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

Sources: • 1949-1988—Table 8.2b for electric power sector, and Table 8.1 for industrial sector. • 1989 forward—Tables 8.2b and 8.2d.

Table 8.2b Electricity Net Generation: Electric Power Sector, Selected Years, 1949-2007
(Subset of Table 8.2a; Billion Kilowatthours)

Year	Fossil Fuels					Nuclear Electric Power	Hydro-electric Pumped Storage ⁵	Renewable Energy						Other ⁹	Total	
	Coal ¹	Petroleum ²	Natural Gas ³	Other Gases ⁴	Total			Conventional Hydroelectric Power	Biomass		Geo-thermal	Solar/PV ⁸	Wind			Total
									Wood ⁶	Waste ⁷						
1949	135.5	28.5	37.0	NA	201.0	0.0	(¹⁰)	89.7	0.4	NA	NA	NA	NA	90.1	NA	291.1
1950	154.5	33.7	44.6	NA	232.8	.0	(¹⁰)	95.9	.4	NA	NA	NA	NA	96.3	NA	329.1
1955	301.4	37.1	95.3	NA	433.8	.0	(¹⁰)	113.0	.3	NA	NA	NA	NA	113.3	NA	547.0
1960	403.1	48.0	158.0	NA	609.0	.5	(¹⁰)	145.8	.1	NA	(s)	NA	NA	146.0	NA	755.5
1965	570.9	64.8	221.6	NA	857.3	3.7	(¹⁰)	193.9	.3	NA	.2	NA	NA	194.3	NA	1,055.3
1970	704.4	184.2	372.9	NA	1,261.5	21.8	(¹⁰)	247.7	.1	.2	.5	NA	NA	248.6	NA	1,531.9
1971	713.1	220.2	374.0	NA	1,307.4	38.1	(¹⁰)	266.3	.1	.2	.5	NA	NA	267.2	NA	1,612.6
1972	771.1	274.3	375.7	NA	1,421.2	54.1	(¹⁰)	272.6	.1	.2	1.5	NA	NA	274.4	NA	1,749.7
1973	847.7	314.3	340.9	NA	1,502.9	83.5	(¹⁰)	272.1	.1	.2	2.0	NA	NA	274.4	NA	1,860.7
1974	828.4	300.9	320.1	NA	1,449.4	114.0	(¹⁰)	301.0	.1	.2	2.5	NA	NA	303.7	NA	1,867.1
1975	852.8	289.1	299.8	NA	1,441.7	172.5	(¹⁰)	300.0	(s)	.2	3.2	NA	NA	303.5	NA	1,917.6
1976	944.4	320.0	294.6	NA	1,559.0	191.1	(¹⁰)	283.7	.1	.2	3.6	NA	NA	287.6	NA	2,037.7
1977	985.2	358.2	305.5	NA	1,648.9	250.9	(¹⁰)	220.5	.3	.2	3.6	NA	NA	224.5	NA	2,124.3
1978	975.7	365.1	305.4	NA	1,646.2	276.4	(¹⁰)	280.4	.2	.1	3.0	NA	NA	283.7	NA	2,206.3
1979	1,075.0	303.5	329.5	NA	1,708.0	255.2	(¹⁰)	279.8	.3	.2	3.9	NA	NA	284.2	NA	2,247.4
1980	1,161.6	246.0	346.2	NA	1,753.8	251.1	(¹⁰)	276.0	.3	.2	5.1	NA	NA	281.5	NA	2,286.4
1981	1,203.2	206.4	345.8	NA	1,755.4	272.7	(¹⁰)	260.7	.2	.1	5.7	NA	NA	266.7	NA	2,294.8
1982	1,192.0	146.8	305.3	NA	1,644.1	282.8	(¹⁰)	309.2	.2	.1	4.8	NA	NA	314.4	NA	2,241.2
1983	1,259.4	144.5	274.1	NA	1,678.0	293.7	(¹⁰)	332.1	.2	.2	6.1	NA	(s)	338.6	NA	2,310.3
1984	1,341.7	119.8	297.4	NA	1,758.9	327.6	(¹⁰)	321.2	.5	.4	7.7	(s)	(s)	329.8	NA	2,416.3
1985	1,402.1	100.2	291.9	NA	1,794.3	383.7	(¹⁰)	281.1	.7	.6	9.3	(s)	(s)	291.9	NA	2,469.8
1986	1,385.8	136.6	248.5	NA	1,770.9	414.0	(¹⁰)	290.8	.5	.7	10.3	(s)	(s)	302.3	NA	2,487.3
1987	1,463.8	118.5	272.6	NA	1,854.9	455.3	(¹⁰)	249.7	.8	.7	10.8	(s)	(s)	262.0	NA	2,572.1
1988	1,540.7	148.9	252.8	NA	1,942.4	527.0	(¹⁰)	222.9	.9	.7	10.3	(s)	(s)	234.9	NA	2,704.3
1989 ¹¹	1,562.4	159.0	297.3	.5	2,019.1	529.4	(¹⁰)	269.2	5.6	7.7	14.6	.3	2.1	299.5	.3	2,848.2
1990	1,572.1	118.9	309.5	.6	2,001.1	576.9	-3.5	289.8	7.0	11.5	15.4	.4	2.8	326.9	(s)	2,901.3
1991	1,568.8	112.8	317.8	.7	2,000.1	612.6	-4.5	286.0	7.7	13.9	16.0	.5	3.0	327.0	.4	2,935.6
1992	1,597.7	92.2	334.3	1.2	2,025.4	618.8	-4.2	250.0	8.5	15.9	16.1	.4	2.9	293.9	.5	2,934.4
1993	1,665.5	105.4	342.2	1.0	2,114.1	610.3	-4.0	277.5	9.2	16.2	16.8	.5	3.0	323.2	.4	3,043.9
1994	1,666.3	98.7	385.7	1.1	2,151.7	640.4	-3.4	254.0	9.2	17.0	15.5	.5	3.4	299.7	.2	3,088.7
1995	1,686.1	68.1	419.2	1.9	2,175.3	673.4	-2.7	305.4	7.6	18.0	13.4	.5	3.2	348.0	.2	3,194.2
1996	1,772.0	74.8	378.8	1.3	2,226.9	674.7	-3.1	341.2	8.4	17.8	14.3	.5	3.2	385.4	.2	3,284.1
1997	1,820.8	86.5	399.6	1.5	2,308.4	628.6	-4.0	350.6	8.7	18.5	14.7	.5	3.3	396.3	.1	3,329.4
1998	1,850.2	122.2	449.3	2.3	2,424.0	673.7	-4.5	317.9	8.6	19.2	14.8	.5	3.0	364.0	.2	3,457.4
1999	1,858.6	111.5	473.0	1.6	2,444.8	728.3	-6.1	314.7	9.0	19.5	14.8	.5	4.5	362.9	.1	3,530.0
2000	1,943.1	105.2	518.0	2.0	2,568.3	753.9	-5.5	271.3	8.9	20.3	14.1	.5	5.6	320.7	.1	3,637.5
2001	1,882.8	119.1	554.9	.6	2,557.5	768.8	-8.8	213.7	8.3	12.9	13.7	.5	6.7	256.0	6.5	3,580.1
2002	1,910.6	89.7	607.7	2.0	2,610.0	780.1	-8.7	260.5	9.0	13.1	14.5	.6	10.4	308.0	9.1	3,698.5
2003	1,952.7	113.7	567.3	2.6	2,636.4	763.7	-8.5	271.5	9.5	13.8	14.4	.5	11.2	321.0	8.6	3,721.2
2004	1,957.2	^R 114.7	^R 627.4	3.0	2,702.3	788.5	-8.5	265.1	9.7	13.1	14.8	.6	14.1	317.5	8.6	3,808.4
2005	1,992.1	116.8	683.3	4.0	2,796.1	782.0	-6.6	267.0	10.6	13.0	14.7	.6	17.8	323.7	7.0	3,902.2
2006	^R 1,969.8	^R 59.9	^R 734.4	^R 3.9	^R 2,768.1	^R 787.2	^R -6.6	^R 286.3	^R 10.3	^R 13.9	^R 14.6	.5	^R 26.6	^R 352.2	^R 7.1	^R 3,908.1
2007 ^P	2,002.1	61.4	813.8	3.9	2,881.3	806.5	-7.0	246.0	10.4	14.6	14.8	.6	32.1	318.6	7.1	4,006.5

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

² Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.

³ Natural gas, plus a small amount of supplemental gaseous fuels.

⁴ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁵ Pumped storage facility production minus energy used for pumping.

⁶ Wood and wood-derived fuels.

⁷ 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).

⁸ Solar thermal and photovoltaic energy.

⁹ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

¹⁰ Included in "Conventional Hydroelectric Power."

¹¹ 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 0.05 billion kilowatthours.

Notes: • 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 Table 8.2d for commercial and industrial CHP and electricity-only data. • See Note 1, "Coverage of Electricity Statistics," and Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Totals may not equal sum of components due to independent rounding.

Web Pages: • For all data beginning in 1949, see <http://www.eia.doe.gov/emeu/aer/elect.html>. • For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

Sources: • 1949-September 1977—Federal Power Commission, Form FPC-4, "Monthly Power Plant Report." • October 1977-1981—Federal Energy Regulatory Commission, Form FPC-4, "Monthly Power Plant Report." • 1982-1988—Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report." • 1989-1997—EIA, Form EIA-759, "Monthly Power Plant Report," and Form EIA-867, "Annual Nonutility Power Producer Report." • 1998-2000—EIA, Form EIA-759, "Monthly Power Plant Report," and Form EIA-860B, "Annual Electric Generator Report—Nonutility." • 2001-2003—EIA, Form EIA-906, "Power Plant Report." • 2004 forward—EIA, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report."

Table 8.2c Electricity Net Generation: Electric Power Sector by Plant Type, 1989-2007

(Breakout of Table 8.2b; Billion Kilowatthours)

Year	Fossil Fuels					Nuclear Electric Power	Hydro-electric Pumped Storage ⁵	Renewable Energy							Other ⁹	Total
	Coal ¹	Petroleum ²	Natural Gas ³	Other Gases ⁴	Total			Conventional Hydroelectric Power	Biomass		Geo-thermal	Solar/PV ⁸	Wind	Total		
									Wood ⁶	Waste ⁷						
Electricity-Only Plants ¹⁰																
1989	1,554.0	158.3	266.9	—	1,979.3	529.4	(¹¹)	269.2	4.2	6.9	14.6	0.3	2.1	297.3	—	2,805.9
1990	1,560.2	117.6	264.7	(s)	1,942.4	576.9	-3.5	289.8	5.6	10.4	15.4	.4	2.8	324.3	—	2,840.0
1991	1,551.9	112.2	267.8	(s)	1,931.9	612.6	-4.5	286.0	6.0	12.2	16.0	.5	3.0	323.7	—	2,863.6
1992	1,577.1	90.1	270.9	(s)	1,938.0	618.8	-4.2	250.0	6.6	14.4	16.1	.4	2.9	290.4	—	2,843.1
1993	1,642.1	100.6	267.2	(s)	2,009.9	610.3	-4.0	277.5	7.2	14.9	16.8	.5	3.0	319.8	—	2,935.9
1994	1,639.9	92.1	299.7	(s)	2,031.7	640.4	-3.4	254.0	7.6	15.4	15.5	.5	3.4	296.5	—	2,965.2
1995	1,658.0	62.0	317.4	(s)	2,037.4	673.4	-2.7	305.4	5.9	16.3	13.4	.5	3.2	344.7	—	3,052.8
1996	1,742.8	68.5	272.8	(s)	2,084.1	674.7	-3.1	341.2	6.5	16.1	14.3	.5	3.2	381.8	—	3,137.6
1997	1,793.2	80.3	291.1	(s)	2,164.6	628.6	-4.0	350.6	6.5	16.4	14.7	.5	3.3	392.0	—	3,181.3
1998	1,823.0	115.7	335.9	.1	2,274.6	673.7	-4.5	317.9	6.6	17.0	14.8	.5	3.0	359.8	—	3,303.6
1999	1,832.1	104.8	356.6	(s)	2,293.6	728.3	-6.1	314.7	7.3	17.1	14.8	.5	4.5	358.8	—	3,374.6
2000	1,910.6	98.0	399.4	.2	2,408.2	753.9	-5.5	271.3	7.3	17.6	14.1	.5	5.6	316.4	—	3,472.9
2001	1,851.8	113.2	427.0	(s)	2,392.0	768.8	-8.8	213.7	6.6	11.3	13.7	.5	6.7	252.6	5.9	3,410.5
2002	1,881.2	83.3	456.8	.2	2,421.5	780.1	-8.7	260.5	7.3	11.2	14.5	.6	10.4	304.3	7.6	3,504.8
2003	1,915.8	108.5	421.2	.3	2,445.7	763.7	-8.5	271.5	7.4	11.9	14.4	.5	11.2	317.0	7.6	3,525.5
2004	1,921.1	109.4	491.2	.4	2,522.0	788.5	-8.5	265.1	8.1	11.8	14.8	.6	14.1	314.5	7.6	3,624.1
2005	1,955.5	111.2	553.2	(s)	2,619.9	782.0	-6.6	267.0	8.5	11.7	14.7	.6	17.8	320.3	6.2	3,721.8
2006	R ¹ 1,933.7	R ⁵ 55.2	R ⁶ 18.0	(s)	R ² 2,607.0	787.2	R ⁶ -6.6	R ² 286.2	R ⁸ 8.3	R ¹² 12.5	R ¹⁴ 14.6	.5	R ²⁶ 26.6	R ³ 348.7	R ⁶ 6.3	R ³ 742.7
2007 ^P	1,965.1	56.6	684.8	.1	2,706.6	806.5	-7.0	246.0	8.4	13.1	14.8	.6	32.1	315.1	6.3	3,827.5
Combined-Heat-and-Power Plants ¹²																
1989	8.4	0.7	30.4	0.5	39.9	—	—	—	1.3	0.9	—	—	—	2.2	0.3	42.3
1990	11.9	1.3	44.8	.6	58.7	—	—	—	1.4	1.1	—	—	—	2.6	(s)	61.3
1991	16.9	.6	50.0	.7	68.2	—	—	—	1.7	1.6	—	—	—	3.3	.4	71.9
1992	20.7	2.2	63.4	1.2	87.4	—	—	—	1.9	1.5	—	—	—	3.4	.5	91.3
1993	23.4	4.8	75.0	1.0	104.2	—	—	—	2.0	1.4	—	—	—	3.4	.4	108.0
1994	26.4	6.6	86.0	1.1	120.1	—	—	—	1.6	1.6	—	—	—	3.2	.2	123.5
1995	28.1	6.1	101.7	1.9	137.9	—	—	—	1.7	1.7	—	—	—	3.4	.2	141.5
1996	29.2	6.3	105.9	1.3	142.7	—	—	—	1.9	1.7	—	—	—	3.6	.2	146.6
1997	27.6	6.2	108.5	1.5	143.7	—	—	—	2.2	2.1	—	—	—	4.3	.1	148.1
1998	27.2	6.6	113.4	2.3	149.4	—	—	—	2.0	2.3	—	—	—	4.2	.2	153.8
1999	26.6	6.7	116.4	1.6	151.2	—	—	—	1.7	2.4	—	—	—	4.1	.1	155.4
2000	32.5	7.2	118.6	1.8	160.2	—	—	—	1.6	2.7	—	—	—	4.3	.1	164.6
2001	31.0	6.0	128.0	.6	165.5	—	—	—	1.7	1.7	—	—	—	3.4	.6	169.5
2002	29.4	6.5	150.9	1.7	188.5	—	—	—	1.7	2.0	—	—	—	3.7	1.4	193.7
2003	36.9	5.2	146.1	2.4	190.6	—	—	—	2.1	1.9	—	—	—	4.0	1.1	195.7
2004	36.1	R ⁵ 3.3	R ¹ 36.2	2.6	180.3	—	—	—	1.6	1.4	—	—	—	3.0	1.0	184.3
2005	36.5	5.6	130.1	3.9	176.2	—	—	(s)	2.1	1.3	—	—	—	3.4	.7	180.4
2006	R ³ 36.1	R ⁴ 4.7	R ¹ 116.5	R ³ 3.9	R ¹ 161.1	—	—	(s)	R ² 2.0	1.4	—	—	—	3.5	.8	R ¹ 165.4
2007 ^P	37.1	4.8	129.0	3.8	174.7	—	—	(s)	2.0	1.5	—	—	—	3.5	.8	179.0

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

² Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.

³ Natural gas, plus a small amount of supplemental gaseous fuels.

⁴ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁵ Pumped storage facility production minus energy used for pumping.

⁶ Wood and wood-derived fuels.

⁷ 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).

⁸ Solar thermal and photovoltaic energy.

⁹ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

¹⁰ Electricity-only plants within the NAICS 22 category whose primary business is to sell electricity to the public. Data also include a small number of electric utility combined-heat-and-power (CHP) plants.

¹¹ Included in "Conventional Hydroelectric Power."

¹² Combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity and heat to the public. Data do not include electric utility CHP plants—these are included under "Electricity-Only Plants."

R=Revised. P=Preliminary. —=No data reported. (s)=Less than 0.05 billion kilowatthours.

Notes: • See Table 8.2d for commercial and industrial CHP and electricity-only data. • See Note 1, "Coverage of Electricity Statistics," and Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Totals may not equal sum of components due to independent rounding.

Web Page: For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

Sources: • 1989-1997—Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report," and Form EIA-867, "Annual Nonutility Power Producer Report." • 1998-2000—EIA, Form EIA-759, "Monthly Power Plant Report," and Form EIA-860B, "Annual Electric Generator Report—Nonutility." • 2001-2003—EIA, Form EIA-906, "Power Plant Report." • 2004 forward—EIA, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report."

Table 8.2d Electricity Net Generation: Commercial and Industrial Sectors, 1989-2007

(Subset of Table 8.2a; Billion Kilowatthours)

Year	Fossil Fuels					Nuclear Electric Power	Hydro-electric Pumped Storage ⁵	Renewable Energy							Other ⁹	Total
	Coal ¹	Petroleum ²	Natural Gas ³	Other Gases ⁴	Total			Conventional Hydroelectric Power	Biomass		Geo-thermal	Solar/PV ⁸	Wind	Total		
									Wood ⁶	Waste ⁷						
Commercial Sector¹⁰																
1989	0.7	0.6	2.2	0.1	3.6	—	—	0.1	0.1	0.5	—	—	—	0.7	—	4.3
1990	.8	.6	3.3	.1	4.8	—	—	.1	.1	.8	—	—	—	1.1	—	5.8
1991	.8	.4	3.2	.1	4.5	—	—	.1	.1	.9	—	—	—	1.1	(s)	5.7
1992	.7	.3	3.9	.1	5.0	—	—	.1	.1	1.0	—	—	—	1.2	(s)	6.2
1993	.9	.3	4.5	.1	5.8	—	—	.1	.1	1.0	—	—	—	1.2	(s)	7.0
1994	.8	.4	4.9	.1	6.3	—	—	.1	.1	1.2	—	—	—	1.3	—	7.6
1995	1.0	.4	5.2	—	6.5	—	—	.1	.1	1.5	—	—	—	1.7	(s)	8.2
1996	1.1	.4	5.2	(s)	6.7	—	—	.1	.1	2.2	—	—	—	2.4	(s)	9.0
1997	1.0	.4	4.7	(s)	6.2	—	—	.1	(s)	2.3	—	—	—	2.5	(s)	8.7
1998	1.0	.4	4.9	(s)	6.3	—	—	.1	(s)	2.3	—	—	—	2.5	—	8.7
1999	1.0	.4	4.6	(s)	6.0	—	—	.1	(s)	2.4	—	—	—	2.5	(s)	8.6
2000	1.1	.4	4.3	(s)	5.8	—	—	.1	(s)	2.0	—	—	—	2.1	(s)	7.9
2001	1.0	.4	4.4	(s)	5.9	—	—	.1	(s)	1.0	—	—	—	1.1	.5	7.4
2002	1.0	.4	4.3	(s)	5.7	—	—	(s)	(s)	1.1	—	—	—	1.1	.6	7.4
2003	1.2	.4	3.9	—	5.5	—	—	.1	(s)	1.3	—	—	—	1.4	.6	7.5
2004	1.3	.5	4.1	—	5.8	—	—	.1	(s)	1.5	—	—	—	1.6	.8	8.3
2005	1.3	.4	4.3	—	6.0	—	—	.1	(s)	1.7	—	—	—	1.8	.8	8.5
2006	1.3	.2	4.3	R(s)	R5.9	—	—	.1	(s)	R1.6	—	—	—	R1.7	.8	8.4
2007 ^P	1.3	.2	4.5	(s)	6.0	—	—	.1	(s)	1.6	—	—	—	1.7	.8	8.5
Industrial Sector¹¹																
1989	20.7	5.0	53.2	7.3	86.1	—	—	2.7	21.6	0.9	—	—	—	25.2	3.5	114.8
1990	21.1	7.2	60.0	9.6	97.9	—	—	3.0	25.4	.9	—	—	—	29.3	3.6	130.8
1991	21.0	6.5	60.6	10.5	98.6	—	—	2.8	25.9	.9	—	—	—	29.6	4.3	132.6
1992	22.7	7.6	65.9	12.0	108.2	—	—	2.9	27.9	.9	—	—	—	31.8	3.2	143.3
1993	23.7	7.0	68.2	11.9	110.9	—	—	2.9	28.4	1.1	—	—	—	32.3	3.1	146.3
1994	23.6	6.8	69.6	12.1	112.1	—	—	6.0	28.7	1.0	—	—	—	35.7	3.4	151.2
1995	22.4	6.0	71.7	11.9	112.1	—	—	5.3	28.9	.9	—	—	—	35.1	3.9	151.0
1996	22.2	6.3	71.0	13.0	112.5	—	—	5.9	28.4	.9	—	—	—	35.2	3.4	151.0
1997	23.2	5.6	75.1	11.8	115.8	—	—	5.7	28.2	.9	—	—	—	34.8	3.5	154.1
1998	22.3	6.2	77.1	11.2	116.8	—	—	5.3	27.7	.9	—	—	—	33.9	3.4	154.1
1999	21.5	6.1	78.8	12.5	118.9	—	—	4.8	28.1	.7	—	—	—	33.5	3.9	156.3
2000	22.1	5.6	78.8	11.9	118.4	—	—	4.1	28.7	.8	—	—	—	33.6	4.7	156.7
2001	20.1	5.3	79.8	8.5	113.6	—	—	3.1	26.9	.6	—	—	—	30.6	4.9	149.2
2002	21.5	4.4	79.0	9.5	114.4	—	—	3.8	29.6	.8	—	—	—	34.3	3.8	152.6
2003	19.8	5.3	78.7	13.0	116.8	—	—	4.2	28.0	.7	—	—	—	32.9	4.8	154.5
2004	20.1	5.6	77.4	13.7	116.9	—	—	3.2	27.8	.8	—	—	—	31.9	5.1	153.9
2005	19.8	5.4	70.4	12.4	107.9	—	—	3.2	28.1	.8	—	—	—	32.1	4.8	144.7
2006	19.9	R4.2	R74.3	R12.1	R110.4	—	—	R2.9	R28.3	R.6	—	—	—	R31.8	R6.0	R148.3
2007 ^P	17.1	4.1	74.9	11.5	107.6	—	—	2.3	28.1	.6	—	—	—	31.0	5.9	144.5

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

² Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.

³ Natural gas, plus a small amount of supplemental gaseous fuels.

⁴ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁵ Pumped storage facility production minus energy used for pumping.

⁶ Wood and wood-derived fuels.

⁷ 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).

⁸ Solar thermal and photovoltaic energy.

⁹ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived

fuels).

¹⁰ Commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

¹¹ Industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

R=Revised. P=Preliminary. — = No data reported. (s)=Less than 0.05 billion kilowatthours.

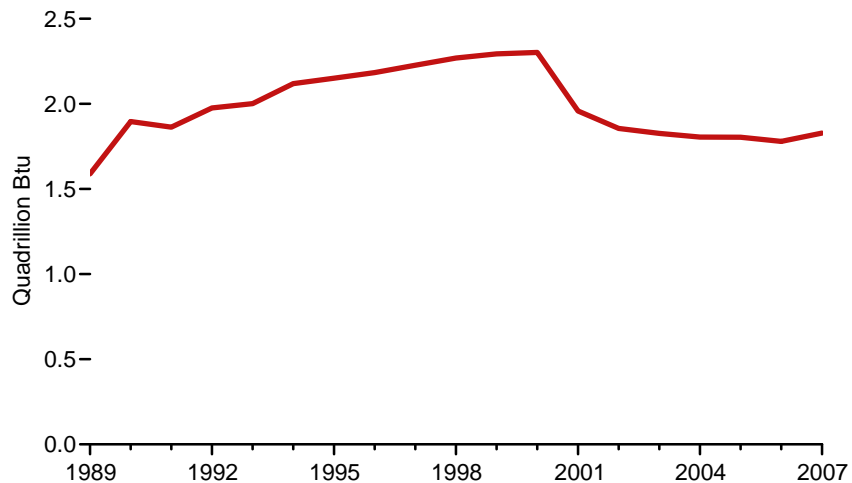
Notes: • See Tables 8.2b and 8.2c for electric power sector electricity-only and CHP data. • See Note 1, "Coverage of Electricity Statistics," and Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Totals may not equal sum of components due to independent rounding.

Web Page: For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

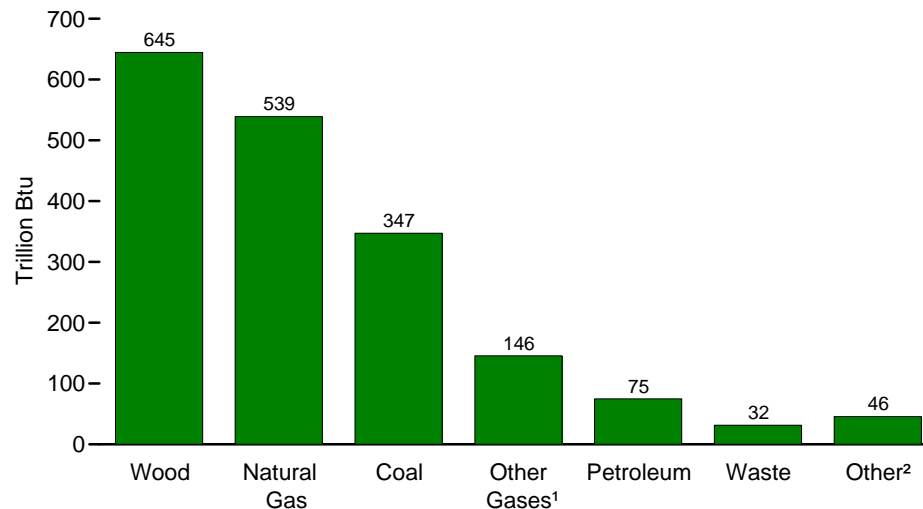
Sources: • 1989-1997—Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • 1998-2000—EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • 2001-2003—EIA, Form EIA-906, "Power Plant Report." • 2004 forward—EIA, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report."

Figure 8.3 Useful Thermal Output at Combined-Heat-and-Power Plants

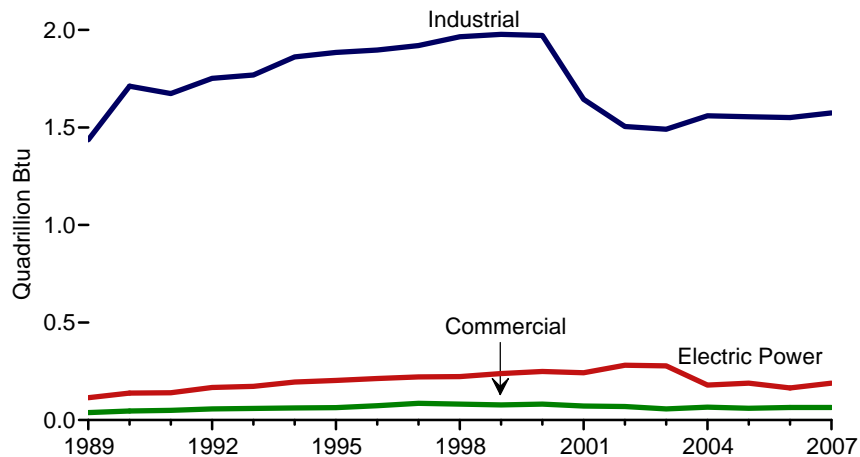
Total (All Sectors), 1989-2007



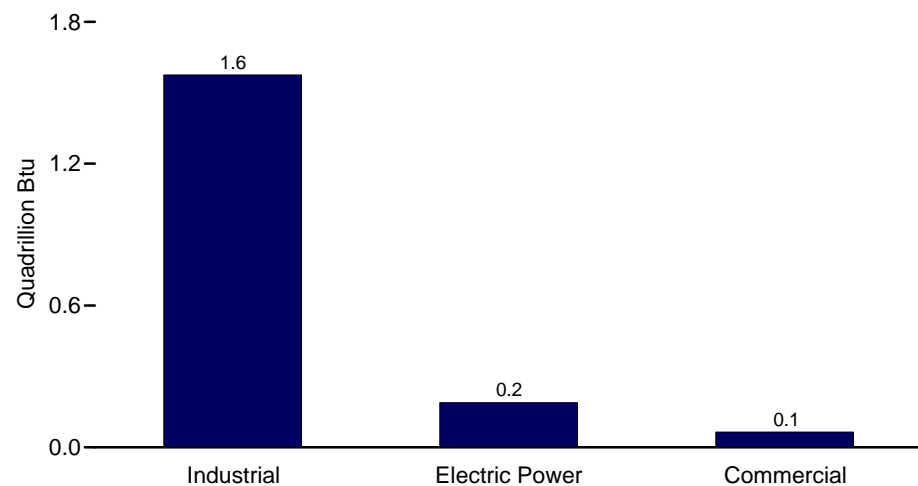
Total (All Sectors) by Source, 2007



By Sector, 1989-2007



By Sector, 2007



¹ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

² Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

Note: Because vertical scales differ, graphs should not be compared.
Sources: Tables 8.3a–8.3c.

Table 8.3a Useful Thermal Output at Combined-Heat-and-Power Plants: Total (All Sectors), 1989-2007

(Sum of Tables 8.3b and 8.3c; Trillion Btu)

Year	Fossil Fuels					Renewable Energy			Other ⁷	Total
	Coal ¹	Petroleum ²	Natural Gas ³	Other Gases ⁴	Total	Biomass		Total		
						Wood ⁵	Waste ⁶			
1989	323	96	462	93	973	546	30	577	39	1,589
1990	363	127	538	141	1,169	651	36	687	40	1,896
1991	352	112	547	148	1,159	623	37	660	44	1,863
1992	367	117	592	160	1,236	658	40	698	42	1,976
1993	373	129	604	142	1,248	668	45	713	41	2,002
1994	388	133	646	144	1,309	722	45	767	42	2,119
1995	386	121	686	145	1,338	721	47	768	44	2,151
1996	392	133	711	150	1,385	701	55	756	43	2,184
1997	389	137	713	150	1,389	731	55	785	53	2,227
1998	382	136	782	167	1,466	700	57	757	46	2,269
1999	386	125	811	179	1,501	690	55	744	48	2,294
2000	384	108	812	184	1,488	707	56	764	50	2,302
2001	354	90	741	133	1,318	^R 557	28	585	55	1,958
2002	337	73	709	118	1,236	546	26	572	48	1,856
2003	333	85	610	110	1,139	597	35	632	55	1,826
2004	346	96	505	134	1,081	661	22	684	40	1,805
2005	357	97	445	137	1,036	697	30	727	41	1,804
2006	339	^R 78	^R 456	^R 128	^R 1,001	^R 701	^R 31	^R 732	^R 48	^R 1,780
2007 ^P	347	75	539	146	1,107	645	32	676	46	1,829

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

² Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.

³ Natural gas, plus a small amount of supplemental gaseous fuels.

⁴ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁵ Wood and wood-derived fuels.

⁶ 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).

⁷ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and,

beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

R=Revised. P=Preliminary.

Notes: • Data do not include electric utility combined-heat-and-power (CHP) plants. • See Note 1, "Coverage of Electricity Statistics," at end of section. • See "Useful Thermal Output" in Glossary. • Totals may not equal sum of components due to independent rounding.

Web Page: For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

Sources: Tables 8.3b and 8.3c.

Table 8.3b Useful Thermal Output at Combined-Heat-and-Power Plants: Electric Power Sector, 1989-2007

(Subset of Table 8.3a; Trillion Btu)

Year	Fossil Fuels					Renewable Energy			Other ⁷	Total
	Coal ¹	Petroleum ²	Natural Gas ³	Other Gases ⁴	Total	Biomass		Total		
						Wood ⁵	Waste ⁶			
1989	13	8	67	2	90	19	5	24	1	114
1990	21	9	80	4	114	18	6	25	(s)	138
1991	21	6	82	4	113	17	9	26	1	140
1992	28	6	102	5	140	17	8	25	2	167
1993	30	8	107	3	147	16	8	24	1	173
1994	37	9	119	5	170	15	10	24	1	195
1995	40	13	118	4	176	15	12	27	(s)	203
1996	43	12	121	4	180	16	16	33	(s)	213
1997	39	12	132	8	191	16	14	30	(s)	221
1998	43	6	142	5	196	10	16	26	(s)	222
1999	52	7	146	4	208	10	20	30	(s)	238
2000	53	7	158	5	223	6	19	26	(s)	249
2001	52	6	164	5	226	8	4	13	3	243
2002	40	4	214	6	264	8	5	13	5	281
2003	38	7	200	9	255	9	11	20	3	278
2004	22	1	130	16	169	6	2	8	1	179
2005	25	1	118	32	177	7	3	10	3	189
2006	^R 28	^R 1	^R 105	^R 17	^R 152	8	^R 2	^R 10	3	^R 165
2007 ^P	27	1	125	22	174	9	2	12	3	189

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

² Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.

³ Natural gas, plus a small amount of supplemental gaseous fuels.

⁴ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁵ Wood and wood-derived fuels.

⁶ 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).

⁷ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

^R=Revised. ^P=Preliminary. (s)=Less than 0.5 trillion Btu.

Notes: • Data are for combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity and heat to the public. Data do not include electric utility CHP plants.

• See Table 8.3c for commercial and industrial CHP data. • See Note 1, "Coverage of Electricity Statistics," and Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • See "Useful Thermal Output" in Glossary. • Totals may not equal sum of components due to independent rounding.

Web Page: For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

Sources: • 1989-1997—Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • 1998-2000—EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • 2001-2003—EIA, Form EIA-906, "Power Plant Report." • 2004 forward—EIA, Form EIA-920, "Combined Heat and Power Plant Report."

Table 8.3c Useful Thermal Output at Combined-Heat-and-Power Plants: Commercial and Industrial Sectors, 1989-2007
(Subset of Table 8.3a; Trillion Btu)

Year	Fossil Fuels					Renewable Energy			Other ⁷	Total
	Coal ¹	Petroleum ²	Natural Gas ³	Other Gases ⁴	Total	Biomass		Total		
						Wood ⁵	Waste ⁶			
Commercial Sector ⁸										
1989	14	4	10	(s)	27	(s)	10	10	—	38
1990	15	5	16	(s)	36	(s)	10	11	—	46
1991	16	4	21	(s)	41	(s)	9	9	(s)	50
1992	15	4	24	(s)	44	(s)	13	14	(s)	57
1993	18	4	23	(s)	45	(s)	14	14	(s)	59
1994	18	4	26	(s)	48	(s)	14	14	—	62
1995	17	3	29	—	48	(s)	15	15	(s)	63
1996	20	3	33	(s)	55	1	17	18	—	73
1997	22	4	40	(s)	66	1	19	20	—	86
1998	20	5	39	(s)	64	1	18	18	—	82
1999	20	3	37	(s)	61	1	17	17	—	78
2000	21	4	39	(s)	64	1	17	18	—	82
2001	18	4	35	—	58	1	8	8	6	72
2002	18	3	36	—	57	1	6	7	5	69
2003	23	3	17	—	42	1	8	8	6	57
2004	24	4	21	—	49	1	10	10	7	66
2005	21	3	22	—	47	(s)	8	8	5	60
2006	21	R2	R28	R(s)	R50	(s)	8	8	R6	R64
2007 ^P	21	2	28	(s)	51	(s)	8	8	5	65
Industrial Sector ⁹										
1989	297	84	385	90	856	527	15	542	38	1,437
1990	327	113	443	137	1,019	632	20	652	40	1,711
1991	315	103	444	144	1,005	606	19	625	44	1,674
1992	324	107	466	155	1,052	641	19	660	40	1,752
1993	325	117	475	139	1,055	652	23	675	39	1,769
1994	333	119	501	138	1,092	707	21	729	41	1,862
1995	329	105	540	140	1,114	706	20	726	44	1,884
1996	329	118	557	146	1,150	684	21	705	43	1,897
1997	328	121	541	142	1,132	713	22	735	53	1,920
1998	318	124	601	162	1,206	689	24	713	46	1,965
1999	313	115	629	175	1,233	679	18	697	48	1,978
2000	309	98	615	179	1,201	700	20	720	50	1,971
2001	284	80	542	128	1,034	548	16	564	46	1,644
2002	278	66	458	112	914	537	15	552	39	1,505
2003	272	75	393	101	842	588	16	604	46	1,491
2004	300	91	353	118	862	654	11	665	32	1,560
2005	311	92	305	105	813	689	20	709	33	1,555
2006	R290	R75	R323	R111	R799	R693	R21	R714	R39	R1,551
2007 ^P	299	72	387	123	882	635	21	656	37	1,575

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

² Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.

³ Natural gas, plus a small amount of supplemental gaseous fuels.

⁴ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁵ Wood and wood-derived fuels.

⁶ 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).

⁷ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

⁸ Commercial combined-heat-and-power (CHP) plants.

⁹ Industrial combined-heat-and-power (CHP) plants.

R=Revised. P=Preliminary. — = No data reported. (s)=Less than 0.5 trillion Btu.

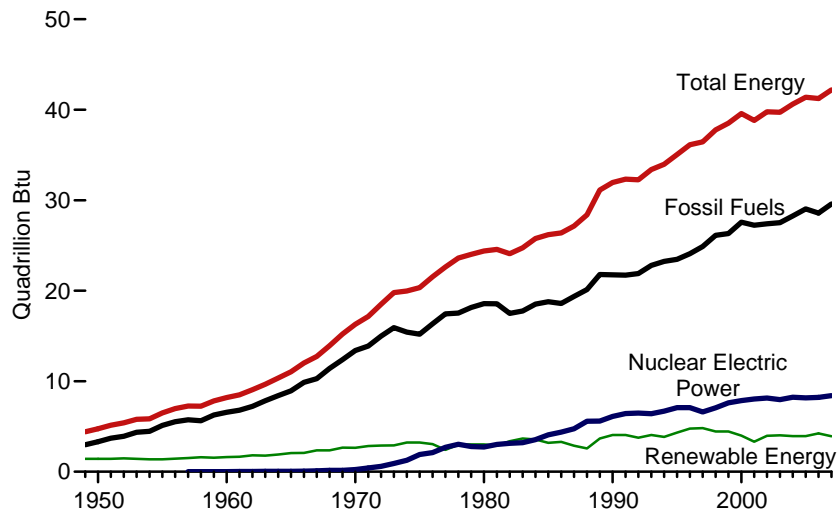
Notes: • See Table 8.3b for electric power sector CHP data. • See Note 1, "Coverage of Electricity Statistics," and Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • See "Useful Thermal Output" in Glossary. • Totals may not equal sum of components due to independent rounding.

Web Page: For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

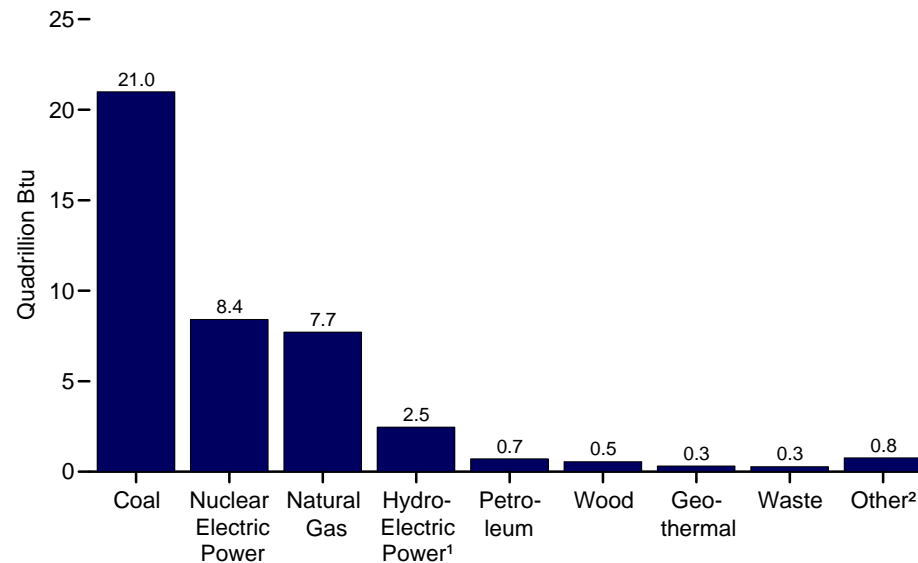
Sources: • 1989-1997—Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • 1998-2000—EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • 2001-2003—EIA, Form EIA-906, "Power Plant Report." • 2004 forward—EIA, Form EIA-920, "Combined Heat and Power Plant Report."

Figure 8.4 Consumption for Electricity Generation

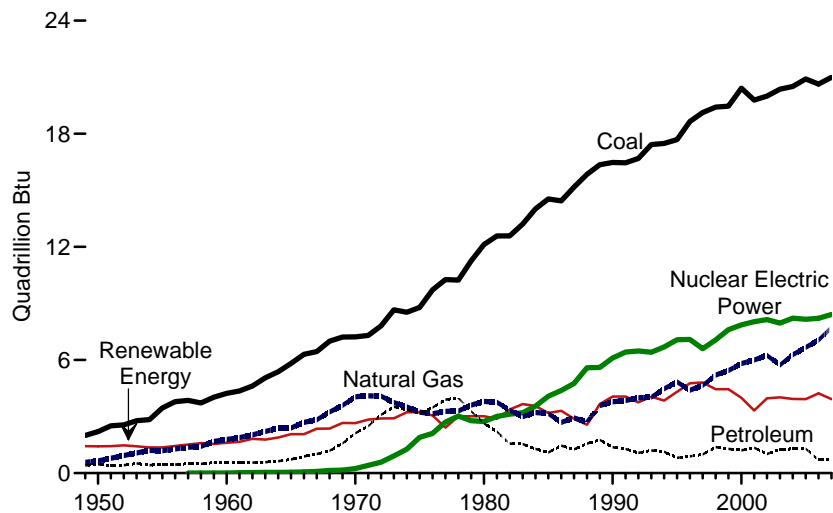
Total and Major Fuel Categories, 1949-2007



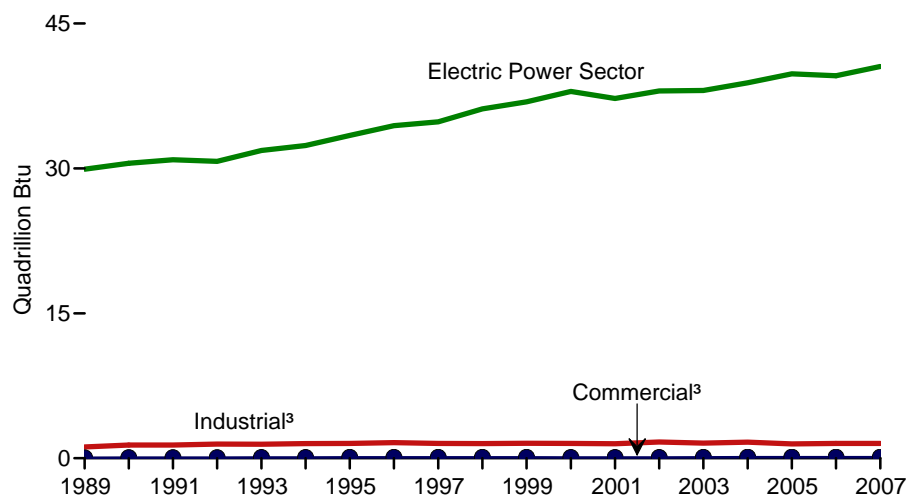
By Major Fuel, 2007



By Major Fuel, 1949-2007



By Sector, 1989-2007



¹ Conventional hydroelectric power.

² Wind, other gases, electricity net imports, solar thermal and photovoltaic energy, batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

³ Combined-heat-and-power plants and a small number of electricity-only plants.

Note: Because vertical scales differ, graphs should not be compared.

Sources: Tables 8.4a-8.4c.

Table 8.4a Consumption for Electricity Generation by Energy Source: Total (All Sectors), Selected Years, 1949-2007
(Sum of Tables 8.4b and 8.4c; Trillion Btu)

Year	Fossil Fuels					Nuclear Electric Power ⁵	Renewable Energy							Other ⁹	Electricity Net Imports ¹⁰	Total
	Coal ¹	Petroleum ²	Natural Gas ³	Other Gases ⁴	Total		Conventional Hydroelectric Power ⁵	Biomass		Geo-thermal ⁵	Solar/PV ^{5,8}	Wind ⁵	Total			
								Wood ⁶	Waste ⁷							
1949	1,995	415	569	NA	2,979	0	1,425	6	NA	NA	NA	NA	1,431	NA	5	4,415
1950	2,199	472	651	NA	3,322	0	1,415	5	NA	NA	NA	NA	1,421	NA	6	4,749
1955	3,458	471	1,194	NA	5,123	0	1,360	3	NA	NA	NA	NA	1,363	NA	14	6,500
1960	4,228	553	1,785	NA	6,565	6	1,608	2	NA	1	NA	NA	1,610	NA	15	8,197
1965	5,821	722	2,395	NA	8,938	43	2,059	3	NA	4	NA	NA	2,066	NA	(s)	11,047
1970	7,227	2,117	4,054	NA	13,399	239	2,634	1	2	11	NA	NA	2,649	NA	7	16,293
1971	7,299	2,495	4,099	NA	13,893	413	2,824	1	2	12	NA	NA	2,839	NA	12	17,158
1972	7,811	3,097	4,084	NA	14,992	584	2,864	1	2	31	NA	NA	2,899	NA	26	18,501
1973	8,658	3,515	3,748	NA	15,921	910	2,861	1	2	43	NA	NA	2,907	NA	49	19,788
1974	8,534	3,365	3,519	NA	15,418	1,272	3,177	1	2	53	NA	NA	3,232	NA	43	19,966
1975	8,786	3,166	3,240	NA	15,191	1,900	3,155	(s)	2	70	NA	NA	3,227	NA	21	20,339
1976	9,720	3,477	3,152	NA	16,349	2,111	2,976	1	2	78	NA	NA	3,057	NA	29	21,547
1977	10,262	3,901	3,284	NA	17,446	2,702	2,333	3	2	77	NA	NA	2,416	NA	59	22,623
1978	10,238	3,987	3,297	NA	17,522	3,024	2,937	2	1	64	NA	NA	3,005	NA	67	23,618
1979	11,260	3,283	3,613	NA	18,156	2,776	2,931	3	2	84	NA	NA	3,020	NA	69	24,021
1980	12,123	2,634	3,810	NA	18,567	2,739	2,900	3	2	110	NA	NA	3,014	NA	71	24,392
1981	12,583	2,202	3,768	NA	18,553	3,008	2,758	3	1	123	NA	NA	2,885	NA	113	24,559
1982	12,582	1,568	3,342	NA	17,491	3,131	3,266	2	1	105	NA	NA	3,374	NA	100	24,096
1983	13,213	1,544	2,998	NA	17,754	3,203	3,527	2	2	129	NA	(s)	3,661	NA	121	24,738
1984	14,019	1,286	3,220	NA	18,526	3,553	3,386	5	4	165	(s)	(s)	3,560	NA	135	25,774
1985	14,542	1,090	3,160	NA	18,792	4,076	2,970	8	7	198	(s)	(s)	3,183	NA	140	26,191
1986	14,444	1,452	2,691	NA	18,586	4,380	3,071	5	7	219	(s)	(s)	3,303	NA	122	26,392
1987	15,173	1,257	2,935	NA	19,365	4,754	2,635	8	7	229	(s)	(s)	2,879	NA	158	27,157
1988	15,850	1,563	2,709	NA	20,123	5,587	2,334	10	8	217	(s)	(s)	2,569	NA	108	28,387
1989	¹¹ 16,359	¹¹ 1,757	¹¹ 3,582	90	¹¹ 21,789	¹¹ 5,602	¹² 2,837	¹¹ 345	¹¹ 151	¹¹ 308	¹¹ 3	¹¹ 22	¹¹ 3,665	39	37	31,133
1990	16,477	1,367	3,791	112	21,747	6,104	3,046	442	211	326	4	29	4,058	36	8	31,954
1991	16,460	1,276	3,861	125	21,723	6,422	3,016	425	247	335	5	31	4,058	59	67	32,329
1992	16,686	1,076	3,999	141	21,903	6,479	2,617	481	283	338	4	30	3,752	40	87	32,261
1993	17,424	1,203	4,027	136	22,790	6,410	2,892	485	288	351	5	31	4,052	34	95	33,381
1994	17,485	1,135	4,476	136	23,233	6,694	2,683	498	301	325	5	36	3,848	40	153	33,968
1995	17,687	813	4,840	133	23,473	7,075	3,205	480	316	280	5	33	4,318	42	134	35,043
1996	18,650	888	4,400	159	24,097	7,087	3,590	513	324	300	5	33	4,765	37	137	36,123
1997	19,128	985	4,658	119	24,890	6,597	3,640	484	339	309	5	34	4,811	36	116	36,451
1998	19,417	1,378	5,205	125	26,124	7,068	3,297	475	332	311	5	31	4,450	36	88	37,767
1999	19,467	1,285	5,441	126	26,320	7,610	3,268	490	332	312	5	46	4,452	41	99	38,522
2000	20,411	1,212	5,818	126	27,567	7,862	2,811	496	330	296	5	57	3,995	46	115	39,586
2001	19,789	1,347	6,001	97	27,235	8,033	2,242	486	228	289	6	70	3,320	160	75	38,823
2002	19,997	1,014	6,250	131	27,392	8,143	2,689	605	257	305	6	105	3,967	191	72	39,764
2003	20,367	1,266	5,736	156	27,525	7,959	2,825	519	249	303	5	115	4,016	193	22	39,715
2004	20,508	1,282	6,281	187	28,257	8,222	2,690	534	254	311	6	142	3,936	176	39	40,629
2005	20,904	1,296	6,671	177	29,048	8,160	2,703	482	252	309	6	178	3,929	161	84	41,383
2006	^R 20,637	^R 696	^R 7,060	^R 181	^R 28,574	^R 8,214	^R 2,869	^R 523	^R 262	^R 306	5	^R 264	^R 4,229	^R 155	^R 63	^R 41,235
2007 ^P	20,990	715	7,716	166	29,587	8,415	2,463	548	276	312	6	319	3,924	169	107	42,201

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

² Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.

³ Natural gas, plus a small amount of supplemental gaseous fuels.

⁴ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁵ Values are converted from kilowatt-hours to Btu using the approximate heat rates in Table A6.

⁶ Wood and wood-derived fuels.

⁷ 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).

⁸ Solar thermal and photovoltaic energy.

⁹ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

¹⁰ Net imports equal imports minus exports. See Note 3, "Electricity Imports and Exports," at end of section.

¹¹ Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities,

independent power producers, commercial plants, and industrial plants.

¹² Through 1988, data are for electric utilities and industrial plants. Beginning in 1989, data are for electric utilities, independent power producers, commercial plants, and industrial plants.

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

Notes: • Data are for energy consumed to produce electricity. Data also include energy consumed to produce useful thermal output at a small number of electric utility combined-heat-and-power (CHP) plants.

• This table no longer shows energy consumption by hydroelectric pumped storage plants. The change was made because most of the electricity used to pump water into elevated storage reservoirs is generated by plants other than pumped-storage plants; thus, the associated energy is already accounted for in other data columns in this table (such as "Conventional Hydroelectric Power," "Coal," "Natural Gas," and so on).

• See Note 1, "Coverage of Electricity Statistics," at end of section. • Totals may not equal sum of components due to independent rounding.

Web Pages: • For all data beginning in 1949, see <http://www.eia.doe.gov/emeu/aer/elect.html>.

• For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

Sources: • 1949-1988—Table 8.4b for electric power sector, and Tables 8.1 and A6 for industrial sector.

• 1989 forward—Tables 8.4b and 8.4c.

Table 8.4b Consumption for Electricity Generation by Energy Source: Electric Power Sector, Selected Years, 1949-2007 (Subset of Table 8.4a; Trillion Btu)

Year	Fossil Fuels					Nuclear Electric Power ⁵	Renewable Energy							Electricity Net Imports ¹⁰	Total	
	Coal ¹	Petroleum ²	Natural Gas ³	Other Gases ⁴	Total		Conventional Hydroelectric Power ⁵	Biomass		Geo-thermal ⁵	Solar/PV ^{5,8}	Wind ⁵	Total			
								Wood ⁶	Waste ⁷							
1949	1,995	415	569	NA	2,979	0	1,349	6	NA	NA	NA	NA	1,355	NA	5	4,339
1950	2,199	472	651	NA	3,322	0	1,346	5	NA	NA	NA	NA	1,351	NA	6	4,679
1955	3,458	471	1,194	NA	5,123	0	1,322	3	NA	NA	NA	NA	1,325	NA	14	6,461
1960	4,228	553	1,785	NA	6,565	6	1,569	2	NA	1	NA	NA	1,571	NA	15	8,158
1965	5,821	722	2,395	NA	8,938	43	2,026	3	NA	4	NA	NA	2,033	NA	(s)	11,014
1970	7,227	2,117	4,054	NA	13,399	239	2,600	1	2	11	NA	NA	2,615	NA	7	16,259
1971	7,299	2,495	4,099	NA	13,893	413	2,790	1	2	12	NA	NA	2,806	NA	12	17,124
1972	7,811	3,097	4,084	NA	14,992	584	2,829	1	2	31	NA	NA	2,864	NA	26	18,466
1973	8,658	3,515	3,748	NA	15,921	910	2,827	1	2	43	NA	NA	2,873	NA	49	19,753
1974	8,534	3,365	3,519	NA	15,418	1,272	3,143	1	2	53	NA	NA	3,199	NA	43	19,933
1975	8,786	3,166	3,240	NA	15,191	1,900	3,122	(s)	2	70	NA	NA	3,194	NA	21	20,307
1976	9,720	3,477	3,152	NA	16,349	2,111	2,943	1	2	78	NA	NA	3,024	NA	29	21,513
1977	10,262	3,901	3,284	NA	17,446	2,702	2,301	3	2	77	NA	NA	2,383	NA	59	22,591
1978	10,238	3,987	3,297	NA	17,522	3,024	2,905	2	1	64	NA	NA	2,973	NA	67	23,587
1979	11,260	3,283	3,613	NA	18,156	2,776	2,897	3	2	84	NA	NA	2,986	NA	69	23,987
1980	12,123	2,634	3,810	NA	18,567	2,739	2,867	3	2	110	NA	NA	2,982	NA	71	24,359
1981	12,583	2,202	3,768	NA	18,553	3,008	2,725	3	1	123	NA	NA	2,852	NA	113	24,525
1982	12,582	1,568	3,342	NA	17,491	3,131	3,233	2	1	105	NA	NA	3,341	NA	100	24,063
1983	13,213	1,544	2,998	NA	17,754	3,203	3,494	2	2	129	NA	(s)	3,627	NA	121	24,705
1984	14,019	1,286	3,220	NA	18,526	3,553	3,353	5	4	165	(s)	(s)	3,527	NA	135	25,741
1985	14,542	1,090	3,160	NA	18,792	4,076	2,937	8	7	198	(s)	(s)	3,150	NA	140	26,158
1986	14,444	1,452	2,691	NA	18,586	4,380	3,038	5	7	219	(s)	(s)	3,270	NA	122	26,359
1987	15,173	1,257	2,935	NA	19,365	4,754	2,602	8	7	229	(s)	(s)	2,846	NA	158	27,124
1988	15,850	1,563	2,709	NA	20,123	5,587	2,302	10	8	217	(s)	(s)	2,536	NA	108	28,354
1989	¹¹ 16,121	¹¹ 1,697	¹¹ 3,107	7	¹¹ 20,932	¹¹ 5,602	¹¹ 2,808	¹¹ 75	¹¹ 126	¹¹ 308	¹¹ 3	¹¹ 22	¹¹ 3,342	2	37	29,916
1990	16,235	1,281	3,233	6	20,755	6,104	3,014	106	180	326	4	29	3,658	(s)	8	30,526
1991	16,223	1,199	3,296	6	20,725	6,422	2,985	104	217	335	5	31	3,677	4	67	30,895
1992	16,431	990	3,407	12	20,840	6,479	2,586	120	252	338	4	30	3,329	3	87	30,738
1993	17,159	1,122	3,426	12	21,719	6,410	2,861	129	255	351	5	31	3,632	3	95	31,859
1994	17,215	1,056	3,851	12	22,134	6,694	2,620	134	269	325	5	36	3,389	2	153	32,372
1995	17,416	743	4,179	18	22,356	7,075	3,149	106	282	280	5	33	3,855	2	134	33,423
1996	18,375	810	3,730	16	22,930	7,087	3,528	117	280	300	5	33	4,264	2	137	34,420
1997	18,855	917	3,981	14	23,768	6,597	3,581	117	292	309	5	34	4,337	1	116	34,819
1998	19,162	1,306	4,520	23	25,011	7,068	3,241	125	287	311	5	31	4,000	2	88	36,168
1999	19,214	1,211	4,742	14	25,181	7,610	3,218	125	290	312	5	46	3,996	1	99	36,888
2000	20,153	1,145	5,120	19	26,438	7,862	2,768	126	294	296	5	57	3,547	1	115	37,963
2001	19,549	1,280	5,290	9	26,128	8,033	2,209	116	205	289	6	70	2,894	109	75	37,239
2002	19,733	955	5,522	25	26,235	8,143	2,650	141	224	305	6	105	3,430	137	72	38,016
2003	20,137	1,199	5,009	30	26,374	7,959	2,781	156	216	303	5	115	3,576	136	22	38,068
2004	20,277	1,216	5,443	38	26,975	8,222	2,656	157	220	311	6	142	3,493	136	39	38,865
2005	20,705	1,240	5,888	44	27,877	8,160	2,670	176	217	309	6	178	3,555	120	84	39,797
2006	^R 20,426	^R 647	^R 6,265	^R 43	^R 27,381	^R 8,214	^R 2,839	^R 172	^R 228	^R 306	5	^R 264	^R 3,814	^R 121	^R 63	^R 39,593
2007 ^P	20,802	667	6,910	39	28,419	8,415	2,440	172	240	312	6	319	3,489	124	107	40,553

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.
² Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.
³ Natural gas, plus a small amount of supplemental gaseous fuels.
⁴ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.
⁵ Values are converted from kilowatt-hours to Btu using the approximate heat rates in Table A6.
⁶ Wood and wood-derived fuels.
⁷ 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).
⁸ Solar thermal and photovoltaic energy.
⁹ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).
¹⁰ Net imports equal imports minus exports. See Note 3, "Electricity Imports and Exports," at end of section.
¹¹ 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 energy consumed to produce electricity. Data also include energy consumed to

produce useful thermal output at a small number of electric utility combined-heat-and-power (CHP) plants.
 • 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 Table 8.4c for commercial and industrial CHP and electricity-only data. • This table no longer shows energy consumption by hydroelectric pumped storage plants. The change was made because most of the electricity used to pump water into elevated storage reservoirs is generated by plants other than pumped-storage plants; thus, the associated energy is already accounted for in other data columns in this table (such as "Conventional Hydroelectric Power," "Coal," "Natural Gas," and so on). • See Note 1, "Coverage of Electricity Statistics," and Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Totals may not equal sum of components due to independent rounding.
 Web Pages: • For all data beginning in 1949, see <http://www.eia.doe.gov/emeu/aer/elect.html>.
 • For related information, see <http://www.eia.doe.gov/fuelelectric.html>.
 Sources: **Electricity Net Imports:** Tables 8.1 and A6. **All Other Data:** • 1949-1988—Tables 8.2b, 8.5b, A1, A4, A5, and A6. • 1989-1997—Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report," and Form EIA-867, "Annual Nonutility Power Producer Report." • 1998-2000—EIA, Form EIA-759, "Monthly Power Plant Report," and Form EIA-860B, "Annual Electric Generator Report—Nonutility." • 2001-2003—EIA, Form EIA-906, "Power Plant Report." • 2004 forward—EIA, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report."

Table 8.4c Consumption for Electricity Generation by Energy Source: Commercial and Industrial Sectors, 1989-2007
(Subset of Table 8.4a; Trillion Btu)

Year	Fossil Fuels					Nuclear Electric Power	Renewable Energy							Electricity Net Imports	Total	
	Coal ¹	Petroleum ²	Natural Gas ³	Other Gases ⁴	Total		Conventional Hydroelectric Power ⁵	Biomass		Geo-thermal	Solar/PV ⁸	Wind	Total			Other ⁹
								Wood ⁶	Waste ⁷							
Commercial Sector ¹⁰																
1989	9	7	18	1	36	—	1	2	9	—	—	—	12	—	—	47
1990	9	6	28	1	45	—	1	2	15	—	—	—	18	—	—	63
1991	9	3	28	1	41	—	1	2	15	—	—	—	18	(s)	—	59
1992	8	3	33	1	45	—	1	1	16	—	—	—	19	(s)	—	64
1993	9	4	38	1	53	—	1	1	16	—	—	—	18	(s)	—	71
1994	9	4	42	1	56	—	1	1	17	—	—	—	19	—	—	75
1995	12	4	44	—	60	—	1	1	21	—	—	—	23	(s)	—	83
1996	14	4	44	(s)	62	—	1	1	31	—	—	—	33	(s)	—	95
1997	14	5	40	(s)	59	—	1	1	34	—	—	—	35	(s)	—	94
1998	11	5	42	(s)	57	—	1	1	32	—	—	—	34	—	—	91
1999	12	6	40	(s)	57	—	1	(s)	33	—	—	—	35	(s)	—	92
2000	12	5	38	(s)	55	—	1	(s)	26	—	—	—	28	(s)	—	82
2001	13	6	37	(s)	56	—	1	(s)	15	—	—	—	16	7	—	79
2002	9	4	31	(s)	44	—	(s)	(s)	18	—	—	—	19	11	—	73
2003	13	5	39	—	58	—	1	(s)	19	—	—	—	21	11	—	89
2004	13	7	47	—	67	—	1	1	22	—	—	—	24	13	—	104
2005	17	6	49	—	71	—	1	1	25	—	—	—	26	13	—	111
2006	16	^R 3	^R 50	—	68	—	1	1	26	—	—	—	^R 28	14	—	110
2007 ^P	16	2	51	—	69	—	1	1	27	—	—	—	29	13	—	111
Industrial Sector ¹¹																
1989	229	53	456	83	821	—	28	267	15	—	—	—	311	37	—	1,169
1990	233	80	530	104	947	—	31	335	16	—	—	—	382	36	—	1,365
1991	228	74	537	118	957	—	30	318	14	—	—	—	362	55	—	1,374
1992	246	84	559	128	1,017	—	31	359	15	—	—	—	405	37	—	1,459
1993	256	77	562	123	1,019	—	30	355	17	—	—	—	401	31	—	1,451
1994	261	75	584	123	1,043	—	62	364	14	—	—	—	440	38	—	1,521
1995	259	66	617	114	1,057	—	55	373	13	—	—	—	440	40	—	1,537
1996	261	74	626	143	1,104	—	61	394	13	—	—	—	468	35	—	1,607
1997	260	63	637	105	1,064	—	58	367	14	—	—	—	439	36	—	1,538
1998	245	67	643	102	1,056	—	55	349	13	—	—	—	417	35	—	1,508
1999	242	68	660	112	1,081	—	49	364	8	—	—	—	422	39	—	1,542
2000	245	61	660	107	1,074	—	42	369	10	—	—	—	421	45	—	1,540
2001	227	62	674	88	1,051	—	33	370	7	—	—	—	410	44	—	1,504
2002	255	55	697	106	1,113	—	39	464	15	—	—	—	518	43	—	1,675
2003	217	61	687	127	1,093	—	43	362	13	—	—	—	419	46	—	1,558
2004	217	59	790	148	1,215	—	33	376	11	—	—	—	419	27	—	1,660
2005	182	51	734	133	1,100	—	32	306	9	—	—	—	347	28	—	1,475
2006	^R 194	^R 46	^R 746	^R 138	^R 1,124	—	^R 29	^R 350	8	—	—	—	^R 386	^R 21	—	^R 1,531
2007 ^P	172	46	755	127	1,099	—	23	376	8	—	—	—	406	31	—	1,537

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

² Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.

³ Natural gas, plus a small amount of supplemental gaseous fuels.

⁴ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁵ Values are converted from kilowatt-hours to Btu using the approximate heat rates in Table A6.

⁶ Wood and wood-derived fuels.

⁷ 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).

⁸ Solar thermal and photovoltaic energy.

⁹ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

¹⁰ Commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

¹¹ Industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

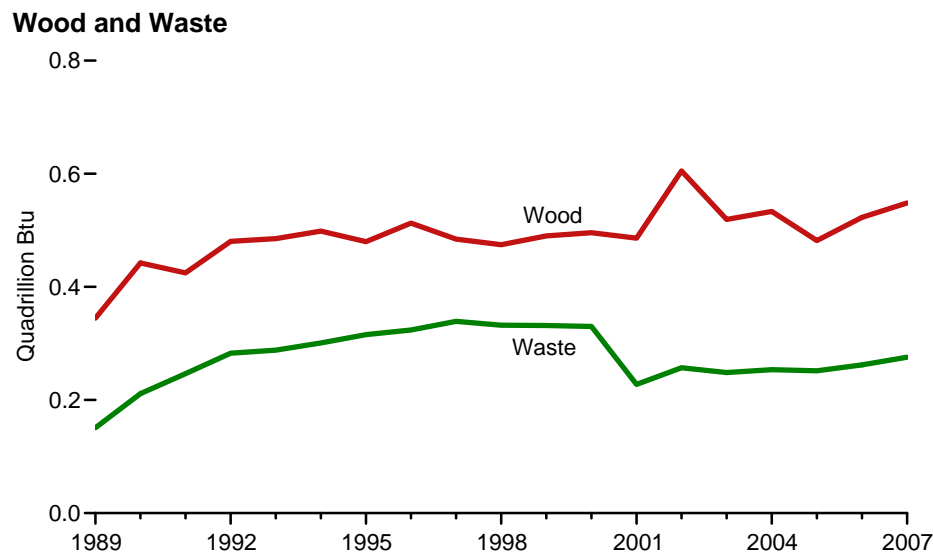
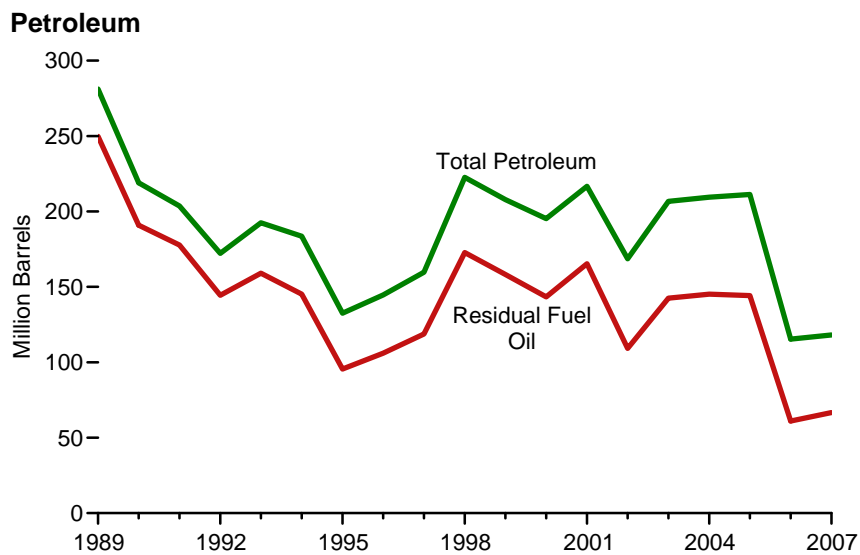
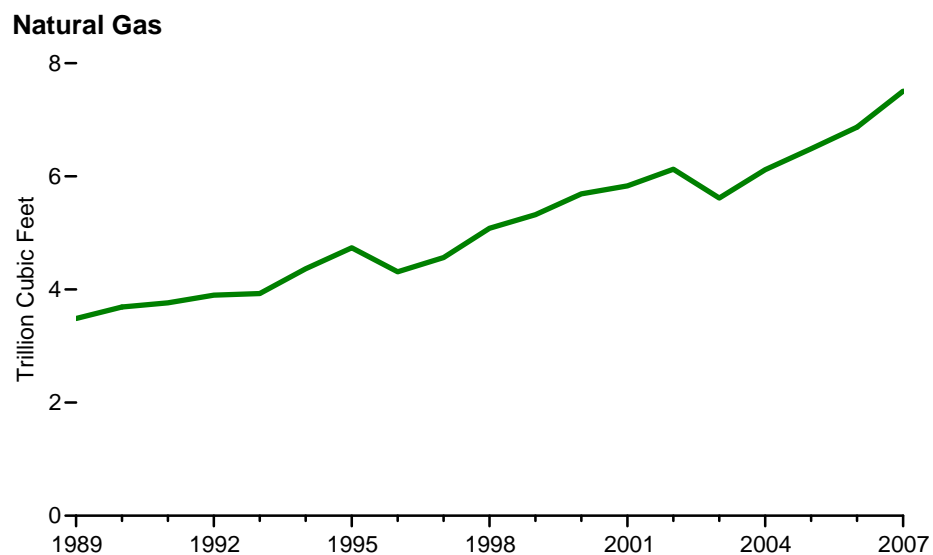
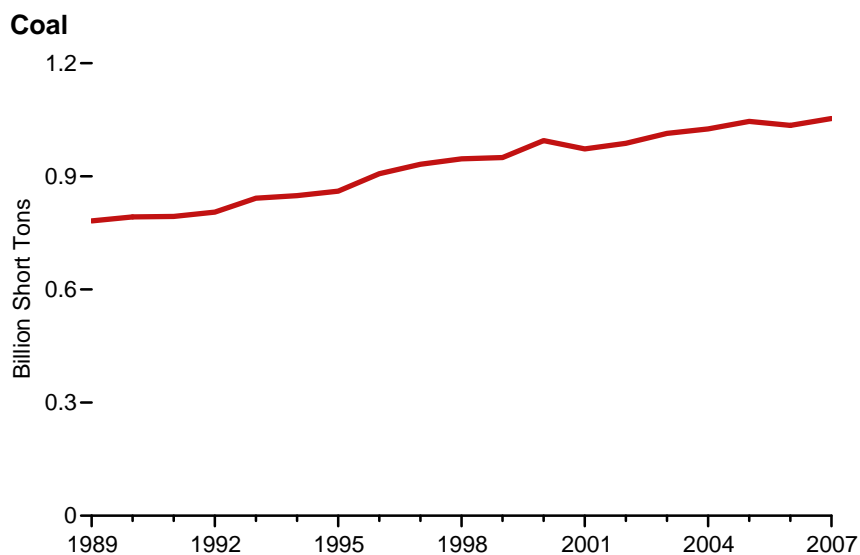
R=Revised. P=Preliminary. -- = Not applicable. - = No data reported. (s)=Less than 0.5 trillion Btu.

Notes: • Data are for energy consumed to produce electricity. • See Table 8.4b for electric power sector electricity-only and CHP data. • See Note 1, "Coverage of Electricity Statistics," and Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Totals may not equal sum of components due to independent rounding.

Web Page: For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

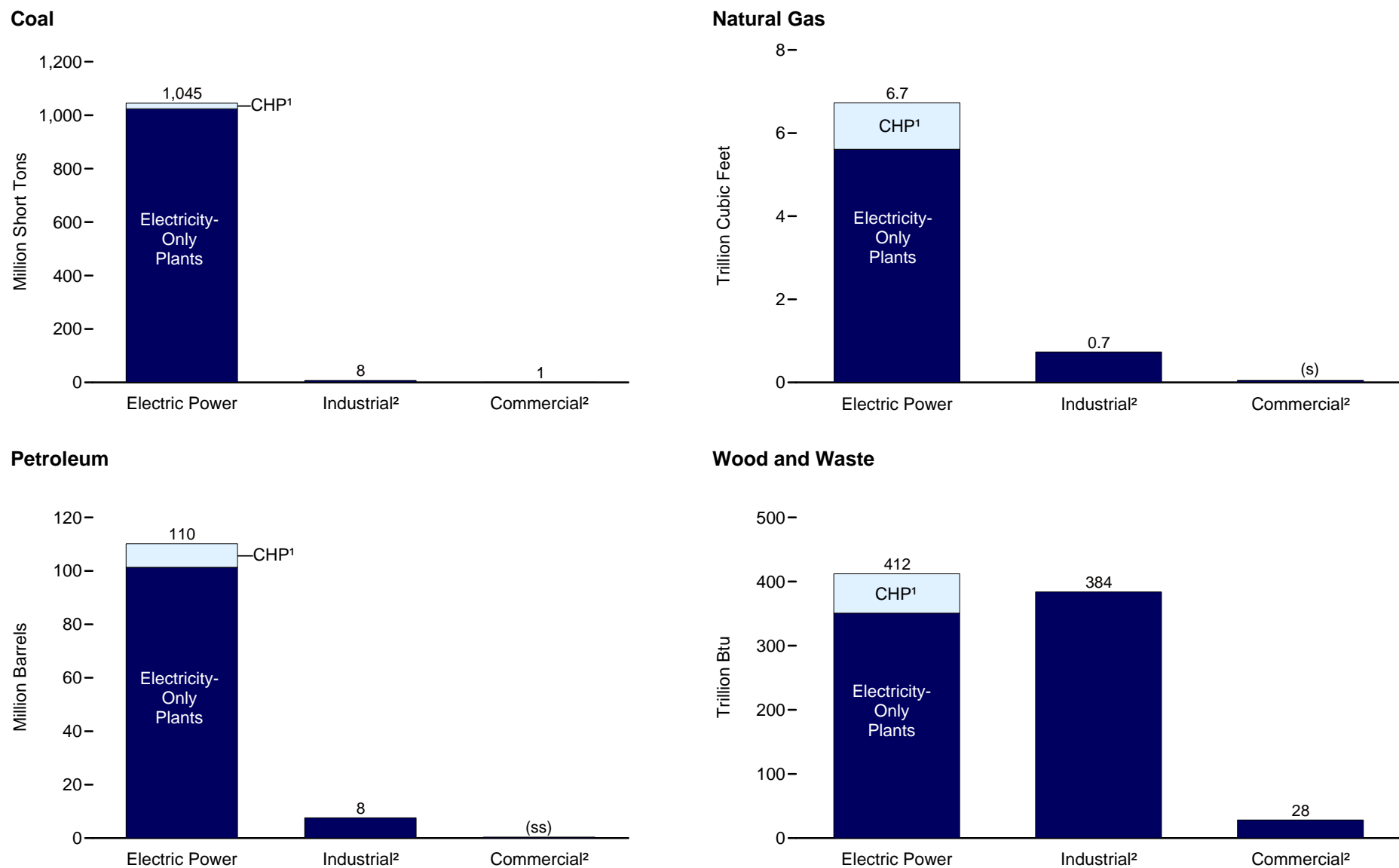
Sources: • 1989-1997—Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • 1998-2000—EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • 2001-2003—EIA, Form EIA-906, "Power Plant Report." • 2004 forward—EIA, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report."

Figure 8.5a Consumption of Combustible Fuels for Electricity Generation, 1989-2007



Source: Table 8.5a.

Figure 8.5b Consumption of Combustible Fuels for Electricity Generation by Sector, 2007



¹ Combined-heat-and-power plants.

² Combined-heat-and-power and electricity-only plants.

(s)=Less than 0.05 trillion cubic feet.

(ss)=Less than 0.5 million barrels.

Sources: Tables 8.5b-8.5d.

Table 8.5a Consumption of Combustible Fuels for Electricity Generation: Total (All Sectors), Selected Years, 1949-2007
(Sum of Tables 8.5b and 8.5d)

Year	Coal ¹	Petroleum					Total ⁵	Natural Gas ⁶	Other Gases ⁷	Biomass		Other ¹⁰
		Distillate Fuel Oil ²	Residual Fuel Oil ³	Other Liquids ⁴	Petroleum Coke ⁵	Wood ⁸				Waste ⁹		
	Thousand Short Tons	Thousand Barrels			Thousand Short Tons	Thousand Barrels	Million Cubic Feet	Trillion Btu	Trillion Btu		Trillion Btu	
1949	83,963	4,767	61,534	NA	NA	66,301	550,121	NA	6	NA	NA	
1950	91,871	5,423	69,998	NA	NA	75,421	628,919	NA	5	NA	NA	
1955	143,759	5,412	69,862	NA	NA	75,274	1,153,280	NA	3	NA	NA	
1960	176,685	3,824	84,371	NA	NA	88,195	1,724,762	NA	2	NA	NA	
1965	244,788	4,928	110,274	NA	NA	115,203	2,321,101	NA	3	NA	NA	
1970	320,182	24,123	311,381	NA	636	338,686	3,931,860	NA	1	2	NA	
1971	327,301	34,283	362,187	NA	605	399,496	3,976,018	NA	1	2	NA	
1972	351,768	53,465	440,294	NA	627	496,895	3,976,913	NA	1	2	NA	
1973	389,212	47,058	513,190	NA	507	562,781	3,660,172	NA	1	2	NA	
1974	391,811	53,128	483,146	NA	625	539,399	3,443,428	NA	1	2	NA	
1975	405,962	38,907	467,221	NA	70	506,479	3,157,669	NA	(s)	2	NA	
1976	448,371	41,843	514,077	NA	68	556,261	3,080,868	NA	1	2	NA	
1977	477,126	48,837	574,869	NA	98	624,193	3,191,200	NA	3	2	NA	
1978	481,235	47,520	588,319	NA	398	637,830	3,188,363	NA	2	1	NA	
1979	527,051	30,691	492,606	NA	268	524,636	3,490,523	NA	3	2	NA	
1980	569,274	29,051	391,163	NA	179	421,110	3,681,595	NA	3	2	NA	
1981	596,797	21,313	329,798	NA	139	351,806	3,640,154	NA	3	1	NA	
1982	593,666	15,337	234,434	NA	149	250,517	3,225,518	NA	2	1	NA	
1983	625,211	16,512	228,984	NA	261	246,804	2,910,767	NA	2	2	NA	
1984	664,399	15,190	189,289	NA	252	205,736	3,111,342	NA	5	4	NA	
1985	693,841	14,635	158,779	NA	231	174,571	3,044,083	NA	8	7	NA	
1986	685,056	14,326	216,156	NA	313	232,046	2,602,370	NA	5	7	NA	
1987	717,894	15,367	184,011	NA	348	201,116	2,844,051	NA	8	7	NA	
1988	758,372	18,769	229,327	NA	409	250,141	2,635,613	NA	10	8	NA	
1989 ¹¹	781,672	27,733	249,820	303	667	281,192	3,485,429	90	345	151	39	
1990	792,457	18,143	190,849	437	1,914	218,997	3,691,563	112	442	211	36	
1991	793,666	16,564	177,780	380	1,789	203,669	3,764,778	125	425	247	59	
1992	805,140	14,493	144,467	759	2,504	172,241	3,899,718	141	481	283	40	
1993	842,153	16,845	159,059	715	3,169	192,462	3,928,653	136	485	288	34	
1994	848,796	22,365	145,225	929	3,020	183,618	4,367,148	136	498	301	40	
1995	860,594	19,615	95,507	680	3,355	132,578	4,737,871	133	480	316	42	
1996	907,209	20,252	106,055	1,712	3,322	144,626	4,312,458	159	513	324	37	
1997	931,949	20,309	118,741	237	4,086	159,715	4,564,770	119	484	339	36	
1998	946,295	25,062	172,728	549	4,860	222,640	5,081,384	125	475	332	36	
1999	949,802	25,951	158,187	974	4,552	207,871	5,321,984	126	490	332	41	
2000	994,933	31,675	143,381	1,450	3,744	195,228	5,691,481	126	496	330	46	
2001	972,691	31,150	165,312	855	3,871	216,672	5,832,305	97	486	228	160	
2002	987,583	23,286	109,235	1,894	6,836	168,597	6,126,062	131	605	257	191	
2003	1,014,058	29,672	142,518	2,947	6,303	206,653	5,616,135	156	519	249	193	
2004	1,026,018	20,669	145,171	3,959	7,942	209,508	6,116,574	187	534	254	176	
2005	1,045,878	21,163	144,234	3,303	8,511	211,256	6,486,761	177	482	252	161	
2006	R1,035,346	R13,372	R61,019	R2,612	R7,673	R115,370	R6,869,624	R181	R523	R262	R155	
2007 ^P	1,053,346	16,605	66,701	3,699	6,222	118,115	7,507,446	166	548	276	169	

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

² Fuel oil nos. 1, 2, and 4. For 1949-1979, data are for gas turbine and internal combustion plant use of petroleum. For 1980-2000, electric utility data also include small amounts of kerosene and jet fuel.

³ Fuel oil nos. 5 and 6. For 1949-1979, data are for steam plant use of petroleum. For 1980-2000, electric utility data also include a small amount of fuel oil no. 4.

⁴ Jet fuel, kerosene, other petroleum liquids, and waste oil.

⁵ Petroleum coke is converted from short tons to barrels by multiplying by 5.

⁶ Natural gas, plus a small amount of supplemental gaseous fuels.

⁷ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁸ Wood and wood-derived fuels.

⁹ 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).

¹⁰ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

¹¹ Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities, independent power producers, commercial plants, and industrial plants.

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

Notes: • Data are for fuels consumed to produce electricity. Data also include fuels consumed to produce useful thermal output at a small number of electric utility combined-heat-and-power (CHP) plants.

• See Note 1, "Coverage of Electricity Statistics," at end of section. • Totals may not equal sum of components due to independent rounding.

Web Pages: • For all data beginning in 1949, see <http://www.eia.doe.gov/emeu/aer/elect.html>.

• For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

Sources: Tables 8.5b and 8.5d.

Table 8.5b Consumption of Combustible Fuels for Electricity Generation: Electric Power Sector, Selected Years, 1949-2007 (Subset of Table 8.5a)

Year	Coal ¹ Thousand Short Tons	Petroleum					Natural Gas ⁶ Million Cubic Feet	Other Gases ⁷ Trillion Btu	Biomass		Other ¹⁰ Trillion Btu
		Distillate Fuel Oil ²	Residual Fuel Oil ³	Other Liquids ⁴	Petroleum Coke ⁵	Total ⁵			Wood ⁸	Waste ⁹	
		Thousand Barrels				Thousand Short Tons			Thousand Barrels	Trillion Btu	
1949	83,963	4,767	61,534	NA	NA	66,301	550,121	NA	6	NA	NA
1950	91,871	5,423	69,998	NA	NA	75,421	628,919	NA	5	NA	NA
1955	143,759	5,412	69,862	NA	NA	75,274	1,153,280	NA	3	NA	NA
1960	176,685	3,824	84,371	NA	NA	88,195	1,724,762	NA	2	NA	NA
1965	244,788	4,928	110,274	NA	NA	115,203	2,321,101	NA	3	NA	NA
1970	320,182	24,123	311,381	NA	636	338,686	3,931,860	NA	1	2	NA
1971	327,301	34,283	362,187	NA	605	399,496	3,976,018	NA	1	2	NA
1972	351,768	53,465	440,294	NA	627	496,895	3,976,913	NA	1	2	NA
1973	389,212	47,058	513,190	NA	507	562,781	3,660,172	NA	1	2	NA
1974	391,811	53,128	483,146	NA	625	539,399	3,443,428	NA	1	2	NA
1975	405,962	38,907	467,221	NA	70	506,479	3,157,669	NA	(s)	2	NA
1976	448,371	41,843	514,077	NA	68	556,261	3,080,868	NA	1	2	NA
1977	477,126	48,837	574,869	NA	98	624,193	3,191,200	NA	3	2	NA
1978	481,235	47,520	588,319	NA	398	637,830	3,188,363	NA	2	1	NA
1979	527,051	30,691	492,606	NA	268	524,636	3,490,523	NA	3	2	NA
1980	569,274	29,051	391,163	NA	179	421,110	3,681,595	NA	3	2	NA
1981	596,797	21,313	329,798	NA	139	351,806	3,640,154	NA	3	1	NA
1982	593,666	15,337	234,434	NA	149	250,517	3,225,518	NA	2	1	NA
1983	625,211	16,512	228,984	NA	261	246,804	2,910,767	NA	2	2	NA
1984	664,399	15,190	189,289	NA	252	205,736	3,111,342	NA	5	4	NA
1985	693,841	14,635	158,779	NA	231	174,571	3,044,083	NA	8	7	NA
1986	685,056	14,326	216,156	NA	313	232,046	2,602,370	NA	5	7	NA
1987	717,894	15,367	184,011	NA	348	201,116	2,844,051	NA	8	7	NA
1988	758,372	18,769	229,327	NA	409	250,141	2,635,613	NA	10	8	NA
1989 ¹¹	771,551	26,036	242,708	9	517	271,340	3,023,513	7	75	126	2
1990	781,301	16,394	183,285	25	1,008	204,745	3,147,289	6	106	180	(s)
1991	782,653	14,255	171,629	58	974	190,810	3,216,056	6	104	217	4
1992	793,390	12,469	137,681	118	1,490	157,719	3,324,963	12	120	252	3
1993	829,851	14,559	151,407	213	2,571	179,034	3,344,239	12	129	255	3
1994	836,113	20,241	137,198	667	2,256	169,387	3,758,484	12	134	269	2
1995	847,854	18,066	88,895	441	2,452	119,663	4,093,773	18	106	282	2
1996	894,400	18,472	88,795	567	2,467	130,168	3,659,810	16	117	280	2
1997	919,009	18,646	112,423	130	3,201	147,202	3,903,195	14	117	292	1
1998	934,126	23,166	165,875	411	3,999	209,447	4,415,813	23	125	287	2
1999	937,888	23,875	151,921	514	3,607	194,345	4,643,775	14	125	290	1
2000	982,713	29,722	138,047	403	3,155	183,946	5,014,071	19	126	294	1
2001	961,523	29,056	159,150	374	3,308	205,119	5,142,493	9	116	205	109
2002	975,251	21,810	104,577	1,243	5,705	156,154	5,408,279	25	141	224	137
2003	1,003,036	27,441	137,361	1,937	5,719	195,336	4,909,248	30	156	216	136
2004	1,015,079	18,927	139,806	2,702	7,357	198,220	5,305,863	38	157	220	136
2005	1,036,140	19,587	139,376	2,634	8,066	201,926	5,724,912	44	176	217	120
2006	R1,025,107	R12,613	R57,322	R1,844	R7,092	R107,238	R6,096,981	R43	R172	R228	R121
2007 ^P	1,044,995	15,781	63,501	2,894	5,590	110,127	6,725,136	39	172	240	124

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

² Fuel oil nos. 1, 2, and 4. For 1949-1979, data are for gas turbine and internal combustion plant use of petroleum. For 1980-2000, electric utility data also include small amounts of kerosene and jet fuel.

³ Fuel oil nos. 5 and 6. For 1949-1979, data are for steam plant use of petroleum. For 1980-2000, electric utility data also include a small amount of fuel oil no. 4.

⁴ Jet fuel, kerosene, other petroleum liquids, and waste oil.

⁵ Petroleum coke is converted from short tons to barrels by multiplying by 5.

⁶ Natural gas, plus a small amount of supplemental gaseous fuels.

⁷ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁸ Wood and wood-derived fuels.

⁹ 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).

¹⁰ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

¹¹ 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. Data also include fuels consumed to produce useful thermal output at a small number of electric utility combined-heat-and-power (CHP) plants.

• 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 Table 8.5d for commercial and industrial CHP and electricity-only data. • See Note 1, "Coverage of Electricity Statistics," and Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Totals may not equal sum of components due to independent rounding.

Web Pages: • For all data beginning in 1949, see <http://www.eia.doe.gov/emeu/aer/elect.html>. • For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

Sources: • 1949-September 1977—Federal Power Commission, Form FPC-4, "Monthly Power Plant Report." • October 1977-1981—Federal Energy Regulatory Commission, Form FPC-4, "Monthly Power Plant Report." • 1982-1988—Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report." • 1989-1997—EIA, Form EIA-759, "Monthly Power Plant Report," and Form EIA-867, "Annual Nonutility Power Producer Report." • 1998-2000—EIA, Form EIA-759, "Monthly Power Plant Report," and Form EIA-860B, "Annual Electric Generator Report—Nonutility." • 2001-2003—EIA, Form EIA-906, "Power Plant Report." • 2004 forward—EIA, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report."

Table 8.5c Consumption of Combustible Fuels for Electricity Generation: Electric Power Sector by Plant Type, 1989-2007 (Breakout of Table 8.5b)

Year	Coal ¹	Petroleum					Natural Gas ⁶	Other Gases ⁷	Biomass		Other ¹⁰
		Distillate Fuel Oil ²	Residual Fuel Oil ³	Other Liquids ⁴	Petroleum Coke ⁵	Total ⁵			Wood ⁸	Waste ⁹	
	Thousand Short Tons	Thousand Barrels			Thousand Short Tons	Thousand Barrels	Million Cubic Feet	Trillion Btu	Trillion Btu		Trillion Btu
Electricity-Only Plants ¹¹											
1989	767,378	25,574	241,960	3	517	270,125	2,790,567	–	59	111	–
1990	774,213	14,956	181,231	17	1,008	201,246	2,794,110	(s)	87	162	–
1991	773,183	13,822	171,157	51	974	189,898	2,822,159	(s)	85	195	–
1992	781,186	11,998	135,779	48	1,320	154,428	2,828,996	(s)	94	232	–
1993	816,558	13,460	149,287	11	1,553	170,521	2,755,093	(s)	101	237	–
1994	821,209	16,693	134,666	52	1,193	157,375	3,064,561	(s)	112	248	–
1995	832,928	16,169	86,584	133	1,082	108,297	3,287,571	(s)	84	262	–
1996	878,825	17,361	96,386	50	1,010	118,848	2,823,724	(s)	94	258	–
1997	904,245	17,702	109,989	30	1,687	136,156	3,039,227	1	91	266	–
1998	920,353	22,293	163,541	295	2,202	197,137	3,543,931	1	95	263	–
1999	924,692	22,877	149,193	380	1,891	181,905	3,729,175	1	105	264	–
2000	967,080	28,001	135,419	94	1,457	170,799	4,092,729	2	105	267	–
2001	946,068	27,695	157,090	26	1,827	193,945	4,163,930	(s)	96	179	98
2002	960,077	21,521	102,622	444	3,925	144,212	4,258,467	6	118	193	117
2003	983,538	25,951	136,050	936	4,794	186,904	3,780,314	6	127	185	120
2004	994,774	17,944	137,736	1,441	6,096	187,601	4,141,535	5	134	190	122
2005	1,015,640	18,689	137,082	1,676	6,876	191,827	4,592,271	(s)	143	189	108
2006	R1,004,769	R12,375	R55,192	R991	R5,988	R98,497	R5,091,049	(s)	R141	R189	R107
2007 ^P	1,024,477	15,043	61,372	1,829	4,621	101,351	5,607,088	1	142	209	112
Combined-Heat-and-Power Plants ¹²											
1989	4,173	462	747	6	–	1,215	232,946	7	16	16	2
1990	7,088	1,438	2,054	7	–	3,499	353,179	6	18	18	(s)
1991	9,470	433	473	7	–	912	393,898	6	20	22	4
1992	12,204	471	1,902	69	170	3,291	495,967	12	25	20	3
1993	13,293	1,098	2,120	202	1,018	8,513	589,147	12	28	18	3
1994	14,904	3,548	2,531	615	1,063	12,011	693,923	12	22	22	2
1995	14,926	1,898	2,311	307	1,370	11,366	806,202	18	22	20	2
1996	15,575	1,111	2,410	517	1,456	11,320	836,086	15	24	22	2
1997	14,764	944	2,434	100	1,514	11,046	863,968	14	26	26	1
1998	13,773	872	2,334	117	1,797	12,310	871,881	21	30	24	2
1999	13,197	998	2,728	134	1,716	12,440	914,600	14	20	26	1
2000	15,634	1,721	2,627	310	1,698	13,147	921,341	17	21	28	1
2001	15,455	1,360	2,059	347	1,482	11,175	978,563	9	20	26	11
2002	15,174	289	1,955	800	1,780	11,942	1,149,812	20	23	30	20
2003	19,498	1,491	1,311	1,002	926	8,431	1,128,935	23	29	31	16
2004	20,306	983	2,070	1,261	1,261	10,620	1,164,328	33	23	30	14
2005	20,500	898	2,293	958	1,190	10,099	1,132,641	44	32	28	12
2006	R20,337	R238	R2,130	R853	1,104	R8,740	R1,005,932	R42	31	R30	13
2007 ^P	20,518	738	2,129	1,065	969	8,776	1,118,048	38	30	31	13

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

² Fuel oil nos. 1, 2, and 4. Through 2000, electric utility data also include small amounts of kerosene and jet fuel.

³ Fuel oil nos. 5 and 6. Through 2000, electric utility data also include a small amount of fuel oil no. 4.

⁴ Jet fuel, kerosene, other petroleum liquids, and waste oil.

⁵ Petroleum coke is converted from short tons to barrels by multiplying by 5.

⁶ Natural gas, plus a small amount of supplemental gaseous fuels.

⁷ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁸ Wood and wood-derived fuels.

⁹ 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).

¹⁰ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

¹¹ Electricity-only plants within the NAICS 22 category whose primary business is to sell electricity to the

public. Data also include a small number of electric utility combined-heat-and-power (CHP) plants.

¹² Combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity and heat to the public. Data do not include electric utility CHP plants—these are included under "Electricity-Only Plants."

R=Revised. P=Preliminary. – = No data reported. (s)=Less than 0.5.

Notes: • Data are for fuels consumed to produce electricity. Data also include fuels consumed to produce useful thermal output at a small number of electric utility combined-heat-and-power (CHP) plants. • See Table 8.5d for commercial and industrial CHP and electricity-only data. • See Note 1, "Coverage of Electricity Statistics," and Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Totals may not equal sum of components due to independent rounding.

Web Page: For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

Sources: • 1989-1997—Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report," and Form EIA-867, "Annual Nonutility Power Producer Report." • 1998-2000—EIA, Form EIA-759, "Monthly Power Plant Report," and Form EIA-860B, "Annual Electric Generator Report—Nonutility." • 2001-2003—EIA, Form EIA-906, "Power Plant Report." • 2004 forward—EIA, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report."

Table 8.5d Consumption of Combustible Fuels for Electricity Generation: Commercial and Industrial Sectors, 1989-2007 (Subset of Table 8.5a)

Year	Coal ¹	Petroleum					Natural Gas ⁶	Other Gases ⁷	Biomass		Other ¹⁰
		Distillate Fuel Oil ²	Residual Fuel Oil ³	Other Liquids ⁴	Petroleum Coke ⁵	Total ⁵			Wood ⁸	Waste ⁹	
	Thousand Short Tons	Thousand Barrels			Thousand Short Tons	Thousand Barrels	Million Cubic Feet	Trillion Btu	Trillion Btu		Trillion Btu
Commercial Sector ¹¹											
1989	414	882	282	—	—	1,165	17,987	1	2	9	—
1990	417	580	372	(s)	—	953	27,544	1	2	15	—
1991	403	430	146	(s)	—	576	26,806	1	2	15	(s)
1992	371	289	137	(s)	1	429	32,674	1	1	16	(s)
1993	404	384	279	4	1	672	37,435	1	1	16	(s)
1994	404	481	209	—	1	694	40,828	1	1	17	—
1995	569	493	152	(s)	1	649	42,700	—	1	21	(s)
1996	656	422	218	(s)	1	645	42,380	(s)	1	31	(s)
1997	630	583	200	—	1	790	38,975	(s)	1	34	(s)
1998	440	436	359	—	1	802	40,693	(s)	1	32	—
1999	481	506	421	—	1	931	39,045	(s)	(s)	33	(s)
2000	514	505	310	1	1	823	37,029	(s)	(s)	26	(s)
2001	532	520	469	2	6	1,023	36,248	(s)	(s)	15	7
2002	477	524	292	10	2	834	32,545	(s)	(s)	18	11
2003	582	553	326	3	2	894	38,480	—	(s)	19	11
2004	602	821	350	1	3	1,188	45,883	—	1	22	13
2005	770	588	333	1	3	939	47,851	—	1	25	13
2006	^R 743	^R 287	^R 176	(s)	4	^R 481	^R 48,384	—	1	26	14
2007 ^P	745	228	134	(s)	5	387	49,651	—	1	27	13
Industrial Sector ¹²											
1989	9,707	815	6,830	294	150	8,688	443,928	83	267	15	37
1990	10,740	1,169	7,192	412	905	13,299	516,729	104	335	16	36
1991	10,610	1,879	6,004	322	815	12,283	521,916	118	318	14	55
1992	11,379	1,735	6,650	642	1,013	14,093	542,081	128	359	15	37
1993	11,898	1,902	7,373	498	597	12,755	546,978	123	355	17	31
1994	12,279	1,644	7,818	263	762	13,537	567,836	123	364	14	38
1995	12,171	1,056	6,460	239	902	12,265	601,397	114	373	13	40
1996	12,153	1,359	7,042	1,145	853	13,813	610,268	143	394	13	35
1997	12,311	1,079	6,118	107	884	11,723	622,599	105	367	14	36
1998	11,728	1,461	6,494	137	860	12,392	624,878	102	349	13	35
1999	11,432	1,571	5,845	460	944	12,595	639,165	112	364	8	39
2000	11,706	1,448	5,024	1,046	588	10,459	640,381	107	369	10	45
2001	10,636	1,574	5,693	479	557	10,530	653,565	88	370	7	44
2002	11,855	952	4,366	640	1,130	11,608	685,239	106	464	15	43
2003	10,440	1,678	4,831	1,006	582	10,424	668,407	127	362	13	46
2004	10,337	921	5,015	1,256	581	10,100	764,828	148	376	11	27
2005	8,969	988	4,525	668	442	8,392	713,999	133	306	9	28
2006	^R 9,496	^R 472	^R 3,521	^R 768	^R 578	^R 7,651	^R 724,259	^R 138	^R 350	8	^R 21
2007 ^P	7,606	595	3,066	806	627	7,601	732,658	127	376	8	31

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

² Fuel oil nos. 1, 2, and 4.

³ Fuel oil nos. 5 and 6.

⁴ Jet fuel, kerosene, other petroleum liquids, and waste oil.

⁵ Petroleum coke is converted from short tons to barrels by multiplying by 5.

⁶ Natural gas, plus a small amount of supplemental gaseous fuels.

⁷ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁸ Wood and wood-derived fuels.

⁹ 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).

¹⁰ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived

fuels).

¹¹ Commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

¹² Industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

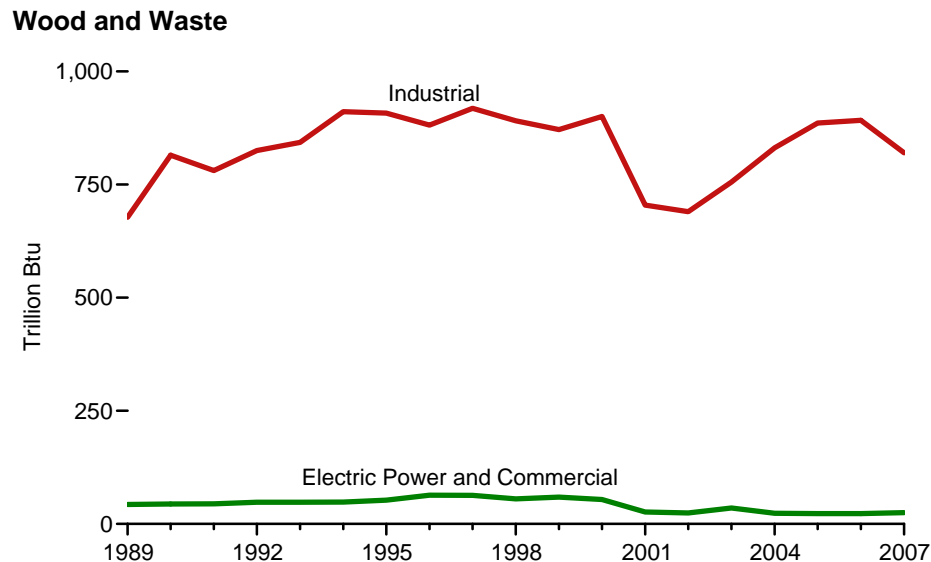
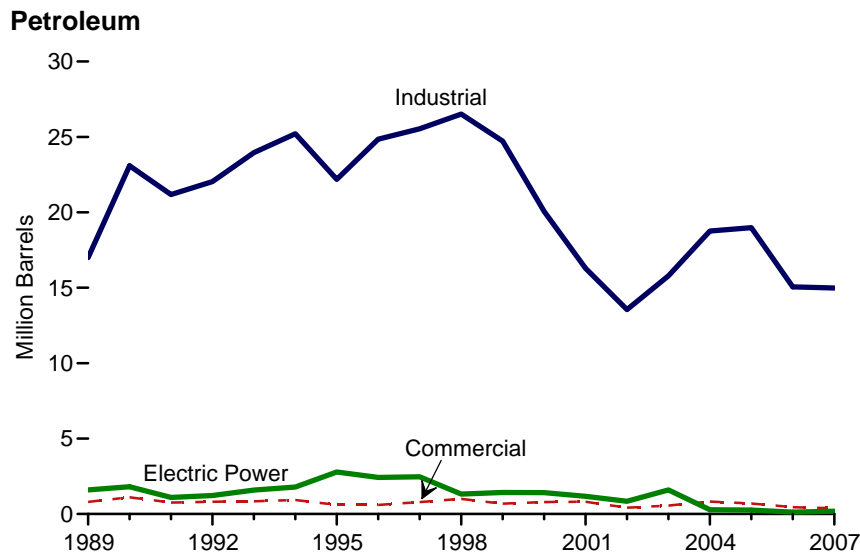
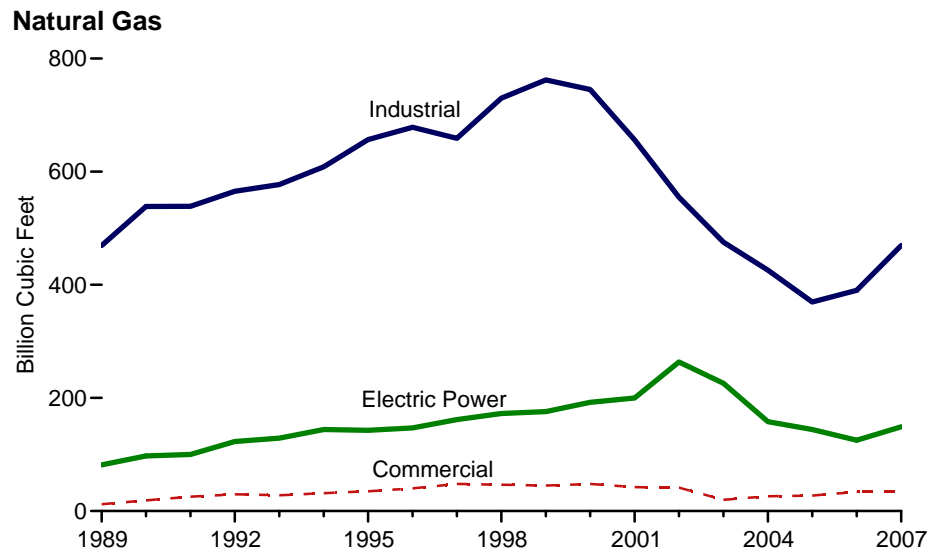
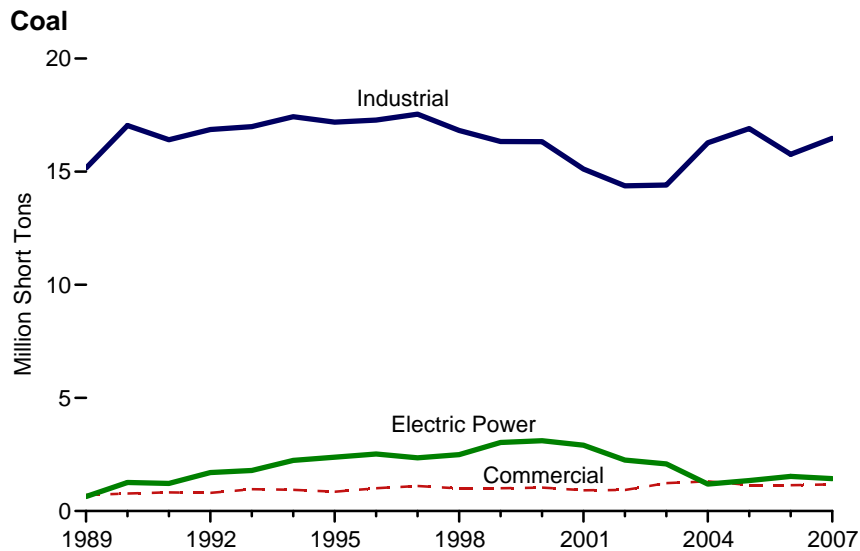
R=Revised. P=Preliminary. — = No data reported. (s)=Less than 0.5.

Notes: • Data are for fuels consumed to produce electricity. • See Tables 8.5b and 8.5c for electric power sector electricity-only and CHP data. • See Note 1, "Coverage of Electricity Statistics," and Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Totals may not equal sum of components due to independent rounding.

Web Page: For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

Sources: • 1989-1997—Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • 1998-2000—EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • 2001-2003—EIA, Form EIA-906, "Power Plant Report." • 2004 forward—EIA, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report."

Figure 8.6 Estimated Consumption of Combustible Fuels for Useful Thermal Output at Combined-Heat-and-Power Plants by Sector, 1989-2007



Sources: Tables 8.6b and 8.6c.

Table 8.6a Estimated Consumption of Combustible Fuels for Useful Thermal Output at Combined-Heat-and-Power Plants: Total (All Sectors), 1989-2007 (Sum of Tables 8.6b and 8.6c)

Year	Coal ¹	Petroleum					Natural Gas ⁶	Other Gases ⁷	Biomass		Other ¹⁰
		Distillate Fuel Oil ²	Residual Fuel Oil ³	Other Liquids ⁴	Petroleum Coke ⁵	Total ⁵			Wood ⁸	Waste ⁹	
	Thousand Short Tons	Thousand Barrels				Thousand Short Tons	Thousand Barrels	Million Cubic Feet	Trillion Btu	Trillion Btu	
1989	16,510	1,410	16,391	353	247	19,391	563,307	116	683	38	49
1990	19,081	2,050	18,465	895	918	26,002	654,749	176	813	46	50
1991	18,458	3,027	15,293	835	777	23,039	663,963	185	779	46	55
1992	19,372	2,358	16,474	935	862	24,077	717,860	200	822	51	52
1993	19,750	2,449	17,933	857	1,031	26,394	733,584	178	836	56	51
1994	20,609	2,811	18,822	609	1,137	27,929	784,015	180	903	57	53
1995	20,418	2,082	16,661	642	1,235	25,562	834,382	181	902	59	55
1996	20,806	2,192	18,552	756	1,275	27,873	865,774	187	876	69	54
1997	21,005	2,584	15,882	289	2,009	28,802	868,569	188	913	68	67
1998	20,320	4,944	16,539	681	1,336	28,845	949,106	209	875	72	58
1999	20,373	4,665	14,133	838	1,437	26,822	982,958	224	862	68	60
2000	20,466	2,897	13,292	1,455	924	22,266	985,263	230	884	71	63
2001	18,944	2,574	11,826	563	661	18,268	898,286	166	696	35	69
2002	17,561	1,462	9,402	1,363	517	14,811	860,019	147	682	32	60
2003	17,720	2,153	10,341	1,629	763	17,939	721,267	138	746	44	69
2004	18,779	2,851	12,307	805	779	19,856	610,105	167	827	28	50
2005	19,402	3,283	12,681	966	601	19,937	541,206	171	871	38	51
2006	^R 18,437	^R 1,284	^R 8,827	^R 784	^R 948	^R 15,636	^R 549,335	^R 160	^R 876	^R 38	^R 59
2007 ^P	19,084	1,796	7,564	878	1,063	15,554	652,073	182	806	39	57

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal syntfuel.

² Fuel oil nos. 1, 2, and 4.

³ Fuel oil nos. 5 and 6.

⁴ Jet fuel, kerosene, other petroleum liquids, and waste oil.

⁵ Petroleum coke is converted from short tons to barrels by multiplying by 5.

⁶ Natural gas, plus a small amount of supplemental gaseous fuels.

⁷ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁸ Wood and wood-derived fuels.

⁹ 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).

¹⁰ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

R=Revised. P=Preliminary.

Notes: • Estimates are for fuels consumed to produce useful thermal output; they exclude fuels consumed to produce electricity. • Data do not include electric utility combined-heat-and-power (CHP) plants. • See Note 1, "Coverage of Electricity Statistics," at end of section. • See "Useful Thermal Output" in Glossary. • Totals may not equal sum of components due to independent rounding.

Web Page: For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

Sources: Tables 8.6b and 8.6c.

Table 8.6b Estimated Consumption of Combustible Fuels for Useful Thermal Output at Combined-Heat-and-Power Plants: Electric Power Sector, 1989-2007 (Subset of Table 8.6a)

Year	Coal ¹	Petroleum					Natural Gas ⁶	Other Gases ⁷	Biomass		Other ¹⁰
		Distillate Fuel Oil ²	Residual Fuel Oil ³	Other Liquids ⁴	Petroleum Coke ⁵	Total ⁵			Wood ⁸	Waste ⁹	
	Thousand Short Tons	Thousand Barrels				Thousand Short Tons	Thousand Barrels	Million Cubic Feet	Trillion Btu	Trillion Btu	
1989	639	120	1,471	1	—	1,591	81,670	3	24	6	1
1990	1,266	173	1,630	2	—	1,805	97,330	5	23	8	(s)
1991	1,221	104	995	1	—	1,101	99,868	5	21	11	1
1992	1,704	154	1,045	10	4	1,229	122,908	6	21	10	2
1993	1,794	290	1,074	27	40	1,591	128,743	4	21	10	2
1994	2,241	371	1,024	104	58	1,791	144,062	6	18	12	1
1995	2,376	486	1,127	58	222	2,784	142,753	5	19	15	(s)
1996	2,520	308	1,155	86	175	2,424	147,091	5	20	21	(s)
1997	2,355	343	1,246	23	171	2,466	161,608	10	20	17	(s)
1998	2,493	134	653	19	103	1,322	172,471	6	12	20	(s)
1999	3,033	183	572	30	128	1,423	175,757	4	13	25	(s)
2000	3,107	294	467	51	120	1,412	192,253	7	8	24	(s)
2001	2,910	219	355	3	119	1,171	199,808	6	10	5	4
2002	2,255	66	197	23	111	841	263,619	7	10	6	6
2003	2,080	190	919	88	80	1,596	225,967	12	11	14	4
2004	1,189	180	10	11	15	277	157,900	20	8	3	2
2005	1,345	88	33	51	17	258	144,233	40	9	3	3
2006	^R 1,529	^R 33	^R 23	^R 26	^R 9	^R 127	^R 125,119	^R 22	10	3	4
2007 ^P	1,429	93	28	49	3	187	148,946	28	12	3	4

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal symfuel.

² Fuel oil nos. 1, 2, and 4.

³ Fuel oil nos. 5 and 6.

⁴ Jet fuel, kerosene, other petroleum liquids, and waste oil.

⁵ Petroleum coke is converted from short tons to barrels by multiplying by 5.

⁶ Natural gas, plus a small amount of supplemental gaseous fuels.

⁷ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁸ Wood and wood-derived fuels.

⁹ 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).

¹⁰ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

R=Revised. P=Preliminary. — = No data reported. (s)=Less than 0.5.

Notes: • Estimates are for fuels consumed to produce useful thermal output; they exclude fuels consumed to produce electricity. • Data are for combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity and heat to the public. Data do not include electric utility CHP plants. • See Table 8.6c for commercial and industrial CHP data. • See Note 1, "Coverage of Electricity Statistics," and Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • See "Useful Thermal Output" in Glossary. • Totals may not equal sum of components due to independent rounding.

Web Page: For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

Sources: • 1989-1997—Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • 1998-2000—EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • 2001-2003—EIA, Form EIA-906, "Power Plant Report." • 2004 forward—EIA, Form EIA-920, "Combined Heat and Power Plant Report."

Table 8.6c Estimated Consumption of Combustible Fuels for Useful Thermal Output at Combined-Heat-and-Power Plants: Commercial and Industrial Sectors, 1989-2007 (Subset of Table 8.6a)

Year	Coal ¹	Petroleum					Natural Gas ⁶	Other Gases ⁷	Biomass		Other ¹⁰
		Distillate Fuel Oil ²	Residual Fuel Oil ³	Other Liquids ⁴	Petroleum Coke ⁵	Total ⁵			Wood ⁸	Waste ⁹	
	Thousand Short Tons	Thousand Barrels			Thousand Short Tons	Thousand Barrels	Million Cubic Feet	Trillion Btu	Trillion Btu		Trillion Btu
Commercial Sector ¹¹											
1989	711	202	601	—	—	803	12,049	(s)	(s)	13	—
1990	773	389	715	(s)	—	1,104	18,913	(s)	(s)	13	—
1991	826	356	405	(s)	—	761	25,295	(s)	(s)	11	(s)
1992	804	259	538	(s)	2	807	29,672	(s)	1	16	(s)
1993	968	272	548	2	4	843	27,738	(s)	(s)	17	(s)
1994	940	534	379	—	4	931	31,457	(s)	(s)	17	—
1995	850	319	261	(s)	3	596	34,964	—	(s)	19	(s)
1996	1,005	260	328	(s)	3	601	40,075	(s)	1	22	(s)
1997	1,108	470	309	—	3	794	47,941	(s)	1	24	—
1998	1,002	418	573	—	3	1,006	46,527	(s)	1	22	—
1999	1,009	254	412	—	3	682	44,991	(s)	1	21	—
2000	1,034	403	366	2	4	792	47,844	(s)	1	21	—
2001	916	505	304	—	—	809	42,407	—	1	10	7
2002	929	248	108	28	6	416	41,430	—	1	8	6
2003	1,234	119	381	12	9	555	19,973	—	1	10	8
2004	1,315	294	477	20	6	821	26,189	—	1	12	8
2005	1,151	206	456	(s)	6	691	27,364	—	1	9	7
2006	^R 1,143	^R 79	^R 344	^R (s)	6	^R 453	^R 33,877	^R (s)	1	^R 10	7
2007 ^P	1,179	65	285	(s)	7	387	33,708	(s)	(s)	10	7
Industrial Sector ¹²											
1989	15,160	1,088	14,320	352	247	16,997	469,588	113	659	19	48
1990	17,041	1,488	16,120	893	918	23,093	538,506	171	790	25	50
1991	16,412	2,567	13,893	834	777	21,177	538,800	180	758	23	55
1992	16,864	1,945	14,891	925	856	22,041	565,279	194	801	24	50
1993	16,988	1,887	16,311	829	987	23,960	577,103	174	815	29	49
1994	17,428	1,906	17,419	505	1,075	25,207	608,496	173	884	27	52
1995	17,192	1,277	15,272	584	1,010	22,182	656,665	175	882	25	55
1996	17,281	1,624	17,069	670	1,097	24,848	678,608	182	855	26	53
1997	17,542	1,772	14,328	267	1,835	25,541	659,021	178	892	27	67
1998	16,824	4,391	15,313	662	1,230	26,518	730,108	202	862	29	58
1999	16,330	4,228	13,148	808	1,307	24,718	762,210	219	849	23	60
2000	16,325	2,200	12,459	1,402	800	20,062	745,165	223	875	25	63
2001	15,119	1,850	11,167	560	542	16,287	656,071	160	685	20	58
2002	14,377	1,149	9,097	1,312	399	13,555	554,970	139	672	18	48
2003	14,406	1,844	9,041	1,529	675	15,788	475,327	126	735	21	57
2004	16,276	2,376	11,819	774	758	18,758	426,016	147	818	13	40
2005	16,906	2,989	12,192	915	578	18,987	369,609	131	861	25	41
2006	^R 15,765	^R 1,171	^R 8,460	^R 758	^R 933	^R 15,055	^R 390,338	^R 138	^R 866	^R 26	^R 49
2007 ^P	16,477	1,638	7,251	828	1,053	14,979	469,420	154	794	27	46

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

² Fuel oil nos. 1, 2, and 4.

³ Fuel oil nos. 5 and 6.

⁴ Jet fuel, kerosene, other petroleum liquids, and waste oil.

⁵ Petroleum coke is converted from short tons to barrels by multiplying by 5.

⁶ Natural gas, plus a small amount of supplemental gaseous fuels.

⁷ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁸ Wood and wood-derived fuels.

⁹ 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).

¹⁰ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

¹¹ Commercial combined-heat-and-power (CHP) plants.

¹² Industrial combined-heat-and-power (CHP) plants.

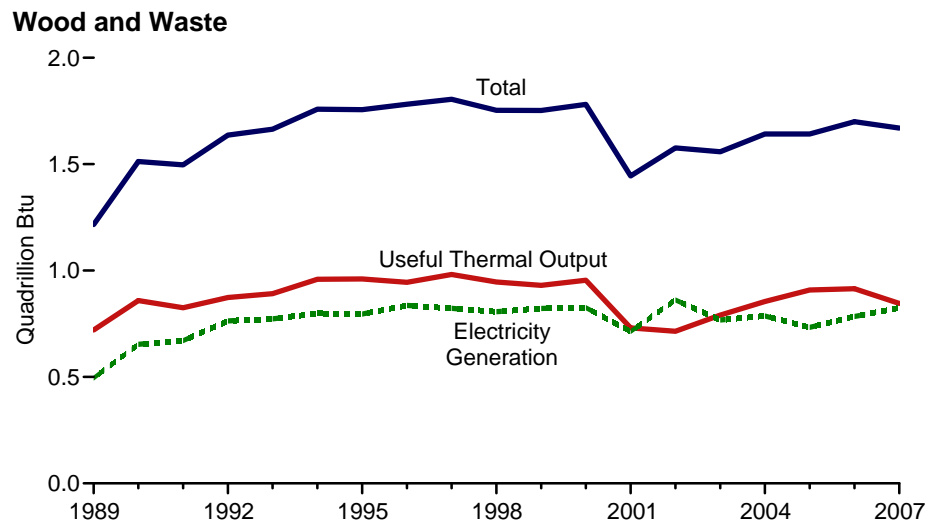
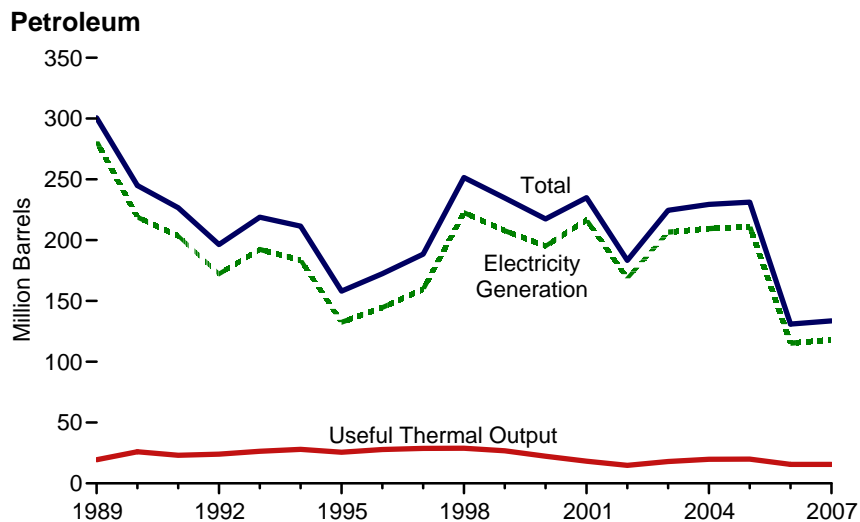
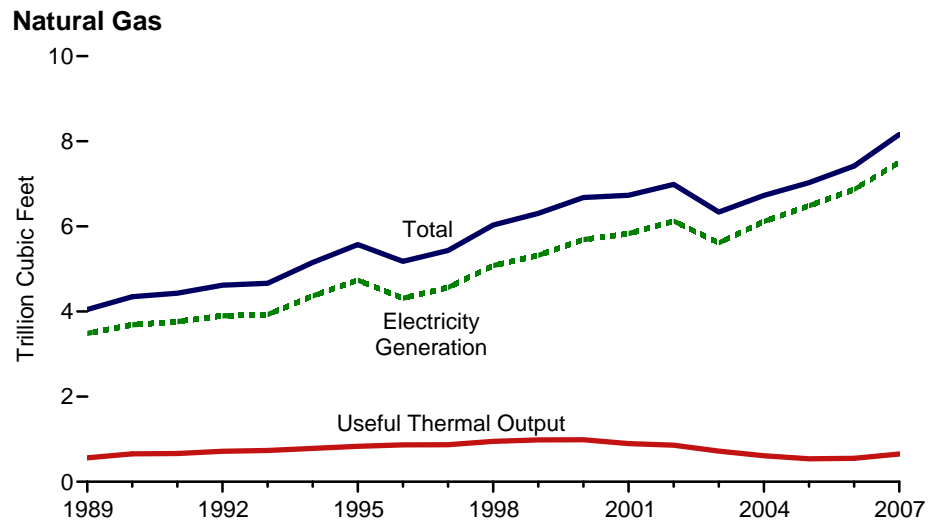
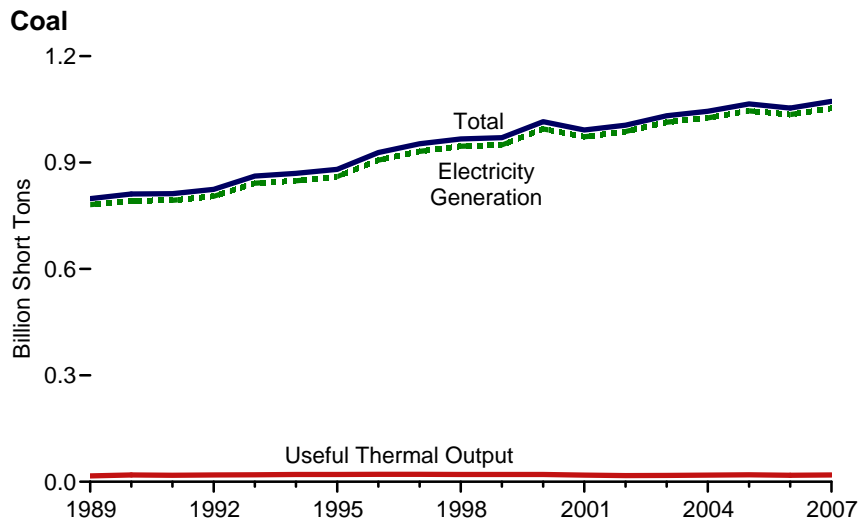
R=Revised. P=Preliminary. — = No data reported. (s)=Less than 0.5.

Notes: • Estimates are for fuels consumed to produce useful thermal output; they exclude fuels consumed to produce electricity. • See Table 8.6b for electric power sector CHP data. • See Note 1, "Coverage of Electricity Statistics," and Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • See "Useful Thermal Output" in Glossary. • Totals may not equal sum of components due to independent rounding.

Web Page: For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

Sources: • 1989-1997—Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • 1998-2000—EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • 2001-2003—EIA, Form EIA-906, "Power Plant Report." • 2004 forward—EIA, Form EIA-920, "Combined Heat and Power Plant Report."

Figure 8.7 Consumption of Combustible Fuels for Electricity Generation and Useful Thermal Output, 1989-2007



Sources: Tables 8.5a, 8.6a, and 8.7a.

**Table 8.7a Consumption of Combustible Fuels for Electricity Generation and Useful Thermal Output:
Total (All Sectors), 1989-2007** (Sum of Tables 8.7b and 8.7c)

Year	Coal ¹	Petroleum					Natural Gas ⁶	Other Gases ⁷	Biomass		Other ¹⁰
		Distillate Fuel Oil ²	Residual Fuel Oil ³	Other Liquids ⁴	Petroleum Coke ⁵	Total ⁵			Wood ⁸	Waste ⁹	
	Thousand Short Tons	Thousand Barrels				Thousand Short Tons	Thousand Barrels	Million Cubic Feet	Trillion Btu	Trillion Btu	
1989	798,181	29,143	266,211	656	915	300,583	4,048,736	206	1,028	189	88
1990	811,538	20,194	209,314	1,332	2,832	244,998	4,346,311	288	1,256	257	86
1991	812,124	19,590	193,073	1,215	2,566	226,708	4,428,742	311	1,204	292	114
1992	824,512	16,852	160,941	1,695	3,366	196,318	4,617,578	341	1,303	333	92
1993	861,904	19,293	176,992	1,571	4,200	218,855	4,662,236	314	1,321	344	85
1994	869,405	25,177	164,047	1,539	4,157	211,547	5,151,163	316	1,401	357	92
1995	881,012	21,697	112,168	1,322	4,590	158,140	5,572,253	313	1,382	374	97
1996	928,015	22,444	124,607	2,468	4,596	172,499	5,178,232	346	1,389	392	91
1997	952,955	22,893	134,623	526	6,095	188,517	5,433,338	307	1,397	407	103
1998	966,615	30,006	189,267	1,230	6,196	251,486	6,030,490	334	1,349	404	95
1999	970,175	30,616	172,319	1,812	5,989	234,694	6,304,942	350	1,352	400	101
2000	1,015,398	34,572	156,673	2,904	4,669	217,494	6,676,744	356	1,380	401	109
2001	991,635	33,724	177,137	1,418	4,532	234,940	6,730,591	263	1,182	263	229
2002	1,005,144	24,748	118,637	3,257	7,353	183,408	6,986,081	278	1,287	289	252
2003	1,031,778	31,825	152,859	4,576	7,067	224,593	6,337,402	294	1,266	293	262
2004	1,044,798	23,520	157,478	4,764	8,721	229,364	6,726,679	354	1,360	281	226
2005	1,065,281	24,446	156,915	4,270	9,113	231,193	7,027,967	348	1,353	289	213
2006	^R 1,053,783	^R 14,655	^R 69,846	^R 3,396	^R 8,622	^R 131,005	^R 7,418,959	^R 341	^R 1,399	^R 300	^R 215
2007 ^P	1,072,430	18,401	74,265	4,577	7,285	133,668	8,159,519	348	1,354	315	226

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal syntfuel.

² Fuel oil nos. 1, 2, and 4. Through 2000, electric utility data also include small amounts of kerosene and jet fuel.

³ Fuel oil nos. 5 and 6. Through 2000, electric utility data also include a small amount of fuel oil no. 4.

⁴ Jet fuel, kerosene, other petroleum liquids, and waste oil.

⁵ Petroleum coke is converted from short tons to barrels by multiplying by 5.

⁶ Natural gas, plus a small amount of supplemental gaseous fuels.

⁷ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁸ Wood and wood-derived fuels.

⁹ 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).

¹⁰ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

R=Revised. P=Preliminary.

Notes: • Data are for fuels consumed to produce electricity and useful thermal output. • See Note 1, "Coverage of Electricity Statistics," at end of section. • See "Useful Thermal Output" in Glossary. • Totals may not equal sum of components due to independent rounding.

Web Page: For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

Sources: Tables 8.7b and 8.7c.

Table 8.7b Consumption of Combustible Fuels for Electricity Generation and Useful Thermal Output: Electric Power Sector, 1989-2007 (Subset of Table 8.7a)

Year	Coal ¹	Petroleum					Natural Gas ⁶	Other Gases ⁷	Biomass		Other ¹⁰
		Distillate Fuel Oil ²	Residual Fuel Oil ³	Other Liquids ⁴	Petroleum Coke ⁵	Total ⁵			Wood ⁸	Waste ⁹	
	Thousand Short Tons	Thousand Barrels				Thousand Short Tons	Thousand Barrels	Million Cubic Feet	Trillion Btu	Trillion Btu	
1989	772,190	26,156	244,179	10	517	272,931	3,105,183	9	100	132	3
1990	782,567	16,567	184,915	26	1,008	206,550	3,244,619	11	129	188	(s)
1991	783,874	14,359	172,625	59	974	191,911	3,315,925	11	126	229	4
1992	795,094	12,623	138,726	128	1,494	158,948	3,447,871	18	140	262	5
1993	831,645	14,849	152,481	239	2,611	180,625	3,472,982	16	150	265	5
1994	838,354	20,612	138,222	771	2,315	171,178	3,902,546	19	152	282	3
1995	850,230	18,553	90,023	499	2,674	122,447	4,236,526	24	125	296	2
1996	896,921	18,780	99,951	653	2,642	132,593	3,806,901	20	138	300	2
1997	921,364	18,989	113,669	152	3,372	149,668	4,064,803	24	137	309	1
1998	936,619	23,300	166,528	431	4,102	210,769	4,588,284	29	137	308	2
1999	940,922	24,058	152,493	544	3,735	195,769	4,819,531	19	138	315	1
2000	985,821	30,016	138,513	454	3,275	185,358	5,206,324	25	134	318	1
2001	964,433	29,274	159,504	377	3,427	206,291	5,342,301	15	126	211	113
2002	977,507	21,876	104,773	1,267	5,816	156,995	5,671,897	33	150	230	143
2003	1,005,116	27,632	138,279	2,026	5,799	196,932	5,135,215	41	167	230	140
2004	1,016,268	19,107	139,816	2,713	7,372	198,498	5,463,763	59	165	223	138
2005	1,037,485	19,675	139,409	2,685	8,083	202,184	5,869,145	84	185	221	123
2006	^R 1,026,636	^R 12,646	^R 57,345	^R 1,870	^R 7,101	^R 107,365	^R 6,222,100	^R 65	^R 182	^R 231	^R 125
2007 ^P	1,046,424	15,874	63,529	2,943	5,594	110,314	6,874,082	67	184	243	128

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

² Fuel oil nos. 1, 2, and 4. Through 2000, electric utility data also include small amounts of kerosene and jet fuel.

³ Fuel oil nos. 5 and 6. Through 2000, electric utility data also include a small amount of fuel oil no. 4.

⁴ Jet fuel, kerosene, other petroleum liquids, and waste oil.

⁵ Petroleum coke is converted from short tons to barrels by multiplying by 5.

⁶ Natural gas, plus a small amount of supplemental gaseous fuels.

⁷ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁸ Wood and wood-derived fuels.

⁹ 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).

¹⁰ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

R=Revised. P=Preliminary. (s)=Less than 0.5.

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 Table 8.7c for commercial and industrial CHP and electricity-only data. • See Note 1, "Coverage of Electricity Statistics," and Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • See "Useful Thermal Output" in Glossary. • Totals may not equal sum of components due to independent rounding.

Web Page: For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

Sources: • 1989-1997—Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report," and Form EIA-867, "Annual Nonutility Power Producer Report." • 1998-2000—EIA, Form EIA-759, "Monthly Power Plant Report," and Form EIA-860B, "Annual Electric Generator Report—Nonutility." • 2001-2003—EIA, Form EIA-906, "Power Plant Report." • 2004 forward—EIA, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report."

Table 8.7c Consumption of Combustible Fuels for Electricity Generation and Useful Thermal Output: Commercial and Industrial Sectors, 1989-2007 (Subset of Table 8.7a)

Year	Coal ¹	Petroleum					Natural Gas ⁶	Other Gases ⁷	Biomass		Other ¹⁰
		Distillate Fuel Oil ²	Residual Fuel Oil ³	Other Liquids ⁴	Petroleum Coke ⁵	Total ⁵			Wood ⁸	Waste ⁹	
	Thousand Short Tons	Thousand Barrels			Thousand Short Tons	Thousand Barrels	Million Cubic Feet	Trillion Btu	Trillion Btu		Trillion Btu
Commercial Sector ¹¹											
1989	1,125	1,085	883	—	—	1,967	30,037	1	2	22	—
1990	1,191	969	1,087	(s)	—	2,056	46,458	1	2	28	—
1991	1,228	786	551	(s)	—	1,337	52,101	1	2	26	(s)
1992	1,175	548	675	(s)	2	1,235	62,346	1	2	32	(s)
1993	1,373	656	828	6	5	1,515	65,173	1	2	33	(s)
1994	1,344	1,015	588	—	4	1,625	72,285	1	1	35	—
1995	1,419	812	413	(s)	4	1,245	77,664	—	1	40	(s)
1996	1,660	682	545	(s)	4	1,246	82,455	(s)	2	53	(s)
1997	1,738	1,053	509	—	4	1,584	86,915	(s)	2	58	(s)
1998	1,443	854	932	—	4	1,807	87,220	(s)	2	54	—
1999	1,490	759	834	—	4	1,613	84,037	(s)	1	54	(s)
2000	1,547	908	676	3	6	1,615	84,874	(s)	1	47	(s)
2001	1,448	1,026	773	2	6	1,832	78,655	(s)	1	25	15
2002	1,405	771	400	38	8	1,250	73,975	(s)	1	26	17
2003	1,816	671	708	16	11	1,449	58,453	—	1	29	18
2004	1,917	1,115	827	21	9	2,009	72,072	—	2	34	21
2005	1,922	794	789	1	9	1,630	75,215	—	1	34	20
2006	^R 1,886	^R 366	^R 520	(s)	10	^R 935	^R 82,261	^R (s)	1	^R 36	^R 21
2007 ^P	1,924	294	419	(s)	12	774	83,358	(s)	1	37	20
Industrial Sector ¹²											
1989	24,867	1,903	21,150	646	397	25,685	913,516	195	926	35	85
1990	27,781	2,657	23,312	1,305	1,824	36,392	1,055,235	275	1,125	41	86
1991	27,021	4,446	19,897	1,156	1,592	33,460	1,060,716	298	1,076	37	110
1992	28,244	3,680	21,540	1,567	1,870	36,135	1,107,361	322	1,161	39	87
1993	28,886	3,788	23,684	1,326	1,583	36,715	1,124,081	297	1,169	46	80
1994	29,707	3,550	25,238	768	1,838	38,744	1,176,332	296	1,248	41	89
1995	29,363	2,333	21,732	823	1,912	34,448	1,258,063	290	1,255	38	95
1996	29,434	2,983	24,111	1,815	1,950	38,661	1,288,876	325	1,249	39	89
1997	29,853	2,851	20,445	374	2,719	37,265	1,281,620	283	1,259	41	102
1998	28,553	5,852	21,807	800	2,090	38,910	1,354,986	305	1,211	42	93
1999	27,763	5,799	18,993	1,268	2,251	37,312	1,401,374	331	1,213	31	99
2000	28,031	3,648	17,483	2,448	1,388	30,520	1,385,546	331	1,244	35	108
2001	25,755	3,424	16,860	1,039	1,099	26,817	1,309,636	248	1,054	27	101
2002	26,232	2,101	13,463	1,953	1,529	25,163	1,240,209	245	1,136	34	92
2003	24,846	3,522	13,872	2,535	1,257	26,212	1,143,734	253	1,097	34	103
2004	26,613	3,298	16,835	2,030	1,339	28,857	1,190,844	296	1,193	24	67
2005	25,875	3,977	16,718	1,583	1,020	27,380	1,083,607	264	1,166	34	70
2006	^R 25,262	^R 1,643	^R 11,981	^R 1,526	^R 1,511	^R 22,706	^R 1,114,597	^R 277	^R 1,216	^R 33	^R 69
2007 ^P	24,082	2,233	10,317	1,634	1,679	22,580	1,202,079	281	1,169	35	78

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

² Fuel oil nos. 1, 2, and 4.

³ Fuel oil nos. 5 and 6.

⁴ Jet fuel, kerosene, other petroleum liquids, and waste oil.

⁵ Petroleum coke is converted from short tons to barrels by multiplying by 5.

⁶ Natural gas, plus a small amount of supplemental gaseous fuels.

⁷ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁸ Wood and wood-derived fuels.

⁹ 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).

¹⁰ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

¹¹ Commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

¹² Industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

R=Revised. P=Preliminary. — = No data reported. (s)=Less than 0.5.

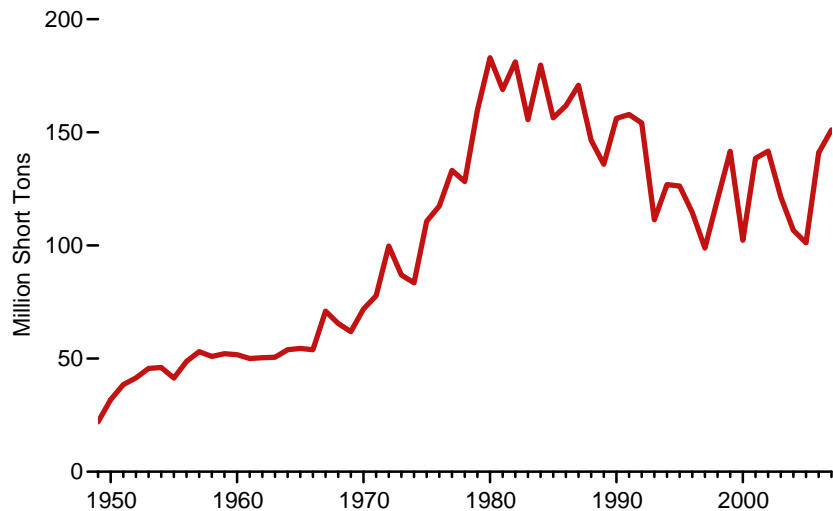
Notes: • Data are for fuels consumed to produce electricity and useful thermal output. • See Table 8.7b for electric power sector electricity-only and CHP data. • See Note 1, "Coverage of Electricity Statistics," and Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • See "Useful Thermal Output" in Glossary. • Totals may not equal sum of components due to independent rounding.

Web Page: For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

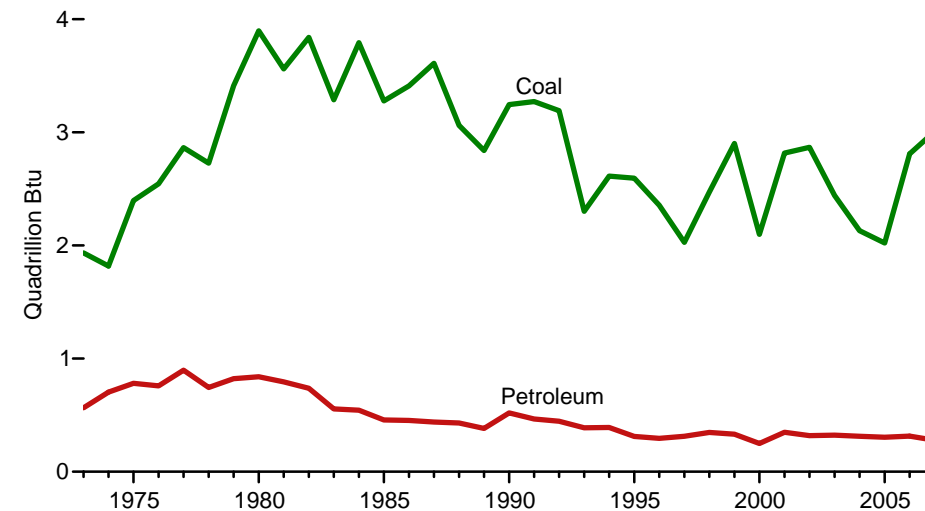
Sources: • 1989-1997—Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • 1998-2000—EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • 2001-2003—EIA, Form EIA-906, "Power Plant Report." • 2004 forward—EIA, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report."

Figure 8.8 Stocks of Coal and Petroleum: Electric Power Sector

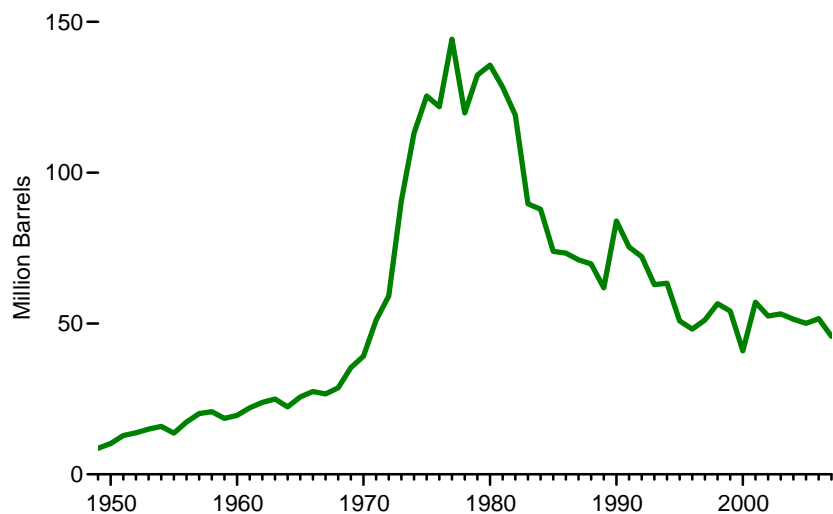
Coal, 1949-2007



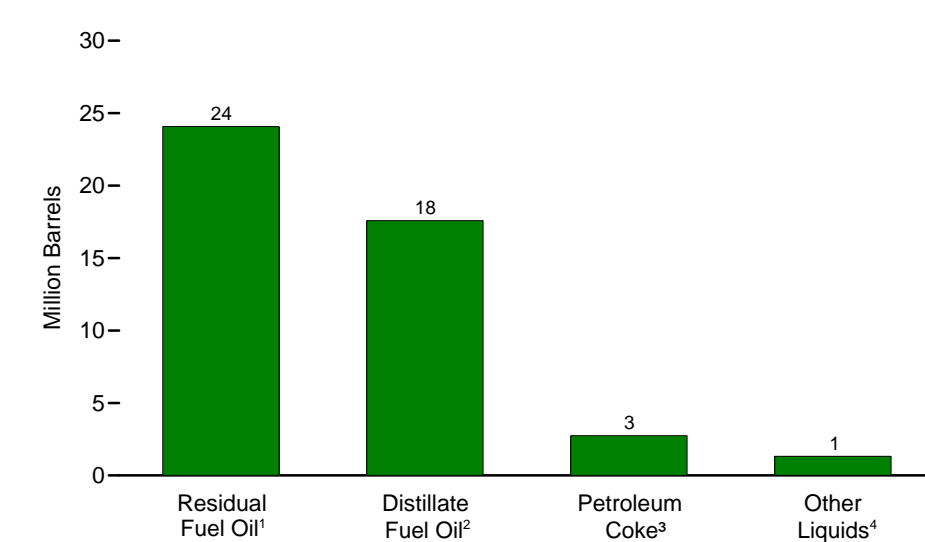
Coal and Petroleum, 1973-2007



Petroleum, 1949-2007



Petroleum Products, 2007



¹ Fuel oil nos. 5 and 6.

² Fuel oil nos. 1, 2, and 4.

³ Petroleum coke, which is reported in short tons, is converted at a rate of 5 barrels per short ton.

⁴ Jet fuel and kerosene.

Notes: • Stocks are at end of year. • Because vertical scales differ, graphs should not be compared.

Sources: Tables 8.8, A3, and A5.

Table 8.8 Stocks of Coal and Petroleum: Electric Power Sector, Selected Years, 1949-2007

Year	Coal ¹	Petroleum				Total ^{5,6}
		Distillate Fuel Oil ²	Residual Fuel Oil ³	Other Liquids ⁴	Petroleum Coke ⁵	
	Thousand Short Tons	Thousand Barrels			Thousand Short Tons	Thousand Barrels
1949	22,054	NA	NA	NA	NA	8,604
1950	31,842	NA	NA	NA	NA	10,201
1955	41,391	NA	NA	NA	NA	13,671
1960	51,735	NA	NA	NA	NA	19,572
1965	54,525	NA	NA	NA	NA	25,647
1970	71,908	NA	NA	NA	239	39,151
1971	77,778	NA	NA	NA	291	51,101
1972	99,722	NA	NA	NA	287	59,090
1973	86,967	10,095	79,121	NA	312	90,776
1974	83,509	15,199	97,718	NA	35	113,091
1975	110,724	16,432	108,825	NA	31	125,413
1976	117,436	14,703	106,993	NA	32	121,857
1977	133,219	19,281	124,750	NA	44	144,252
1978	128,225	16,386	102,402	NA	198	119,778
1979	159,714	20,301	111,121	NA	183	132,338
1980	183,010	30,023	105,351	NA	52	135,635
1981	168,893	26,094	102,042	NA	42	128,345
1982	181,132	23,369	95,515	NA	41	119,090
1983	155,598	18,801	70,573	NA	55	89,652
1984	179,727	19,116	68,503	NA	50	87,870
1985	156,376	16,386	57,304	NA	49	73,933
1986	161,806	16,269	56,841	NA	40	73,313
1987	170,797	15,759	55,069	NA	51	71,084
1988	146,507	15,099	54,187	NA	86	69,714
1989	135,860	13,824	47,446	NA	105	61,795
1990	156,166	16,471	67,030	NA	94	83,970
1991	157,876	16,357	58,636	NA	70	75,343
1992	154,130	15,714	56,135	NA	67	72,183
1993	111,341	15,674	46,770	NA	89	62,890
1994	126,897	16,644	46,344	NA	69	63,333
1995	126,304	15,392	35,102	NA	65	50,821
1996	114,623	15,216	32,473	NA	91	48,146
1997	98,826	15,456	33,336	NA	469	51,138
1998	120,501	16,343	37,451	NA	559	56,591
1999 ⁷	141,604	17,995	34,256	NA	372	54,109
2000	102,296	15,127	24,748	NA	211	40,932
2001	138,496	20,486	34,594	NA	390	57,031
2002	141,714	17,413	25,723	800	1,711	52,490
2003	121,567	19,153	25,820	779	1,484	53,170
2004	106,669	19,275	26,596	879	937	51,434
2005	101,137	18,778	27,624	1,012	530	50,062
2006	^R 140,964	^R 18,013	^R 28,823	^R 1,380	^R 674	^R 51,583
2007 ^P	151,127	17,579	24,081	1,325	550	45,733

¹ Anthracite, bituminous coal, subbituminous coal, and lignite.

² Fuel oil nos. 1, 2, and 4. For 1973-1979, data are for gas turbine and internal combustion plant stocks of petroleum. For 1980-2000, electric utility data also include small amounts of kerosene and jet fuel.

³ Fuel oil nos. 5 and 6. For 1973-1979, data are for steam plant stocks of petroleum. For 1980-2000, electric utility data also include a small amount of fuel oil no. 4.

⁴ Jet fuel and kerosene. Through 2003, data also include a small amount of waste oil.

⁵ Petroleum coke is converted from short tons to barrels by multiplying by 5.

⁶ Distillate fuel oil and residual fuel oil; beginning in 1970, also includes petroleum coke; and beginning in 2002, also includes other liquids.

⁷ Through 1998, data are for electric utilities only. Beginning in 1999, data are for electric utilities and independent power producers.

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

Notes: • Stocks are at end of year. • 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

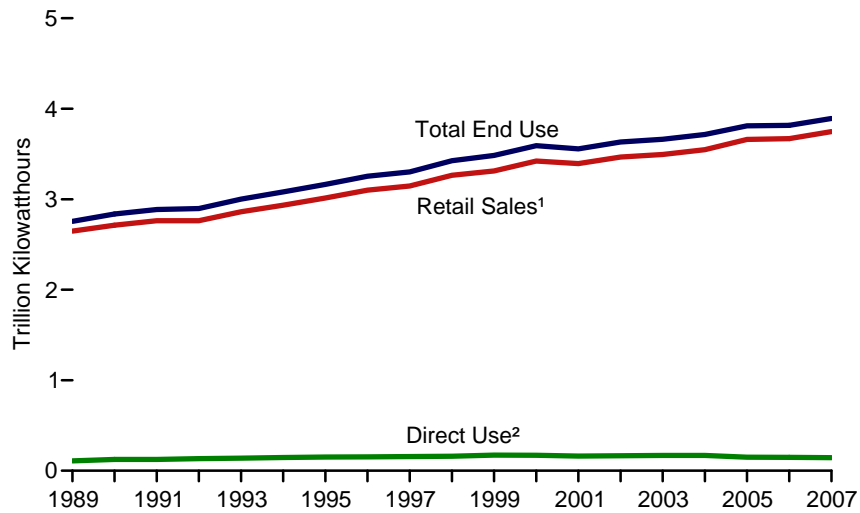
electricity, or electricity and heat, to the public. • See Note 1, "Coverage of Electricity Statistics," and Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Totals may not equal sum of components due to independent rounding.

Web Pages: • For all data beginning in 1949, see <http://www.eia.doe.gov/emeu/aer/elect.html>. • For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

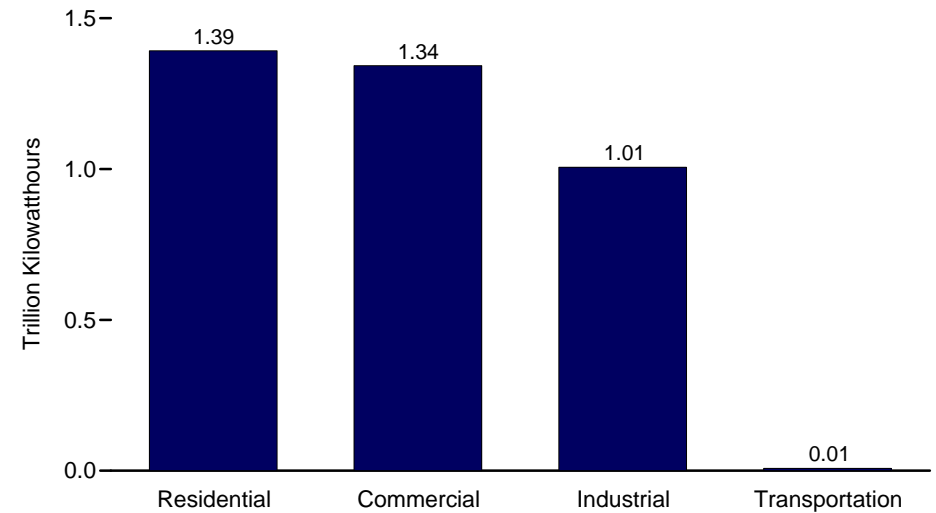
Sources: • 1949-September 1977—Federal Power Commission, Form FPC-4, "Monthly Power Plant Report." • October 1977-1981—Federal Energy Regulatory Commission, Form FPC-4, "Monthly Power Plant Report." • 1982-1988—Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report." • 1989-1997—EIA, Form EIA-759, "Monthly Power Plant Report," and Form EIA-867, "Annual Nonutility Power Producer Report." • 1998-2000—EIA, Form EIA-759, "Monthly Power Plant Report," and Form EIA-860B, "Annual Electric Generator Report—Nonutility." • 2001-2003—EIA, Form EIA-906, "Power Plant Report." • 2004 forward—EIA, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report."

Figure 8.9 Electricity End Use

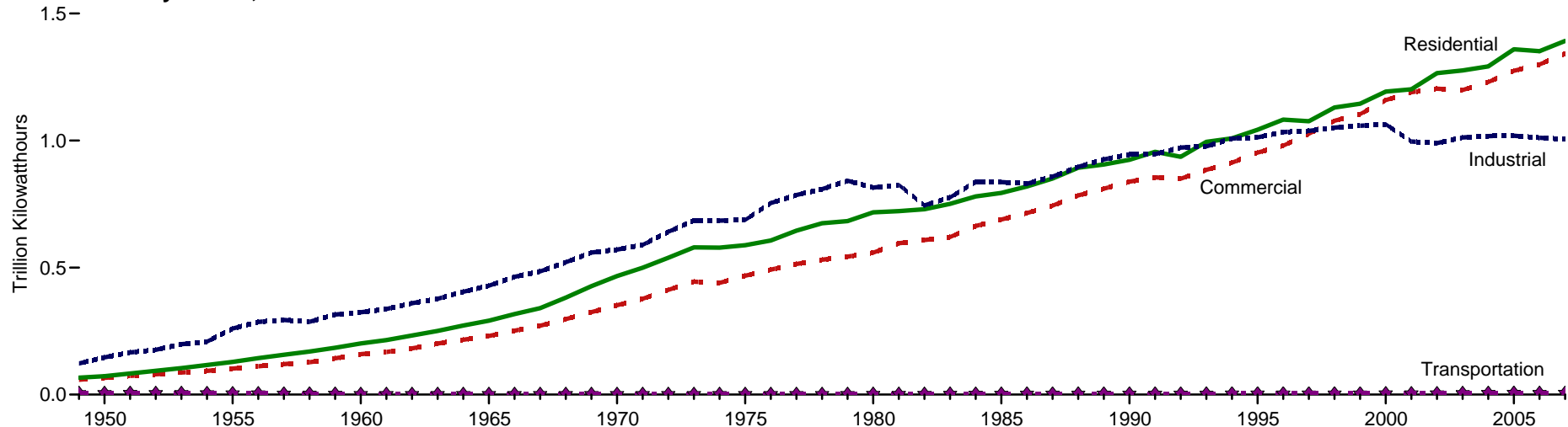
Overview, 1989-2007



Retail Sales¹ by Sector, 2007



Retail Sales¹ by Sector, 1949-2007



¹ Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.

² Use of electricity that is 1) self-generated, 2) produced by either the same entity that consumes the power or an affiliate, and 3) used in direct support of a service or industrial

process located within the same facility or group of facilities that house the generating equipment. Direct use is exclusive of station use.

Note: Because vertical scales differ, graphs should not be compared.

Source: Table 8.9.

Table 8.9 Electricity End Use, Selected Years, 1949-2007
(Billion Kilowatthours)

Year	Retail Sales ¹					Direct Use ⁶	Total End Use ⁷	Discontinued Retail Sales Series	
	Residential	Commercial ²	Industrial ³	Transportation ⁴	Total Retail Sales ⁵			Commercial (Old) ⁸	Other (Old) ⁹
1949	67	E59	123	E6	255	NA	255	45	20
1950	72	E66	146	E7	291	NA	291	51	22
1955	128	E103	260	E6	497	NA	497	79	29
1960	201	E159	324	E3	688	NA	688	131	32
1965	291	E231	429	E3	954	NA	954	200	34
1970	466	E352	571	E3	1,392	NA	1,392	307	48
1971	500	E377	589	E3	1,470	NA	1,470	329	51
1972	539	E413	641	E3	1,595	NA	1,595	359	56
1973	579	E445	686	E3	1,713	NA	1,713	388	59
1974	578	E440	685	E3	1,706	NA	1,706	385	58
1975	588	E468	688	E3	1,747	NA	1,747	403	68
1976	606	E492	754	E3	1,855	NA	1,855	425	70
1977	645	E514	786	E3	1,948	NA	1,948	447	71
1978	674	E531	809	E3	2,018	NA	2,018	461	73
1979	683	543	842	3	2,071	NA	2,071	473	73
1980	717	559	815	3	2,094	NA	2,094	488	74
1981	722	596	826	3	2,147	NA	2,147	514	85
1982	730	609	745	3	2,086	NA	2,086	526	86
1983	751	620	776	4	2,151	NA	2,151	544	80
1984	780	664	838	4	2,286	NA	2,286	583	85
1985	794	689	837	4	2,324	NA	2,324	606	87
1986	819	715	831	4	2,369	NA	2,369	631	89
1987	850	744	858	5	2,457	NA	2,457	660	88
1988	893	784	896	5	2,578	NA	2,578	699	90
1989	906	811	926	5	2,647	109	2,756	726	90
1990	924	838	946	5	2,713	125	2,837	751	92
1991	955	855	947	5	2,762	124	2,886	766	94
1992	936	850	973	5	2,763	134	2,897	761	93
1993	995	885	977	5	2,861	139	3,001	795	95
1994	1,008	913	1,008	5	2,935	146	3,081	820	98
1995	1,043	953	1,013	5	3,013	151	3,164	863	95
1996	1,083	980	1,034	5	3,101	153	3,254	887	98
1997	1,076	1,027	1,038	5	3,146	156	3,302	929	103
1998	1,130	1,078	1,051	5	3,264	161	3,425	979	104
1999	1,145	1,104	1,058	5	3,312	172	3,484	1,002	107
2000	1,192	1,159	1,064	5	3,421	171	3,592	1,055	109
2001	1,202	1,191	997	6	3,394	163	3,557	1,083	113
2002	1,265	1,205	990	6	3,465	166	3,632	1,104	106
2003	1,276	1,199	1,012	7	3,494	168	3,662	---	---
2004	1,292	1,230	1,018	7	3,547	168	3,716	---	---
2005	1,359	1,275	1,019	8	3,661	R150	R3,811	---	---
2006	R1,352	R1,300	R1,011	R7	R3,670	R147	R3,817	---	---
2007 ^P	1,392	1,343	1,006	8	3,748	E144	3,892	---	---

¹ Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.

² Commercial sector, including public street and highway lighting, interdepartmental sales, and other sales to public authorities.

³ Industrial sector. Through 2002, excludes agriculture and irrigation; beginning in 2003, includes agriculture and irrigation.

⁴ Transportation sector, including sales to railroads and railways.

⁵ The sum of "Residential," "Commercial," "Industrial," and "Transportation."

⁶ Use of electricity that is 1) self-generated, 2) produced by either the same entity that consumes the power or an affiliate, and 3) used in direct support of a service or industrial process located within the same facility or group of facilities that house the generating equipment. Direct use is exclusive of station use.

⁷ The sum of "Total Retail Sales" and "Direct Use."

⁸ "Commercial (Old)" is a discontinued series—data are for the commercial sector, excluding public street and highway lighting, interdepartmental sales, and other sales to public authorities.

⁹ "Other (Old)" is a discontinued series—data are for public street and highway lighting, interdepartmental sales, other sales to public authorities, agriculture and irrigation, and transportation including railroads and railways.

R=Revised. P=Preliminary. E=Estimate. NA=Not available. --- = Not applicable.

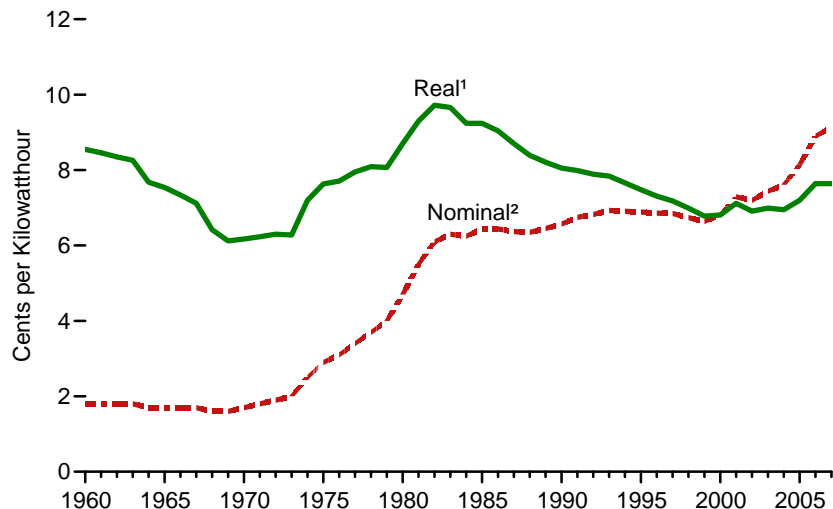
Note: Totals may not equal sum of components due to independent rounding.

Web Pages: • For all data beginning in 1949, see <http://www.eia.doe.gov/emeu/aer/elect.html>.
• For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

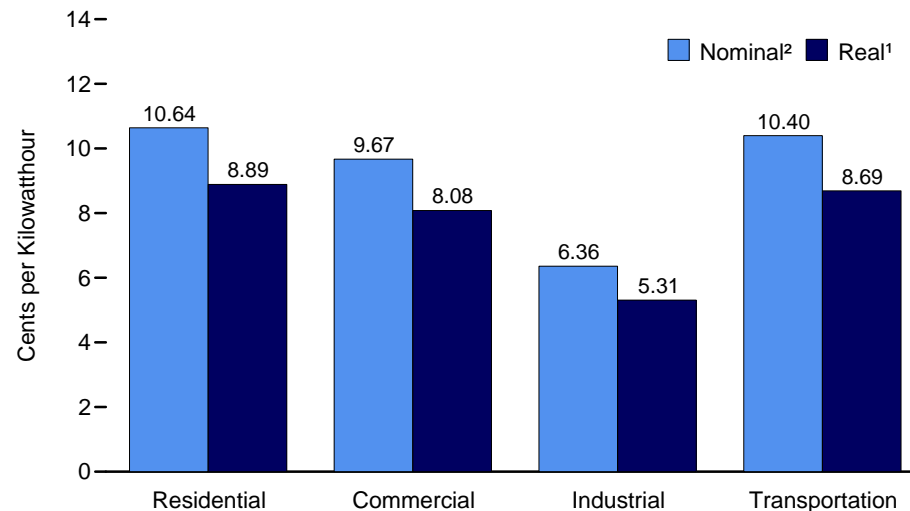
Sources: **Residential and Industrial:** • 1949-September 1977—Federal Power Commission, Form FPC-5, "Monthly Statement of Electric Operating Revenue and Income." • October 1977-February 1980—Federal Energy Regulatory Commission (FERC), Form FPC-5, "Monthly Statement of Electric Operating Revenue and Income." • March 1980-1982—FERC, Form FPC-5, "Electric Utility Company Monthly Statement." • 1983—Energy Information Administration (EIA), Form EIA-826, "Electric Utility Company Monthly Statement." • 1984-1992—EIA, Form EIA-861, "Annual Electric Utility Report." • 1993 forward—EIA, *Electric Power Monthly* (March 2008), Table 5.1. **Commercial:** • 1949-2002—Estimated by EIA as the sum of "Commercial (Old)" and the non-transportation portion of "Other (Old)." See estimation methodology at http://www.eia.doe.gov/emeu/states/sep_use/notes/use_elec.pdf. • 2003 forward—EIA, *Electric Power Monthly* (March 2008), Table 5.1. **Transportation:** • 1949-2002—Estimated by EIA as the transportation portion of "Other (Old)." See estimation methodology at http://www.eia.doe.gov/emeu/states/sep_use/notes/use_elec.pdf. • 2003 forward—EIA, *Electric Power Monthly* (March 2008), Table 5.1. **Direct Use:** • 1989-1994—EIA, Form EIA-867, "Annual Nonutility Power Producer Report." • 1995-2006—EIA, *Electric Power Annual 2006* (October 2007), Table 7.2. • 2007—Estimate based on the 2006 value adjusted by the percentage increase in commercial and industrial net generation on Table 8.1. **Commercial (Old)** and **Other (Old):** • 1949-2002—See sources for "Residential" and "Industrial."

Figure 8.10 Average Retail Prices of Electricity

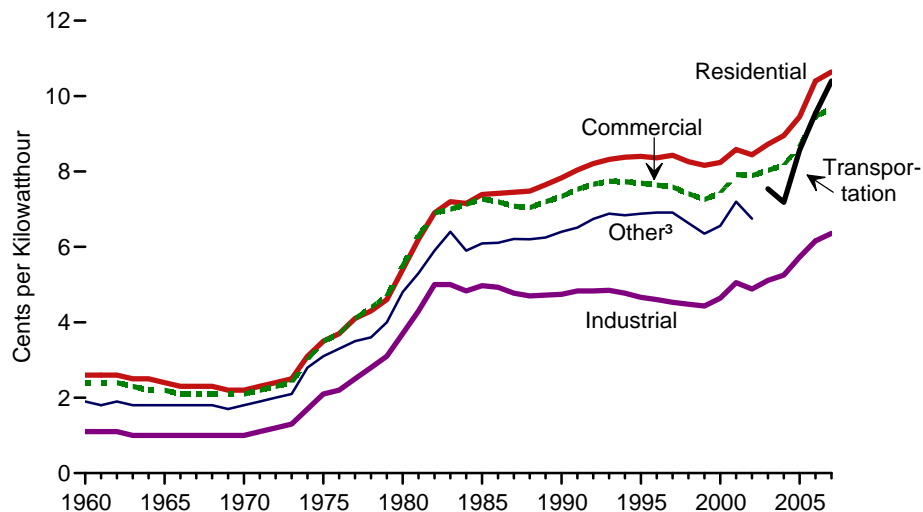
Total, 1960-2007



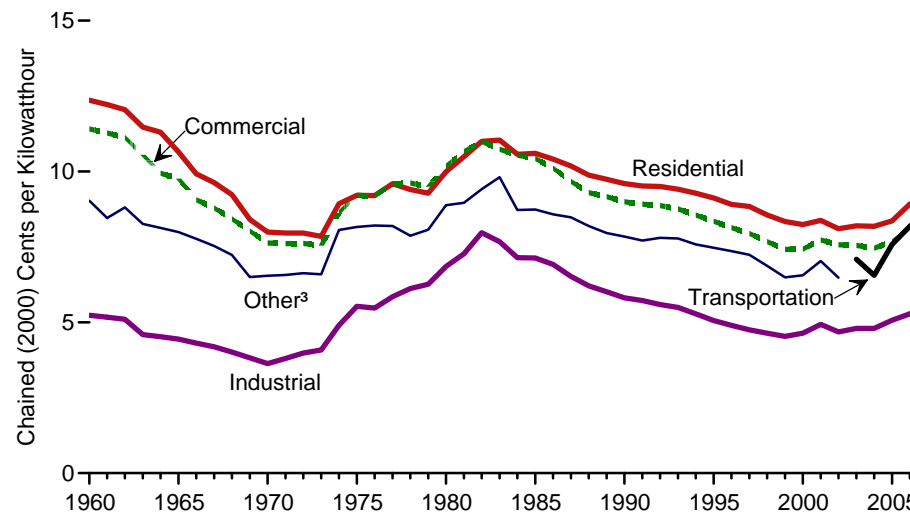
By Sector, 2007



By Sector, Nominal² Prices, 1960-2007



By Sector, Real¹ Prices, 1960-2007



¹ In chained (2000) dollars, calculated by using gross domestic product implicit price deflators. See Table D1.

² See "Nominal Dollars" in Glossary.

³ Public street and highway lighting, interdepartmental sales, other sales to public

authorities, agriculture and irrigation, and transportation including railroads and railways. Notes: • Taxes are included. • Because vertical scales differ, graphs should not be compared.

Source: Table 8.10.

Table 8.10 Average Retail Prices of Electricity, 1960-2007
(Cents per Kilowatthour, Including Taxes)

Year	Residential		Commercial ¹		Industrial ²		Transportation ³		Other ⁴		Total	
	Nominal ⁵	Real ⁶	Nominal ⁵	Real ⁶	Nominal ⁵	Real ⁶	Nominal ⁵	Real ⁶	Nominal ⁵	Real ⁶	Nominal ⁵	Real ⁶
1960	2.6	12.4	2.4	11.4	1.1	5.2	NA	NA	1.9	9.0	1.8	8.6
1961	2.6	12.2	2.4	11.3	1.1	5.2	NA	NA	1.8	8.5	1.8	8.5
1962	2.6	12.1	2.4	11.1	1.1	5.1	NA	NA	1.9	8.8	1.8	8.4
1963	2.5	11.5	2.3	10.6	1.0	4.6	NA	NA	1.8	8.3	1.8	8.3
1964	2.5	11.3	2.2	9.9	1.0	4.5	NA	NA	1.8	8.1	1.7	7.7
1965	2.4	10.7	2.2	9.8	1.0	4.4	NA	NA	1.8	8.0	1.7	7.5
1966	2.3	9.9	2.1	9.1	1.0	4.3	NA	NA	1.8	7.8	1.7	7.3
1967	2.3	9.6	2.1	8.8	1.0	4.2	NA	NA	1.8	7.5	1.7	7.1
1968	2.3	9.2	2.1	8.4	1.0	4.0	NA	NA	1.8	7.2	1.6	6.4
1969	2.2	8.4	2.1	8.0	1.0	3.8	NA	NA	1.7	6.5	1.6	6.1
1970	2.2	8.0	2.1	7.6	1.0	3.6	NA	NA	1.8	6.5	1.7	6.2
1971	2.3	8.0	2.2	7.6	1.1	3.8	NA	NA	1.9	6.6	1.8	6.2
1972	2.4	8.0	2.3	7.6	1.2	4.0	NA	NA	2.0	6.6	1.9	6.3
1973	2.5	7.9	2.4	7.5	1.3	4.1	NA	NA	2.1	6.6	2.0	6.3
1974	3.1	8.9	3.0	8.6	1.7	4.9	NA	NA	2.8	8.1	2.5	7.2
1975	3.5	9.2	3.5	9.2	2.1	5.5	NA	NA	3.1	8.2	2.9	7.6
1976	3.7	9.2	3.7	9.2	2.2	5.5	NA	NA	3.3	8.2	3.1	7.7
1977	4.1	9.6	4.1	9.6	2.5	5.9	NA	NA	3.5	8.2	3.4	8.0
1978	4.3	9.4	4.4	9.6	2.8	6.1	NA	NA	3.6	7.9	3.7	8.1
1979	4.6	9.3	4.7	9.5	3.1	6.3	NA	NA	4.0	8.1	4.0	8.1
1980	5.4	10.0	5.5	10.2	3.7	6.9	NA	NA	4.8	8.9	4.7	8.7
1981	6.2	10.5	6.3	10.7	4.3	7.3	NA	NA	5.3	9.0	5.5	9.3
1982	6.9	11.0	6.9	11.0	5.0	8.0	NA	NA	5.9	9.4	6.1	9.7
1983	7.2	11.0	7.0	10.7	5.0	7.7	NA	NA	6.4	9.8	6.3	9.7
1984	7.15	10.57	7.13	10.54	4.83	7.14	NA	NA	5.90	8.72	6.25	9.24
1985	7.39	10.60	7.27	10.43	4.97	7.13	NA	NA	6.09	8.74	6.44	9.24
1986	7.42	10.41	7.20	10.11	4.93	6.92	NA	NA	6.11	8.58	6.44	9.04
1987	7.45	10.18	7.08	9.67	4.77	6.52	NA	NA	6.21	8.48	6.37	8.70
1988	7.48	9.88	7.04	9.30	4.70	6.21	NA	NA	6.20	8.19	6.35	8.39
1989	7.65	9.74	7.20	9.17	4.72	6.01	NA	NA	6.25	7.96	6.45	8.21
1990	7.83	9.60	7.34	9.00	4.74	5.81	NA	NA	6.40	7.84	6.57	8.05
1991	8.04	9.52	7.53	8.92	4.83	5.72	NA	NA	6.51	7.71	6.75	7.99
1992	8.21	9.50	7.66	8.87	4.83	5.59	NA	NA	6.74	7.80	6.82	7.89
1993	8.32	9.41	7.74	8.76	4.85	5.49	NA	NA	6.88	7.78	6.93	7.84
1994	8.38	9.28	7.73	8.56	4.77	5.28	NA	NA	6.84	7.58	6.91	7.66
1995	8.40	9.12	7.69	8.35	4.66	5.06	NA	NA	6.88	7.47	6.89	7.48
1996	8.36	8.91	7.64	8.14	4.60	4.90	NA	NA	6.91	7.36	6.86	7.31
1997	8.43	8.84	7.59	7.95	4.53	4.75	NA	NA	6.91	7.24	6.85	7.18
1998	8.26	8.56	7.41	7.68	4.48	4.64	NA	NA	6.63	6.87	6.74	6.99
1999	8.16	8.34	7.26	7.42	4.43	4.53	NA	NA	6.35	6.49	6.64	6.78
2000	8.24	8.24	7.43	7.43	4.64	4.64	NA	NA	6.56	6.56	6.81	6.81
2001	8.58	8.38	7.92	7.73	5.05	4.93	NA	NA	7.20	7.03	7.29	7.12
2002	8.44	8.10	7.89	7.57	4.88	4.68	NA	NA	6.75	6.48	7.20	6.91
2003	8.72	8.20	8.03	7.55	5.11	4.80	7.54	7.09	---	---	7.44	6.99
2004	8.95	8.18	8.17	R7.46	5.25	4.80	7.18	6.56	---	---	7.61	6.95
2005	9.45	R8.36	8.67	R7.67	5.73	R5.07	8.57	R7.58	---	---	8.14	R7.20
2006	10.40	R8.92	R9.46	R8.12	R6.16	R5.28	R9.54	R8.18	---	---	R8.90	R7.64
2007 ^P	10.64	8.89	9.67	8.08	6.36	5.31	10.40	8.69	---	---	9.14	7.64

¹ Commercial sector. For 1960-2002, prices exclude public street and highway lighting, interdepartmental sales, and other sales to public authorities.

² Industrial sector. For 1960-2002, prices exclude agriculture and irrigation.

³ Transportation sector, including railroads and railways.

⁴ Public street and highway lighting, interdepartmental sales, other sales to public authorities, agriculture and irrigation, and transportation including railroads and railways.

⁵ See "Nominal Dollars" in Glossary.

⁶ In chained (2000) dollars, calculated by using gross domestic product implicit price deflators in Table D1. See "Chained Dollars" in Glossary.

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

Notes: • Beginning in 2003, the category "Other" has been replaced by "Transportation," and the categories "Commercial" and "Industrial" have been redefined. • Data represent revenue from electricity retail sales divided by electricity retail sales. • Prices include State and local taxes, energy or demand charges, customer service charges, environmental surcharges, franchise fees, fuel adjustments, and other miscellaneous charges applied to end-use customers during normal billing operations. Prices do not include

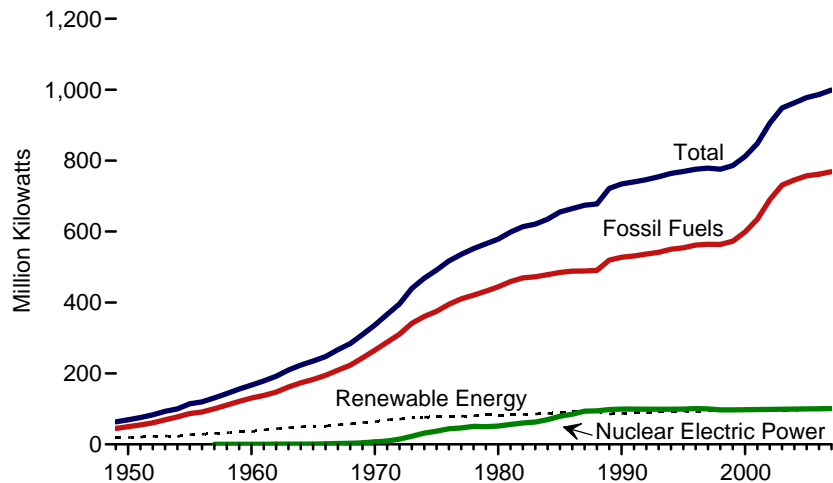
deferred charges, credits, or other adjustments, such as fuel or revenue from purchased power, from previous reporting periods. • Through 1979, data are for Classes A and B privately owned electric utilities only. For 1980-1982, data are for selected Class A utilities whose electric operating revenues were \$100 million or more during the previous year. For 1983, data are for a selected sample of electric utilities. Beginning in 1984, data are for a census of electric utilities. Beginning in 1996, data also include energy service providers selling to retail customers.

Web Page: For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

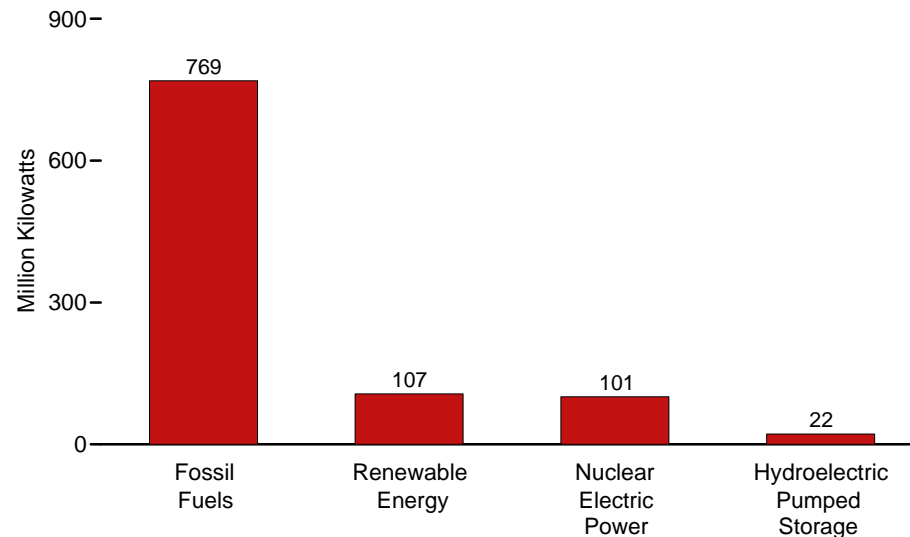
Sources: • 1960-September 1977—Federal Power Commission, Form FPC-5, "Monthly Statement of Electric Operating Revenues and Income." • October 1977-February 1980—Federal Energy Regulatory Commission (FERC), Form FPC-5, "Monthly Statement of Electric Operating Revenues and Income." • March 1980-1982—FERC, Form FERC-5, "Electric Utility Company Monthly Statement." • 1983—Energy Information Administration (EIA), Form EIA-826, "Electric Utility Company Monthly Statement." • 1984-1992—EIA, Form EIA-861, "Annual Electric Utility Report." • 1993 forward—EIA, *Electric Power Monthly* (March 2008), Table 5.3.

Figure 8.11a Electric Net Summer Capacity, Total (All Sectors)

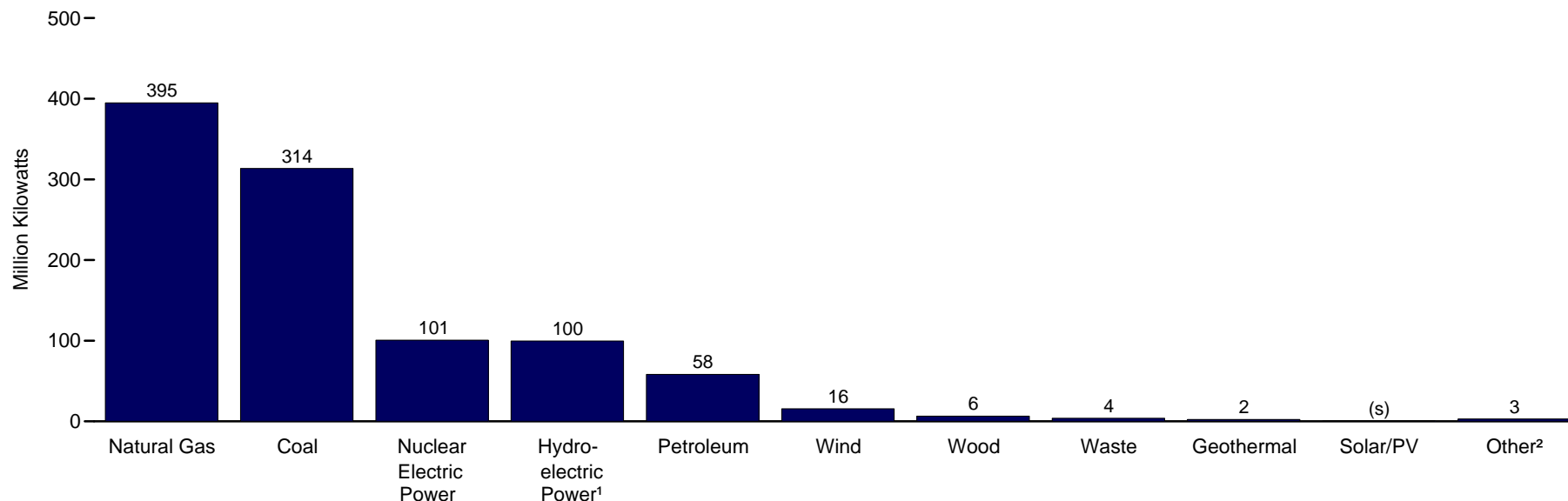
Total, 1949-2007



By Major Category, 2007



By Source, 2007



¹ Conventional and pumped storage.

² Blast furnace gas, propane gas, other manufactured and waste gases derived from fossil fuels, batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

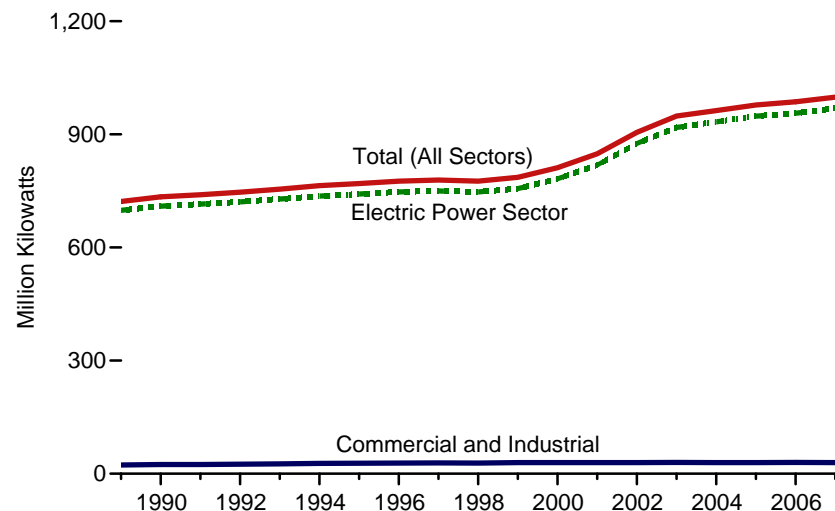
(s)=Less than 0.5 million kilowatts.

Note: Because vertical scales differ, graphs should not be compared.

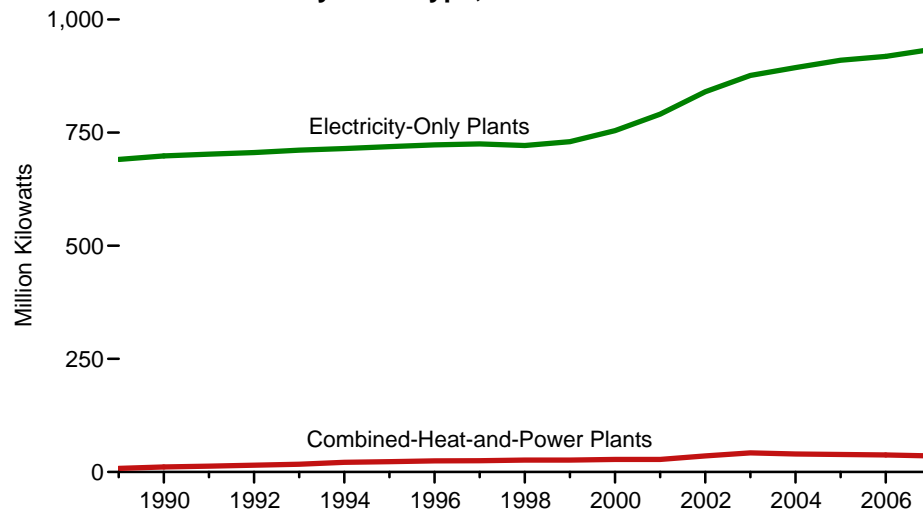
Source: Table 8.11a.

Figure 8.11b Electric Net Summer Capacity by Sector

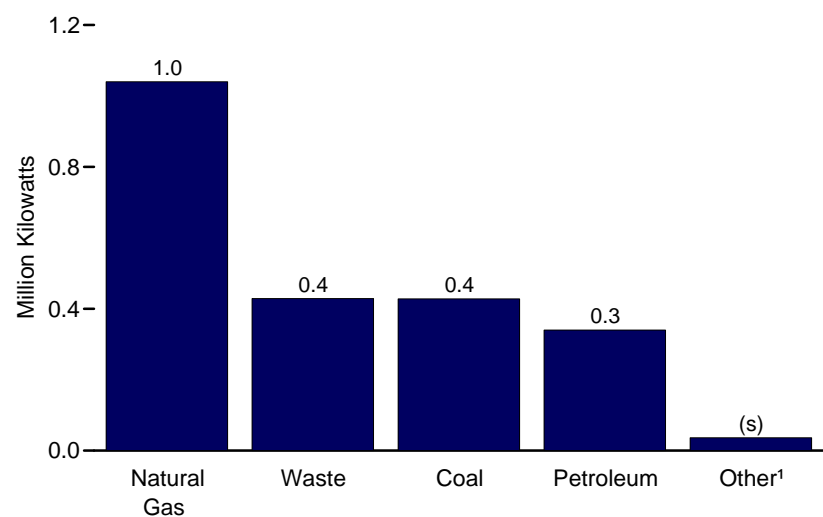
Total (All Sectors) and Sectors, 1989-2007



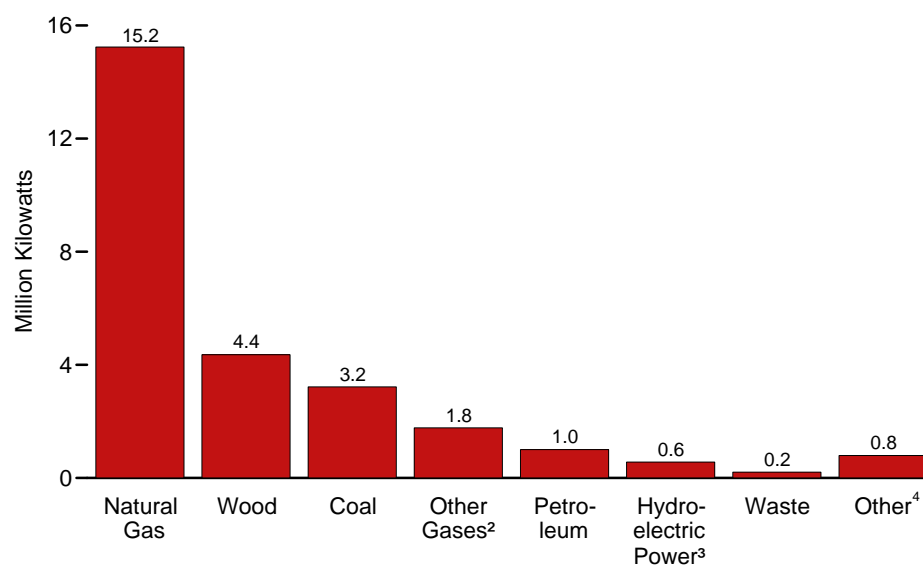
Electric Power Sector by Plant Type, 1989-2007



Commercial Sector, 2007



Industrial Sector, 2007



¹ Conventional hydroelectric power, wood, blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

² Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels

³ Conventional.

⁴ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

(s)=Less than 0.05 million kilowatts.

Note: Because vertical scales differ, graphs should not be compared.

Sources: Tables 8.11a-8.11d.

Table 8.11a Electric Net Summer Capacity: Total (All Sectors), Selected Years, 1949-2007
(Sum of Tables 8.11b and 8.11d; Million Kilowatts)

Year	Fossil Fuels					Nuclear Electric Power	Hydro-electric Pumped Storage	Renewable Energy							Other ⁸	Total
	Coal ¹	Petroleum ²	Natural Gas ³	Other Gases ⁴	Total			Conventional Hydroelectric Power	Biomass		Geo-thermal	Solar/PV ⁷	Wind	Total		
									Wood ⁵	Waste ⁶						
1949	NA	NA	NA	NA	44.9	0.0	(⁹)	18.5	(s)	(¹⁰)	NA	NA	NA	18.5	NA	63.4
1950	NA	NA	NA	NA	50.0	.0	(⁹)	19.2	(s)	(¹⁰)	NA	NA	NA	19.2	NA	69.2
1955	NA	NA	NA	NA	86.8	.0	(⁹)	27.4	(s)	(¹⁰)	NA	NA	NA	27.4	NA	114.2
1960	NA	NA	NA	NA	130.8	.4	(⁹)	35.8	.1	(¹⁰)	(s)	NA	NA	35.9	NA	167.1
1965	NA	NA	NA	NA	182.9	.8	(⁹)	51.0	.1	(¹⁰)	(s)	NA	NA	51.1	NA	234.8
1970	NA	NA	NA	NA	265.4	7.0	(⁹)	63.8	.1	(¹⁰)	.1	NA	NA	63.9	NA	336.4
1971	NA	NA	NA	NA	288.0	9.0	(⁹)	69.1	.1	(¹⁰)	.2	NA	NA	69.4	NA	366.4
1972	NA	NA	NA	NA	310.7	14.5	(⁹)	70.5	.1	(¹⁰)	.3	NA	NA	70.9	NA	396.0
1973	NA	NA	NA	NA	341.2	22.7	(⁹)	75.4	.1	(¹⁰)	.4	NA	NA	75.9	NA	439.8
1974	NA	NA	NA	NA	360.7	31.9	(⁹)	75.5	.1	(¹⁰)	.4	NA	NA	76.0	NA	468.5
1975	NA	NA	NA	NA	375.1	37.3	(⁹)	78.4	.1	(¹⁰)	.5	NA	NA	79.0	NA	491.3
1976	NA	NA	NA	NA	394.8	43.8	(⁹)	78.0	.1	(¹⁰)	.5	NA	NA	78.6	NA	517.2
1977	NA	NA	NA	NA	410.4	46.3	(⁹)	78.6	.1	(¹⁰)	.5	NA	NA	79.2	NA	535.9
1978	NA	NA	NA	NA	420.8	50.8	(⁹)	79.9	.1	(¹⁰)	.5	NA	NA	80.5	NA	552.1
1979	NA	NA	NA	NA	432.1	49.7	(⁹)	82.9	.1	(¹⁰)	.7	NA	NA	83.6	NA	565.5
1980	NA	NA	NA	NA	444.1	51.8	(⁹)	81.7	.1	(¹⁰)	.9	NA	NA	82.7	NA	578.6
1981	NA	NA	NA	NA	458.9	56.0	(⁹)	82.4	.1	(¹⁰)	.9	NA	(s)	83.4	NA	598.3
1982	NA	NA	NA	NA	469.6	60.0	(⁹)	83.0	.1	(¹⁰)	1.0	NA	(s)	84.1	NA	613.7
1983	NA	NA	NA	NA	472.8	63.0	(⁹)	83.9	.2	(¹⁰)	1.2	NA	(s)	85.3	NA	621.1
1984	NA	NA	NA	NA	478.6	69.7	(⁹)	85.3	.3	(¹⁰)	1.2	(¹¹)	(s)	86.9	NA	635.1
1985	NA	NA	NA	NA	485.0	79.4	(⁹)	88.9	.2	.2	1.6	(¹¹)	(s)	90.8	NA	655.2
1986	NA	NA	NA	NA	488.3	85.2	(⁹)	89.3	.2	.2	1.6	(¹¹)	(s)	91.2	NA	664.8
1987	NA	NA	NA	NA	488.8	93.6	(⁹)	89.7	.2	.2	1.5	(¹¹)	(s)	91.7	NA	674.1
1988	NA	NA	NA	NA	490.6	94.7	(⁹)	90.3	.2	.2	1.7	(¹¹)	(s)	92.4	NA	677.7
1989 ¹²	303.1	R79.1	R135.7	1.5	519.4	98.2	18.1	74.1	5.2	2.1	2.6	.2	1.5	85.7	.5	721.8
1990	307.4	R77.9	R140.8	1.6	527.8	99.6	19.5	73.9	5.5	2.5	2.7	.3	1.8	86.8	.5	734.1
1991	307.4	R74.2	R147.6	2.1	531.4	99.6	18.4	76.0	6.1	2.9	2.6	.3	1.9	89.9	.5	739.9
1992	309.4	R73.1	R152.2	2.1	536.7	99.0	21.2	74.8	6.2	3.0	2.9	.3	1.8	89.1	.5	746.5
1993	310.1	R71.1	R158.6	1.9	541.8	99.0	21.1	77.4	6.5	3.1	2.9	.3	1.8	92.1	.5	754.6
1994	311.4	R71.7	R164.8	2.1	550.0	99.1	21.2	78.0	6.7	3.3	3.0	.3	1.7	93.1	.5	764.0
1995	311.4	R66.6	R174.5	1.7	554.2	99.5	21.4	78.6	6.7	3.5	3.0	.3	1.7	93.9	.5	769.5
1996	313.4	R72.5	R174.1	1.7	561.7	100.8	21.1	76.4	6.8	3.6	2.9	.3	1.7	91.7	.5	775.9
1997	313.6	R72.5	R176.5	1.5	564.1	99.7	19.3	79.4	6.9	3.6	2.9	.3	1.6	94.8	.8	778.6
1998	315.8	R66.3	R180.3	1.5	563.9	97.1	19.5	79.2	6.8	3.7	2.9	.3	1.7	94.6	.8	775.9
1999	315.5	R60.1	R195.1	1.9	572.6	97.4	19.6	79.4	6.8	3.7	2.8	.4	2.3	95.3	1.0	785.9
2000	315.1	61.8	219.6	2.3	598.9	97.9	19.5	79.4	6.1	3.9	2.8	.4	2.4	94.9	.5	811.7
2001	314.2	66.2	252.8	1.7	634.9	98.2	19.7	78.9	5.9	R3.7	2.2	.4	3.9	R95.0	R.5	848.3
2002	315.4	59.7	312.5	2.0	689.5	98.7	20.4	79.4	5.8	3.8	2.3	.4	4.4	96.1	R.7	905.3
2003	313.0	60.7	355.4	2.0	731.2	99.2	20.5	78.7	5.9	3.8	2.1	.4	6.0	R96.8	R.7	948.4
2004	313.0	59.1	371.0	2.3	745.4	99.6	20.8	77.6	6.2	R3.5	2.2	.4	6.5	96.4	.7	962.9
2005	313.4	58.5	383.1	2.1	757.1	100.0	21.3	77.5	6.2	R3.6	2.3	.4	8.7	R98.7	R.9	978.0
2006	R313.0	R58.1	R388.3	R2.3	R761.6	R100.3	R21.5	R77.8	R6.4	R3.7	2.3	.4	R11.3	R101.9	R.9	R986.2
2007 ^P	313.6	58.3	394.9	2.3	769.0	100.6	21.8	77.8	6.4	3.9	2.3	.5	15.6	106.6	.8	998.8

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

² Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.

³ Natural gas, plus a small amount of supplemental gaseous fuels.

⁴ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁵ Wood and wood-derived fuels.

⁶ Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. For all years, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

⁷ Solar thermal and photovoltaic energy.

⁸ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

⁹ Included in "Conventional Hydroelectric Power."

¹⁰ Included in "Wood."

¹¹ Included in "Wind."

¹² Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities, independent power producers, commercial plants, and industrial plants.

R=Revised. P=Preliminary. NA=Not available. (s)=Less than 0.05 million kilowatts.

Notes: • Data are at end of year. • For plants that use multiple sources of energy, capacity is assigned to the predominant energy source. • See Note 1, "Coverage of Electricity Statistics," at end of section.

• See "Generator Net Summer Capacity" in Glossary. • Totals may not equal sum of components due to independent rounding.

Web Pages: • For all data beginning in 1949, see <http://www.eia.doe.gov/emeu/aer/elect.html>.

• For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

Sources: Tables 8.11b and 8.11d.

Table 8.11b Electric Net Summer Capacity: Electric Power Sector, Selected Years, 1949-2007

(Subset of Table 8.11a; Million Kilowatts)

Year	Fossil Fuels					Nuclear Electric Power	Hydro-electric Pumped Storage	Renewable Energy							Other ⁸	Total
	Coal ¹	Petroleum ²	Natural Gas ³	Other Gases ⁴	Total			Conventional Hydroelectric Power	Biomass		Geo-thermal	Solar/PV ⁷	Wind	Total		
									Wood ⁵	Waste ⁶						
1949	NA	NA	NA	NA	44.9	0.0	(9)	18.5	(s)	(10)	NA	NA	NA	18.5	NA	63.4
1950	NA	NA	NA	NA	50.0	.0	(9)	19.2	(s)	(10)	NA	NA	NA	19.2	NA	69.2
1955	NA	NA	NA	NA	86.8	.0	(9)	27.4	(s)	(10)	NA	NA	NA	27.4	NA	114.2
1960	NA	NA	NA	NA	130.8	.4	(9)	35.8	.1	(10)	(s)	NA	NA	35.9	NA	167.1
1965	NA	NA	NA	NA	182.9	.8	(9)	51.0	.1	(10)	(s)	NA	NA	51.1	NA	234.8
1970	NA	NA	NA	NA	265.4	7.0	(9)	63.8	.1	(10)	.1	NA	NA	63.9	NA	336.4
1971	NA	NA	NA	NA	288.0	9.0	(9)	69.1	.1	(10)	.2	NA	NA	69.4	NA	366.4
1972	NA	NA	NA	NA	310.7	14.5	(9)	70.5	.1	(10)	.3	NA	NA	70.9	NA	396.0
1973	NA	NA	NA	NA	341.2	22.7	(9)	75.4	.1	(10)	.4	NA	NA	75.9	NA	439.8
1974	NA	NA	NA	NA	360.7	31.9	(9)	75.5	.1	(10)	.4	NA	NA	76.0	NA	468.5
1975	NA	NA	NA	NA	375.1	37.3	(9)	78.4	.1	(10)	.5	NA	NA	79.0	NA	491.3
1976	NA	NA	NA	NA	394.8	43.8	(9)	78.0	.1	(10)	.5	NA	NA	78.6	NA	517.2
1977	NA	NA	NA	NA	410.4	46.3	(9)	78.6	.1	(10)	.5	NA	NA	79.2	NA	535.9
1978	NA	NA	NA	NA	420.8	50.8	(9)	79.9	.1	(10)	.5	NA	NA	80.5	NA	552.1
1979	NA	NA	NA	NA	432.1	49.7	(9)	82.9	.1	(10)	.7	NA	NA	83.6	NA	565.5
1980	NA	NA	NA	NA	444.1	51.8	(9)	81.7	.1	(10)	.9	NA	NA	82.7	NA	578.6
1981	NA	NA	NA	NA	458.9	56.0	(9)	82.4	.1	(10)	.9	NA	(s)	83.4	NA	598.3
1982	NA	NA	NA	NA	469.6	60.0	(9)	83.0	.1	(10)	1.0	NA	(s)	84.1	NA	613.7
1983	NA	NA	NA	NA	472.8	63.0	(9)	83.9	.2	(10)	1.2	NA	(s)	85.3	NA	621.1
1984	NA	NA	NA	NA	478.6	69.7	(9)	85.3	.3	(10)	1.2	(11)	(s)	86.9	NA	635.1
1985	NA	NA	NA	NA	485.0	79.4	(9)	88.9	.2	(10)	1.6	(11)	(s)	90.8	NA	655.2
1986	NA	NA	NA	NA	488.3	85.2	(9)	89.3	.2	(10)	1.6	(11)	(s)	91.2	NA	664.8
1987	NA	NA	NA	NA	488.8	93.6	(9)	89.7	.2	(10)	1.5	(11)	(s)	91.7	NA	674.1
1988	NA	NA	NA	NA	490.6	94.7	(9)	90.3	.2	(10)	1.7	(11)	(s)	92.4	NA	677.7
1989 ¹²	298.0	R78.1	R125.4	.4	501.9	98.2	18.1	73.6	1.1	1.7	2.6	.2	1.5	80.7	-	698.8
1990	302.3	R76.8	R129.9	.4	509.3	99.6	19.5	73.3	1.2	2.1	2.7	.3	1.8	81.4	(s)	709.9
1991	302.5	R73.0	R137.1	.7	513.3	99.6	18.4	75.4	1.3	2.5	2.6	.3	1.9	84.0	-	715.3
1992	304.3	R71.8	R141.0	.7	517.9	99.0	21.2	74.2	1.4	2.5	2.9	.3	1.8	83.1	-	721.2
1993	305.0	R69.9	R146.9	.7	522.5	99.0	21.1	76.8	1.5	2.6	2.9	.3	1.8	85.9	-	728.6
1994	306.1	R70.5	R152.5	.7	529.8	99.1	21.2	76.9	1.7	2.7	3.0	.3	1.7	86.4	-	736.5
1995	306.0	R65.4	R161.9	.3	533.7	99.5	21.4	77.4	1.8	3.0	3.0	.3	1.7	87.3	-	741.8
1996	308.1	R71.3	R161.4	.1	540.9	100.8	21.1	75.3	1.7	2.9	2.9	.3	1.7	84.9	-	747.7
1997	308.5	R71.0	R163.4	.2	543.1	99.7	19.3	78.3	1.8	2.9	2.9	.3	1.6	87.8	.2	750.1
1998	310.9	R65.0	R167.1	.1	543.0	97.1	19.5	78.0	1.8	3.0	2.9	.3	1.7	87.8	.2	747.6
1999	310.7	R58.6	R181.1	.2	550.7	97.4	19.6	78.3	1.8	3.0	2.8	.4	2.3	88.6	.2	756.5
2000	310.2	60.7	204.7	.3	575.9	97.9	19.5	78.2	1.7	3.3	2.8	.4	2.4	88.8	(s)	782.1
2001	309.8	64.7	236.8	.3	611.6	98.2	19.7	77.9	1.6	3.3	2.2	.4	3.9	R89.2	R.1	818.8
2002	311.0	58.6	296.6	.3	666.5	98.7	20.4	78.3	1.6	R3.3	2.3	.4	4.4	R90.2	R.1	875.8
2003	308.5	59.6	339.1	.3	707.6	99.2	20.5	77.9	1.6	3.3	2.1	.4	6.0	91.3	R.1	918.6
2004	308.8	58.0	355.2	.4	722.4	99.6	20.8	77.0	1.6	R2.9	2.2	.4	6.5	90.6	R.1	933.4
2005	309.0	R57.4	367.5	.3	734.3	100.0	21.3	76.9	R1.6	3.0	2.3	.4	8.7	92.9	R.1	948.6
2006	R309.2	R56.8	R372.0	R.4	R738.4	R100.3	R21.5	R77.1	1.7	3.1	2.3	.4	R11.3	R95.9	R.1	R956.2
2007 ^P	309.9	56.9	378.6	.5	745.9	100.6	21.8	77.2	2.1	3.3	2.3	.5	15.6	101.0	(s)	969.4

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

² Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.

³ Natural gas, plus a small amount of supplemental gaseous fuels.

⁴ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁵ Wood and wood-derived fuels.

⁶ Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. For all years, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

⁷ Solar thermal and photovoltaic energy.

⁸ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

⁹ Included in "Conventional Hydroelectric Power."

¹⁰ Included in "Wood."

¹¹ Included in "Wind."

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. - = No data reported. (s)=Less than 0.05 million

kilowatts.

Notes: • Data are at end of year. • For plants that use multiple sources of energy, capacity is assigned to the predominant energy source. • 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 Table 8.11d for commercial and industrial CHP and electricity-only data. • See Note 1, "Coverage of Electricity Statistics," and Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • See "Generator Net Summer Capacity" in Glossary. • Totals may not equal sum of components due to independent rounding.

Web Pages: • For all data beginning in 1949, see <http://www.eia.doe.gov/emeu/aer/elect.html>. • For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

Sources: • 1949-1984—Energy Information Administration (EIA) estimates. • 1985-1988—EIA, Form EIA-860, "Annual Electric Generator Report." • 1989-1997—EIA, Form EIA-860, "Annual Electric Generator Report," and Form EIA-867, "Annual Nonutility Power Producer Report." • 1998-2000—EIA, Form EIA-860A, "Annual Electric Generator Report—Utility," and Form EIA-860B, "Annual Electric Generator Report—Nonutility." • 2001 forward—EIA, Form EIA-860, "Annual Electric Generator Report."

Table 8.11c Electric Net Summer Capacity: Electric Power Sector by Plant Type, 1989-2007

(Breakout of Table 8.11b; Million Kilowatts)

Year	Fossil Fuels					Nuclear Electric Power	Hydro-electric Pumped Storage	Renewable Energy							Other ⁸	Total
	Coal ¹	Petroleum ²	Natural Gas ³	Other Gases ⁴	Total			Conventional Hydroelectric Power	Biomass		Geo-thermal	Solar/PV ⁷	Wind	Total		
									Wood ⁵	Waste ⁶						
Electricity-Only Plants⁹																
1989	296.5	R78.0	R119.3	0.4	494.2	98.2	18.1	73.6	0.9	1.5	2.6	0.2	1.5	80.3	—	690.7
1990	299.9	R76.6	R121.8	.4	498.6	99.6	19.5	73.3	1.0	1.9	2.7	.3	1.8	80.9	(s)	698.6
1991	299.6	R72.6	R127.9	.7	500.8	99.6	18.4	75.4	1.1	2.2	2.6	.3	1.9	83.6	—	702.4
1992	300.8	R71.5	R130.2	.7	503.1	99.0	21.2	74.2	1.2	2.3	2.9	.3	1.8	82.7	—	706.0
1993	301.2	R69.3	R134.5	.7	505.7	99.0	21.1	76.8	1.2	2.4	2.9	.3	1.8	85.5	—	711.3
1994	301.6	R69.8	R136.6	.7	508.7	99.1	21.2	76.9	1.5	2.5	3.0	.3	1.7	85.9	—	715.0
1995	301.3	R64.7	R145.3	.3	511.5	99.5	21.4	77.4	1.5	2.7	3.0	.3	1.7	86.6	—	719.1
1996	303.1	R70.6	R143.1	.1	516.9	100.8	21.1	75.3	1.4	2.6	2.9	.3	1.7	84.2	—	723.0
1997	303.6	R70.2	R144.7	.2	518.7	99.7	19.3	78.3	1.5	2.5	2.9	.3	1.6	87.1	.2	725.0
1998	305.9	R64.2	R147.5	.1	517.5	97.1	19.5	78.0	1.4	2.6	2.9	.3	1.7	87.0	.2	721.4
1999	305.5	R57.5	R161.7	.2	525.0	97.4	19.6	78.3	1.5	2.6	2.8	.4	2.3	87.8	.2	730.0
2000	305.2	59.8	184.0	.1	549.0	97.9	19.5	78.2	1.5	2.8	2.8	.4	2.4	88.1	(s)	754.5
2001	305.2	63.8	215.5	.1	584.5	98.2	19.7	77.9	1.5	R2.9	2.2	.4	3.6	R88.4	R.1	790.9
2002	305.8	57.5	268.1	.1	631.5	98.7	20.4	78.3	1.4	2.9	2.3	.4	4.4	89.7	R.1	840.3
2003	303.0	58.6	304.2	.1	665.9	99.2	20.5	77.9	1.4	2.8	2.1	.4	6.0	90.6	R.1	876.3
2004	303.2	57.3	322.6	.1	683.2	99.6	20.8	77.0	1.5	2.6	2.2	.4	6.5	90.0	R.1	893.7
2005	R303.4	R56.9	R335.8	R (s)	R696.2	100.0	21.3	76.9	1.4	2.6	2.3	.4	8.7	92.3	R.1	R909.8
2006	R303.4	R55.8	R341.9	.1	R701.2	R100.3	R21.5	R77.1	R1.5	2.7	2.3	.4	R11.3	R95.3	R.1	R918.4
2007 ^P	304.7	55.7	350.2	.3	710.9	100.6	21.8	77.2	1.9	2.8	2.3	.5	15.6	100.4	(s)	933.8
Combined-Heat-and-Power Plants¹⁰																
1989	1.5	0.2	6.1	—	7.7	—	—	—	0.2	0.2	—	—	—	0.4	—	8.1
1990	2.4	.2	8.1	—	10.7	—	—	—	.2	.2	—	—	—	.5	—	11.2
1991	2.9	.4	9.2	—	12.5	—	—	—	.2	.2	—	—	—	.5	—	12.9
1992	3.5	.3	10.9	(s)	14.7	—	—	—	.2	.2	—	—	—	.5	—	15.2
1993	3.8	.7	12.3	—	16.8	—	—	—	.2	.2	—	—	—	.5	—	17.3
1994	4.5	.7	15.9	—	21.0	—	—	—	.3	.2	—	—	—	.5	—	21.5
1995	4.8	.8	16.6	—	22.1	—	—	—	.4	.2	—	—	—	.6	—	22.7
1996	5.0	.7	18.4	—	24.0	—	—	—	.3	.3	—	—	—	.6	—	24.6
1997	4.9	.8	18.7	(s)	24.4	—	—	—	.3	.4	—	—	—	.7	—	25.1
1998	5.0	.8	19.6	—	25.5	—	—	—	.4	.4	—	—	—	.7	—	26.2
1999	5.2	1.1	19.4	—	25.7	—	—	—	.4	.4	—	—	—	.7	—	26.5
2000	5.0	.9	20.7	.3	26.9	—	—	—	.2	.5	—	—	—	.7	—	27.7
2001	4.6	1.0	21.2	.3	27.1	—	—	(s)	.1	.4	—	—	.3	.8	(s)	27.9
2002	5.2	1.1	28.5	.2	34.9	—	—	—	.1	.4	—	—	—	.6	—	35.5
2003	5.5	1.1	34.9	.2	41.7	—	—	(s)	.2	.5	—	—	—	.7	—	42.3
2004	5.6	.7	32.6	.3	39.2	—	—	(s)	.2	.4	—	—	—	.6	—	39.7
2005	R5.6	R.5	R31.7	R.3	R38.1	—	—	(s)	.2	.4	—	—	—	.6	—	R38.7
2006	R5.8	R1.0	R30.0	R.3	R37.2	—	—	(s)	.2	.4	—	—	—	.6	—	R37.8
2007 ^P	5.2	1.2	28.4	.2	35.0	—	—	(s)	.2	.4	—	—	—	.6	—	35.6

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal symfuel.

² Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.

³ Natural gas, plus a small amount of supplemental gaseous fuels.

⁴ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁵ Wood and wood-derived fuels.

⁶ Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. For all years, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

⁷ Solar thermal and photovoltaic energy.

⁸ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

⁹ Electricity-only plants within the NAICS 22 category whose primary business is to sell electricity to the public. Data also include a small number of electric utility combined-heat-and-power (CHP) plants.

¹⁰ Combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to

sell electricity and heat to the public. Data do not include electric utility CHP plants—these are included under "Electricity-Only Plants."

R=Revised. P=Preliminary. — = No data reported. (s)=Less than 0.05 million kilowatts.

Notes: • Data are at end of year. • For plants that use multiple sources of energy, capacity is assigned to the predominant energy source. • See Table 8.11d for commercial and industrial CHP and electricity-only data. • See Note 1, "Coverage of Electricity Statistics," and Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • See "Generator Net Summer Capacity" in Glossary. • Totals may not equal sum of components due to independent rounding.

Web Page: For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

Sources: • 1989-1997—Energy Information Administration (EIA), Form EIA-860, "Annual Electric Generator Report," and Form EIA-867, "Annual Nonutility Power Producer Report." • 1998-2000—EIA, Form EIA-860A, "Annual Electric Generator Report—Utility," and Form EIA-860B, "Annual Electric Generator Report—Nonutility." • 2001 forward—EIA, Form EIA-860, "Annual Electric Generator Report."

Table 8.11d Electric Net Summer Capacity: Commercial and Industrial Sectors, 1989-2007

(Subset of Table 8.11a; Million Kilowatts)

Year	Fossil Fuels					Nuclear Electric Power	Hydro electric Pumped Storage	Renewable Energy						Other ⁸	Total	
	Coal ¹	Petroleum ²	Natural Gas ³	Other Gases ⁴	Total			Conventional Hydroelectric Power	Biomass		Geo-thermal	Solar/PV ⁷	Wind			Total
									Wood ⁵	Waste ⁶						
Commercial Sector⁹																
1989	0.3	0.2	0.6	—	1.0	—	—	(s)	(s)	0.2	—	—	—	0.2	—	1.2
1990	.3	.2	.7	—	1.2	—	—	(s)	(s)	.2	—	—	—	.2	—	1.4
1991	.2	.2	.7	—	1.1	—	—	(s)	(s)	.2	—	—	—	.3	—	1.3
1992	.2	.2	.8	—	1.2	—	—	(s)	(s)	.2	—	—	—	.3	—	1.5
1993	.3	.2	.9	—	1.3	—	—	(s)	(s)	.3	—	—	—	.3	—	1.6
1994	.3	.2	1.2	—	1.7	—	—	(s)	(s)	.3	—	—	—	.3	—	2.1
1995	.3	.2	1.2	—	1.8	—	—	(s)	(s)	.3	—	—	—	.3	—	2.1
1996	.3	.3	1.2	—	1.8	—	—	(s)	(s)	.4	—	—	—	.5	—	2.3
1997	.3	.4	1.2	—	1.9	—	—	(s)	(s)	.4	—	—	—	.5	—	2.3
1998	.3	.3	1.2	—	1.8	—	—	(s)	(s)	.5	—	—	—	.5	—	2.3
1999	.3	.4	1.1	—	1.8	—	—	(s)	(s)	.5	—	—	—	.5	—	2.3
2000	.3	.3	1.2	—	1.8	—	—	(s)	(s)	.4	—	—	—	.4	—	2.2
2001	.3	.3	1.9	—	2.5	—	—	(s)	(s)	.3	—	—	—	.4	—	2.9
2002	.3	.3	1.2	—	1.8	—	—	(s)	(s)	.4	—	—	—	.4	—	2.2
2003	.3	.3	1.0	—	1.7	—	—	(s)	(s)	.4	—	—	—	.4	—	2.1
2004	.4	.3	1.1	(s)	1.8	—	—	(s)	(s)	.4	—	—	—	.4	—	2.2
2005	.4	.3	1.0	(s)	1.8	—	—	(s)	(s)	.4	—	—	—	.5	—	2.2
2006	.4	.3	1.0	(s)	1.8	—	—	(s)	(s)	.4	—	—	—	.5	—	2.3
2007 ^P	.4	.3	1.0	(s)	1.8	—	—	(s)	(s)	.4	—	—	—	.5	—	2.3
Industrial Sector¹⁰																
1989	4.8	0.7	9.7	1.2	16.5	—	—	0.5	4.1	0.2	—	—	—	4.8	0.5	21.8
1990	4.8	.9	10.3	1.3	17.3	—	—	.6	4.3	.2	—	—	—	5.1	.5	22.9
1991	4.7	1.1	9.8	1.4	17.1	—	—	.6	4.8	.2	—	—	—	5.6	.5	23.2
1992	4.8	1.1	10.3	1.4	17.6	—	—	.6	4.8	.3	—	—	—	5.6	.5	23.8
1993	4.9	1.0	10.9	1.2	18.0	—	—	.6	5.0	.3	—	—	—	5.8	.5	24.3
1994	5.0	1.0	11.0	1.4	18.5	—	—	1.1	5.0	.3	—	—	—	6.3	.5	25.4
1995	5.0	1.0	11.3	1.4	18.7	—	—	1.1	4.9	.2	—	—	—	6.3	.5	25.5
1996	5.0	.9	11.5	1.6	19.0	—	—	1.1	5.1	.2	—	—	—	6.4	.5	25.9
1997	4.8	1.1	11.9	1.3	19.2	—	—	1.1	5.1	.2	—	—	—	6.5	.6	26.2
1998	4.6	1.0	12.0	1.5	19.1	—	—	1.1	5.0	.2	—	—	—	6.3	.6	26.0
1999	4.4	1.1	12.9	1.7	20.1	—	—	1.1	5.0	.2	—	—	—	6.2	.8	27.1
2000	4.6	.8	13.7	2.0	21.2	—	—	1.1	4.4	.2	—	—	—	5.7	.5	27.3
2001	4.2	1.1	14.1	1.3	20.7	—	—	1.0	4.2	.1	—	—	—	5.4	.4	26.6
2002	4.0	.7	14.7	1.8	21.2	—	—	1.0	4.3	.1	—	—	—	5.5	.6	27.3
2003	4.1	.7	15.3	1.7	21.9	—	—	.8	4.3	.1	—	—	—	5.2	.6	27.7
2004	3.8	.8	14.8	1.9	21.3	—	—	.6	4.5	.2	—	—	—	5.4	.7	27.4
2005	4.0	.8	14.5	1.8	21.0	—	—	.7	4.5	.2	—	—	—	5.4	.8	27.2
2006	R3.3	R1.0	R15.3	1.8	R21.4	—	—	.7	R4.7	.2	—	—	—	R5.6	.8	R27.8
2007 ^P	3.2	1.0	15.2	1.8	21.2	—	—	.6	4.4	.2	—	—	—	5.1	.8	27.2

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

² Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.

³ Natural gas, plus a small amount of supplemental gaseous fuels.

⁴ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁵ Wood and wood-derived fuels.

⁶ Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. For all years, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

⁷ Solar thermal and photovoltaic energy.

⁸ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

⁹ Commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

¹⁰ Industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

R=Revised. P=Preliminary. — = No data reported. (s)=Less than 0.05 million kilowatts.

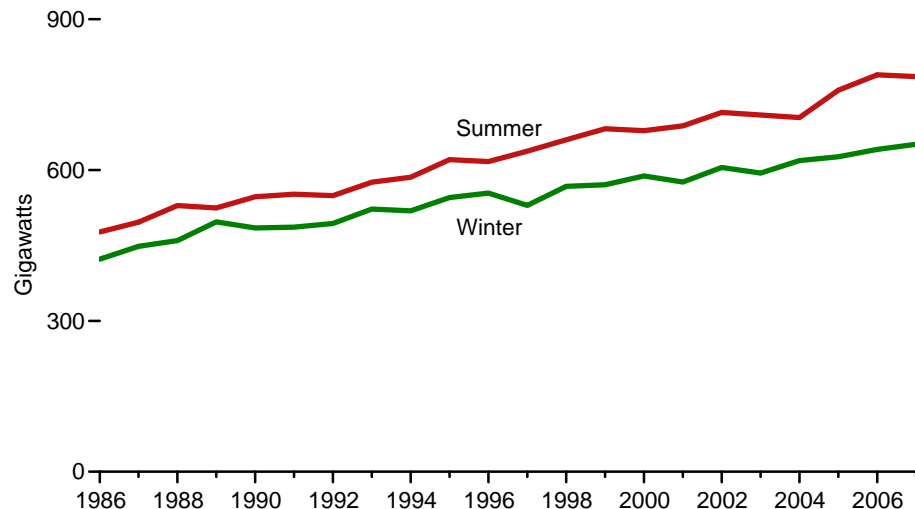
Notes: • Data are at end of year. • For plants that use multiple sources of energy, capacity is assigned to the predominant energy source. • See Tables 8.11b and 8.11c for electric power sector electricity-only and CHP data. • See Note 1, "Coverage of Electricity Statistics," and Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • See "Generator Net Summer Capacity" in Glossary. • Totals may not equal sum of components due to independent rounding.

Web Page: For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

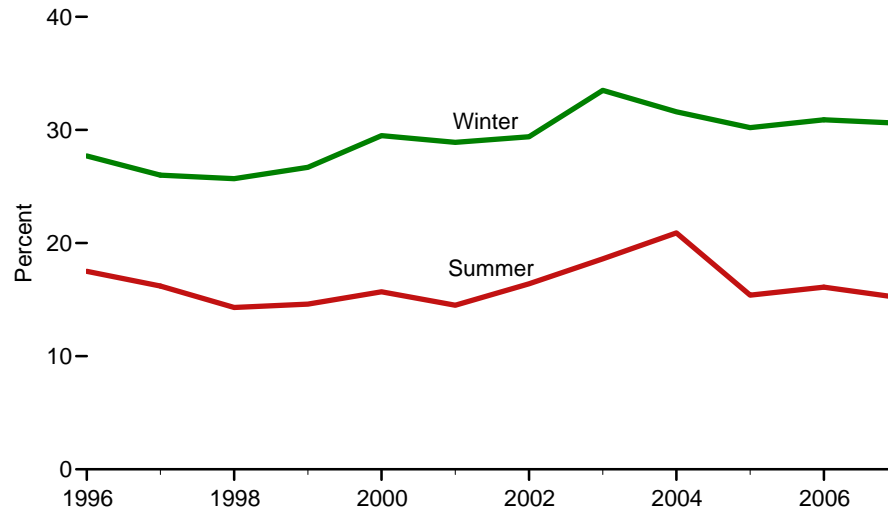
Sources: • 1989-1997—Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • 1998-2000—EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • 2001 forward—EIA, Form EIA-860, "Annual Electric Generator Report."

Figure 8.12 Electric Noncoincident Peak Load and Capacity Margin

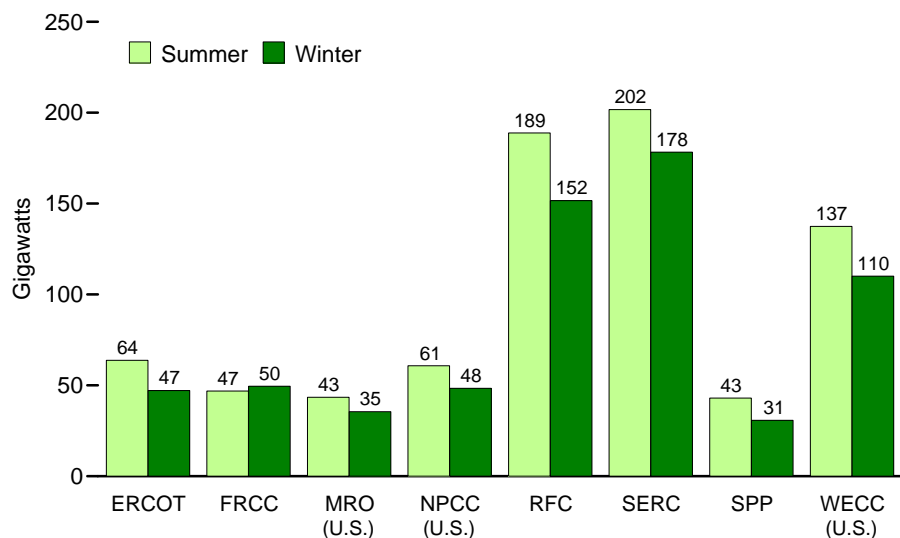
U.S. Peak Load, 1986-2007



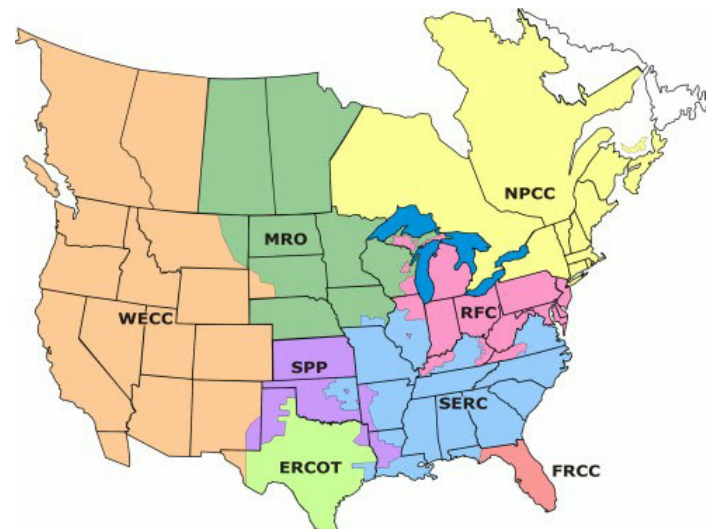
Capacity Margin, 1996-2007



U.S. Peak Load by NERC Region, 2007



North American Electric Reliability Council Map for the United States



Notes: • Values for 2007 are forecast. • Noncoincident peak load is the sum of two or more peak loads on individual systems that do not occur at the same time interval. See Glossary for information on North American Electric Reliability Council (NERC).

• Because vertical scales differ, graphs should not be compared.
Source: Table 8.12.

Table 8.12 Electric Noncoincident Peak Load and Capacity Margin, 1986-2007
(Megawatts, Except as Noted)

Year	Noncoincident Peak Load ¹															Capacity Margin ⁷ (percent)
	North American Electric Reliability Council Regions ²											Contiguous United States	ASCC (Alaska)	Hawaii	U.S. Total	
	ECAR ³	ERCOT	FRCC	MAAC ³	MAIN ³	MRO ⁴ (U.S.)	NPCC (U.S.)	RFC ⁵	SERC	SPP	WECC ⁶ (U.S.)					
Summer ⁸																
1986	69,606	39,335	--	37,564	35,943	21,029	39,026	--	105,570	47,123	81,787	476,983	--	--	476,983	NA
1987	72,561	39,339	--	40,526	37,446	23,162	42,651	--	109,798	47,723	82,967	496,173	--	--	496,173	NA
1988	79,149	40,843	--	43,110	41,139	24,899	45,245	--	115,168	49,356	90,551	529,460	--	--	529,460	NA
1989	75,442	40,402	--	41,614	39,460	24,336	45,031	--	117,729	49,439	90,657	524,110	456	--	524,566	NA
1990	79,258	42,737	--	42,613	40,740	24,994	44,116	--	121,943	52,541	97,389	546,331	463	--	546,794	21.6
1991	81,224	41,870	--	45,937	41,598	25,498	46,594	--	124,716	51,885	92,096	551,418	471	--	551,889	20.9
1992	78,550	42,619	--	43,658	38,819	22,638	43,658	--	128,236	51,324	99,205	548,707	504	--	549,211	20.5
1993	80,930	44,255	--	46,494	41,956	24,396	46,706	--	135,704	57,106	97,809	575,356	511	--	575,867	19.9
1994	87,165	44,162	--	46,019	42,562	27,000	47,581	--	132,584	56,035	102,212	585,320	524	--	585,844	18.7
1995	92,619	46,618	--	48,577	45,782	29,192	47,705	--	146,569	59,595	102,592	620,249	622	--	620,871	18.9
1996	90,798	47,480	--	44,302	46,402	28,253	45,094	--	145,650	60,072	108,739	616,790	--	--	616,790	17.5
1997	93,492	50,541	35,375	49,464	45,887	29,787	49,269	--	137,382	36,479	110,001	637,677	--	--	637,677	16.2
1998	93,784	54,666	38,730	48,445	47,509	30,722	49,566	--	143,226	37,724	115,921	660,293	--	--	660,293	14.3
1999	99,239	55,529	37,493	51,645	51,535	31,903	52,855	--	149,685	38,609	113,629	682,122	--	--	682,122	14.6
2000	92,033	57,606	37,194	49,477	52,552	28,605	50,057	--	156,088	40,199	114,602	678,413	--	--	678,413	15.7
2001	100,235	55,201	39,062	54,015	56,344	28,321	55,949	--	149,293	40,273	109,119	687,812	--	--	687,812	14.5
2002	102,996	56,248	40,696	55,569	56,396	29,119	56,012	--	158,767	39,688	119,074	714,565	--	--	714,565	16.4
2003	98,487	59,996	40,475	53,566	56,988	28,831	55,018	--	153,110	40,367	122,537	709,375	--	--	709,375	18.6
2004	95,300	58,531	42,383	52,049	53,439	29,351	52,549	--	157,615	40,106	123,136	704,459	--	--	704,459	20.9
2005	--	60,210	46,396	--	--	39,918	58,960	190,200	190,705	41,727	130,760	758,876	--	--	758,876	15.4
2006	--	R62,339	R45,751	--	--	R42,194	R63,241	R191,920	R199,052	R42,882	R142,096	R789,475	--	--	R789,475	R16.1
2007 ^F	--	63,794	46,878	--	--	43,431	60,807	188,856	201,692	43,007	137,465	785,930	--	--	785,930	15.2
Winter ⁹																
1986	64,561	28,730	--	32,807	28,036	18,850	37,976	--	101,849	33,877	76,171	422,857	--	--	422,857	NA
1987	68,118	31,399	--	35,775	30,606	19,335	41,902	--	105,476	34,472	81,182	448,265	--	--	448,265	NA
1988	67,771	34,621	--	36,363	30,631	20,162	42,951	--	108,649	35,649	82,937	459,734	--	--	459,734	NA
1989	73,080	38,388	--	38,161	33,770	21,360	42,588	--	121,995	42,268	84,768	496,378	626	--	497,004	NA
1990	67,097	35,815	--	36,551	32,461	21,113	40,545	--	117,448	38,949	94,252	484,231	613	--	484,844	NA
1991	71,181	35,448	--	37,983	33,420	21,432	41,866	--	119,575	38,759	86,097	485,761	622	--	486,383	NA
1992	72,885	35,055	--	37,915	31,289	21,866	41,125	--	121,250	39,912	91,686	492,983	635	--	493,618	NA
1993	81,846	35,407	--	41,406	34,966	21,955	42,063	--	133,635	41,644	88,811	521,733	632	--	522,365	NA
1994	75,638	36,180	--	40,653	33,999	23,033	42,547	--	132,661	42,505	91,037	518,253	641	--	518,894	NA
1995	83,465	36,965	--	40,790	35,734	23,429	42,755	--	142,032	44,624	94,890	544,684	676	--	545,360	NA
1996	84,534	38,868	--	40,468	37,162	24,251	41,208	--	143,060	49,095	95,435	554,081	--	--	554,081	27.7
1997	75,670	37,966	33,076	37,217	34,973	25,390	41,338	--	122,649	27,437	94,158	529,874	--	--	529,874	26.0
1998	84,401	41,876	39,975	36,532	37,410	26,080	44,199	--	127,416	27,847	101,822	567,558	--	--	567,558	25.7
1999	86,239	39,164	40,178	40,220	39,081	25,200	45,227	--	128,563	27,963	99,080	570,915	--	--	570,915	26.7
2000	84,546	44,641	38,606	43,256	41,943	24,536	43,852	--	139,146	30,576	97,324	588,426	--	--	588,426	29.5
2001	85,485	44,015	40,922	39,458	40,529	21,815	42,670	--	135,182	29,614	96,622	576,312	--	--	576,312	28.9
2002	87,300	45,414	45,635	46,551	42,412	23,645	46,009	--	141,882	30,187	95,951	604,986	--	--	604,986	29.4
2003	86,332	42,702	36,841	45,625	41,719	24,134	48,079	--	137,972	28,450	102,020	593,874	--	--	593,874	33.5
2004	91,800	44,010	44,839	45,905	42,929	24,526	48,176	--	144,337	29,490	102,689	618,701	--	--	618,701	31.6
2005	--	48,141	42,657	--	--	33,748	46,828	151,600	164,638	31,260	107,493	626,365	--	--	626,365	30.2
2006	--	R50,402	R42,526	--	--	R34,677	R46,697	R149,631	R175,163	R30,792	R111,093	R640,981	--	--	R640,981	R30.9
2007 ^F	--	47,163	49,526	--	--	35,495	48,394	151,597	178,337	30,801	110,073	651,386	--	--	651,386	30.6

¹ Noncoincident peak load is the sum of two or more peak loads on individual systems that do not occur at the same time interval.

² See "North American Electric Reliability Council (NERC)" in Glossary. Data include the U.S. portion of NERC only. See Figure 8.12 for an illustration of NERC regions.

³ ECAR, MAAC, and MAIN dissolved at the end of 2005. Utility members joined other reliability regional councils.

⁴ MRO was renamed from MAPP in 2004.

⁵ ReliabilityFirst Corporation (RFC) came into existence on January 1, 2006. Many of the former utility members of ECAR, MAAC, and MAIN joined RFC.

⁶ WECC was renamed from WSCC in 2002.

⁷ The percent by which planned generating capacity resources are expected to be greater (or less) than

estimated net internal demand at the time of expected peak summer (or winter) demand. Net internal demand does not include estimated demand for direct control load management and customers with interruptible service agreements. Data are for the contiguous United States only.

⁸ The summer peak period is June through September.

⁹ The winter peak period is December through February of the following year.

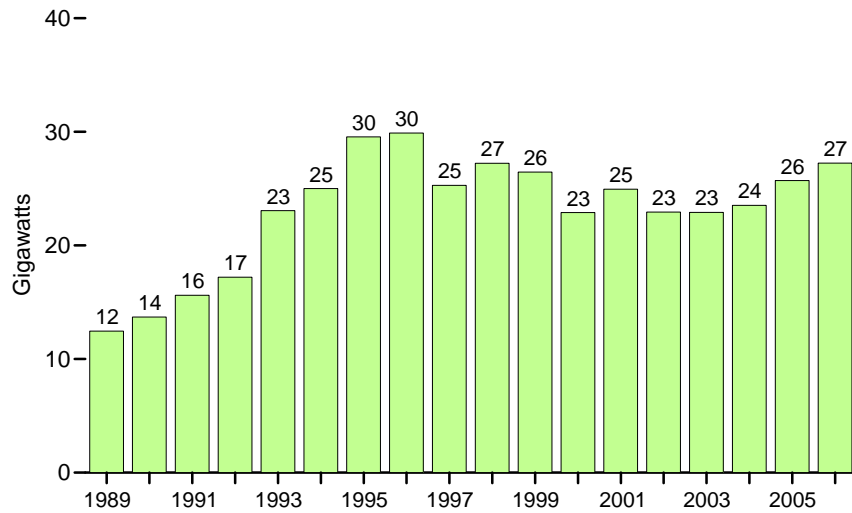
R=Revised. F=Forecast. NA=Not available. -- = Not applicable. -- = No data reported.

Web Page: For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

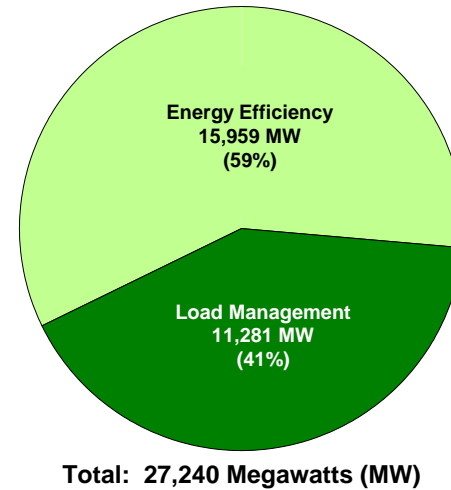
Sources: Energy Information Administration (EIA), *Electric Power Annual 2006* (October 2007), Tables 3.1-3.4; and EIA, Form EIA-411, "Coordinated Bulk Power Supply Program Report," and predecessor forms.

Figure 8.13 Electric Utility Demand-Side Management Programs

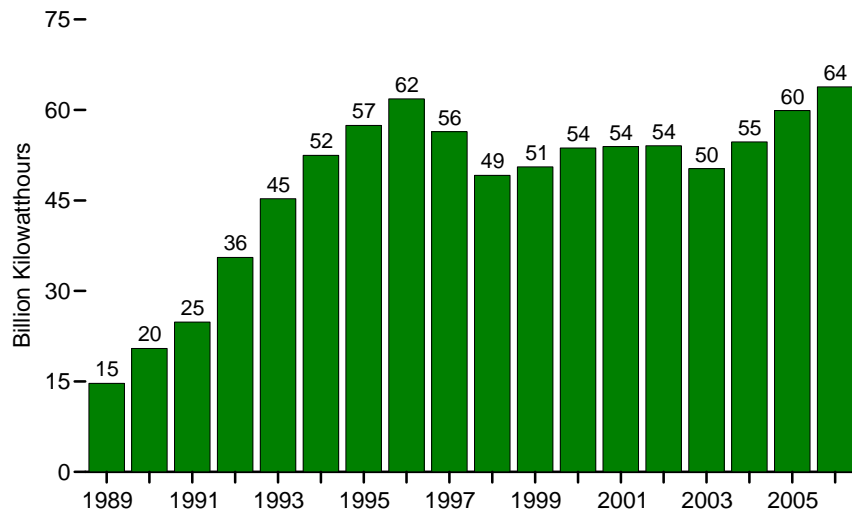
Actual Peakload Reductions Total, 1989-2006



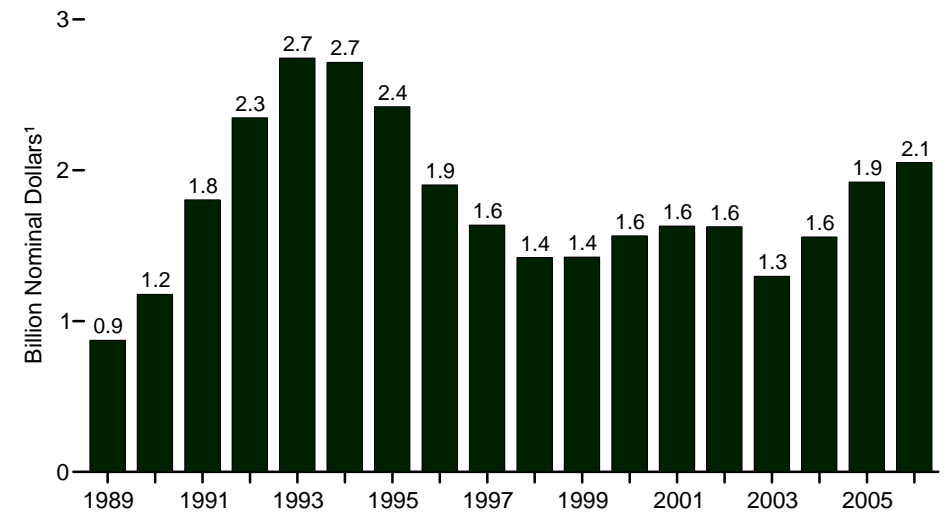
Actual Peakload Reductions, 2006



Energy Savings, 1989-2006



Costs, 1989-2006



¹ See "Nominal Dollars" in Glossary.

Source: Table 8.13.

Table 8.13 Electric Utility Demand-Side Management Programs, 1989-2006

Year	Actual Peakload Reductions ¹			Energy Savings Million Kilowatthours	Costs Thousand Nominal Dollars ⁴
	Energy Efficiency ²	Load Management ³	Total		
	Megawatts				
1989	NA	NA	12,463	14,672	872,935
1990	NA	NA	13,704	20,458	1,177,457
1991	NA	NA	15,619	24,848	1,803,773
1992	7,890	9,314	17,204	35,563	2,348,094
1993	10,368	12,701	23,069	45,294	2,743,533
1994	11,662	13,340	25,001	52,483	2,715,657
1995	13,212	16,347	29,561	57,421	2,421,284
1996	14,243	15,650	29,893	61,842	1,902,197
1997	13,327	11,958	25,284	56,406	1,636,020
1998	13,591	13,640	27,231	49,167	1,420,920
1999	13,452	13,003	26,455	50,563	1,423,644
2000	12,873	10,027	22,901	53,701	1,564,901
2001	13,027	11,928	24,955	53,936	1,630,286
2002	13,420	9,516	22,936	54,075	1,625,537
2003	13,581	9,323	22,904	50,265	1,297,210
2004	14,272	9,260	23,532	54,710	1,557,466
2005	15,351	10,359	25,710	59,897	1,921,352
2006	15,959	11,281	27,240	63,817	2,051,394

¹ The actual reduction in peak load reflects the change in demand for electricity that results from a utility demand-side management (DSM) program that is in effect at the time that the utility experiences its actual peak load as opposed to the potential installed peakload reduction capacity. Differences between actual and potential peak reduction result from changes in weather, economic activity, and other variable conditions.

² "Energy Efficiency" refers to programs that are aimed at reducing the energy used by specific end-use devices and systems, typically without affecting the services provided. These programs reduce overall electricity consumption, often without explicit consideration for the timing of program-induced savings. Such savings are generally achieved by substituting technically more advanced equipment to produce the same level of end-use services (e.g., lighting, heating, motor drive) with less electricity. Examples include high-efficiency appliances, efficient lighting programs, high-efficiency heating, ventilating, and air conditioning systems or control modifications, efficient building design, advanced electric motor drives, and heat recovery systems.

³ "Load Management" includes programs such as "Direct Load Control," "Interruptible Load Control," and, "Other Types" of DSM programs. "Direct Load Control" refers to program activities that can interrupt consumer load at the time of annual peak load by direct control of the utility system operator by interrupting power supply to individual appliances or equipment on consumer premises. This type of control usually involves residential consumers. "Interruptible Load Control" refers to program activities that, in accordance

with contractual arrangements, can interrupt consumer load at times of seasonal peak load by direct control of the utility system operator or by action of the consumer at the direct request of the system operator. It usually involves commercial and industrial consumers. In some instances, the load reduction may be affected by direct action of the system operator (remote tripping) after notice to the consumer in accordance with contractual provisions. "Other Types" are programs that limit or shift peak loads from on-peak to off-peak time periods, such as space heating and water heating storage systems.

⁴ See "Nominal Dollars" in Glossary.

NA=Not available.

Note: This table reports on the results of DSM programs operated by electric utilities. The decrease since 1998 in peakload reductions from DSM programs can be attributed in part to utilities cutting back or terminating these programs due to industry deregulation. Some State governments have created new programs to promote DSM. Examples include the "Energy Smart Loan Fund" administered by the New York Energy Research and Development Authority and the "Efficiency Vermont" program of the Vermont Public Service Board. Data on energy savings attributable to these non-utility programs are not collected by the Energy Information Administration.

Web Page: For related information, see <http://www.eia.doe.gov/fuelelectric.html>.

Sources: • 1989-1994—Energy Information Administration (EIA), Form EIA-861, "Annual Electric Utility Report." • 1995 forward—EIA, *Electric Power Annual 2006* (October 2007), Tables 9.1, 9.6, and 9.7.

Electricity

Note 1. Coverage of Electricity Statistics. Through 1984, data for electric utilities also include institutions (such as universities) and military facilities that generated electricity primarily for their own use; beginning in 1985, data for electric utilities exclude institutions and military facilities. Data for independent power producers, commercial plants, and industrial plants include plants with a generator nameplate capacity of 1 megawatt or greater; they exclude plants with a generator nameplate capacity less than 1 megawatt. Also excluded from the electricity statistics in Section 8 are data for residential and commercial self-generation from solar energy, except for the small amount sold to the grid and included in data for the electric power sector.

Note 2. Classification of Power Plants Into Energy-Use Sectors. The Energy Information Administration (EIA) classifies power plants (both electricity-only and combined-heat-and-power plants) into energy-use sectors based on the North American Industry Classification System (NAICS), which replaced the Standard Industrial Classification (SIC) system in 1997. Plants with a NAICS code of 22 are assigned to the Electric Power Sector. Those with NAICS codes beginning with 11 (agriculture, forestry, fishing, and hunting); 21 (mining, including oil and gas extraction); 23 (construction); 31-33 (manufacturing); 2212 (natural gas distribution); and 22131 (water supply and irrigation systems) are assigned to the Industrial Sector. Those with all other codes are assigned to the Commercial Sector. Form EIA-860, "Annual Electric Generator Report," asks respondents to indicate the primary purpose of the facility by assigning a NAICS code from the list at: <http://www.eia.doe.gov/cneaf/electricity/forms/eia860/eia860.doc>.

Note 3. Electricity Imports and Exports. Through the *Annual Energy Review (AER)* 2001, EIA estimated the proportions of traded electricity from fossil fuels and hydropower (and applied the fossil-fuel steam-electric-plant heat rate to convert from kilowatthours to Btu) and from geothermal (and applied the heat rate for geothermal energy plants). Beginning with the *AER* 2002, because of inadequate data, EIA is applying an overall rate of 3,412 Btu per kilowatthour to all traded electricity. In addition, electricity net imports derived from hydroelectric

power and geothermal energy are no longer included in renewable energy consumption data. They continue to be included in total U.S. energy consumption as components of electricity net imports, with energy sources unspecified (see Tables 1.3 and 2.1f). This change between *AER* 2001 and *AER* 2002 resulted in a 0.0-to-0.5 quadrillion Btu drop in total renewable energy consumption from 1949 forward.

Table 8.1 Sources: Net Generation, Electric Power Sector: Table 8.2b. **Net Generation, Commercial Sector:** Table 8.2d. **Net Generation, Industrial Sector:** • 1949-September 1977—Federal Power Commission (FPC), Form FPC-4, "Monthly Power Plant Report," for plants with generating capacity exceeding 10 megawatts, and FPC, Form FPC-12C, "Industrial Electric Generating Capacity," for all other plants. • October 1977-1978—Federal Energy Regulatory Commission (FERC), Form FPC-4, "Monthly Power Plant Report," for plants with generating capacity exceeding 10 megawatts, and FERC, Form FPC-12C, "Industrial Electric Generating Capacity," for all other plants. • 1979—FERC, Form FPC-4, "Monthly Power Plant Report," for plants with generating capacity exceeding 10 megawatts, and EIA estimates for all other plants. • 1980-1988—Estimated by EIA as the average generation over the 6-year period of 1974-1979. • 1989 forward—Table 8.2d. **Net Generation, Total:** Table 8.2a. **Imports and Exports:** • 1949-September 1977—Unpublished FPC data. • October 1977-1980—Unpublished Economic Regulatory Administration (ERA) data. • 1981—Department of Energy (DOE), Office of Energy Emergency Operations, "Report on Electric Energy Exchanges with Canada and Mexico for Calendar Year 1981," April 1982 (revised June 1982). • 1982 and 1983—DOE, ERA, *Electricity Exchanges Across International Borders*. • 1984-1986—DOE, ERA, *Electricity Transactions Across International Borders*. • 1987 and 1988—DOE, ERA, Form ERA-781R, "Annual Report of International Electrical Export/Import Data." • 1989—DOE, Fossil Energy, Form FE-781R, "Annual Report of International Electrical Export/Import Data." • 1990 forward—National Energy Board of Canada, and DOE, Fossil Energy, Office of Fuels Programs, Form FE-781R, "Export/Import Data." For 2001 forward, data from the California Independent System Operator are used in combination with the Form FE-781R values to estimate electricity trade with Mexico. **T & D Losses and Unaccounted for:** Calculated as the sum of total net generation and imports minus total end use and exports. **End Use:** Table 8.9.