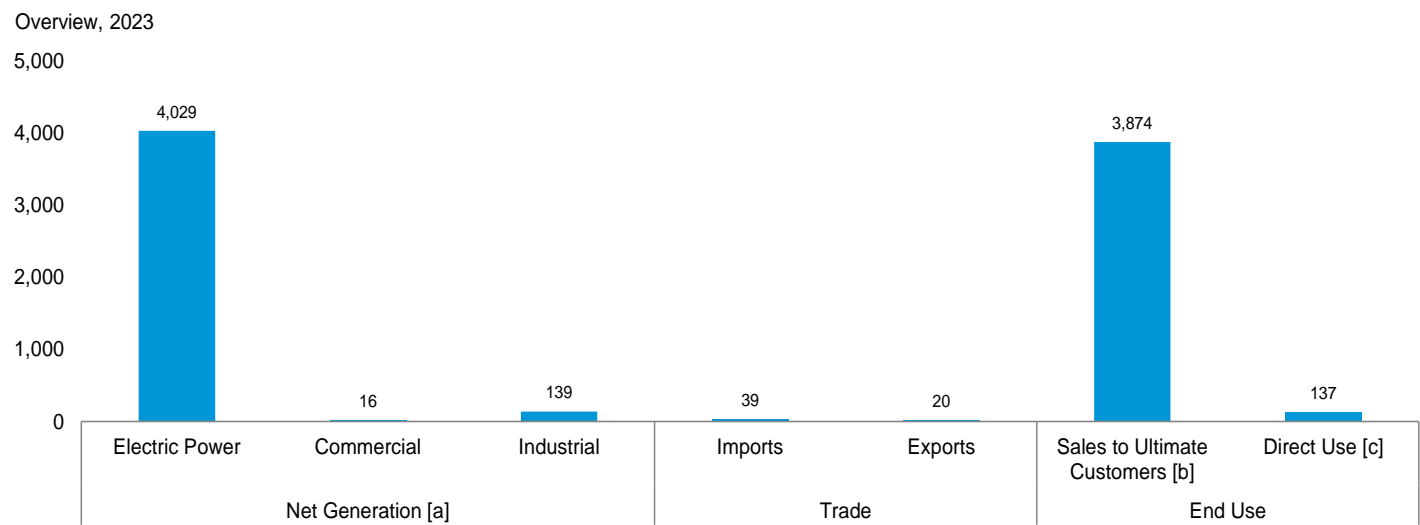
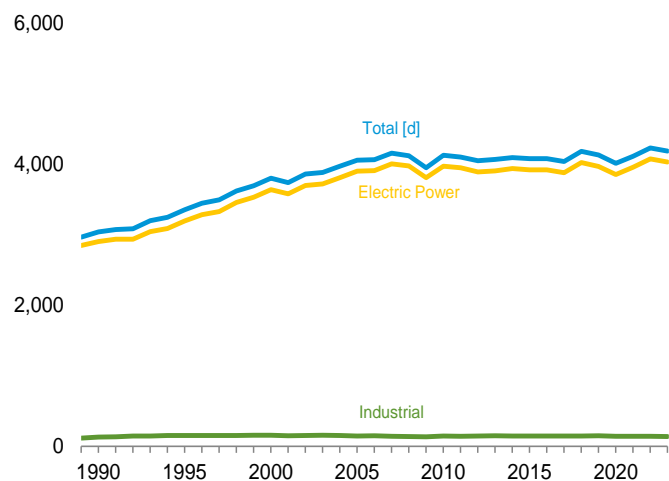


7. Electricity

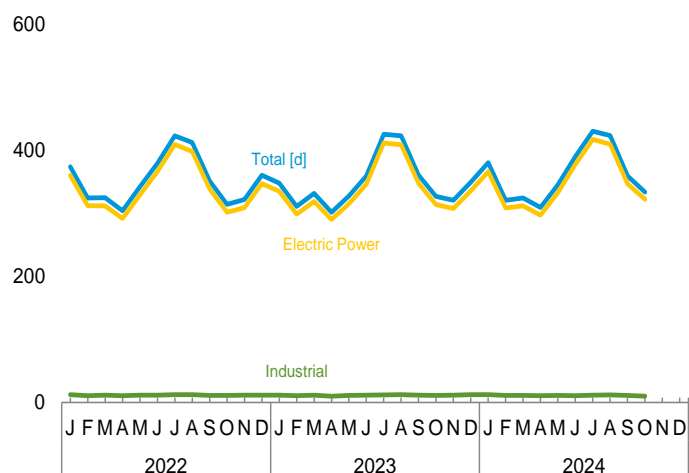
Figure 7.1 Electricity Overview
(Billion Kilowatthours)



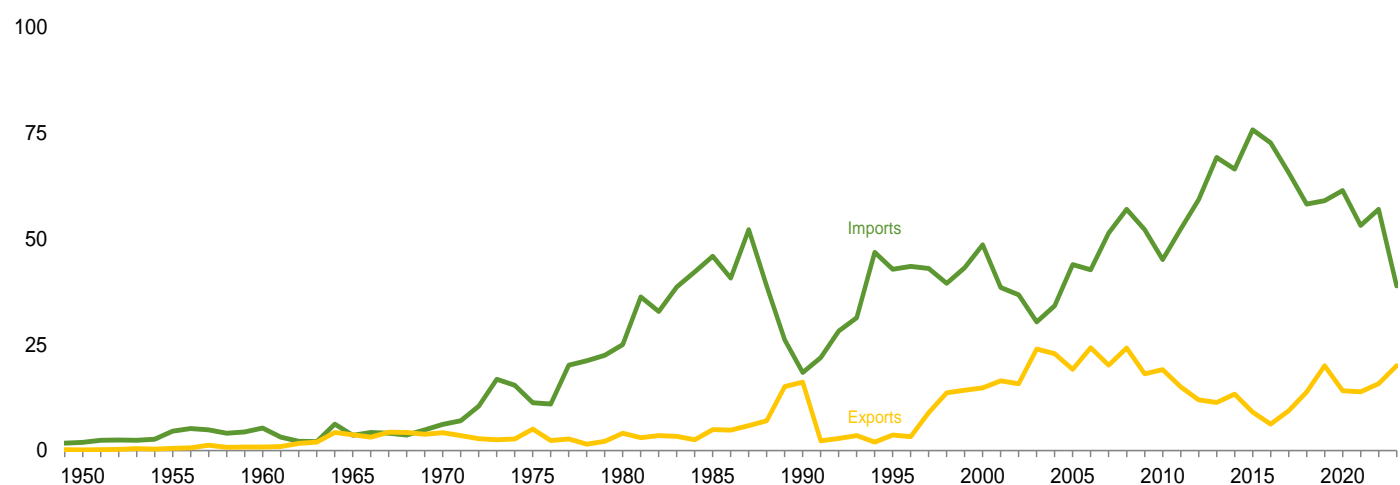
Net Generation [a] by Sector, 1989–2023



Net Generation [a] by Sector, Monthly



Trade, 1949–2023



[a] Data are for utility-scale facilities.

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

[c] See “Direct Use” in Glossary.

[d] Includes commercial sector.

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#electricity>.

Source: Table 7.1.

Table 7.1 Electricity Overview
(Billion Kilowatthours)

	Net Generation ^a				Trade			T&D Losses ⁱ and Unaccounted for ^j	End Use		
	Electric Power Sector ^b	Com- mercial Sector ^c	Indus- trial Sector ^d	Total	Imports ^e	Exports ^e	Net Imports ^e		Sales to Ultimate Customers ^h	Direct Use ⁱ	Total
1950 Total	329	NA	5	334	2	(s)	2	44	291	NA	291
1955 Total	547	NA	3	550	5	(s)	4	58	497	NA	497
1960 Total	756	NA	4	759	5	1	5	76	688	NA	688
1965 Total	1,055	NA	3	1,058	4	4	(s)	104	954	NA	954
1970 Total	1,532	NA	3	1,535	6	4	2	145	1,392	NA	1,392
1975 Total	1,918	NA	3	1,921	11	5	6	180	1,747	NA	1,747
1980 Total	2,286	NA	3	2,290	25	4	21	216	2,094	NA	2,094
1985 Total	2,470	NA	3	2,473	46	5	41	190	2,324	NA	2,324
1990 Total	2,901	6	^d 131	3,038	18	16	2	203	2,713	125	2,837
1995 Total	3,194	8	151	3,353	43	4	39	229	3,013	151	3,164
2000 Total	3,638	8	157	3,802	49	15	34	244	3,421	171	3,592
2005 Total	3,902	8	145	4,055	44	19	25	269	3,661	150	3,811
2010 Total	3,972	9	144	4,125	45	19	26	264	3,755	132	3,887
2011 Total	3,948	10	142	4,100	52	15	37	255	3,750	133	3,883
2012 Total	3,890	11	146	4,048	59	12	47	263	3,695	138	3,832
2013 Total	3,904	12	150	4,066	69	11	58	256	3,725	143	3,868
2014 Total	3,937	13	144	4,094	67	13	53	244	3,765	139	3,903
2015 Total	3,920	13	146	4,079	76	9	67	245	3,759	141	3,900
2016 Total	3,919	13	146	4,078	73	6	67	242	3,762	140	3,902
2017 Total	3,879	13	144	4,035	66	9	56	227	3,723	141	3,864
2018 Total	4,021	13	147	4,181	58	14	44	222	3,859	144	4,003
2019 Total	3,968	14	149	4,131	59	20	39	215	3,811	143	3,954
2020 Total	3,854	13	143	4,010	61	14	47	201	3,718	^R 138	3,856
2021 Total	3,957	13	140	4,110	53	14	39	204	3,806	139	3,945
2022 January	360	1	13	374	4	1	3	26	339	^E 12	351
February	312	1	11	324	3	2	2	9	306	^E 11	317
March	312	1	12	325	4	2	2	11	304	^E 12	316
April	292	1	11	304	4	1	2	11	285	^E 11	296
May	329	1	11	342	4	2	3	24	310	^E 11	321
June	366	1	12	379	6	1	4	25	347	^E 12	359
July	409	2	13	423	7	1	5	27	389	^E 13	402
August	398	2	12	412	7	1	6	16	390	^E 13	402
September	339	1	11	352	5	1	4	4	341	^E 11	352
October	301	1	11	314	4	1	3	8	297	^E 11	308
November	309	1	12	322	4	1	3	21	292	^E 12	304
December	347	1	12	360	5	1	4	25	328	^E 12	340
Total	4,074	17	140	4,231	57	16	41	205	3,927	140	4,067
2023 January	335	1	12	348	4	1	3	14	325	^E 11	337
February	299	1	11	311	4	2	2	9	293	^E 11	304
March	319	1	12	332	4	1	3	16	306	^E 11	318
April	290	1	10	302	4	2	2	13	281	^E 10	291
May	315	1	11	327	4	1	3	20	299	^E 11	310
June	346	1	12	359	3	1	2	20	329	^E 12	340
July	411	2	12	425	3	2	1	27	387	^E 12	399
August	409	1	12	423	3	2	1	19	392	^E 12	405
September	347	1	12	360	2	2	(s)	2	346	^E 12	358
October	314	1	11	327	2	2	(s)	7	308	^E 11	319
November	308	1	12	321	2	2	1	16	294	^E 11	306
December	336	1	12	350	3	2	1	26	313	^E 12	325
Total	4,029	16	139	4,183	39	20	19	191	3,874	137	4,011
2024 January	366	1	13	380	4	2	2	26	343	^E 12	356
February	308	1	11	321	3	2	(s)	8	302	^E 11	313
March	312	1	11	324	2	3	(s)	18	295	^E 11	306
April	297	1	11	309	2	2	(s)	15	283	^E 11	294
May	333	1	11	346	2	2	(s)	22	312	^E 11	323
June	378	1	11	390	3	1	1	27	353	^E 11	364
July	417	1	12	430	5	1	3	28	394	^E 12	406
August	410	2	12	423	4	1	3	24	390	^E 12	402
September	347	1	11	359	3	1	2	10	340	^E 11	351
October	322	1	10	334	^F 2	^F (s)	^F 2	12	314	^E 10	324
10-Month Total ...	3,489	14	114	3,616	^E 29	^E 17	^E 12	190	3,327	^E 113	3,439
2023 10-Month Total ...	3,385	13	115	3,513	33	16	17	149	3,267	^E 113	3,381
2022 10-Month Total ...	3,418	14	117	3,549	49	14	35	160	3,307	^E 116	3,424

^a Electricity net generation at utility-scale facilities. Does not include small-scale solar photovoltaic (PV) generation shown on Table 10.6. See Note 1, "Coverage of Electricity Statistics," at end of section.

^b 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.

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

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

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

^f Transmission and distribution losses (electricity losses that occur between the point of generation and delivery to the customer). See Note 1, "Electrical System Energy Losses," at end of Section 2.

^g Data collection frame differences and nonsampling error.

^h Electricity sales to ultimate customers by electric utilities and, beginning in

1996, other energy service providers.

ⁱ 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.

^j R=Revised. E=Estimate. NA=Not available. F=Forecast. (s)=Less than 0.5 billion kilowatthours and greater 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.

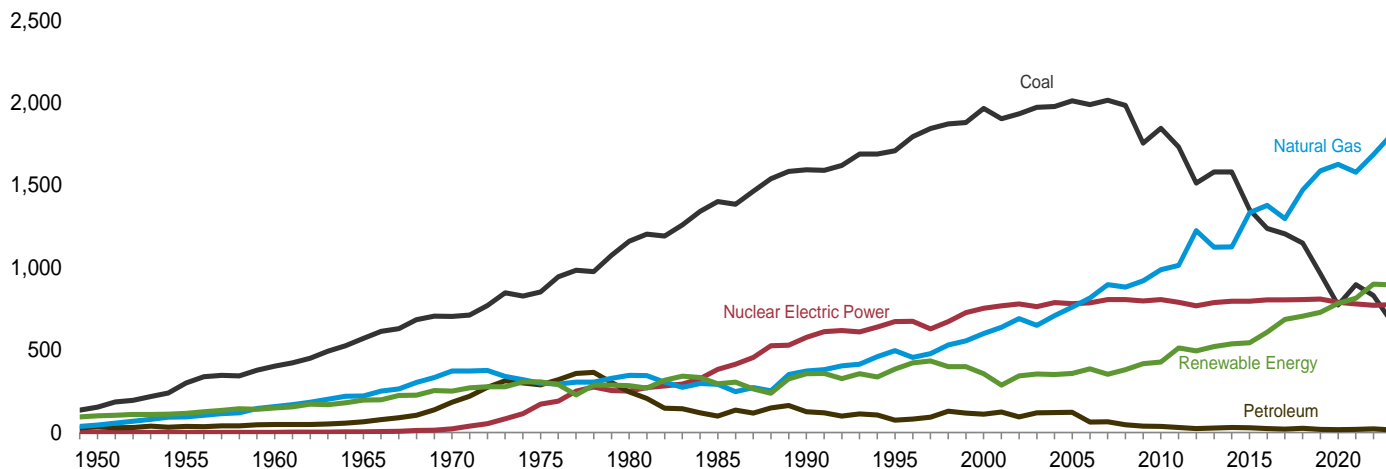
• Data values preceded by "F" are derived from the U.S. Energy Information Administration's Short-Term Integrated Forecasting System. See Note 3, "Electricity Forecast Values," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

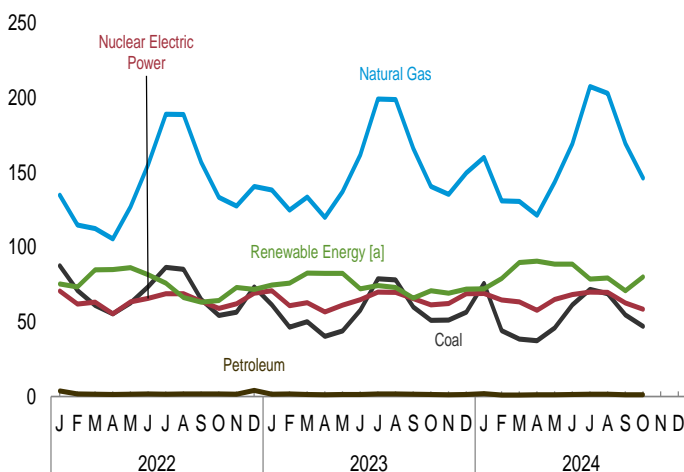
Sources: See end of section.

Figure 7.2 Electricity Net Generation
(Billion Kilowatthours)

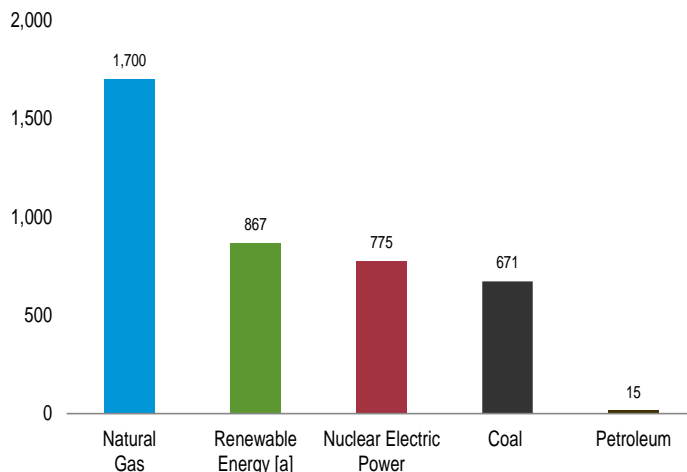
Total (All Sectors), Major Sources, 1949–2023



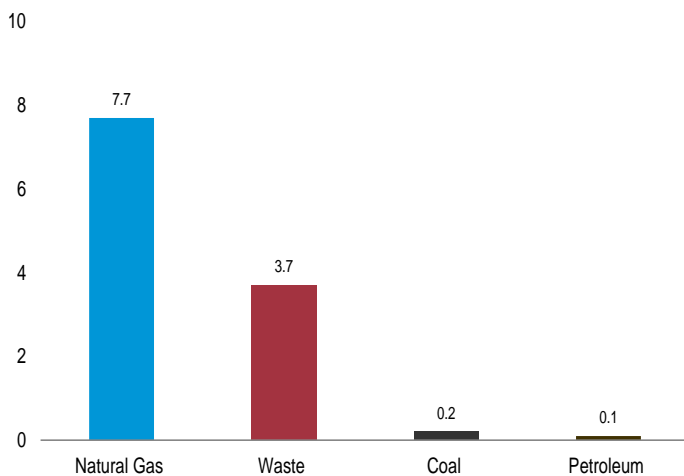
Total (All Sectors), Major Sources, Monthly



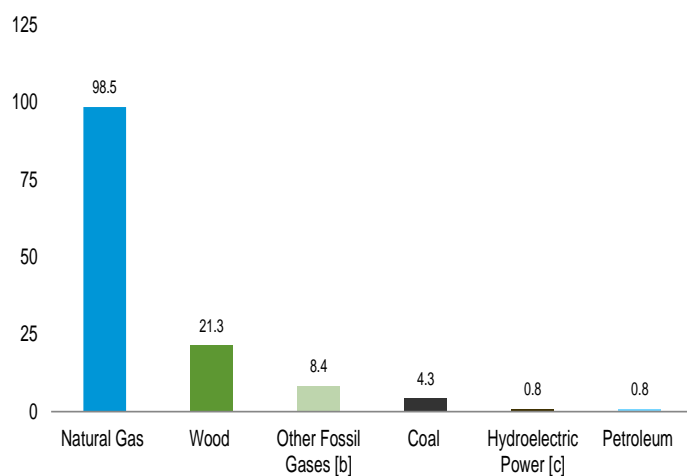
Electric Power Sector, Major Sources, 2023



Commercial Sector, Major Sources, 2023



Industrial Sector, Major Sources, 2023



[a] Conventional hydroelectric power, wood, waste, geothermal, solar, and wind.
[b] Blast furnace gas, and other manufactured and waste gases derived from fossil fuels.

[c] Conventional hydroelectric power.
Note: Data are for utility-scale facilities.
Web Page: <http://www.eia.gov/totalenergy/data/monthly/#electricity>.
Sources: Tables 7.2a–7.2c.

Table 7.2a Electricity Net Generation: Total (All Sectors)

(Sum of Tables 7.2b and 7.2c; Million Kilowatthours)

	Fossil Fuels						Hydro-electric Pumped Storage ^e	Renewable Energy						Total ^j
	Coal ^a	Petro-leum ^b	Natural Gas ^c	Other Fossil Gases ^d	Nuclear Electric Power			Conventional Hydro-electric Power ^f	Biomass		Geo-thermal	Solar ⁱ	Wind	
									Wood ^g	Waste ^h				
1950 Total	154,520	33,734	44,559	NA	0	()	100,885	390	NA	NA	NA	NA	334,088	
1955 Total	301,363	37,138	95,285	NA	0	()	116,236	276	NA	NA	NA	NA	550,299	
1960 Total	403,067	47,987	157,970	NA	518	()	149,440	140	NA	33	NA	NA	759,156	
1965 Total	570,926	64,801	221,559	NA	3,657	()	196,984	269	NA	189	NA	NA	1,058,386	
1970 Total	704,394	184,183	372,890	NA	21,804	()	250,957	136	220	525	NA	NA	1,535,111	
1975 Total	852,786	289,095	299,778	NA	172,505	()	303,153	18	174	3,246	NA	NA	1,920,755	
1980 Total	1,161,562	245,994	346,240	NA	251,116	()	279,182	275	158	5,073	NA	NA	2,289,600	
1985 Total	1,402,128	100,202	291,946	NA	383,691	()	284,311	743	640	9,325	11	6	2,473,002	
1990 Total ^k	1,594,011	126,460	372,765	10,383	576,862	-3,508	292,866	32,522	13,260	15,434	367	2,789	3,037,827	
1995 Total	1,709,426	74,554	496,058	13,870	673,402	-2,725	310,833	36,521	20,405	13,378	497	3,164	3,353,487	
2000 Total	1,966,265	111,221	601,038	13,955	753,893	-5,539	275,573	37,595	23,131	14,093	493	5,593	3,802,105	
2005 Total	2,012,873	122,225	760,960	13,464	781,986	-6,558	270,321	38,856	15,420	14,692	550	17,811	4,055,423	
2010 Total	1,847,290	37,061	987,697	11,313	806,968	-5,501	260,203	37,172	18,917	15,219	1,212	94,652	4,125,060	
2011 Total	1,733,430	30,182	1,013,689	11,566	790,204	-6,421	319,355	37,449	19,222	15,316	1,818	120,177	4,100,141	
2012 Total	1,514,043	23,190	1,225,894	11,898	769,331	-4,950	276,240	37,799	19,823	15,562	4,327	140,822	4,047,765	
2013 Total	1,581,115	27,164	1,124,836	12,853	789,016	-4,681	268,565	40,028	20,830	15,775	9,036	167,840	4,065,964	
2014 Total	1,581,710	30,232	1,126,635	12,022	797,166	-6,174	259,367	42,340	21,650	15,877	17,691	181,655	4,093,564	
2015 Total	1,352,398	28,249	1,334,668	13,117	797,178	-5,091	249,080	41,929	21,703	15,918	24,893	190,719	4,078,714	
2016 Total	1,239,149	24,205	1,379,271	12,807	805,694	-6,686	267,812	40,947	21,813	15,826	36,054	226,993	4,077,574	
2017 Total	1,205,835	21,390	1,297,703	12,469	804,950	-6,495	300,333	41,124	21,610	15,927	53,287	254,303	4,035,443	
2018 Total	1,149,487	25,226	1,471,843	13,463	807,084	-5,905	292,524	40,936	20,896	15,967	63,825	272,667	4,180,988	
2019 Total	964,957	18,341	1,588,533	12,591	809,409	-5,261	287,874	38,543	18,964	15,473	71,937	295,882	4,130,574	
2020 Total	773,393	17,341	1,626,790	11,818	789,879	-5,321	285,274	36,219	18,493	15,890	89,199	337,938	4,009,767	
2021 Total	897,999	19,173	1,579,190	11,397	779,645	-5,112	251,585	36,463	17,790	15,975	115,258	378,197	4,109,699	
2022 January	87,588	3,669	134,948	1,005	70,577	-493	24,198	3,106	1,432	1,470	7,822	37,416	373,766	
February	70,966	1,735	114,945	886	61,852	-412	21,321	2,897	1,306	1,243	9,027	37,645	324,311	
March	61,019	1,459	112,477	953	63,154	-318	24,436	2,934	1,426	1,286	11,694	43,031	324,530	
April	55,329	1,277	105,506	921	55,290	-265	20,066	2,736	1,342	1,282	13,402	46,167	303,994	
May	62,532	1,431	127,091	1,036	63,382	-467	23,359	2,907	1,371	1,327	15,120	42,124	342,184	
June	73,463	1,580	155,517	987	65,715	-589	25,988	3,045	1,373	1,276	16,052	33,768	379,134	
July	86,415	1,532	189,042	1,083	68,857	-768	24,567	3,276	1,406	1,341	15,765	29,475	422,975	
August	85,215	1,577	188,860	1,008	68,897	-640	21,133	3,206	1,379	1,354	14,502	24,718	412,133	
September	64,998	1,590	156,948	987	63,733	-598	17,026	2,864	1,315	1,329	13,286	27,331	351,655	
October	54,228	1,561	133,492	968	58,945	-434	14,367	2,624	1,368	1,298	11,942	32,745	313,949	
November	56,377	1,479	127,523	911	62,041	-495	17,898	2,865	1,318	1,397	8,403	41,199	321,780	
December	73,381	4,039	140,716	978	69,094	-548	20,430	3,005	1,348	1,482	6,777	38,680	360,257	
Total	831,512	22,931	1,687,065	11,722	771,537	-6,028	254,789	35,466	16,383	16,087	143,792	434,297	4,230,668	
2023 January	61,357	1,404	138,339	945	70,870	-620	22,754	2,920	1,342	1,420	7,806	38,358	347,784	
February	46,374	1,628	124,892	891	60,807	-456	19,961	2,533	1,206	1,302	9,435	41,424	310,776	
March	50,096	1,238	133,558	1,028	62,820	-519	21,331	2,704	1,278	1,442	12,213	43,584	331,565	
April	40,233	1,169	119,878	866	56,662	-290	19,820	2,336	1,186	1,356	15,062	42,746	301,768	
May	43,804	1,210	137,296	1,011	61,155	-459	27,651	2,654	1,340	1,345	17,281	32,227	327,374	
June	57,772	1,267	161,851	974	64,819	-551	21,572	2,579	1,305	1,293	17,834	27,547	359,101	
July	78,903	1,615	199,289	1,046	69,888	-656	21,978	2,758	1,333	1,296	18,894	28,005	425,220	
August	78,112	1,609	199,000	1,088	69,744	-653	21,293	2,884	1,334	1,267	17,744	28,394	422,682	
September	59,959	1,486	166,151	983	65,560	-553	16,916	2,573	1,227	1,315	15,583	28,353	360,328	
October	50,933	1,283	140,655	924	61,436	-372	15,673	2,317	1,303	1,420	14,121	36,020	326,549	
November	51,209	1,085	135,358	959	62,258	-347	17,026	2,584	1,303	1,440	10,446	36,445	320,610	
December	56,365	1,238	149,798	1,062	68,854	-514	19,028	2,774	1,427	1,473	9,113	38,038	349,513	
Total	675,115	16,233	1,806,063	11,778	774,873	-5,990	245,002	31,615	15,585	16,367	165,530	421,141	4,183,271	
2024 January	75,691	1,863	160,174	1,071	69,080	-412	21,924	2,851	1,307	1,421	9,730	34,828	380,335	
February	44,058	981	130,989	766	64,584	-404	20,101	2,539	1,190	1,318	12,476	41,446	320,763	
March	38,390	976	130,609	719	63,346	-349	23,315	2,618	1,225	1,288	15,797	45,502	324,136	
April	37,323	1,163	121,406	767	57,621	-338	19,377	2,521	1,153	1,335	19,054	47,236	309,269	
May	45,914	1,188	143,621	774	64,973	-292	22,613	2,742	1,280	1,245	22,114	38,589	345,572	
June	61,393	1,316	169,315	880	68,192	-586	21,170	2,697	1,222	1,270	24,193	38,061	389,865	
July	71,687	1,446	207,735	854	69,885	-649	21,186	2,726	1,291	1,326	24,115	27,910	420,288	
August	68,838	1,461	203,094	861	69,760	-812	21,359	2,780	1,303	1,313	23,960	28,695	423,355	
September	54,526	1,133	169,382	741	62,660	-654	16,660	2,566	1,231	1,272	20,099	28,910	359,190	
October	46,993	1,104	146,370	620	58,437	-432	15,820	2,280	1,238	1,195	19,463	40,019	333,725	
10-Month Total	544,814	12,631	1,582,696	8,054	648,539	-4,929	203,526	26,320	12,441	12,983	191,002	371,196	3,616,499	
2023 10-Month Total	567,541	13,911	1,520,908	9,757	643,761	-5,129	208,949	26,256	12,855	13,455	145,972	346,658	3,513,147	
2022 10-Month Total	701,754	17,413	1,418,825	9,834	640,402	-4,984	216,461	29,596	13,717	13,208	128,612	354,419	3,548,630	

^a Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

^b Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, waste oil, and, beginning in 2011, propane.

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

^d Blast furnace gas, and other manufactured and waste gases derived from fossil fuels. Through 2010, also includes propane gas.

^e Pumped storage facility production minus energy used for pumping.

^f Through 1989, hydroelectric pumped storage is included in "Conventional Hydroelectric Power."

^g Wood and wood-derived fuels.

^h 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).

ⁱ Electricity net generation from solar thermal and photovoltaic (PV) energy at utility-scale facilities. Does not include small-scale solar photovoltaic generation.

See Table 10.6.

^j Includes 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).

^k 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.

NA=Not available.

Notes: • Data are for utility-scale facilities. See Note 1, "Coverage of Electricity Statistics," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: Tables 7.2b and 7.2c.

Table 7.2b Electricity Net Generation: Electric Power Sector
(Subset of Table 7.2a; Million Kilowatthours)

	Fossil Fuels				Nuclear Electric Power	Hydro-electric Pumped Storage ^e	Renewable Energy						Total ^j
	Coal ^a	Petro- leum ^b	Natural Gas ^c	Other Fossil Gases ^d			Conven- tional Hydro- electric Power ^f	Biomass		Geo- thermal	Solar ⁱ	Wind	
								Wood ^g	Waste ^h				
1950 Total	154,520	33,734	44,559	NA	0	()	95,938	390	NA	NA	NA	NA	329,141
1955 Total	301,363	37,138	95,285	NA	0	()	112,975	276	NA	NA	NA	NA	547,038
1960 Total	403,067	47,987	157,970	NA	518	()	145,833	140	NA	33	NA	NA	755,549
1965 Total	570,926	64,801	221,559	NA	3,657	()	193,851	269	NA	189	NA	NA	1,055,252
1970 Total	704,394	184,183	372,890	NA	21,804	()	247,714	136	220	525	NA	NA	1,531,868
1975 Total	852,786	289,095	299,778	NA	172,505	()	300,047	18	174	3,246	NA	NA	1,917,649
1980 Total	1,161,562	245,994	346,240	NA	251,116	()	276,021	275	158	5,073	NA	NA	2,286,439
1985 Total	1,402,128	100,202	291,946	NA	383,691	()	281,149	743	640	9,325	11	6	2,469,841
1990 Total ^k	1,572,109	118,864	309,486	621	576,862	-3,508	289,753	7,032	11,500	15,434	367	2,789	2,901,322
1995 Total	1,686,056	68,146	419,179	1,927	673,402	-2,725	305,410	7,597	17,986	13,378	497	3,164	3,194,230
2000 Total	1,943,111	105,192	517,978	2,028	753,893	-5,539	271,338	8,916	20,307	14,093	493	5,593	3,637,529
2005 Total	1,992,054	116,482	683,829	3,777	781,986	-6,558	267,040	10,570	13,031	14,692	550	17,811	3,902,192
2010 Total	1,827,738	34,679	901,389	2,967	806,968	-5,501	258,455	11,446	16,376	15,219	1,206	94,636	3,972,386
2011 Total	1,717,891	28,202	926,290	2,939	790,204	-6,421	317,531	10,733	15,989	15,316	1,727	120,121	3,948,186
2012 Total	1,500,557	20,072	1,132,791	2,984	769,331	-4,950	273,859	11,050	16,555	15,562	4,164	140,749	3,890,358
2013 Total	1,567,722	24,510	1,028,949	4,322	789,016	-4,681	265,058	12,302	16,918	15,775	8,724	167,742	3,903,715
2014 Total	1,568,774	28,043	1,033,198	3,358	797,166	-6,174	258,046	15,027	17,602	15,877	17,304	181,496	3,936,961
2015 Total	1,340,993	26,505	1,238,842	3,715	797,178	-5,091	247,636	14,563	17,823	15,918	24,456	190,547	3,920,407
2016 Total	1,229,663	22,710	1,280,344	3,912	805,694	-6,686	266,326	13,420	18,183	15,826	35,497	226,790	3,918,977
2017 Total	1,197,838	20,039	1,198,014	4,126	804,950	-6,495	298,711	13,641	18,084	15,927	52,724	254,074	3,878,625
2018 Total	1,142,173	23,928	1,368,532	4,086	807,084	-5,905	291,148	13,385	17,623	15,934	63,253	272,396	4,020,877
2019 Total	958,732	17,220	1,479,858	4,037	809,409	-5,261	286,652	12,020	16,091	15,031	71,265	295,604	3,968,348
2020 Total	767,702	16,333	1,522,299	3,174	789,879	-5,321	284,059	11,211	15,625	15,441	88,511 ^R	337,666 ^R	3,854,170
2021 Total	892,440	18,308	1,476,603	3,304	779,645	-5,112	250,391	11,897	14,834	15,473	114,523	377,917	3,957,181
2022 January	87,114	3,564	125,609	292	70,577	-493	24,097	1,042	1,032	1,470	7,772	37,386	359,855
February	70,538	1,651	106,942	251	61,852	-412	21,216	1,019	947	1,243	8,969	37,613	312,158
March	60,541	1,381	103,941	270	63,154	-318	24,302	964	1,032	1,286	11,618	42,997	311,530
April	54,915	1,200	97,597	291	55,290	-265	19,943	825	952	1,282	13,312	46,134	291,814
May	62,061	1,349	118,690	365	63,382	-467	23,248	929	973	1,327	15,022	42,096	329,317
June	72,986	1,498	146,881	281	65,715	-589	25,897	1,037	994	1,276	15,946	33,746	366,018
July	85,936	1,448	179,569	342	68,857	-768	24,489	1,170	1,018	1,341	15,662	29,458	408,874
August	84,733	1,500	179,279	277	68,897	-640	21,050	1,157	990	1,354	14,403	24,706	398,041
September	64,564	1,510	148,410	306	63,733	-598	16,948	992	949	1,329	13,199	27,315	338,966
October	53,805	1,481	125,017	276	58,945	-434	14,301	870	973	1,298	11,865	32,721	301,419
November	55,978	1,392	118,778	236	62,041	-495	17,818	940	927	1,397	8,345	41,168	308,815
December	72,925	3,853	131,973	264	69,094	-548	20,318	1,057	953	1,482	6,735	38,653	347,081
Total	826,097	21,827	1,582,687	3,451	771,537	-6,028	253,627	12,002	11,739	16,087	142,847	433,994	4,073,888
2023 January	60,915	1,303	129,673	285	70,870	-620	22,640	994	976	1,420	7,763	38,335	334,884
February	45,995	1,535	116,732	238	60,807	-456	19,849	845	881	1,302	9,379	41,396	298,769
March	49,733	1,152	124,829	280	62,820	-519	21,198	859	933	1,442	12,138	43,555	318,696
April	39,877	1,109	112,301	202	56,662	-290	19,703	675	856	1,356	14,961	42,718	290,387
May	43,427	1,153	128,917	308	61,155	-459	27,541	839	963	1,345	17,175	32,206	314,885
June	57,400	1,208	152,766	273	64,819	-551	21,484	875	932	1,293	17,733	27,532	346,070
July	78,504	1,546	189,665	305	69,888	-656	21,885	989	954	1,296	18,788	27,996	411,451
August	77,734	1,544	189,336	333	69,744	-653	21,213	1,009	961	1,267	17,648	28,381	408,816
September	59,586	1,427	156,944	289	65,560	-553	16,851	819	889	1,315	15,500	28,342	347,210
October	50,575	1,222	131,868	249	61,436	-372	15,609	634	928	1,420	14,049	36,001	313,881
November	50,851	1,020	126,466	262	62,258	-347	16,960	779	918	1,440	10,388	36,422	307,692
December	55,971	1,169	140,360	316	68,854	-514	18,933	868	1,005	1,473	9,070	38,016	335,801
Total	670,569	15,388	1,699,856	3,340	774,873	-5,990	243,865	10,187	11,194	16,367	164,590	420,900	4,028,541
2024 January	75,275	1,776	150,371	292	69,080	-412	21,811	967	927	1,421	9,673	34,808	366,249
February	43,689	912	122,322	211	64,584	-404	19,997	773	843	1,318	12,399	41,424	308,302
March	37,981	918	122,064	195	63,346	-349	23,205	764	865	1,288	15,700	45,475	311,667
April	37,008	1,099	112,951	231	57,621	-338	19,282	693	805	1,335	18,942	47,207	297,013
May	45,560	1,127	135,082	192	64,973	-292	22,506	849	903	1,245	21,987	38,565	332,971
June	61,017	1,247	160,991	286	68,192	-586	21,066	863	884	1,270	24,059	38,038	377,519
July	71,274	1,380	198,573	251	69,885	-649	21,093	852	936	1,326	23,985	27,892	417,005
August	68,435	1,399	193,473	217	69,760	-812	21,257	868	942	1,313	23,831	28,679	409,568
September	54,158	1,080	160,627	250	62,660	-654	16,578	759	903	1,272	19,989	28,894	346,700
October	46,660	1,050	138,352	219	58,437	-432	15,743	632	881	1,195	19,359	39,998	322,244
10-Month Total	541,057	11,988	1,494,805	2,342	648,539	-4,929	202,539	8,019	8,887	12,983	189,923	370,979	3,489,239
2023 10-Month Total	563,747	13,199	1,433,029	2,762	643,761	-5,129	207,973	8,540	9,272	13,455	145,131	346,461	3,385,049
2022 10-Month Total	697,193	16,581	1,331,936	2,952	640,402	-4,984	215,490	10,005	9,860	13,208	127,767	354,174	3,417,991

^a Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

^b Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, waste oil, and, beginning in 2011, propane.

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

^d Blast furnace gas, and other manufactured and waste gases derived from fossil fuels. Through 2010, also includes propane gas.

^e Pumped storage facility production minus energy used for pumping.

^f Through 1989, hydroelectric pumped storage is included in "Conventional Hydroelectric Power."

^g Wood and wood-derived fuels.

^h 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).

ⁱ Electricity net generation from solar thermal and photovoltaic (PV) energy at utility-scale facilities. Does not include small-scale solar photovoltaic generation.

See Table 10.6.

^j Includes 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).

^k Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.

R=Revised. NA=Not available.

Notes: • Data are for utility-scale facilities. See Note 1, "Coverage of Electricity Statistics," at end of section. • 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. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: See end of section.

Table 7.2c Electricity Net Generation: Commercial and Industrial Sectors

(Subset of Table 7.2a; Million Kilowatthours)

	Commercial Sector ^a					Industrial Sector ^b								
	Coal ^c	Petro- leum ^d	Natural Gas ^e	Biomass	Total ^g	Coal ^c	Petro- leum ^d	Natural Gas ^e	Other Fossil Gases ^h	Hydro- electric Power ⁱ	Biomass		Total ^k	
				Waste ^f							Wood ^j	Waste ^l		
1950 Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	4,946	NA	NA	4,946	
1955 Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,261	NA	NA	3,261	
1960 Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,607	NA	NA	3,607	
1965 Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,134	NA	NA	3,134	
1970 Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,244	NA	NA	3,244	
1975 Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,106	NA	NA	3,106	
1980 Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,161	NA	NA	3,161	
1985 Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,161	NA	NA	3,161	
1990 Total	796	589	3,272	812	5,837	21,107	7,008	60,007	9,641	2,975	25,379	949	130,830	
1995 Total	998	379	5,162	1,519	8,232	22,372	6,030	71,717	11,943	5,304	28,868	900	151,025	
2000 Total	1,097	432	4,262	1,985	7,903	22,056	5,597	78,798	11,927	4,135	28,652	839	156,673	
2005 Total	1,353	375	4,249	1,657	8,492	19,466	5,368	72,882	9,687	3,195	28,271	733	144,739	
2010 Total	1,111	124	4,725	1,672	8,592	18,441	2,258	81,583	8,343	1,668	25,706	869	144,082	
2011 Total	1,049	89	5,487	2,315	10,080	14,490	1,891	81,911	8,624	1,799	26,691	917	141,875	
2012 Total	883	196	6,603	2,319	11,301	12,603	2,922	86,500	8,913	2,353	26,725	948	146,107	
2013 Total	839	124	7,154	2,567	12,234	12,554	2,531	88,733	8,531	3,463	27,691	1,346	150,015	
2014 Total	595	255	7,227	2,681	12,520	12,341	1,934	86,209	8,664	1,282	27,239	1,367	144,083	
2015 Total	509	191	7,471	2,637	12,595	10,896	1,552	88,355	9,401	1,410	27,318	1,243	145,712	
2016 Total	383	82	7,730	2,496	12,706	9,103	1,412	91,197	8,895	1,269	27,458	1,134	145,890	
2017 Total	329	112	8,042	2,515	13,060	7,669	1,239	91,647	8,343	1,382	27,412	1,012	143,758	
2018 Total	303	140	8,419	2,404	13,312	7,011	1,157	94,892	9,377	1,149	27,475	868	146,798	
2019 Total	268	121	8,610	2,129	13,689	5,957	1,000	100,065	8,554	1,033	26,433	743	148,537	
2020 Total	240	100	8,110	2,053	13,046	5,451	908	96,381	8,644	1,001	24,916	814	142,551	
2021 Total	280	98	7,346	2,156	12,768	5,278	767	95,240	8,093	936	24,413	800	139,750	
2022 January	29	24	655	325	1,403	445	82	8,683	713	77	2,049	75	12,508	
February	19	8	563	292	1,232	409	NM	7,440	635	83	1,864	67	10,921	
March	18	6	606	317	1,328	459	71	7,931	683	111	1,960	77	11,673	
April	13	7	559	318	1,308	402	70	7,350	630	102	1,901	71	10,871	
May	10	8	611	325	1,381	461	75	7,790	671	84	1,961	72	11,485	
June	27	9	672	322	1,455	450	74	7,964	706	63	1,988	57	11,661	
July	26	8	807	331	1,592	453	77	8,667	741	53	2,088	57	12,510	
August	29	8	822	325	1,595	453	69	8,759	731	61	2,022	63	12,498	
September	30	5	696	313	1,417	404	75	7,842	680	60	1,860	53	11,272	
October	28	5	571	326	1,300	396	76	7,903	692	51	1,748	69	11,230	
November	28	7	601	322	1,330	372	81	8,144	675	62	1,914	70	11,635	
December	30	19	668	320	1,397	425	168	8,075	714	92	1,936	75	11,779	
Total	287	112	7,830	3,838	16,737	5,128	993	96,548	8,271	899	23,289	806	140,043	
2023 January	28	10	619	303	1,311	414	91	8,047	660	85	1,914	63	11,590	
February	26	19	583	268	1,210	354	75	7,577	654	86	1,680	57	10,797	
March	20	7	606	282	1,260	343	79	8,122	748	104	1,838	63	11,609	
April	21	4	560	274	1,210	334	57	7,017	665	87	1,655	57	10,170	
May	17	5	591	317	1,314	359	53	7,789	703	84	1,811	60	11,175	
June	9	4	656	325	1,378	362	56	8,429	701	69	1,693	49	11,654	
July	12	5	777	332	1,522	387	64	8,847	741	69	1,758	48	12,247	
August	12	4	740	326	1,465	366	61	8,923	755	57	1,862	48	12,401	
September	15	4	701	297	1,365	358	55	8,506	694	46	1,741	41	11,753	
October	18	5	621	315	1,318	340	56	8,166	675	40	1,675	60	11,351	
November	18	5	604	320	1,303	340	59	8,287	697	45	1,796	65	11,615	
December	23	7	686	335	1,411	370	62	8,751	746	72	1,896	88	12,302	
Total	220	78	7,744	3,693	16,066	4,327	767	98,463	8,438	844	21,320	698	138,664	
2024 January	32	NM	699	319	1,428	384	73	9,105	780	85	1,868	62	12,658	
February	21	6	654	287	1,301	348	62	8,014	555	78	1,759	60	11,160	
March	19	7	676	290	1,339	389	52	7,869	524	83	1,850	71	11,130	
April	13	NM	576	287	1,235	303	57	7,880	536	73	1,827	62	11,022	
May	NM	7	620	315	1,350	346	54	7,918	582	80	1,889	63	11,251	
June	11	8	686	294	1,395	365	61	7,638	594	75	1,824	43	10,951	
July	14	NM	771	304	1,495	398	61	8,392	604	65	1,856	51	11,787	
August	16	5	777	313	1,510	387	57	8,844	645	75	1,902	49	12,276	
September	17	3	687	283	1,340	351	50	8,068	491	64	1,793	45	11,150	
October	13	4	628	299	1,296	321	50	7,390	401	60	1,643	58	10,185	
10-Month Total ...	164	66	6,773	2,990	13,689	3,593	577	81,117	5,712	738	18,211	564	113,571	
2023 10-Month Total ...	178	66	6,454	3,038	13,352	3,616	646	81,424	6,995	727	17,629	545	114,747	
2022 10-Month Total ...	230	86	6,561	3,196	14,011	4,331	745	80,329	6,882	745	19,439	661	116,629	

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

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

^c Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

^d Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, waste oil, and, beginning in 2011, propane.

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

^f 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).

^g Includes a small amount of conventional hydroelectric power, geothermal, other fossil gases, solar photovoltaic (PV) energy, wind, wood, and other, which are not separately displayed. Does not include small-scale solar photovoltaic generation, shown on Table 10.6.

^h Blast furnace gas, and other manufactured and waste gases derived from

fossil fuels. Through 2010, also includes propane gas.

ⁱ Conventional hydroelectric power.

^j Wood and wood-derived fuels.

^k Includes photovoltaic (PV) energy, wind, 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). Does not include small-scale solar photovoltaic generation shown on Table 10.6.

R=Revised. NA=Not available. NM=Not meaningful.

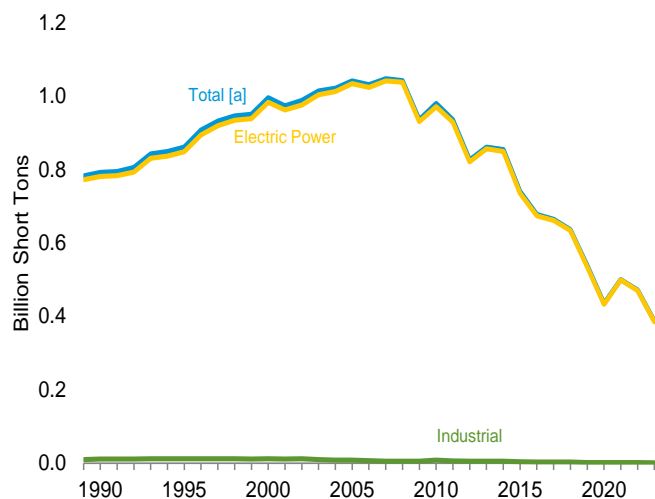
Notes: • Data are for utility-scale facilities. See Note 1, "Coverage of Electricity Statistics," at end of section. • See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

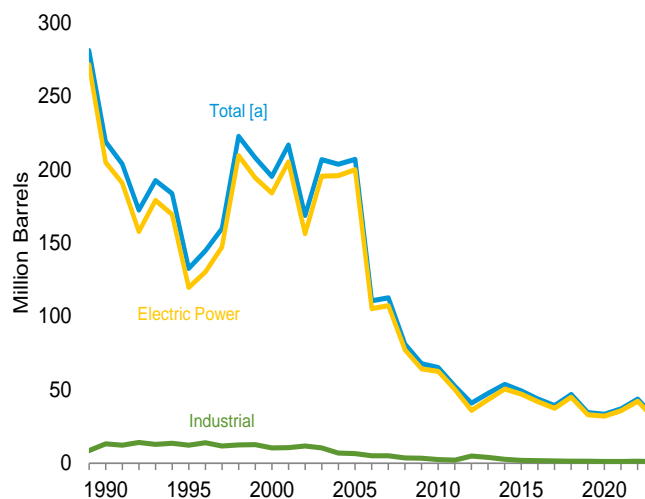
Sources: See end of section.

Figure 7.3 Consumption of Selected Combustible Fuels for Electricity Generation

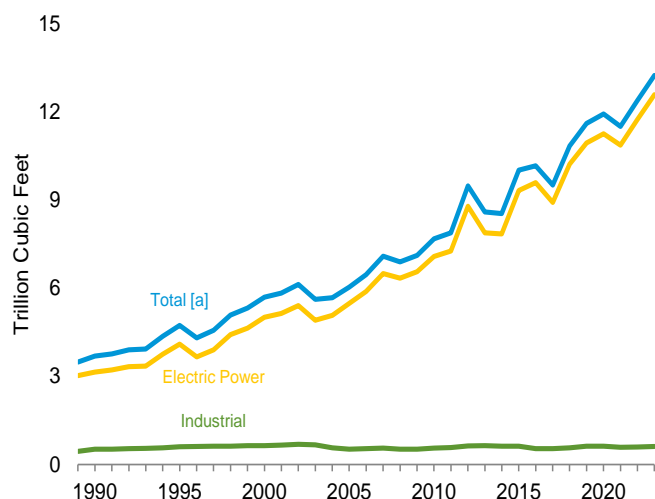
Coal by Sector, 1989–2023



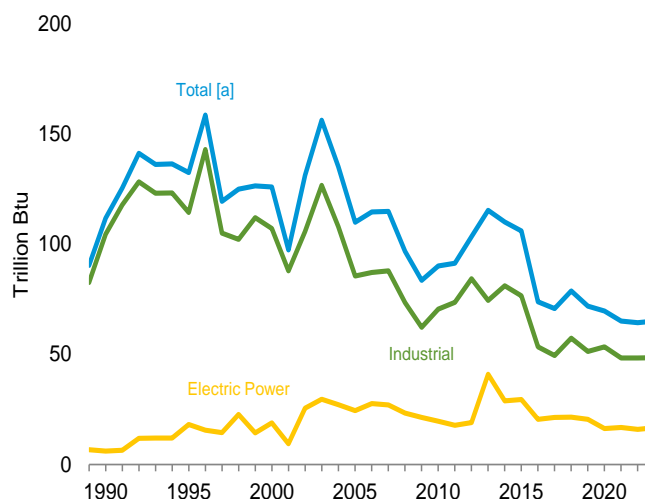
Petroleum by Sector, 1989–2023



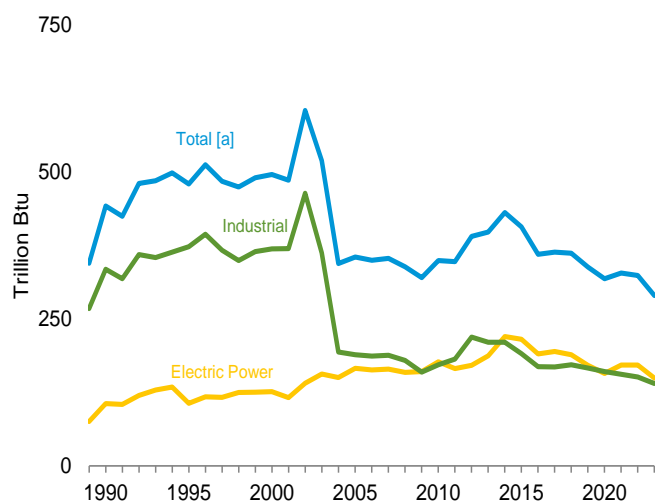
Natural Gas by Sector, 1989–2023



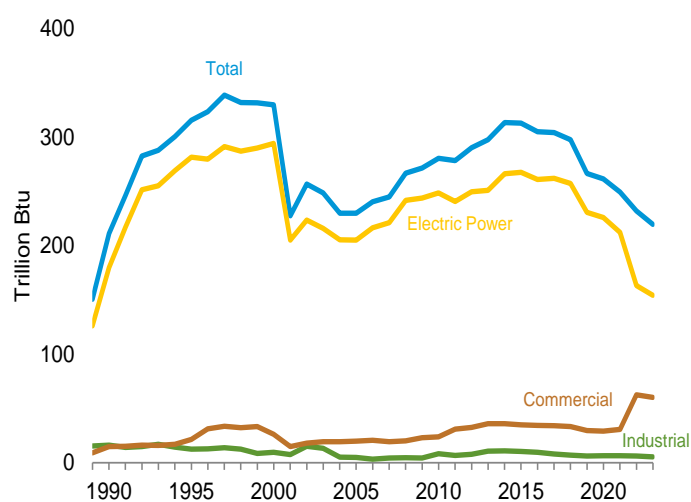
Other Fossil Gases [b] by Sector, 1989–2023



Wood by Sector, 1989–2023



Waste by Sector, 1989–2023



[a] Includes commercial sector.

[b] Blast furnace gas, and other manufactured and waste gases derived from fossil fuels. Through 2010, also includes propane gas.

Note: Data are for utility-scale facilities.

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#electricity>.

Sources: Tables 7.3a-7.3c.

**Table 7.3a Consumption of Combustible Fuels for Electricity Generation:
Total (All Sectors) (Sum of Tables 7.3b and 7.3c)**

		Petroleum					Natural Gas ^f	Other Fossil Gases ^g	Biomass		Other ^j
		Distillate Fuel Oil ^b	Residual Fuel Oil ^c	Other Liquids ^d	Petroleum Coke ^e	Total ^e			Wood ^h	Waste ⁱ	
	Coal ^a				Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu			
	Thousand Short Tons	Thousand Barrels			Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu			
1950 Total	91,871	5,423	69,998	NA	NA	75,421	629	NA	5	NA	NA
1955 Total	143,759	5,412	69,862	NA	NA	75,274	1,153	NA	3	NA	NA
1960 Total	176,685	3,824	84,371	NA	NA	88,195	1,725	NA	2	NA	NA
1965 Total	244,788	4,928	110,274	NA	NA	115,203	2,321	NA	3	NA	NA
1970 Total	320,182	24,123	311,381	NA	636	338,686	3,932	NA	1	2	NA
1975 Total	405,962	38,907	467,221	NA	70	506,479	3,158	NA	(s)	2	NA
1980 Total	569,274	29,051	391,163	NA	179	421,110	3,682	NA	3	2	NA
1985 Total	693,841	14,635	158,779	NA	231	174,571	3,044	NA	8	7	NA
1990 Total ^k	792,457	18,143	190,652	437	1,914	218,800	3,692	112	442	211	36
1995 Total	860,594	19,615	95,507	680	3,355	132,578	4,738	133	480	316	42
2000 Total	994,933	31,675	143,381	1,450	3,744	195,228	5,691	126	496	330	46
2005 Total	1,041,448	20,651	141,518	2,968	8,330	206,785	6,036	110	355	230	173
2010 Total	979,684	14,050	23,997	2,056	4,994	65,071	7,680	90	350	281	184
2011 Total	934,938	11,231	14,251	1,844	5,012	52,387	7,884	91	348	279	205
2012 Total	825,734	9,285	11,755	1,565	3,675	40,977	9,485	103	390	290	204
2013 Total	860,729	9,784	11,766	1,681	4,852	47,492	8,596	115	398	298	200
2014 Total	853,634	14,465	14,704	2,363	4,412	53,593	8,544	110	431	314	200
2015 Total	739,594	12,438	14,124	2,363	4,044	49,145	10,017	106	407	313	204
2016 Total	677,371	9,662	11,195	1,548	4,253	43,671	10,170	74	360	305	199
2017 Total	663,911	9,707	10,442	1,547	3,490	39,144	9,508	71	364	304	190
2018 Total	636,213	14,223	12,407	1,985	3,623	46,727	10,842	79	362	298	190
2019 Total	537,620	9,620	9,251	1,965	2,724	34,454	11,613	72	338	267	199
2020 Total	435,351	7,991	8,299	1,719	3,077	33,391	11,928	70	318	262	193
2021 Total	500,367	10,623	8,998	2,012	3,070	36,982	11,503	65	328	250	187
2022 January	48,671	2,591	2,392	234	240	6,419	973	5	29	20	14
February	39,951	1,063	856	147	248	3,305	824	5	27	19	12
March	34,396	862	727	142	216	2,810	800	5	27	20	13
April	30,904	694	591	123	225	2,534	768	5	24	19	13
May	35,210	834	678	76	248	2,826	947	6	26	19	13
June	41,748	928	623	153	281	3,108	1,169	6	28	20	13
July	49,433	949	881	190	219	3,117	1,431	6	30	20	14
August	48,356	890	812	195	241	3,102	1,408	5	30	20	13
September	37,302	714	861	163	280	3,140	1,150	5	26	19	12
October	31,458	751	900	164	263	3,129	972	5	24	19	13
November	32,398	783	778	139	227	2,836	928	5	26	19	13
December	41,750	3,679	1,809	387	296	7,357	1,016	5	28	19	13
Total	471,576	14,738	11,909	2,112	2,985	43,684	12,384	64	324	232	157
2023 January	35,506	839	787	195	179	2,718	987	5	27	19	13
February	26,854	1,101	1,131	201	163	3,248	886	5	23	17	11
March	28,671	734	789	154	135	2,350	960	6	24	18	12
April	22,889	725	739	141	124	2,224	883	5	21	17	11
May	25,484	838	739	112	144	2,408	1,015	6	24	19	12
June	33,541	769	760	151	162	2,489	1,204	5	24	18	12
July	44,412	724	897	156	266	3,108	1,500	6	26	19	13
August	43,887	824	821	144	265	3,114	1,498	6	27	19	13
September	34,223	636	883	147	238	2,854	1,225	5	24	18	12
October	29,580	703	958	164	125	2,450	1,041	5	20	18	12
November	29,549	747	787	137	80	2,071	986	5	23	18	12
December	32,031	793	778	134	147	2,440	1,059	6	25	20	13
Total	386,626	9,431	10,068	1,836	2,028	31,474	13,245	65	290	220	147
2024 January	42,428	1,718	1,061	259	138	3,730	1,164	6	25	18	12
February	25,926	622	712	136	114	2,041	940	4	22	16	11
March	22,274	678	697	134	63	1,825	945	4	23	17	11
April	21,253	953	701	359	103	2,530	908	4	21	16	11
May	26,228	853	775	104	118	2,324	1,069	4	24	18	12
June	34,450	814	794	118	169	2,569	1,264	5	24	17	12
July	40,501	874	875	131	185	2,803	1,557	5	24	18	12
August	39,427	956	851	119	181	2,829	1,517	5	25	18	12
September	31,572	692	807	99	108	2,137	1,249	4	22	17	11
October	27,497	772	856	104	80	2,132	1,090	3	20	17	11
10-Month Total ...	311,555	8,931	8,128	1,564	1,259	24,919	11,702	44	228	174	117
2023 10-Month Total ...	325,047	7,892	8,504	1,565	1,801	26,963	11,199	54	242	182	122
2022 10-Month Total ...	397,428	10,276	9,322	1,586	2,462	33,491	10,440	54	271	194	131

^a Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

^b 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.

^c 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.

^d Jet fuel, kerosene, other petroleum liquids, waste oil, and, beginning in 2011, propane.

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

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

^g Blast furnace gas, and other manufactured and waste gases derived from fossil fuels. Through 2010, also includes propane gas.

^h Wood and wood-derived fuels.

ⁱ 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).

^j 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).

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

NA=Not available. (s)=Less than 0.5 trillion Btu.

Notes: • Data are for utility-scale facilities. See Note 1, "Coverage of Electricity Statistics," at end of section. • 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. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: Tables 7.3b and 7.3c.

Table 7.3b Consumption of Combustible Fuels for Electricity Generation:
Electric Power Sector (Subset of Table 7.3a)

	Coal ^a	Petroleum					Natural Gas ^f	Other Fossil Gases ^g	Biomass		Other ^j
		Distillate Fuel Oil ^b	Residual Fuel Oil ^c	Other Liquids ^d	Petroleum Coke ^e	Total ^e			Wood ^h	Waste ⁱ	
	Thousand Short Tons	Thousand Barrels			Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu			
1950 Total	91,871	5,423	69,998	NA	NA	75,421	629	NA	5	NA	NA
1955 Total	143,759	5,412	69,862	NA	NA	75,274	1,153	NA	3	NA	NA
1960 Total	176,685	3,824	84,371	NA	NA	88,195	1,725	NA	2	NA	NA
1965 Total	244,788	4,928	110,274	NA	NA	115,203	2,321	NA	3	NA	NA
1970 Total	320,182	24,123	311,381	NA	636	338,686	3,932	NA	1	2	NA
1975 Total	405,962	38,907	467,221	NA	70	506,479	3,158	NA	(s)	2	NA
1980 Total	569,274	29,051	391,163	NA	179	421,110	3,682	NA	3	2	NA
1985 Total	693,841	14,635	158,779	NA	231	174,571	3,044	NA	8	7	NA
1990 Total ^k	781,301	16,394	183,285	25	1,008	204,745	3,147	6	106	180	(s)
1995 Total	847,854	18,066	88,895	441	2,452	119,663	4,094	18	106	282	2
2000 Total	982,713	29,722	138,047	403	3,155	183,946	5,014	19	126	294	1
2005 Total	1,033,567	19,450	138,337	2,591	7,877	199,760	5,485	24	166	205	116
2010 Total	971,245	13,677	23,560	1,848	4,679	62,477	7,085	20	177	249	116
2011 Total	928,857	10,961	13,861	1,655	4,726	50,105	7,265	18	166	241	133
2012 Total	820,762	9,000	11,292	1,339	2,861	35,937	8,788	19	171	250	132
2013 Total	855,546	9,511	11,322	1,488	4,189	43,265	7,888	41	187	251	130
2014 Total	848,803	14,052	14,132	2,157	4,039	50,537	7,849	29	220	266	127
2015 Total	735,433	12,056	13,893	2,086	3,789	46,978	9,322	29	215	268	127
2016 Total	674,239	9,421	11,056	1,284	4,018	41,853	9,590	20	191	261	126
2017 Total	661,033	9,398	10,299	1,332	3,273	37,394	8,917	21	195	262	121
2018 Total	633,593	13,795	12,259	1,757	3,444	45,030	10,224	21	189	257	125
2019 Total	535,382	9,254	9,163	1,724	2,545	32,868	10,939	21	171	231	133
2020 Total	433,477	7,609	8,228	1,523	2,917	31,947	11,258	16	157	226	132
2021 Total	498,614	10,246	8,908	1,798	2,942	35,660	10,872	17	171	212	124
2022 January	48,518	2,527	2,374	218	229	6,266	916	1	15	14	7
February	39,807	1,034	839	135	235	3,181	775	1	15	13	6
March	34,239	831	707	131	205	2,695	747	1	14	15	7
April	30,777	667	574	108	215	2,423	718	1	12	13	6
May	35,059	804	661	61	235	2,701	895	2	13	14	6
June	41,592	894	606	137	271	2,991	1,115	1	15	14	6
July	49,282	914	864	173	208	2,992	1,372	2	16	14	6
August	48,204	861	798	179	230	2,988	1,348	1	16	14	6
September	37,163	690	843	143	270	3,027	1,097	1	14	13	6
October	31,323	726	882	150	252	3,015	920	1	12	13	6
November	32,267	758	760	125	214	2,713	875	1	13	13	6
December	41,602	3,619	1,778	277	286	7,103	962	1	15	13	6
Total	469,833	14,325	11,687	1,836	2,849	42,096	11,740	16	171	163	75
2023 January	35,359	806	764	166	168	2,576	933	1	15	13	6
February	26,729	1,051	1,110	188	154	3,121	837	1	12	12	6
March	28,551	696	773	139	123	2,221	906	1	12	13	6
April	22,771	702	725	127	117	2,139	835	1	10	12	6
May	25,356	812	730	96	136	2,317	963	2	12	13	6
June	33,419	745	751	129	155	2,399	1,148	2	13	13	6
July	44,277	700	888	136	256	3,002	1,441	2	14	13	7
August	43,760	798	810	126	256	3,015	1,438	2	15	13	7
September	34,097	612	872	131	230	2,766	1,168	1	12	12	6
October	29,456	680	947	147	117	2,359	986	1	9	13	6
November	29,426	722	773	122	72	1,980	932	1	11	12	6
December	31,897	762	761	119	138	2,335	1,001	2	13	14	6
Total	385,098	9,087	9,905	1,627	1,922	30,229	12,588	17	149	154	74
2024 January	42,288	1,676	1,036	245	131	3,611	1,104	1	13	13	6
February	25,798	592	700	111	108	1,944	887	1	11	11	6
March	22,135	649	685	121	57	1,738	892	1	11	12	6
April	21,147	921	687	344	97	2,435	856	1	10	11	5
May	26,107	821	762	89	112	2,232	1,017	1	12	12	6
June	34,324	780	781	103	160	2,466	1,213	1	12	12	6
July	40,363	852	864	115	176	2,712	1,500	1	12	13	6
August	39,291	931	837	108	173	2,743	1,459	1	12	13	6
September	31,444	672	797	85	102	2,063	1,196	1	11	12	6
October	27,376	752	848	89	NM	NM	1,041	1	9	12	6
10-Month Total ...	310,271	8,646	7,996	1,410	1,189	23,998	11,163	10	111	121	58
2023 10-Month Total ...	323,775	7,602	8,371	1,385	1,711	25,915	10,655	14	125	128	61
2022 10-Month Total ...	395,965	9,948	9,149	1,434	2,350	32,280	9,903	14	144	137	63

^a Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal syntfuel.

^b 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.

^c 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.

^d Jet fuel, kerosene, other petroleum liquids, waste oil, and, beginning in 2011, propane.

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

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

^g Blast furnace gas, and other manufactured and waste gases derived from fossil fuels. Through 2010, also includes propane gas.

^h Wood and wood-derived fuels.

ⁱ 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).

^j 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).

^k Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.

NA=Not available. NM=Not meaningful. (s)=Less than 0.5 trillion Btu.

Notes: • Data are for utility-scale facilities. See Note 1, "Coverage of Electricity Statistics," at end of section. • 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. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: See end of section.

Table 7.3c Consumption of Selected Combustible Fuels for Electricity Generation: Commercial and Industrial Sectors (Subset of Table 7.3a)

	Commercial Sector ^a				Industrial Sector ^b						
	Coal ^c	Petroleum ^d	Natural Gas ^e	Biomass	Coal ^c	Petroleum ^d	Natural Gas ^e	Other Fossil Gases ^g	Biomass		Other ⁱ
				Waste ^f					Wood ^h	Waste ^f	
	Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu	Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu			
1990 Total	417	953	28	15	10,740	13,103	517	104	335	16	36
1995 Total	569	649	43	21	12,171	12,265	601	114	373	13	40
2000 Total	514	823	37	26	11,706	10,459	640	107	369	10	45
2005 Total	377	585	34	20	7,504	6,440	518	85	189	5	46
2010 Total	314	172	39	24	8,125	2,422	555	70	172	8	55
2011 Total	347	137	47	31	5,735	2,145	572	74	182	7	57
2012 Total	307	279	63	33	4,665	4,761	633	84	219	8	54
2013 Total	513	335	67	36	4,670	3,892	642	74	210	11	50
2014 Total	202	462	72	36	4,629	2,594	623	81	210	11	54
2015 Total	163	260	70	35	3,999	1,907	625	77	191	10	58
2016 Total	111	116	46	34	3,021	1,701	534	53	169	10	53
2017 Total	95	204	50	34	2,783	1,545	541	49	169	8	49
2018 Total	87	279	53	33	2,534	1,418	565	57	172	7	46
2019 Total	76	257	56	30	2,161	1,329	618	51	167	6	45
2020 Total	72	242	52	29	1,802	1,202	619	53	160	6	40
2021 Total	87	256	46	31	1,666	1,066	585	48	156	6	39
2022 January	8	46	4	5	145	107	52	4	13	1	2
February	7	18	4	5	137	105	45	4	12	1	2
March	5	16	4	5	151	98	49	4	13	1	2
April	4	18	4	5	124	93	46	4	12	1	1
May	3	22	4	5	148	104	48	4	13	1	2
June	9	22	4	5	147	95	50	4	13	(s)	2
July	8	22	5	5	143	102	54	4	14	(s)	2
August	9	19	5	5	142	96	54	4	13	(s)	1
September	9	13	4	5	130	100	49	4	12	(s)	1
October	8	14	4	5	126	101	48	4	11	1	1
November	8	15	4	5	122	107	49	4	12	1	1
December	9	43	4	5	139	210	49	4	13	1	1
Total	87	269	49	63	1,655	1,319	595	48	151	6	18
2023 January	9	26	4	5	138	116	50	4	12	(s)	1
February	8	36	4	5	118	91	45	4	11	(s)	1
March	6	16	4	5	114	113	50	4	12	(s)	1
April	7	11	4	5	111	74	44	4	11	(s)	1
May	6	15	4	5	122	76	49	4	12	(s)	1
June	3	11	4	5	120	79	52	4	11	(s)	1
July	4	13	5	5	131	93	55	4	12	(s)	1
August	4	13	5	5	123	86	55	4	12	(s)	1
September	5	12	4	5	121	76	52	4	11	(s)	1
October	6	13	4	5	117	77	51	4	11	(s)	1
November	6	15	4	5	117	76	51	4	12	(s)	1
December	7	22	4	5	127	83	54	4	12	1	1
Total	69	203	49	60	1,460	1,042	608	48	140	5	12
2024 January	10	28	4	5	130	91	56	4	12	(s)	1
February	7	15	4	5	121	82	49	3	11	(s)	1
March	7	18	4	5	132	70	49	3	12	1	1
April	4	19	3	5	102	76	49	3	11	(s)	1
May	3	21	4	5	118	72	48	3	12	(s)	1
June	4	23	4	5	122	80	47	3	12	(s)	1
July	5	NM	5	5	133	81	52	3	12	(s)	1
August	6	11	5	5	131	75	54	4	12	(s)	1
September	6	8	4	5	123	66	49	3	11	(s)	1
October	4	9	4	5	117	69	45	2	11	(s)	1
10-Month Total ...	55	162	41	49	1,229	760	498	33	116	4	9
2022 10-Month Total ...	56	166	41	50	1,216	882	503	40	116	4	10
2021 10-Month Total ...	70	210	41	52	1,394	1,002	497	40	126	5	16

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

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

^c Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

^d Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, waste oil, and, beginning in 2011, propane.

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

^f 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).

^g Blast furnace gas, and other manufactured and waste gases derived from fossil fuels. Through 2010, also includes propane gas.

^h Wood and wood-derived fuels.

ⁱ 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).

NM=Not meaningful. (s)=Less than 0.5 trillion Btu.

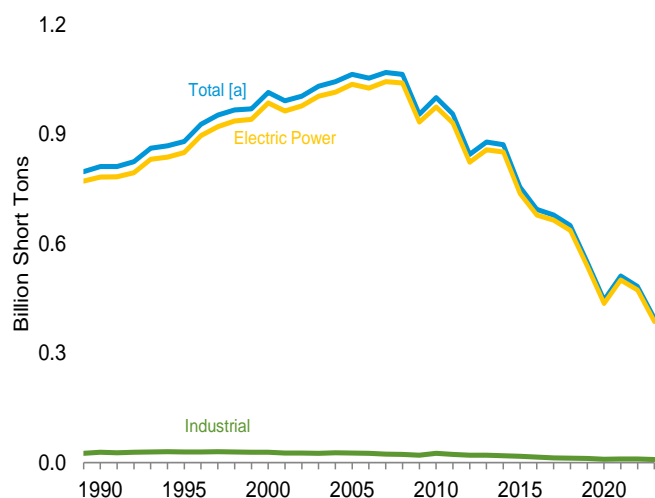
Notes: • Data are for utility-scale facilities. See Note 1, "Coverage of Electricity Statistics," at end of section. • See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Data are for fuels consumed to produce electricity. Through 1988, data are not available. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual and monthly data beginning in 1989.

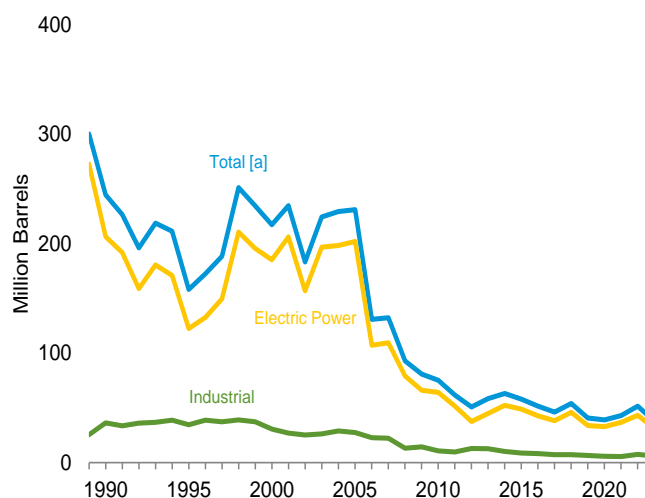
Sources: • **1989–1997:** U.S. Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • **1998–2000:** EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • **2001–2003:** EIA, Form EIA-906, "Power Plant Report." • **2004–2007:** EIA, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report." • **2008 forward:** EIA, Form EIA-923, "Power Plant Operations Report."

Figure 7.4 Consumption of Selected Combustible Fuels for Electricity Generation and Useful Thermal Output

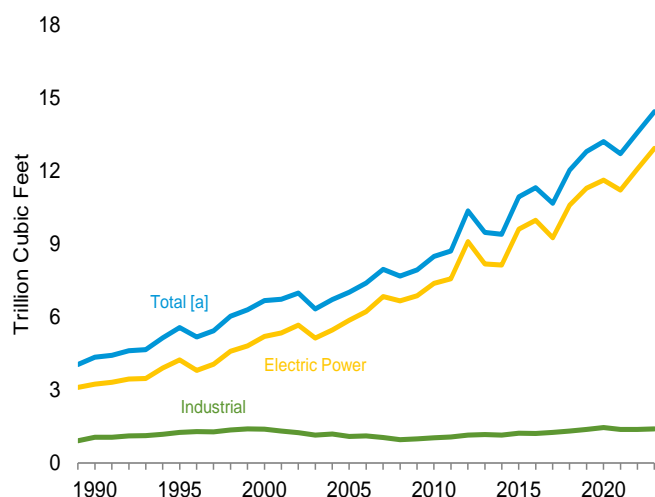
Coal by Sector, 1989–2023



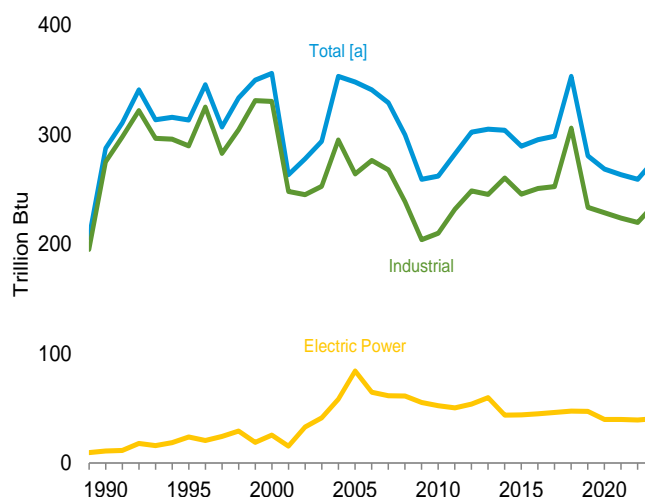
Petroleum by Sector, 1989–2023



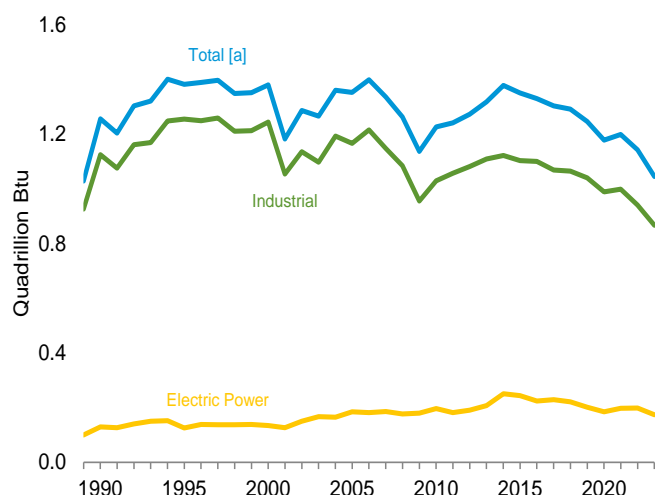
Natural Gas by Sector, 1989–2023



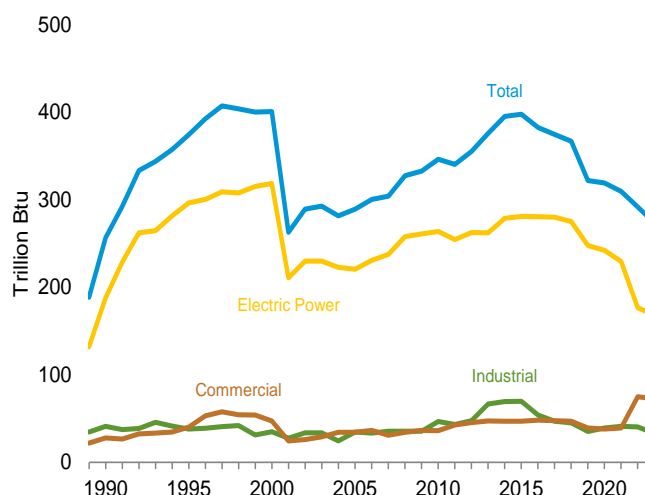
Other Fossil Gases [b] by Sector, 1989–2023



Wood by Sector, 1989–2023



Waste by Sector, 1989–2023



[a] Includes commercial sector.

[b] Blast furnace gas, and other manufactured and waste gases derived from fossil fuels. Through 2010, also includes propane gas.

Note: Data are for utility-scale facilities.

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#electricity>.

Sources: Tables 7.4a-7.4c.

Table 7.4a Consumption of Combustible Fuels for Electricity Generation and Useful Thermal Output: Total (All Sectors) (Sum of Tables 7.4b and 7.4c)

		Petroleum					Natural Gas ^f	Other Fossil Gases ^g	Biomass		Other ^j
		Distillate Fuel Oil ^b	Residual Fuel Oil ^c	Other Liquids ^d	Petroleum Coke ^e	Total ^e			Wood ^h	Waste ⁱ	
	Coal ^a	Thousand Short Tons	Thousand Barrels			Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu		
1950 Total	91,871	5,423	69,998	NA	NA	75,421	629	NA	5	NA	NA
1955 Total	143,759	5,412	69,862	NA	NA	75,274	1,153	NA	3	NA	NA
1960 Total	176,685	3,824	84,371	NA	NA	88,195	1,725	NA	2	NA	NA
1965 Total	244,788	4,928	110,274	NA	NA	115,203	2,321	NA	3	NA	NA
1970 Total	320,182	24,123	311,381	NA	636	338,686	3,932	NA	1	2	NA
1975 Total	405,962	38,907	467,221	NA	70	506,479	3,158	NA	(s)	2	NA
1980 Total	569,274	29,051	391,163	NA	179	421,110	3,682	NA	3	2	NA
1985 Total	693,841	14,635	158,779	NA	231	174,571	3,044	NA	8	7	NA
1990 Total ^k	811,538	20,194	209,081	1,332	2,832	244,765	4,346	288	1,256	257	86
1995 Total	881,012	21,697	112,168	1,322	4,590	158,140	5,572	313	1,382	374	97
2000 Total	1,015,398	34,572	156,673	2,904	4,669	217,494	6,677	356	1,380	401	109
2005 Total	1,065,281	24,446	156,915	4,270	9,113	231,193	7,021	348	1,353	289	237
2010 Total	1,001,411	15,247	26,944	2,777	6,053	75,231	8,502	262	1,226	346	237
2011 Total	956,470	11,735	16,877	2,540	6,092	61,610	8,724	282	1,241	340	261
2012 Total	845,066	9,945	13,571	2,185	5,021	50,805	10,371	302	1,273	355	252
2013 Total	879,078	10,277	14,199	2,212	6,338	58,378	9,479	305	1,318	376	236
2014 Total	871,741	15,107	16,615	2,908	5,695	63,106	9,410	304	1,378	395	236
2015 Total	756,226	12,924	16,136	3,008	5,188	58,009	10,952	290	1,351	398	237
2016 Total	693,958	10,278	12,231	2,173	5,352	51,441	11,322	296	1,330	383	238
2017 Total	678,578	10,168	11,508	2,033	4,467	46,043	10,677	299	1,303	375	226
2018 Total	650,027	15,066	13,584	2,578	4,552	53,988	12,048	353	1,291	367	226
2019 Total	550,017	10,369	10,049	2,580	3,563	40,811	12,809	281	1,246	322	234
2020 Total	445,753	8,604	8,974	2,160	3,856	39,020	13,221	269	1,178	319	226
2021 Total	511,669	11,340	9,895	2,470	3,830	42,855	12,724	264	1,199	310	218
2022 January	49,742	2,776	2,582	284	295	7,119	1,085	23	101	26	16
February	40,880	1,115	1,011	180	315	3,879	922	20	93	24	15
March	35,381	912	985	171	275	3,445	902	22	95	27	16
April	31,802	733	847	162	282	3,150	860	21	93	24	15
May	36,114	882	908	107	315	3,475	1,043	23	96	24	16
June	42,640	968	894	187	333	3,716	1,266	22	97	23	16
July	50,387	1,012	1,138	231	270	3,730	1,537	23	101	24	17
August	49,318	932	979	229	310	3,691	1,514	22	100	24	16
September	38,207	744	1,099	197	330	3,689	1,246	21	91	22	15
October	32,391	798	1,134	199	325	3,754	1,067	21	89	24	15
November	33,301	832	1,010	169	298	3,499	1,026	20	93	24	15
December	42,768	3,895	2,128	512	355	8,307	1,120	21	96	25	15
Total	482,931	15,599	14,715	2,626	3,702	51,452	13,590	259	1,143	292	187
2023 January	36,428	932	1,051	243	228	3,366	1,092	22	96	25	15
February	27,641	1,177	1,400	228	201	3,810	982	21	84	22	14
March	29,511	846	970	187	195	2,977	1,063	23	91	23	14
April	23,599	778	989	166	175	2,810	976	22	80	22	14
May	26,227	875	840	138	200	2,852	1,110	23	88	24	15
June	34,273	804	856	186	213	2,911	1,303	23	83	22	15
July	45,223	758	1,005	189	318	3,541	1,606	24	88	22	16
August	44,658	858	958	177	321	3,599	1,602	24	90	22	16
September	34,975	679	1,015	178	290	3,324	1,325	25	85	21	14
October	30,313	739	1,082	196	178	2,909	1,138	25	82	23	15
November	30,308	805	949	164	129	2,565	1,089	21	88	23	15
December	32,833	911	974	164	200	3,050	1,168	23	91	25	16
Total	395,989	10,161	12,089	2,218	2,649	37,715	14,455	277	1,045	274	178
2024 January	43,324	1,857	1,362	291	197	4,497	1,280	23	89	24	15
February	26,700	695	860	175	152	2,489	1,041	20	78	21	13
March	23,151	763	865	166	99	2,292	1,048	21	85	22	14
April	21,978	1,015	871	390	147	3,008	1,003	19	83	21	13
May	26,929	932	957	134	165	2,848	1,168	21	85	22	14
June	35,182	905	978	148	218	3,119	1,363	21	80	20	14
July	41,276	902	995	164	235	3,233	1,662	21	83	21	15
August	40,239	982	989	144	233	3,281	1,625	21	88	21	15
September	32,298	716	937	128	150	2,529	1,350	19	85	20	13
October	28,245	805	999	134	120	2,538	1,190	18	79	21	13
10-Month Total ...	319,323	9,570	9,812	1,873	1,716	29,833	12,730	203	837	215	139
2023 10-Month Total ...	332,848	8,446	10,166	1,890	2,320	32,100	12,198	232	866	226	146
2022 10-Month Total ...	406,862	10,872	11,577	1,946	3,050	39,647	11,444	218	955	243	156

^a Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

^b 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.

^c 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.

^d Jet fuel, kerosene, other petroleum liquids, waste oil, and, beginning in 2011, propane.

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

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

^g Blast furnace gas, and other manufactured and waste gases derived from fossil fuels. Through 2010, also includes propane gas.

^h Wood and wood-derived fuels.

ⁱ 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).

^j 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).

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

NA=Not available. (s)=Less than 0.5 trillion Btu.

Notes: • Data are for utility-scale facilities. See Note 1, "Coverage of Electricity Statistics," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: Tables 7.4b and 7.4c.

Table 7.4b Consumption of Combustible Fuels for Electricity Generation and Useful Thermal Output: Electric Power Sector (Subset of Table 7.4a)

	Coal ^a	Petroleum					Natural Gas ^f	Other Fossil Gases ^g	Biomass		Other ^j
		Distillate Fuel Oil ^b	Residual Fuel Oil ^c	Other Liquids ^d	Petroleum Coke ^e	Total ^e			Wood ^h	Waste ⁱ	
	Thousand Short Tons	Thousand Barrels			Thousand Short Tons	Thousand Barrels	Billion Cubic Feet		Trillion Btu		
1950 Total	91,871	5,423	69,998	NA	NA	75,421	629	NA	5	NA	NA
1955 Total	143,759	5,412	69,862	NA	NA	75,274	1,153	NA	3	NA	NA
1960 Total	176,685	3,824	84,371	NA	NA	88,195	1,725	NA	2	NA	NA
1965 Total	244,788	4,928	110,274	NA	NA	115,203	2,321	NA	3	NA	NA
1970 Total	320,182	24,123	311,381	NA	636	338,686	3,932	NA	1	2	NA
1975 Total	405,962	38,907	467,221	NA	70	506,479	3,158	NA	(s)	2	NA
1980 Total	569,274	29,051	391,163	NA	179	421,110	3,682	NA	3	2	NA
1985 Total	693,841	14,635	158,779	NA	231	174,571	3,044	NA	8	7	NA
1990 Total ^k	782,567	16,567	184,915	26	1,008	206,550	3,245	11	129	188	(s)
1995 Total	850,230	18,553	90,023	499	2,674	122,447	4,237	24	125	296	2
2000 Total	985,821	30,016	138,513	454	3,275	185,358	5,206	25	134	318	1
2005 Total	1,037,485	19,675	139,409	2,685	8,083	202,184	5,869	84	185	221	123
2010 Total	975,052	13,790	24,503	1,877	4,777	64,055	7,387	52	196	264	124
2011 Total	932,484	11,021	14,803	1,658	4,837	51,667	7,574	50	182	255	143
2012 Total	823,551	9,080	12,203	1,339	2,974	37,495	9,111	54	190	262	143
2013 Total	857,962	9,598	12,283	1,489	4,285	44,794	8,191	60	207	262	139
2014 Total	851,602	14,235	15,132	2,208	4,132	52,235	8,146	44	251	279	137
2015 Total	738,444	12,193	14,929	2,131	3,907	48,787	9,613	44	244	281	136
2016 Total	678,554	9,510	11,242	1,322	4,138	42,763	9,985	45	224	281	139
2017 Total	664,993	9,481	10,464	1,375	3,399	38,318	9,266	46	229	280	132
2018 Total	637,217	13,967	12,446	1,855	3,549	46,013	10,599	47	221	275	136
2019 Total	538,606	9,336	9,352	1,750	2,655	33,712	11,299	47	201	248	145
2020 Total	435,827	7,673	8,382	1,543	3,057	32,885	11,632	40	185	242	144
2021 Total	501,435	10,359	9,115	1,835	3,075	36,686	11,229	40	197	229	134
2022 January	48,805	2,563	2,425	228	239	6,410	949	3	18	16	7
February	40,063	1,044	859	136	254	3,307	804	3	17	15	6
March	34,498	840	738	133	216	2,788	777	3	16	16	7
April	31,012	672	598	109	223	2,495	743	4	14	14	7
May	35,264	810	686	63	244	2,778	923	4	15	14	7
June	41,817	900	631	139	278	3,060	1,145	3	17	15	7
July	49,556	921	886	174	211	3,034	1,405	4	19	15	7
August	48,469	865	821	183	239	3,062	1,380	3	19	15	7
September	37,409	695	870	144	279	3,102	1,125	3	16	14	6
October	31,554	731	912	151	260	3,096	946	3	14	14	6
November	32,503	763	791	126	228	2,821	902	3	15	14	6
December	41,883	3,658	1,815	278	295	7,226	992	3	17	15	7
Total	472,834	14,463	12,031	1,864	2,965	43,181	12,092	39	198	176	81
2023 January	35,569	817	792	168	178	2,666	963	3	17	15	7
February	26,903	1,063	1,134	190	166	3,215	866	3	15	14	6
March	28,758	703	794	141	135	2,315	936	3	16	14	7
April	22,900	711	748	128	128	2,226	862	3	12	13	6
May	25,509	819	755	98	146	2,402	989	4	14	14	7
June	33,579	751	774	131	164	2,477	1,177	4	15	14	7
July	44,480	704	912	137	266	3,083	1,473	4	16	14	7
August	43,954	802	833	127	267	3,096	1,470	4	16	14	7
September	34,277	615	896	132	241	2,850	1,198	3	13	13	6
October	29,618	685	979	149	125	2,440	1,015	3	12	14	7
November	29,584	727	797	124	80	2,050	962	3	13	14	7
December	32,076	767	789	121	149	2,421	1,032	4	15	15	7
Total	387,205	9,165	10,202	1,647	2,045	31,241	12,940	40	174	168	80
2024 January	42,490	1,693	1,060	249	145	3,729	1,137	3	15	14	7
February	25,963	596	717	113	116	2,006	917	2	12	13	6
March	22,323	652	705	123	64	1,803	922	3	12	13	6
April	21,288	925	705	347	102	2,488	882	3	11	12	6
May	26,253	825	785	91	120	2,303	1,046	2	13	13	6
June	34,464	786	804	105	169	2,539	1,244	3	13	13	6
July	40,519	857	886	116	185	2,784	1,534	3	14	13	7
August	39,471	935	857	111	183	2,816	1,494	3	14	14	7
September	31,584	675	815	87	109	2,121	1,228	3	13	13	6
October	27,505	762	872	91	NM	NM	1,071	3	11	13	6
10-Month Total ...	311,860	8,707	8,207	1,431	1,270	24,697	11,475	28	129	131	63
2023 10-Month Total ...	325,546	7,672	8,616	1,402	1,816	26,770	10,947	33	146	139	66
2022 10-Month Total ...	398,447	10,042	9,425	1,459	2,442	33,133	10,197	34	165	148	67

^a Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

^b 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.

^c 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.

^d Jet fuel, kerosene, other petroleum liquids, waste oil, and, beginning in 2011, propane.

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

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

^g Blast furnace gas, and other manufactured and waste gases derived from fossil fuels. Through 2010, also includes propane gas.

^h Wood and wood-derived fuels.

ⁱ 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).

^j 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).

^k Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.

NA=Not available. NM=Not meaningful. (s)=Less than 0.5 trillion Btu.

Notes: • Data are for utility-scale facilities. See Note 1, "Coverage of Electricity Statistics," at end of section. • 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. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: See end of section.

Table 7.4c Consumption of Selected Combustible Fuels for Electricity Generation and Useful Thermal Output: Commercial and Industrial Sectors (Subset of Table 7.4a)

	Commercial Sector ^a				Industrial Sector ^b						
	Coal ^c	Petroleum ^d	Natural Gas ^e	Biomass	Coal ^c	Petroleum ^d	Natural Gas ^e	Other Fossil Gases ^g	Biomass		Other ⁱ
				Waste ^f					Wood ^h	Waste ^f	
Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu	Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu				
1990 Total	1,191	2,056	46	28	27,781	36,159	1,055	275	1,125	41	86
1995 Total	1,419	1,245	78	40	29,363	34,448	1,258	290	1,255	38	95
2000 Total	1,547	1,615	85	47	28,031	30,520	1,386	331	1,244	35	108
2005 Total	1,922	1,630	68	34	25,875	27,380	1,084	264	1,166	34	94
2010 Total	1,720	437	86	36	24,638	10,740	1,029	210	1,029	47	91
2011 Total	1,668	333	87	43	22,319	9,610	1,063	232	1,057	43	94
2012 Total	1,450	457	111	45	20,065	12,853	1,149	249	1,082	47	81
2013 Total	1,356	887	118	47	19,761	12,697	1,170	246	1,109	67	69
2014 Total	1,063	758	119	47	19,076	10,112	1,145	260	1,122	70	72
2015 Total	798	622	116	47	16,984	8,600	1,222	246	1,103	70	73
2016 Total	683	404	127	48	14,720	8,273	1,209	251	1,100	54	70
2017 Total	610	516	154	48	12,975	7,209	1,257	253	1,069	47	65
2018 Total	577	681	135	47	12,233	7,294	1,314	306	1,065	45	62
2019 Total	519	707	135	39	10,892	6,393	1,374	234	1,040	35	61
2020 Total	473	527	131	38	9,453	5,609	1,458	229	989	39	55
2021 Total	534	614	117	39	9,700	5,555	1,379	224	999	41	55
2022 January	56	168	11	6	881	540	124	19	83	4	3
February	55	57	10	6	762	515	108	17	75	4	3
March	37	57	10	6	845	599	115	19	78	4	3
April	25	52	9	6	765	603	108	17	78	4	2
May	27	65	9	6	824	632	111	19	81	4	3
June	42	48	10	6	781	608	112	18	79	2	3
July	44	66	12	7	787	630	121	19	83	2	3
August	46	48	12	6	803	581	122	19	81	3	3
September	47	25	10	6	751	562	111	18	74	2	2
October	46	28	9	6	791	630	112	18	74	3	2
November	52	35	10	6	746	642	115	18	77	4	3
December	57	181	11	6	828	900	117	18	78	4	2
Total	535	830	123	75	9,563	7,441	1,375	220	941	40	32
2023 January	51	95	10	6	808	606	120	19	79	4	2
February	44	68	9	5	694	527	107	18	69	3	2
March	39	42	10	6	714	620	117	20	75	3	2
April	36	18	9	6	664	567	106	19	68	3	2
May	28	25	9	6	691	425	113	20	73	3	2
June	22	27	10	6	672	406	117	19	67	2	2
July	26	29	11	6	718	429	122	20	71	2	2
August	26	29	11	6	677	474	122	20	74	2	2
September	27	32	10	6	671	442	117	22	71	2	2
October	27	30	10	6	668	438	114	21	69	3	2
November	34	52	10	6	691	464	117	18	74	3	3
December	39	135	11	7	718	494	126	19	76	4	3
Total	400	582	119	72	8,384	5,891	1,396	236	867	33	26
2024 January	54	121	11	6	780	646	131	19	73	3	2
February	39	61	10	6	698	422	114	17	66	3	2
March	36	81	10	6	792	408	115	18	73	3	2
April	30	61	9	6	659	460	113	16	72	3	2
May	19	86	9	6	658	460	113	19	72	3	1
June	29	96	10	6	689	484	110	18	67	2	2
July	31	NM	10	6	726	431	117	18	69	2	3
August	32	17	10	6	736	448	121	19	74	2	2
September	31	14	9	5	683	394	113	16	72	2	1
October	29	17	9	6	711	412	110	15	68	3	1
10-Month Total ...	330	572	98	58	7,134	4,564	1,156	175	706	26	18
2023 10-Month Total ...	327	396	99	60	6,976	4,934	1,153	199	718	26	20
2022 10-Month Total ...	425	614	103	63	7,990	5,899	1,144	184	787	32	27

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

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

^c Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

^d Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, waste oil, and, beginning in 2011, propane.

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

^f 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).

^g Blast furnace gas, and other manufactured and waste gases derived from fossil fuels. Through 2010, also includes propane gas.

^h Wood and wood-derived fuels.

ⁱ 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).

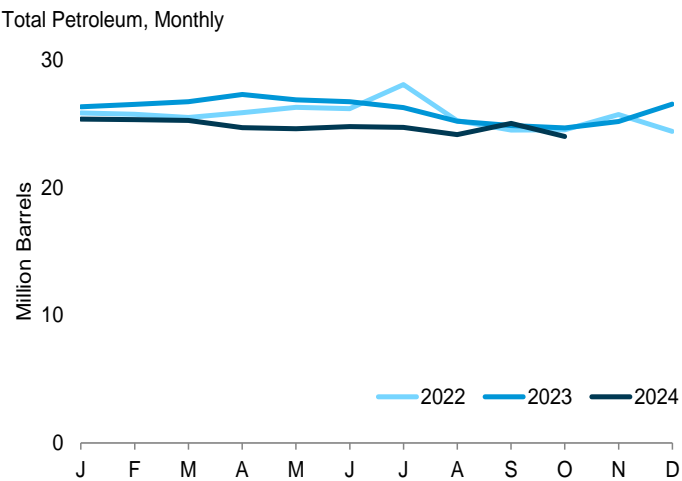
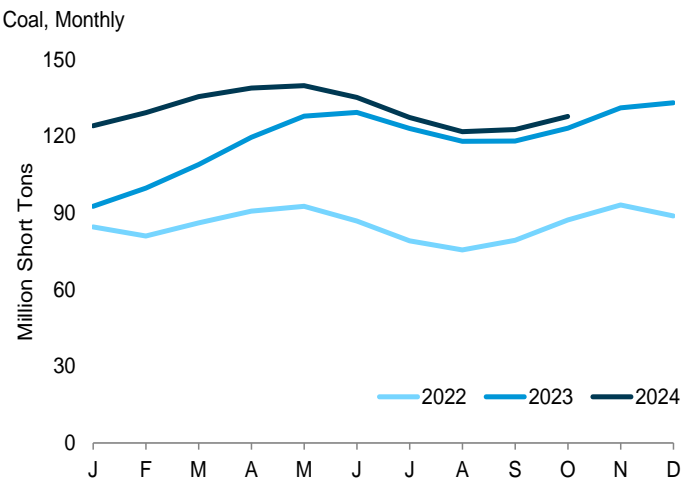
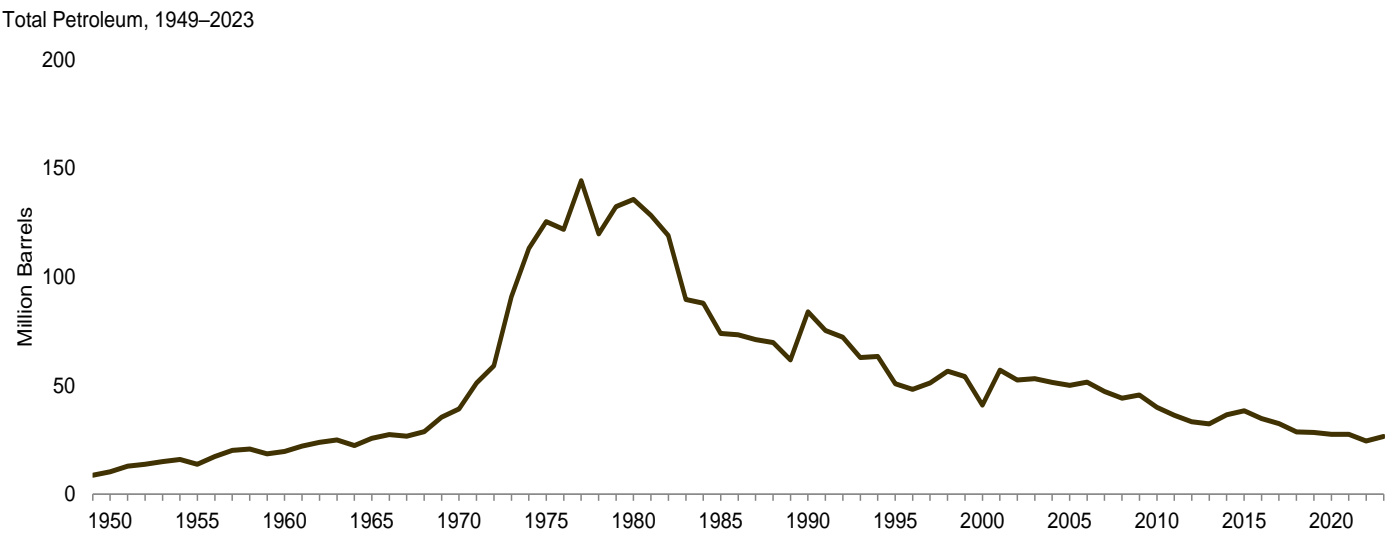
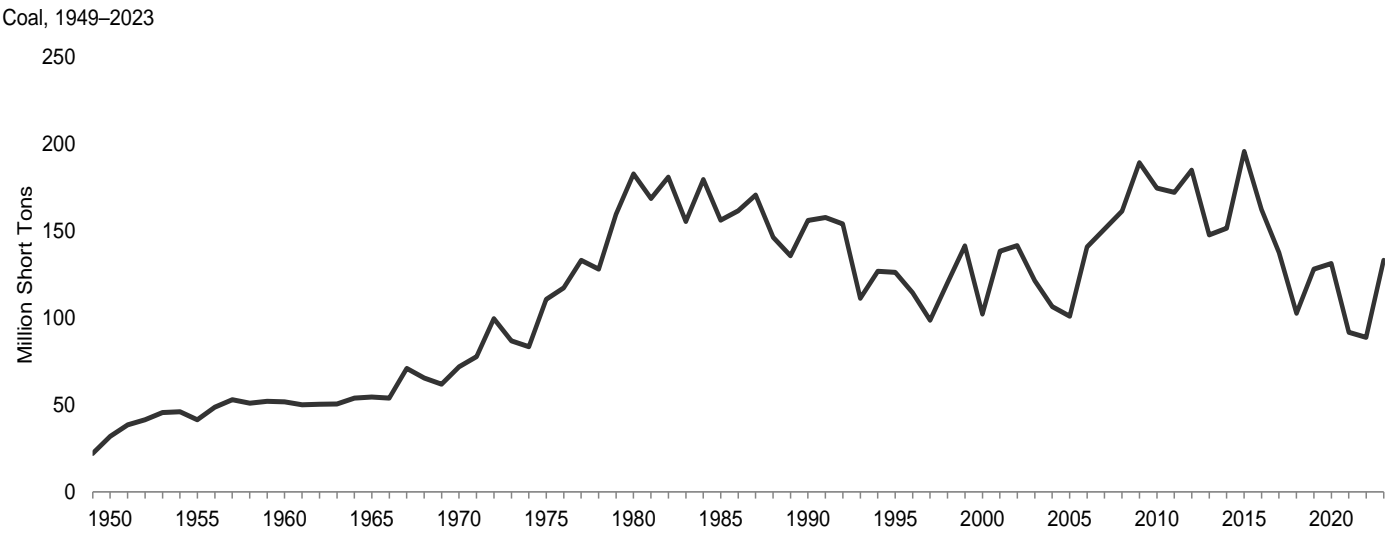
NM=Not meaningful.

Notes: • Data are for utility-scale facilities. See Note 1, "Coverage of Electricity Statistics," at end of section. • See 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. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual and monthly data beginning in 1989.

Sources: • **1989–1997:** U.S. 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." • **2004–2007:** EIA, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report." • **2008 forward:** EIA, Form EIA-923, "Power Plant Operations Report."

Figure 7.5 Stocks of Coal and Petroleum: Electric Power Sector



Note: Data are for utility-sale facilities.
Web Page: <http://www.eia.gov/totalenergy/data/monthly/#electricity>.
Source: Table 7.5.

Table 7.5 Stocks of Coal and Petroleum: Electric Power Sector

	Coal ^a	Petroleum				
		Distillate Fuel Oil ^b	Residual Fuel Oil ^c	Other Liquids ^d	Petroleum Coke ^e	Total ^{e,f}
	Thousand Short Tons	Thousand Barrels			Thousand Short Tons	Thousand Barrels
1950 Year	31,842	NA	NA	NA	NA	10,201
1955 Year	41,391	NA	NA	NA	NA	13,671
1960 Year	51,735	NA	NA	NA	NA	19,572
1965 Year	54,525	NA	NA	NA	NA	25,647
1970 Year	71,908	NA	NA	NA	239	39,151
1975 Year	110,724	16,432	108,825	NA	31	125,413
1980 Year	183,010	30,023	105,351	NA	52	135,635
1985 Year	156,376	16,386	57,304	NA	49	73,933
1990 Year	156,166	16,471	67,030	NA	94	83,970
1995 Year	126,304	15,392	35,102	NA	65	50,821
2000 Year ^g	102,296	15,127	24,748	NA	211	40,932
2005 Year	101,137	18,778	27,624	NA	530	50,062
2010 Year	174,917	16,758	16,629	1,454	1,019	39,936
2011 Year	172,387	16,649	15,491	1,603	508	36,282
2012 Year	185,116	16,433	12,999	1,430	495	33,336
2013 Year	147,884	16,068	12,926	1,393	390	32,336
2014 Year	151,792	18,309	12,764	1,249	827	36,459
2015 Year	195,912	17,955	12,566	1,173	1,340	38,396
2016 Year	162,476	17,855	11,789	949	845	34,818
2017 Year	137,721	16,342	10,930	816	864	32,407
2018 Year	102,793	16,436	8,785	756	539	28,674
2019 Year	128,102	16,733	8,549	678	471	28,317
2020 Year	131,431	17,116	8,269	678	298	27,552
2021 Year	91,884	18,220	7,038	744	302	27,513
2022 January	84,541	17,370	6,108	688	336	25,848
February	81,034	17,448	6,106	697	299	25,745
March	86,143	17,332	5,772	652	350	25,503
April	90,746	17,185	5,920	654	424	25,877
May	92,692	17,530	5,816	680	454	26,295
June	86,869	17,297	6,119	662	423	26,195
July	79,172	19,050	6,070	587	474	28,075
August	75,570	16,460	5,834	501	490	25,243
September	79,354	16,218	5,775	490	405	24,508
October	87,342	16,263	6,014	494	351	24,524
November	93,203	16,970	6,192	517	408	25,718
December	88,861	16,521	5,777	513	318	24,404
2023 January	92,714	17,716	6,116	578	385	26,335
February	99,760	17,879	6,190	554	380	26,522
March	109,041	17,475	6,056	528	534	26,731
April	119,671	17,419	6,103	546	644	27,286
May	128,001	17,331	5,995	556	600	26,881
June	129,404	17,536	5,977	554	533	26,730
July	123,131	17,393	6,144	527	440	26,266
August	118,113	16,777	6,120	520	356	25,195
September	118,271	16,837	6,115	517	279	24,863
October	123,265	16,796	5,944	516	284	24,675
November	131,208	16,888	5,907	540	369	25,180
December	133,253	17,628	6,058	717	427	26,539
2024 January	124,175	17,337	5,846	623	312	25,365
February	129,330	17,234	5,941	610	308	25,327
March	135,677	17,044	5,966	597	333	25,272
April	139,008	16,677	5,989	484	309	24,693
May	139,985	16,657	5,926	481	312	24,622
June	135,366	16,912	5,801	463	322	24,786
July	127,493	16,765	5,568	465	384	24,720
August	121,857	16,309	5,427	460	390	24,148
September	122,752	17,036	5,331	447	444	25,032
October	127,917	16,151	5,280	427	428	23,998

^a Anthracite, bituminous coal, subbituminous coal, and lignite; excludes waste coal.

^b 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.

^c 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.

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

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

^f Distillate fuel oil and residual fuel oil. Beginning in 1970, also includes petroleum coke. Beginning in 2002, also includes other liquids.

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

NA=Not available.

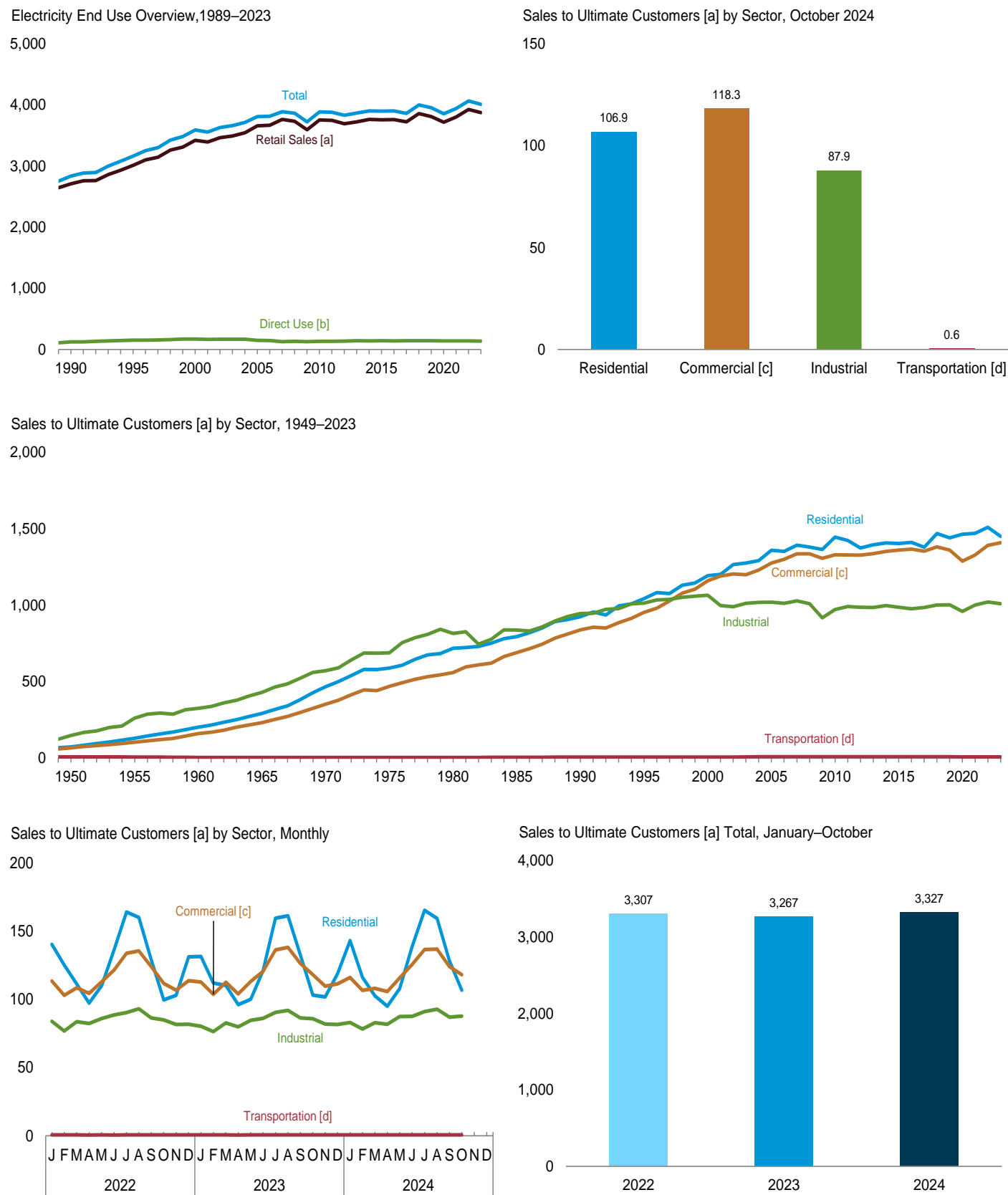
Notes: • Data are for utility-scale facilities. See Note 1, "Coverage of Electricity Statistics," at end of section. • The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose

primary business is to sell electricity, or electricity and heat, to the public. • Stocks are at end of period. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

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:** U.S. 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." • **2004–2007:** EIA, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report." • **2008 forward:** EIA, Form EIA-923, "Power Plant Operations Report."

Figure 7.6 Electricity End Use
(Billion Kilowatthours)



[a] Electricity sales to ultimate customers reported by utilities and other energy service providers.
[b] See “Direct Use” in Glossary.
[c] Commercial sector, including public street and highway lighting, inter-

departmental sales, and other sales to public authorities.
[d] Transportation sector, including sales to railroads and railways.
Web Page: <http://www.eia.gov/totalenergy/data/monthly/#electricity>.
Source: Table 7.6.

Table 7.6 Electricity End Use and Electric Vehicle Use
(Million Kilowatthours)

	Sales to Ultimate Customers ^a					Direct Use ^g	Total End Use ^h	Electric Vehicle Use ^{b,i}
	Residential ^b	Commercial ^{b,c}	Industrial ^{b,d}	Transportation ^e	Total Sales ^f			
1950 Total	72,200	E 65,971	146,479	E 6,793	291,443	NA	291,443	NA
1955 Total	128,401	E 102,547	259,974	E 5,826	496,748	NA	496,748	NA
1960 Total	201,463	E 159,144	324,402	E 3,066	688,075	NA	688,075	NA
1965 Total	291,013	E 231,126	428,727	E 2,923	953,789	NA	953,789	NA
1970 Total	466,291	E 352,041	570,854	E 3,115	1,392,300	NA	1,392,300	NA
1975 Total	588,140	E 468,296	687,680	E 2,974	1,747,091	NA	1,747,091	NA
1980 Total	717,495	558,643	815,067	3,244	2,094,449	NA	2,094,449	NA
1985 Total	793,934	689,121	836,772	4,147	2,323,974	NA	2,323,974	NA
1990 Total	924,019	838,263	945,522	4,751	2,712,555	124,529	2,837,084	NA
1995 Total	1,042,501	953,117	1,012,693	4,975	3,013,287	150,677	3,163,963	NA
2000 Total	1,192,446	1,159,347	1,064,239	5,382	3,421,414	170,943	3,592,357	NA
2005 Total	1,359,227	1,275,079	1,019,156	7,506	3,660,969	150,016	3,810,984	NA
2010 Total	1,445,708	1,330,199	971,221	7,712	3,754,841	131,910	3,886,752	NA
2011 Total	1,422,801	1,328,057	991,316	7,672	3,749,846	132,754	3,882,600	NA
2012 Total	1,374,515	1,327,101	985,714	7,320	3,694,650	137,657	3,832,306	NA
2013 Total	1,394,812	1,337,079	985,352	7,625	3,724,868	143,462	3,868,330	NA
2014 Total	1,407,208	1,352,158	997,576	7,758	3,764,700	138,574	3,903,274	NA
2015 Total	1,404,096	1,360,752	986,508	7,637	3,758,992	141,168	3,900,160	NA
2016 Total	1,411,058	1,367,191	976,715	7,497	3,762,462	139,837	3,902,298	NA
2017 Total	1,378,648	1,352,888	984,298	7,523	3,723,356	140,959	3,864,315	NA
2018 Total	1,469,093	1,381,755	1,000,673	7,665	3,859,185	143,904	4,003,089	E 1,582
2019 Total	1,440,289	1,360,877	1,002,353	7,632	3,811,150	143,270	3,954,421	E 2,060
2020 Total	1,464,605	1,287,440	959,082	6,548	3,717,674	R 138,246	R 3,855,921	E 2,900
2021 Total	1,470,487	1,328,439	1,000,613	6,334	3,805,874	138,915	3,944,789	E 3,519
2022 January	140,504	113,605	83,982	565	338,656	E 12,397	351,053	E 377
February	125,342	103,063	76,893	566	305,863	E 10,831	316,694	E 366
March	111,439	108,603	83,679	579	304,300	E 11,587	315,887	E 409
April	97,432	104,566	82,422	513	284,933	E 10,855	295,788	E 381
May	110,071	113,007	86,090	529	309,697	E 11,467	321,164	E 412
June	136,310	121,567	88,716	513	347,106	E 11,690	358,796	E 417
July	164,277	133,952	90,420	566	389,214	E 12,567	401,782	E 444
August	160,271	135,676	93,143	536	389,626	E 12,560	402,186	E 453
September	129,241	124,195	86,550	558	340,544	E 11,309	351,853	E 453
October	99,792	111,851	85,017	535	297,196	E 11,167	308,363	E 483
November	103,152	106,858	81,701	546	292,258	E 11,555	303,812	E 498
December	131,402	113,929	81,852	593	327,776	E 11,742	339,518	E 559
Total	1,509,233	1,390,873	1,020,464	6,599	3,927,169	139,726	4,066,895	E 5,252
2023 January	131,638	112,790	80,408	579	325,415	E 11,416	336,830	E 527
February	112,105	103,830	76,449	561	292,946	E 10,625	303,571	E 512
March	110,417	112,643	82,817	577	306,454	E 11,388	317,842	E 592
April	96,196	104,091	80,011	513	280,811	E 10,070	290,882	E 546
May	100,231	113,243	84,704	529	298,706	E 11,051	309,757	E 602
June	121,320	120,707	86,193	579	328,798	E 11,531	340,329	E 621
July	159,715	136,394	90,526	621	387,256	E 12,184	399,440	E 662
August	161,460	138,390	92,009	578	392,436	E 12,270	404,706	E 678
September	132,807	126,546	86,472	652	346,476	E 11,608	358,084	E 661
October	103,314	118,208	85,978	565	308,065	E 11,210	319,276	E 704
November	101,907	109,756	82,036	549	294,248	E 11,431	305,679	E 714
December	118,917	111,512	81,652	561	312,642	E 12,134	324,776	E 776
Total	1,450,025	1,408,109	1,009,256	6,864	3,874,253	136,918	4,011,172	E 7,596
2024 January	143,267	116,194	83,099	611	343,171	E 12,464	355,635	E 831
February	116,351	106,678	78,345	541	301,916	E 11,027	312,942	E 756
March	102,726	108,217	82,980	599	294,522	E 11,034	305,555	E 853
April	95,126	105,888	81,881	538	283,432	E 10,846	294,278	E 808
May	107,999	115,903	87,533	597	312,031	E 11,151	323,182	E 876
June	139,067	125,818	87,651	568	353,104	E 10,925	364,029	E 888
July	165,564	136,759	91,160	641	394,124	E 11,754	405,878	E 942
August	159,644	136,966	92,969	640	390,219	E 12,200	402,419	E 951
September	128,429	124,259	87,127	564	340,380	E 11,052	351,432	E 921
October	106,887	118,312	87,871	569	313,638	E 10,160	323,798	E 1,063
10-Month Total ...	1,265,061	1,194,994	860,616	5,867	3,326,537	E 112,611	3,439,148	E 8,891
2023 10-Month Total ...	1,229,202	1,186,840	845,568	5,753	3,267,363	E 113,353	3,380,716	E 6,105
2022 10-Month Total ...	1,274,679	1,170,085	856,911	5,460	3,307,136	E 116,429	3,423,564	E 4,195

^a Electricity sales to ultimate customers based on classes of service reported by electric utilities and, beginning in 1996, other energy service providers.

^b Electricity sales to the residential, commercial, and industrial sectors, based on class of service, including sales of electricity to operate and move electric vehicles. See Note 4, "Experimental Estimates of Electric Vehicle Use," at end of section.

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

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

^e Sales to public railroads and railway systems only. Excludes the estimated amount of electricity used to operate and move electric vehicles.

^f The sum of "Residential," "Commercial," "Industrial," and "Transportation."

^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.

^h The sum of "Total Sales to Ultimate Customers" and "Direct Use."

ⁱ Electricity used to operate and move on-road light-duty electric vehicles (less than or equal to 8,500 pounds). Excludes motor gasoline consumption by plug-in hybrid electric vehicles. Electric vehicle use is estimated independently and should not be added to the sales or total end use columns as it will result in double counting. See Note 4, "Experimental Estimates of Electric Vehicle Use," at end of section.

R=Revised. E=Estimate. NA=Not available.

Notes: • See Note 1, "Coverage of Electricity Statistics," at end of section. • See Note 4, "Experimental Estimates of Electric Vehicle Use," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: See end of section.

Table 7.7a Electric Net Summer Capacity: Total (All Sectors)
(Sum of Tables 7.7b, 7.7c, and 7.7d; Million Kilowatts)

	Fossil Fuels				Nuclear Electric Power	Hydro-electric Pumped Storage	Renewable Energy								Battery Storage	Total ^l
	Coal ^a	Petroleum ^b	Natural Gas ^c	Total ^d			Conventional Hydro-electric Power ^e	Biomass		Geo-thermal	Solar ^h	Wind	Total			
								Wood ^f	Waste ^g							
1950 Year	NA	NA	NA	50.0	0.0	(^e)	19.2	(s)	(j)	NA	NA	NA	19.2	NA	69.2	
1955 Year	NA	NA	NA	86.8	.0	(^e)	27.4	(s)	(j)	NA	NA	NA	27.4	NA	114.2	
1960 Year	NA	NA	NA	130.8	.4	(^e)	35.8	.1	(j)	(s)	NA	NA	35.9	NA	167.1	
1965 Year	NA	NA	NA	182.9	.8	(^e)	51.0	.1	(j)	(s)	NA	NA	51.1	NA	234.8	
1970 Year	NA	NA	NA	265.4	7.0	(^e)	63.8	.1	(j)	.1	NA	NA	64.0	NA	336.4	
1975 Year	NA	NA	NA	375.1	37.3	(^e)	78.4	.1	(j)	.5	NA	NA	79.0	NA	491.3	
1980 Year	NA	NA	NA	444.1	51.8	(^e)	81.7	.1	(j)	.9	NA	NA	82.7	NA	578.6	
1985 Year	NA	NA	NA	485.0	79.4	(^e)	88.9	.2	(j)	1.6	(^k)	(s)	90.8	NA	655.2	
1990 Year ^l	307.4	77.9	140.8	527.8	99.6	19.5	73.9	5.5	2.5	2.7	.3	1.8	86.8	NA	734.1	
1995 Year	311.4	66.6	174.5	554.2	99.5	21.4	78.6	6.8	3.5	3.0	.3	1.7	93.9	NA	769.5	
2000 Year	315.1	61.8	219.6	598.9	97.9	19.5	79.4	6.1	3.9	2.8	.4	2.4	94.9	NA	811.7	
2005 Year	313.4	58.5	383.1	757.1	100.0	21.3	77.5	6.2	3.6	2.3	.4	8.7	98.7	NA	978.0	
2010 Year	317.3	55.6	405.1	780.3	101.2	22.2	78.8	7.0	4.4	2.4	.9	39.1	132.6	(s)	1,039.1	
2011 Year	317.6	51.5	415.2	786.2	101.4	22.3	78.7	7.1	4.5	2.4	1.5	45.7	139.9	.1	1,051.3	
2012 Year	309.7	47.2	422.4	781.2	101.9	22.4	78.7	7.5	4.8	2.6	3.2	59.1	155.9	.1	1,063.0	
2013 Year	303.3	43.5	425.4	774.3	99.2	22.4	79.2	8.4	5.0	2.6	6.6	60.0	161.8	.1	1,060.1	
2014 Year	299.1	41.1	432.2	774.3	98.6	22.5	79.7	8.4	5.2	2.5	10.3	64.2	170.3	.2	1,068.4	
2015 Year	279.7	36.8	439.4	758.5	98.7	22.6	79.7	9.0	5.1	2.5	13.7	72.6	182.5	.3	1,064.1	
2016 Year	266.6	34.4	446.8	750.3	99.6	22.8	79.9	8.9	5.1	2.5	22.0	81.3	199.7	.6	1,074.3	
2017 Year	256.5	33.3	456.0	748.2	99.6	22.8	79.8	8.8	5.1	2.5	27.0	87.6	210.8	.7	1,084.4	
2018 Year	242.8	32.2	470.2	747.8	99.4	22.8	79.9	8.7	5.0	2.4	31.9	94.4	222.3	.9	1,094.7	
2019 Year	228.7	31.4	476.6	739.1	98.1	22.8	79.8	8.4	4.7	2.6	37.5	103.6	236.5	1.0	1,099.1	
2020 Year	215.6	27.6	485.8	731.2	96.5	23.0	79.9	8.3	4.6	2.6	48.1	118.4	261.9	1.5	1,115.7	
2021 Year	209.8	28.2	491.9	731.8	95.5	23.0	79.9	7.9	4.5	2.6	61.6	132.8	289.2	4.7	1,145.9	
2022 January	202.0	31.3	498.4	733.4	95.4	23.0	80.0	7.8	4.5	2.6	62.8	133.7	291.5	5.0	1,149.7	
February	202.0	31.3	498.5	733.4	95.4	23.0	80.0	7.8	4.5	2.6	63.2	134.0	292.0	5.1	1,150.4	
March	200.8	31.2	498.2	732.0	95.4	23.0	80.1	7.8	4.4	2.6	64.1	135.1	294.1	5.3	1,151.3	
April	200.4	31.1	498.2	731.5	95.4	23.0	80.1	7.8	4.4	2.6	64.6	137.4	296.9	6.1	1,154.3	
May	198.9	31.1	500.4	732.1	95.4	23.0	80.1	7.8	4.4	2.6	65.4	137.6	297.9	6.1	1,155.9	
June	195.9	31.0	501.5	730.1	94.7	23.0	80.1	7.8	4.4	2.6	66.6	138.0	299.5	6.6	1,155.3	
July	195.9	31.0	502.6	731.2	94.7	23.0	80.1	7.8	4.4	2.6	67.2	138.0	300.1	6.9	1,157.3	
August	194.9	31.0	502.5	730.0	94.7	23.0	80.1	7.8	4.4	2.7	67.9	138.0	300.8	7.5	1,157.5	
September	192.4	30.9	502.4	727.5	94.7	23.0	80.1	7.8	4.4	2.7	68.7	138.0	301.6	8.0	1,156.2	
October	192.4	30.8	502.4	727.4	94.7	23.0	80.1	7.8	4.4	2.6	69.2	138.0	302.1	8.6	1,157.3	
November	192.3	30.8	502.7	727.6	94.7	23.0	80.1	7.8	4.4	2.6	70.0	139.7	304.7	8.7	1,160.1	
December	189.3	30.8	502.4	724.2	94.7	23.0	80.1	7.8	4.3	2.6	72.9	141.4	309.1	9.0	1,161.4	
2023 January	186.8	29.6	503.6	722.0	94.6	23.1	80.0	7.9	4.3	2.7	74.3	141.5	310.7	9.2	1,161.0	
February	186.8	29.6	504.9	723.2	94.6	23.1	80.0	7.9	4.2	2.7	74.9	142.2	311.9	9.3	1,163.5	
March	186.0	29.6	504.8	722.3	94.6	23.1	80.0	7.9	4.2	2.6	75.4	142.7	312.8	9.6	1,163.9	
April	186.0	29.6	506.4	723.9	94.6	23.1	80.0	7.9	4.2	2.7	76.4	143.0	314.1	9.8	1,167.0	
May	184.5	29.6	505.5	721.5	94.6	23.1	80.0	7.9	4.2	2.7	77.5	143.8	315.9	9.9	1,166.5	
June	182.4	29.4	506.4	720.1	94.6	23.1	80.0	7.9	4.2	2.7	79.1	143.7	317.5	10.8	1,167.6	
July	181.7	29.4	507.2	720.2	95.7	23.1	80.0	7.8	4.2	2.7	80.4	144.2	319.3	12.3	1,172.1	
August	181.1	29.5	507.2	719.6	95.7	23.1	80.0	7.8	4.2	2.7	81.1	144.3	320.0	12.8	1,172.8	
September	180.2	29.5	506.8	718.4	95.7	23.1	80.0	7.8	4.2	2.7	82.1	144.4	321.1	13.5	1,173.3	
October	179.8	29.5	506.8	717.9	95.7	23.1	80.0	7.8	4.1	2.7	83.9	145.2	323.7	13.8	1,175.7	
November	179.8	29.5	507.5	718.6	95.7	23.1	80.0	7.7	4.2	2.7	84.9	145.2	324.6	14.2	1,177.7	
December	178.4	29.4	507.5	717.3	95.7	23.1	80.0	7.7	4.1	2.7	92.0	147.4	334.0	16.0	1,187.6	
2024 January	177.4	29.5	508.6	717.3	95.7	23.1	79.8	7.7	4.1	2.7	94.7	148.3	337.4	15.8	1,190.8	
February	177.4	29.5	508.6	717.3	95.7	23.1	79.8	7.7	4.1	2.7	95.3	148.5	338.2	15.9	1,191.6	
March	177.2	29.5	507.8	716.4	95.7	23.2	79.8	7.7	4.1	2.7	98.2	148.7	341.3	16.9	1,194.9	
April	176.6	29.4	507.8	715.7	96.8	23.2	79.8	7.7	4.1	2.7	99.6	149.8	343.8	17.6	1,198.5	
May	176.1	29.4	507.9	715.3	96.8	23.2	79.8	7.7	4.1	2.7	102.0	150.0	346.4	18.7	1,201.8	
June	175.9	29.3	506.5	713.6	96.8	23.2	79.8	7.7	4.1	2.7	104.7	150.1	349.0	19.9	1,204.1	
July	175.9	29.3	507.3	714.4	96.8	23.2	79.8	7.7	4.0	2.7	105.6	150.8	350.7	20.6	1,207.2	
August	175.9	29.3	507.3	714.4	96.8	23.2	79.8	7.7	4.0	2.7	106.8	151.0	352.0	21.6	1,209.5	
September	175.6	29.3	507.3	714.2	96.8	23.2	79.8	7.7	4.0	2.7	109.0	151.1	354.3	22.4	1,212.4	
October	175.6	29.3	507.4	714.3	96.8	23.2	79.8	7.7	4.0	2.7	112.5	151.2	358.0	23.4	1,217.2	

^a Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

^b Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, waste oil, and, beginning in 2011, propane.

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

^d Includes other fossil gases (blast furnace gas, other manufactured and waste gases derived from fossil fuels, and, through 2010, propane gas), which are not separately shown.

^e Through 1988, hydroelectric pumped storage is included in "Conventional Hydroelectric Power."

^f Wood and wood-derived fuels.

^g 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).

^h Electric net summer capacity from solar thermal and photovoltaic (PV) energy at utility-scale facilities. Does not include small-scale solar photovoltaic capacity.

ⁱ Includes chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, flywheels, and, beginning in 2001, non-renewable waste (municipal

solid waste from non-biogenic sources, and tire-derived fuels), which are not separately shown.

^j Through 1984, waste is included in "Wood."

^k Through 1988, solar is included in "Wind."

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

NA=Not available. (s)=Less than 0.05 million kilowatts.

Notes: • Data are at end of period. • For plants that use multiple sources of energy, capacity is assigned to the energy source reported as the predominant one.

• Data are for utility-scale facilities. See Note 1, "Coverage of Electricity Statistics," at end of section. • See "Net summer capacity" in Glossary. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: Tables 7.7b–7.7d.

Table 7.7b Electric Net Summer Capacity: Electric Power Sector
(Subset of Table 7.7a; Million Kilowatts)

	Fossil Fuels				Nuclear Electric Power	Hydro-electric Pumped Storage	Renewable Energy								Battery Storage	Total ⁱ
	Coal ^a	Petroleum ^b	Natural Gas ^c	Total ^d			Conventional Hydro-electric Power ^e	Biomass		Geo-thermal	Solar ^h	Wind	Total			
								Wood ^f	Waste ^g							
1950 Year	NA	NA	NA	50.0	0.0	(^e)	19.2	(s)	(j)	NA	NA	NA	19.2	NA	69.2	
1955 Year	NA	NA	NA	86.8	.0	(^e)	27.4	(s)	(j)	NA	NA	NA	27.4	NA	114.2	
1960 Year	NA	NA	NA	130.8	.4	(^e)	35.8	.1	(j)	(s)	NA	NA	35.9	NA	167.1	
1965 Year	NA	NA	NA	182.9	.8	(^e)	51.0	.1	(j)	(s)	NA	NA	51.1	NA	234.8	
1970 Year	NA	NA	NA	265.4	7.0	(^e)	63.8	.1	(j)	.1	NA	NA	64.0	NA	336.4	
1975 Year	NA	NA	NA	375.1	37.3	(^e)	78.4	.1	(j)	.5	NA	NA	79.0	NA	491.3	
1980 Year	NA	NA	NA	444.1	51.8	(^e)	81.7	.1	(j)	.9	NA	NA	82.7	NA	578.6	
1985 Year	NA	NA	NA	485.0	79.4	(^e)	88.9	.2	(j)	1.6	(^k)	(s)	90.8	NA	655.2	
1990 Year ^l	302.3	76.8	129.9	509.3	99.6		73.3	1.2	2.1	2.7	.3	1.8	81.4	NA	709.9	
1995 Year	306.0	65.4	161.9	533.7	99.5		77.4	1.8	3.0	3.0	.3	1.7	87.3	NA	741.8	
2000 Year	310.2	60.7	204.7	575.9	97.9		78.2	1.7	3.3	2.8	.4	2.4	88.8	NA	782.1	
2005 Year	309.0	57.4	367.5	734.3	100.0		76.9	1.6	3.0	2.3	.4	8.7	92.9	NA	948.6	
2010 Year	312.9	54.6	389.8	757.5	101.2		78.5	2.1	3.7	2.4	.9	39.1	126.6	(s)	1,009.2	
2011 Year	313.7	50.4	399.7	763.8	101.4		78.3	2.0	3.8	2.4	1.5	45.6	133.6	.1	1,021.3	
2012 Year	305.9	45.7	406.6	758.2	101.9		78.1	2.3	4.0	2.6	3.1	59.0	149.0	.1	1,032.0	
2013 Year	299.9	42.4	409.2	751.7	99.2		78.5	2.9	4.1	2.6	6.4	59.9	154.5	.1	1,029.0	
2014 Year	295.9	40.1	415.6	751.7	98.6		79.4	2.9	4.2	2.5	10.1	64.2	163.3	.2	1,037.6	
2015 Year	277.0	35.7	423.0	736.0	98.7		79.4	3.1	4.2	2.5	13.4	72.5	175.0	.3	1,032.9	
2016 Year	264.3	33.2	430.4	728.2	99.6		79.6	3.2	4.2	2.5	21.6	81.2	192.3	.6	1,043.6	
2017 Year	254.4	32.1	439.5	726.3	99.6		79.4	3.0	4.2	2.5	26.6	87.5	203.3	.7	1,053.6	
2018 Year	240.7	30.8	453.7	725.6	99.4		79.6	2.9	4.2	2.4	31.5	94.3	214.8	.8	1,063.7	
2019 Year	226.8	30.0	459.5	716.7	98.1		79.5	2.7	3.9	2.5	37.0	103.5	229.1	1.0	1,068.0	
2020 Year	214.0	26.2	468.2	708.7	96.5		79.6	2.7	3.8	2.5	47.6	118.0	254.3	1.5	1,084.2	
2021 Year	208.3	26.8	473.5	708.9	95.5		79.6	2.4	3.7	2.5	61.0	132.6	281.9	4.7	1,114.3	
2022 January	200.6	29.8	479.6	710.4	95.4	23.0	79.7	2.4	3.1	2.6	62.3	133.6	283.7	4.9	1,117.6	
February	200.6	29.8	479.7	710.4	95.4	23.0	79.7	2.4	3.1	2.6	62.6	133.8	284.3	5.0	1,118.3	
March	199.4	29.7	479.4	708.8	95.4	23.0	79.8	2.4	3.0	2.6	63.6	135.0	286.4	5.3	1,119.1	
April	198.9	29.6	479.4	708.3	95.4	23.0	79.8	2.4	3.0	2.6	64.0	137.3	289.1	6.0	1,122.1	
May	197.4	29.6	481.6	708.9	95.4	23.0	79.8	2.4	3.0	2.6	64.8	137.5	290.1	6.0	1,123.7	
June	194.4	29.4	482.7	706.9	94.7	23.0	79.8	2.4	3.0	2.6	66.0	137.9	291.7	6.5	1,123.1	
July	194.4	29.4	483.8	708.0	94.7	23.0	79.8	2.4	3.0	2.6	66.6	137.9	292.3	6.9	1,125.1	
August	193.4	29.4	483.7	706.9	94.7	23.0	79.8	2.4	3.0	2.7	67.3	137.9	293.0	7.4	1,125.2	
September	191.0	29.4	483.7	704.4	94.7	23.0	79.8	2.4	3.0	2.7	68.1	137.9	293.8	7.9	1,123.9	
October	191.0	29.3	483.7	704.3	94.7	23.0	79.8	2.4	3.0	2.6	68.6	137.9	294.3	8.6	1,125.1	
November	190.8	29.3	484.0	704.5	94.7	23.0	79.8	2.4	3.0	2.6	69.4	139.6	296.8	8.7	1,127.8	
December	187.9	29.2	483.6	701.1	94.7	23.0	79.8	2.4	2.9	2.6	72.2	141.3	301.3	8.9	1,129.2	
2023 January	185.4	28.2	484.9	698.8	94.6	23.1	79.7	2.4	2.9	2.7	73.7	141.4	302.8	9.2	1,128.6	
February	185.4	28.2	486.0	700.0	94.6	23.1	79.7	2.4	2.8	2.7	74.3	142.1	303.9	9.3	1,131.0	
March	184.6	28.2	486.1	699.2	94.6	23.1	79.7	2.4	2.8	2.6	74.8	142.5	304.8	9.6	1,131.5	
April	184.6	28.2	487.6	700.8	94.6	23.1	79.7	2.4	2.8	2.7	75.7	142.8	306.2	9.7	1,134.6	
May	183.1	28.1	486.7	698.3	94.6	23.1	79.7	2.4	2.8	2.7	76.8	143.6	308.0	9.9	1,134.2	
June	180.9	28.0	487.7	697.0	94.6	23.1	79.7	2.4	2.8	2.7	78.5	143.6	309.6	10.8	1,135.4	
July	180.3	28.0	488.5	697.2	95.7	23.1	79.7	2.3	2.8	2.7	79.8	144.1	311.4	12.3	1,139.8	
August	179.7	28.0	488.5	696.6	95.7	23.1	79.7	2.3	2.8	2.7	80.5	144.2	312.1	12.8	1,140.5	
September	178.8	28.0	488.1	695.3	95.7	23.1	79.7	2.3	2.8	2.7	81.5	144.3	313.2	13.5	1,141.1	
October	178.3	28.0	488.1	694.8	95.7	23.1	79.7	2.3	2.8	2.7	83.2	145.1	315.8	13.7	1,143.4	
November	178.3	28.0	488.8	695.5	95.7	23.1	79.7	2.3	2.8	2.7	84.2	145.1	316.8	14.1	1,145.5	
December	177.0	28.0	488.9	694.3	95.7	23.1	79.7	2.3	2.7	2.7	91.3	147.3	326.1	15.9	1,155.4	
2024 January	176.0	28.0	489.9	694.3	95.7	23.1	79.5	2.3	2.7	2.7	94.0	148.2	329.5	15.8	1,158.6	
February	176.0	28.0	489.9	694.3	95.7	23.1	79.5	2.3	2.7	2.7	94.6	148.4	330.3	15.8	1,159.5	
March	175.8	28.0	489.2	693.4	95.7	23.2	79.5	2.3	2.7	2.7	97.5	148.5	333.4	16.9	1,162.7	
April	175.1	28.0	489.3	692.8	96.8	23.2	79.5	2.3	2.7	2.7	98.9	149.7	335.9	17.5	1,166.4	
May	174.7	28.0	489.4	692.3	96.8	23.2	79.5	2.3	2.7	2.7	101.3	149.9	338.5	18.6	1,169.7	
June	174.5	27.9	487.9	690.6	96.8	23.2	79.5	2.3	2.7	2.7	104.0	150.0	341.2	19.9	1,171.9	
July	174.5	27.9	488.7	691.5	96.8	23.2	79.5	2.3	2.7	2.7	104.9	150.7	342.8	20.6	1,175.1	
August	174.5	27.9	488.7	691.5	96.8	23.2	79.5	2.3	2.7	2.7	106.1	150.8	344.2	21.5	1,177.4	
September	174.2	27.9	488.7	691.2	96.8	23.2	79.5	2.3	2.7	2.7	108.2	151.0	346.5	22.4	1,180.3	
October	174.2	27.9	488.9	691.3	96.8	23.2	79.5	2.3	2.7	2.7	111.8	151.1	350.1	23.4	1,185.1	

^a Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

^b Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, waste oil, and, beginning in 2011, propane.

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

^d Includes other fossil gases (blast furnace gas, other manufactured and waste gases derived from fossil fuels, and, through 2010, propane gas), which are not separately shown.

^e Through 1988, hydroelectric pumped storage is included in "Conventional Hydroelectric Power."

^f Wood and wood-derived fuels.

^g 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).

^h Electric net summer capacity from solar thermal and photovoltaic (PV) energy at utility-scale facilities. Does not include small-scale solar photovoltaic capacity.

ⁱ Includes chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, flywheels, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels), which are not

separately shown.

^j Through 1984, waste is included in "Wood."

^k Through 1988, solar is included in "Wind."

^l Through 1988, all data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.

NA=Not available. (s)=Less than 0.05 million kilowatts.

Notes: • Data are at end of period. • For plants that use multiple sources of energy, capacity is assigned to the energy source reported as the predominant one.

• Data are for utility-scale facilities. See Note 1, "Coverage of Electricity Statistics," at end of section. • See "Net summer capacity" in Glossary. • 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. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: See end of section.

Table 7.7c Electric Net Summer Capacity: Commercial Sector

(Subset of Table 7.7a; Million Kilowatts)

	Fossil Fuels				Nuclear Electric Power	Hydro- electric Pumped Storage	Renewable Energy							Battery Storage	Total ^h
	Coal ^a	Petroleum ^b	Natural Gas ^c	Total ^d			Conven- tional Hydro- electric Power	Biomass		Geo- thermal	Solar ^g	Wind	Total		
								Wood ^e	Waste ^f						
1990 Year	0.3	0.2	0.7	1.2	—	—	(s)	(s)	0.2	—	—	—	0.2	—	1.4
1995 Year .....	.3	.2	1.2	1.8	—	—	(s)	(s)	.3	—	—	—	.3	—	2.1
2000 Year .....	.3	.3	1.2	1.8	—	—	(s)	(s)	.4	—	—	—	.4	—	2.2
2005 Year .....	.4	.3	1.0	1.8	—	—	(s)	(s)	.4	—	—	—	.5	—	2.2
2010 Year .....	.4	.4	1.2	1.9	—	—	(s)	(s)	.5	—	(s)	(s)	.5	—	2.5
2011 Year .....	.4	.4	1.3	2.1	—	—	(s)	(s)	.6	—	.1	(s)	.7	—	2.8
2012 Year .....	.4	.4	1.5	2.4	—	—	(s)	(s)	.6	—	.1	(s)	.8	—	3.2
2013 Year .....	.3	.5	1.8	2.6	—	—	(s)	(s)	.7	—	.2	(s)	1.0	—	3.6
2014 Year .....	.3	.5	1.8	2.6	—	—	(s)	.1	.7	—	.2	.1	1.1	—	3.7
2015 Year .....	.2	.5	1.9	2.6	—	—	(s)	.1	.7	—	.3	.1	1.2	(s)	3.8
2016 Year .....	.2	.5	2.0	2.7	—	—	.1	.1	.7	—	.3	.1	1.2	(s)	3.9
2017 Year .....	.2	.6	2.0	2.8	—	—	.1	.1	.7	—	.3	.1	1.2	(s)	4.1
2018 Year .....	.1	.8	2.2	3.1	—	—	.1	.1	.7	(s)	.3	.1	1.3	(s)	4.5
2019 Year .....	.1	.9	2.2	3.2	—	—	.1	.1	.7	(s)	.4	.1	1.3	(s)	4.6
2020 Year .....	.1	.9	2.3	3.3	—	—	.1	.1	.7	(s)	.4	.1	1.3	(s)	4.6
2021 Year .....	.1	.9	2.3	3.3	—	—	.1	.1	.7	(s)	.4	.1	1.5	(s)	4.8
2022 January	(s)	1.0	2.3	3.3	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
February	(s)	1.0	2.3	3.4	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
March	(s)	1.0	2.4	3.4	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
April	(s)	1.0	2.4	3.4	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
May	(s)	1.0	2.4	3.4	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
June	(s)	1.0	2.4	3.4	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
July	(s)	1.0	2.4	3.4	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
August	(s)	1.0	2.4	3.4	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
September	(s)	1.0	2.4	3.4	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
October	(s)	1.0	2.4	3.4	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
November	(s)	1.0	2.4	3.4	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
December	(s)	1.0	2.4	3.4	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
2023 January	(s)	1.0	2.4	3.4	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
February	(s)	1.0	2.4	3.4	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
March	(s)	1.0	2.4	3.4	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
April	(s)	1.0	2.4	3.4	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
May	(s)	1.0	2.4	3.4	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
June	(s)	1.0	2.4	3.4	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
July	(s)	1.0	2.4	3.4	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
August	(s)	1.0	2.4	3.4	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
September	(s)	1.0	2.4	3.4	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
October	(s)	1.0	2.4	3.4	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
November	(s)	1.0	2.4	3.4	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
December	(s)	1.0	2.3	3.4	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
2024 January	(s)	1.0	2.3	3.4	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
February	(s)	1.0	2.3	3.4	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
March	(s)	1.0	2.3	3.4	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
April	(s)	1.0	2.3	3.4	—	—	.1	.1	1.3	—	.4	.1	2.0	(s)	5.4
May	(s)	1.0	2.4	3.4	—	—	.1	.1	1.3	—	.5	.1	2.0	(s)	5.5
June	(s)	1.0	2.4	3.4	—	—	.1	.1	1.3	—	.5	.1	2.0	(s)	5.5
July	(s)	1.0	2.4	3.4	—	—	.1	.1	1.2	—	.5	.1	2.0	(s)	5.4
August	(s)	1.0	2.4	3.4	—	—	.1	.1	1.2	—	.5	.1	2.0	(s)	5.4
September	(s)	1.0	2.4	3.4	—	—	.1	.1	1.2	—	.5	.1	2.0	(s)	5.4
October	(s)	1.0	2.4	3.4	—	—	.1	.1	1.2	—	.5	.1	2.0	(s)	5.4

^a Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

^b Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, waste oil, and, beginning in 2011, propane.

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

^d Includes other fossil gases (blast furnace gas, other manufactured and waste gases derived from fossil fuels, and, through 2010, propane gas), which are not separately shown.

^e Wood and wood-derived fuels.

^f 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).

^g Electric net summer capacity from solar thermal and photovoltaic (PV) energy at utility-scale facilities. Does not include small-scale solar photovoltaic capacity.

^h Includes chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, flywheels, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels), which are not

separately shown.

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

Notes: • Data are at end of period. • For plants that use multiple sources of energy, capacity is assigned to the energy source reported as the predominant one. • Data are for utility-scale facilities. See Note 1, "Coverage of Electricity Statistics," at end of section. • See "Net summer capacity" in Glossary. • See 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. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual data beginning in 1989 and monthly data beginning in 2008.

Sources: • 1989–1997: U.S. Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • 1998–2000: EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • 2001–2007: EIA, Form EIA-860, "Annual Electric Generator Report." • 2008 forward: EIA, Form EIA-860, "Annual Electric Generator Report," and Form EIA-860M, "Monthly Update to the Annual Electric Generator Report."

Table 7.7d Electric Net Summer Capacity: Industrial Sector
(Subset of Table 7.7a; Million Kilowatts)

	Fossil Fuels				Nuclear Electric Power	Hydro- electric Pumped Storage	Renewable Energy							Battery Storage	Total ^h
	Coal ^a	Petro- leum ^b	Natural Gas ^c	Total ^d			Conven- tional Hydro- electric Power	Biomass		Geo- thermal	Solar ^g	Wind	Total		
								Wood ^e	Waste ^f						
1990 Year	4.8	0.9	10.3	17.3	—	—	0.6	4.3	0.2	—	—	—	5.1	—	22.9
1995 Year	5.0	1.0	11.3	18.7	—	—	1.1	4.9	.2	—	—	—	6.3	—	25.5
2000 Year	4.6	.8	13.7	21.2	—	—	1.1	4.4	.2	—	—	—	5.7	—	27.3
2005 Year	4.0	.8	14.5	21.0	—	—	.7	4.5	.2	—	—	—	5.4	—	27.2
2010 Year	4.0	.7	14.2	20.8	—	—	.3	4.9	.2	—	(s)	(s)	5.5	—	27.4
2011 Year	3.5	.7	14.3	20.4	—	—	.3	5.0	.2	—	(s)	(s)	5.6	—	27.1
2012 Year	3.3	1.0	14.3	20.5	—	—	.6	5.2	.2	—	(s)	(s)	6.1	—	27.8
2013 Year	3.0	.7	14.4	20.0	—	—	.7	5.5	.2	—	(s)	(s)	6.4	—	27.5
2014 Year	2.9	.6	14.7	20.0	—	—	.3	5.4	.2	—	(s)	(s)	5.9	—	27.2
2015 Year	2.5	.7	14.5	19.8	—	—	.3	5.8	.2	—	(s)	(s)	6.4	—	27.4
2016 Year	2.1	.7	14.5	19.4	—	—	.3	5.7	.2	—	(s)	(s)	6.2	—	26.8
2017 Year	2.0	.6	14.5	19.1	—	—	.3	5.7	.2	—	(s)	(s)	6.3	(s)	26.7
2018 Year	2.0	.6	14.4	19.1	—	—	.2	5.8	.1	—	(s)	(s)	6.2	(s)	26.6
2019 Year	1.7	.5	14.8	19.2	—	—	.2	5.6	.1	—	.1	(s)	6.0	(s)	26.5
2020 Year	1.5	.5	15.3	19.3	—	—	.2	5.6	.1	—	.1	(s)	6.3	(s)	26.8
2021 Year	1.4	.5	16.1	19.6	—	—	.2	5.4	.1	—	.1	(s)	5.9	(s)	26.8
2022 January	1.4	.6	16.4	19.7	—	—	.2	5.2	.1	—	.1	(s)	5.8	(s)	26.7
February	1.4	.6	16.4	19.7	—	—	.2	5.2	.1	—	.1	(s)	5.8	(s)	26.7
March	1.4	.6	16.4	19.8	—	—	.2	5.2	.1	—	.1	(s)	5.8	(s)	26.8
April	1.4	.6	16.4	19.8	—	—	.2	5.2	.1	—	.1	(s)	5.8	(s)	26.8
May	1.4	.6	16.4	19.8	—	—	.2	5.2	.1	—	.1	.1	5.8	(s)	26.8
June	1.4	.6	16.4	19.8	—	—	.2	5.2	.1	—	.2	.1	5.8	(s)	26.8
July	1.4	.6	16.4	19.8	—	—	.2	5.3	.1	—	.2	.1	5.8	(s)	26.8
August	1.4	.6	16.4	19.8	—	—	.2	5.3	.1	—	.2	.1	5.8	(s)	26.8
September	1.4	.6	16.4	19.8	—	—	.2	5.3	.1	—	.2	.1	5.8	(s)	26.8
October	1.4	.6	16.4	19.7	—	—	.2	5.3	.1	—	.2	.1	5.8	(s)	26.8
November	1.4	.6	16.4	19.7	—	—	.2	5.3	.1	—	.2	.1	5.8	(s)	26.8
December	1.4	.6	16.4	19.7	—	—	.2	5.3	.1	—	.2	.1	5.8	(s)	26.8
2023 January	1.4	.5	16.4	19.8	—	—	.2	5.4	.1	—	.2	.1	5.9	(s)	27.0
February	1.4	.5	16.5	19.9	—	—	.2	5.4	.1	—	.2	.1	5.9	(s)	27.0
March	1.4	.5	16.4	19.7	—	—	.2	5.4	.1	—	.2	.1	5.9	(s)	26.9
April	1.4	.5	16.4	19.7	—	—	.2	5.4	.1	—	.2	.1	5.9	(s)	26.9
May	1.4	.5	16.4	19.7	—	—	.2	5.3	.1	—	.2	.1	5.9	(s)	26.9
June	1.4	.5	16.3	19.7	—	—	.2	5.3	.1	—	.2	.1	5.9	(s)	26.8
July	1.4	.5	16.3	19.7	—	—	.2	5.3	.1	—	.2	.1	5.9	(s)	26.8
August	1.4	.5	16.3	19.7	—	—	.2	5.3	.1	—	.2	.1	5.9	(s)	26.8
September	1.4	.5	16.3	19.7	—	—	.2	5.3	.1	—	.2	.1	5.9	(s)	26.8
October	1.4	.5	16.3	19.7	—	—	.2	5.3	.1	—	.2	.1	5.9	(s)	26.8
November	1.4	.5	16.3	19.7	—	—	.2	5.2	.1	—	.2	.1	5.8	(s)	26.8
December	1.4	.5	16.3	19.7	—	—	.2	5.2	.1	—	.2	.1	5.9	(s)	26.8
2024 January	1.4	.5	16.3	19.7	—	—	.2	5.2	.1	—	.3	.1	5.9	(s)	26.8
February	1.4	.5	16.3	19.7	—	—	.2	5.2	.1	—	.3	.1	5.9	(s)	26.8
March	1.4	.5	16.3	19.7	—	—	.2	5.2	.1	—	.3	.1	5.9	(s)	26.8
April	1.4	.5	16.2	19.6	—	—	.2	5.2	.1	—	.3	.1	5.9	(s)	26.7
May	1.4	.5	16.2	19.6	—	—	.2	5.2	.1	—	.3	.1	5.9	(s)	26.7
June	1.4	.5	16.2	19.6	—	—	.2	5.2	.1	—	.3	.1	5.9	(s)	26.7
July	1.4	.5	16.2	19.6	—	—	.2	5.2	.1	—	.3	.1	5.9	(s)	26.7
August	1.4	.5	16.2	19.6	—	—	.2	5.2	.1	—	.3	.1	5.9	(s)	26.7
September	1.4	.5	16.2	19.6	—	—	.2	5.2	.1	—	.3	.1	5.9	(s)	26.7
October	1.4	.5	16.1	19.5	—	—	.2	5.2	.1	—	.3	.1	5.9	(s)	26.7

^a Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

^b Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, waste oil, and, beginning in 2011, propane.

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

^d Includes other fossil gases (blast furnace gas, other manufactured and waste gases derived from fossil fuels, and, through 2010, propane gas), which are not separately shown.

^e Wood and wood-derived fuels.

^f 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).

^g Electric net summer capacity from solar thermal and photovoltaic (PV) energy at utility-scale facilities. Does not include small-scale solar photovoltaic capacity.

^h Includes chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, flywheels, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels), which are not

separately shown.

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

Notes: • Data are at end of period. • For plants that use multiple sources of energy, capacity is assigned to the energy source reported as the predominant one. • Data are for utility-scale facilities. See Note 1, "Coverage of Electricity Statistics," at end of section. • See "Net summer capacity" in Glossary. • See 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. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual data beginning in 1989 and monthly data beginning in 2008.

Sources: • 1989–1997: U.S. Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • 1998–2000: EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • 2001–2007: EIA, Form EIA-860, "Annual Electric Generator Report." • 2008 forward: EIA, Form EIA-860, "Annual Electric Generator Report," and Form EIA-860M, "Monthly Update to the Annual Electric Generator Report."

Table 7.8a Capacity Factors and Usage Factors at Electric Generators: Total (All Sectors)
(Percent)

	Capacity Factors ^a												Usage Factors ^b	
	Coal ^{c,d}	Petro- leum ^{c,e}	Natural Gas ^f			Nuclear Electric Power ^g	Conven- tional Hydro- electric Power	Bio- mass ^{c,h}	Geo- thermal	Solar		Wind ⁱ	Hydro- electric Pumped Storage	Battery Storage
			Com- bined Cycle	Gas Turbine	Steam Turbine					Photo- voltaic ^j	Thermal			
2008 Year	72.4	9.7	40.3	7.6	12.1	91.1	37.1	64.0	74.3	19.2	19.5	31.7	—	—
2009 Year	64.2	9.3	43.9	6.8	10.9	90.3	39.6	62.9	73.0	20.0	23.6	28.1	—	—
2010 Year	67.1	8.4	44.3	7.8	11.1	91.1	37.5	62.5	71.6	20.2	24.5	29.7	—	—
2011 Year	62.8	7.4	44.3	7.9	11.7	89.1	45.8	61.4	71.5	19.0	23.9	32.1	—	—
2012 Year	56.2	7.6	52.2	8.9	13.3	^R 86.6	39.6	62.1	68.3	20.4	23.6	^R 31.8	—	—
2013 Year	59.4	6.6	48.8	8.3	11.2	90.8	38.8	60.3	71.8	24.5	17.4	32.4	9.8	.7
2014 Year	60.5	6.7	48.6	8.3	10.3	91.7	37.2	61.0	72.0	25.6	18.3	34.0	10.2	1.7
2015 Year	54.3	6.7	55.8	9.8	11.3	92.3	35.7	60.5	71.9	25.5	21.7	32.2	10.2	3.6
2016 Year	52.8	5.9	55.4	11.0	12.3	92.3	38.2	59.9	71.6	25.0	22.1	34.5	11.2	3.8
2017 Year	53.1	6.3	51.2	9.6	10.7	92.3	43.0	60.8	73.2	25.6	21.8	34.6	11.4	6.8
2018 Year	53.6	6.6	55.1	11.9	12.6	92.5	41.9	61.1	76.0	25.1	23.6	34.6	10.8	5.2
2019 Year	47.5	5.5	57.4	11.4	14.1	^R 93.4	41.2	60.3	69.6	24.3	21.2	^R 34.4	10.4	5.4
2020 Year	40.5	5.2	57.1	11.6	14.2	^R 92.4	40.7	59.5	69.1	24.2	20.6	^R 35.3	10.5	5.2
2021 Year	49.1	5.5	55.0	11.7	12.5	92.8	36.0	61.1	69.8	24.4	20.5	34.4	10.2	6.1
2022 January	57.4	7.4	55.6	11.3	14.8	99.4	40.6	60.8	75.1	16.8	11.3	37.5	9.5	5.5
February	52.2	5.7	52.4	9.6	11.7	96.5	39.6	61.9	70.3	21.2	15.9	41.6	8.9	6.6
March	41.0	3.9	46.6	8.2	8.5	89.0	41.0	58.3	65.7	24.4	23.1	42.7	9.1	5.7
April	38.5	4.0	44.2	9.6	9.6	80.5	34.8	56.7	67.1	28.5	30.1	46.6	7.3	6.0
May	42.1	4.9	49.6	12.5	14.6	89.3	39.2	56.8	67.4	30.9	33.5	41.1	10.9	6.4
June	52.5	5.2	61.2	16.9	20.2	96.4	45.1	60.3	67.0	33.2	34.9	33.9	14.8	7.1
July	59.6	4.9	70.5	20.1	28.1	97.8	41.2	61.6	67.1	31.2	26.2	28.6	15.9	6.9
August	59.2	5.2	72.4	18.5	22.4	97.8	35.5	60.4	67.9	28.4	25.3	24.0	16.4	6.6
September	47.3	5.4	63.9	13.8	16.3	93.5	29.5	57.5	68.6	26.5	26.7	27.3	13.2	6.1
October	38.7	5.1	53.0	10.2	13.3	83.7	24.1	53.8	65.3	22.9	26.4	31.6	8.4	6.7
November	40.9	5.2	52.0	11.2	13.7	91.0	31.0	57.8	72.6	16.5	14.1	40.8	9.2	6.7
December	51.4	7.7	56.8	12.5	14.1	98.1	34.3	59.3	74.1	12.5	9.0	36.8	9.6	6.5
Average	48.4	5.4	56.6	12.9	15.6	92.7	36.3	58.7	69.0	24.4	23.1	35.9	11.1	6.4
2023 January	44.6	3.7	57.4	9.3	9.6	100.7	38.2	58.6	71.2	14.2	7.7	36.3	9.2	6.9
February	37.3	4.6	57.1	9.2	10.3	95.7	37.1	57.4	72.4	18.6	10.9	43.1	9.6	6.5
March	36.2	3.6	53.6	10.5	11.5	89.3	35.9	55.2	73.2	21.5	14.0	40.6	9.2	7.0
April	30.6	3.5	47.9	11.2	13.4	83.2	34.4	51.0	70.6	26.8	27.8	41.2	8.8	7.2
May	32.6	3.4	53.0	12.4	15.4	86.9	46.5	55.1	66.9	29.5	27.4	30.0	10.9	6.5
June	44.5	4.1	63.7	15.0	22.1	95.2	37.5	55.7	66.5	30.9	34.6	26.4	13.8	6.4
July	58.3	5.5	74.0	19.4	31.7	99.1	36.9	56.8	64.6	30.9	35.0	25.9	15.7	6.5
August	58.0	5.4	74.1	19.0	31.0	97.9	35.8	58.1	63.1	28.7	28.3	26.2	15.5	6.4
September	46.4	5.4	66.2	13.6	22.4	95.1	29.4	54.5	67.4	25.6	27.7	27.1	13.3	6.3
October	38.6	3.6	53.7	12.6	16.3	86.3	26.3	51.6	70.4	22.0	26.1	33.1	8.7	7.0
November	39.7	3.0	54.8	11.5	14.1	90.3	29.6	57.0	73.7	16.7	15.7	34.6	8.3	6.7
December	42.3	3.3	60.0	10.1	10.8	96.7	32.1	59.5	72.9	13.5	9.9	34.6	8.0	6.3
Average	42.4	4.1	59.7	12.9	17.4	93.0	35.0	55.8	69.4	23.2	22.1	33.2	10.9	6.6
2024 January	56.7	4.6	63.6	12.4	16.1	97.1	36.9	59.6	70.2	13.8	7.3	31.6	9.5	5.4
February	35.9	3.1	56.1	9.8	11.6	96.9	36.2	56.3	69.7	18.7	11.7	39.9	9.7	6.5
March	29.4	3.0	50.7	10.9	13.9	89.0	39.3	54.4	63.6	21.7	20.4	41.0	7.4	6.9
April	29.8	3.5	46.6	13.5	16.0	83.2	33.7	53.9	68.2	26.3	31.6	43.7	9.1	7.3
May	35.5	3.9	53.4	13.8	20.5	90.2	38.1	56.8	61.6	29.1	38.1	34.5	12.5	6.7
June	48.8	4.3	64.9	16.3	27.3	97.8	36.8	56.6	65.1	31.7	39.1	35.1	15.5	6.9
July	54.7	6.1	74.6	24.0	33.6	97.0	35.7	56.8	65.8	30.4	33.0	24.8	16.7	7.8
August	52.9	5.5	73.8	21.8	33.1	96.8	36.0	58.1	65.0	29.9	32.6	25.5	16.2	7.8
September	43.6	3.7	66.7	15.3	22.7	89.9	29.0	55.5	65.1	25.4	31.8	26.6	12.9	7.7
October	37.0	3.5	54.7	14.2	19.4	81.6	26.6	50.9	58.6	23.1	22.8	35.6	8.3	8.3

^a Capacity factors are a measure of how often electric generators operate over a specific period of time, using a ratio of actual output (net generation) to the maximum possible output over that same time period (using time-adjusted capacity).

^b Usage factors are a measure of how often electric generators operate over a specific period of time, using a ratio of actual output (gross generation) to the maximum possible output over that same time period (using time-adjusted capacity).

^c Steam turbine, gas turbine, internal combustion engine, combined-cycle, and other plants.

^d Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal syngas.

^e Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, waste oil, and, beginning in 2011, propane.

^f Natural gas, plus a small amount of supplemental gaseous fuels. Capacity factors for natural gas internal combustion engine, energy storage, fuel cell, and other plants are not displayed.

^g See Table 8.1 for nuclear capacity factors for 1957–2007.

^h Wood and wood-derived fuels, municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through

2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

ⁱ Solar photovoltaic (PV) energy at utility-scale facilities. Does not include small-scale solar photovoltaic generators.

^j Onshore wind plants, and, beginning in 2017, offshore wind plants.

^k Revised. — = No data reported.

Notes: • Data are for utility-scale facilities. See Note 1, "Coverage of Electricity Statistics," at end of section. • Monthly factors are based on a time-adjusted total net summer capacity of generators in operation for the entire month. Annual factors are based on a time-weighted average of the monthly time-adjusted capacity. • For plants that use multiple energy sources or technologies, capacity is assigned to the reported combination of predominant energy source and technology. • See EIA's *Electric Power Annual*, "Technical notes," for further information. • See "Capacity factor" in Glossary. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual and monthly data beginning in 2008.

Sources: U.S. Energy Information Administration (EIA), Form EIA-860, "Annual Electric Generator Report"; Form EIA-860M, "Monthly Update to the Annual Electric Generator Report"; and Form EIA-923, "Power Plant Operations Report."

Table 7.8b Capacity Factors and Usage Factors at Electric Generators: Electric Power Sector (Percent)

	Capacity Factors ^a												Usage Factors ^b	
	Coal ^{c,d}	Petroleum ^{c,e}	Natural Gas ^f			Nuclear Electric Power ^g	Conventional Hydroelectric Power	Bio-mass ^{c,h}	Geo-thermal	Solar		Wind ⁱ	Hydroelectric Pumped Storage	Battery Storage
			Combined Cycle	Gas Turbine	Steam Turbine					Photo-voltaic ^j	Thermal			
2008 Year	72.6	9.4	39.5	5.2	11.6	91.1	37.0	65.5	74.3	19.7	19.5	31.7	—	—
2009 Year	64.4	9.1	43.5	4.4	10.4	90.3	39.5	64.6	73.0	20.3	23.6	28.1	—	—
2010 Year	67.3	8.1	43.5	5.2	10.6	91.1	37.5	63.4	71.6	20.3	24.5	29.8	—	—
2011 Year	62.9	7.1	43.6	5.1	11.2	89.1	45.7	62.5	71.5	19.0	23.9	32.1	—	—
2012 Year	56.4	7.1	51.7	6.0	12.7	86.6	39.5	63.4	68.3	20.4	23.6	^R 31.8	—	—
2013 Year	59.5	6.3	48.0	5.0	10.4	90.8	38.6	60.0	71.8	24.7	17.4	32.4	9.8	7
2014 Year	60.7	6.4	48.0	5.2	9.5	91.7	37.1	61.5	72.0	25.8	18.3	34.0	10.2	1.7
2015 Year	54.3	6.3	55.5	6.8	10.8	92.3	35.6	59.5	71.9	25.7	21.7	32.2	10.2	3.6
2016 Year	52.9	5.6	54.9	8.2	11.6	92.3	38.1	59.2	71.6	25.1	22.1	34.5	11.2	3.8
2017 Year	53.2	6.1	50.6	6.6	10.1	92.3	43.0	60.2	73.2	25.7	21.8	34.6	11.4	6.9
2018 Year	53.7	6.4	54.6	9.0	11.9	92.5	41.8	60.2	76.0	25.2	23.6	34.6	10.8	5.3
2019 Year	47.5	5.3	57.0	8.3	13.2	93.4	41.1	59.5	68.9	24.4	21.2	34.4	10.4	5.5
2020 Year	40.5	5.0	56.8	8.3	13.3	92.4	40.7	58.9	68.4	24.3	20.6	35.3	10.5	5.2
2021 Year	49.2	5.4	54.8	8.3	11.4	92.8	35.9	61.8	69.5	24.4	20.5	34.4	10.2	6.2
2022 January	57.5	7.2	55.2	7.9	13.7	99.4	40.6	58.9	75.1	16.8	11.3	37.6	9.5	5.5
February	52.3	5.4	52.0	6.1	10.8	96.5	39.6	61.1	70.3	21.2	15.9	41.6	8.9	6.6
March	41.0	3.7	46.1	5.0	7.4	89.0	40.9	56.9	65.7	24.5	23.1	42.7	9.1	5.8
April	38.5	3.7	43.7	6.6	8.5	80.5	34.7	53.3	67.1	28.6	30.1	46.6	7.3	6.1
May	42.1	4.6	49.3	9.4	13.7	89.3	39.2	54.5	67.4	31.0	33.5	41.1	10.9	6.4
June	52.6	5.0	61.1	13.7	19.5	96.4	45.1	60.3	67.0	33.3	34.9	33.9	14.8	7.1
July	59.7	4.6	70.7	16.8	27.6	97.8	41.3	62.6	67.1	31.3	26.2	28.7	15.9	6.9
August	59.3	5.0	72.5	15.1	21.7	97.8	35.5	61.6	67.9	28.4	25.3	24.0	16.4	6.6
September	47.4	5.2	64.0	10.5	15.5	93.5	29.5	58.3	68.6	26.6	26.7	27.4	13.2	6.1
October	38.7	4.8	52.6	7.2	12.4	83.7	24.1	53.5	65.3	22.9	26.4	31.6	8.4	6.8
November	40.9	4.9	51.5	8.1	12.7	91.0	31.0	56.1	72.6	16.6	14.1	40.8	9.2	6.7
December	51.5	7.6	56.5	9.3	13.2	98.1	34.2	59.3	74.1	12.6	9.0	36.8	9.6	6.5
Average	48.5	5.2	56.3	9.7	14.7	92.7	36.3	58.0	69.0	24.4	23.1	36.0	11.1	6.5
2023 January	44.6	3.5	57.1	6.1	8.7	100.7	38.2	58.5	71.2	14.2	7.7	36.3	9.2	7.0
February	37.2	4.6	56.8	5.8	9.3	95.7	37.1	57.9	72.4	18.6	10.9	43.1	9.6	6.5
March	36.2	3.5	53.3	7.4	10.5	89.3	35.8	55.2	73.2	21.5	14.0	40.6	9.2	7.0
April	30.5	3.5	47.7	8.5	12.5	83.2	34.3	48.9	70.6	26.9	27.8	41.2	8.8	7.2
May	32.5	3.3	52.9	9.3	14.6	86.9	46.4	54.8	66.9	29.6	27.4	30.0	10.9	6.5
June	44.5	4.1	63.6	11.7	21.5	95.2	37.4	56.8	66.5	31.0	34.6	26.4	13.8	6.4
July	58.5	5.5	74.2	16.2	31.3	99.1	36.9	60.0	64.6	31.0	35.0	25.9	15.7	6.5
August	58.2	5.4	74.3	15.7	30.6	97.9	35.8	60.3	63.1	28.8	28.3	26.3	15.5	6.5
September	46.5	5.5	66.2	10.1	21.7	95.1	29.4	54.3	67.4	25.6	27.7	27.1	13.3	6.3
October	38.6	3.6	53.4	9.6	15.4	86.3	26.3	49.6	70.4	22.0	26.1	33.1	8.7	7.0
November	39.8	2.9	54.5	8.2	13.1	90.3	29.6	55.2	73.7	16.8	15.7	34.6	8.3	6.8
December	42.3	3.2	59.8	6.7	9.6	96.7	32.0	57.7	72.9	13.5	9.9	34.6	8.0	6.3
Average	42.5	4.0	59.5	9.6	16.6	93.0	34.9	55.7	69.4	23.3	22.1	33.2	10.9	6.7
2024 January	56.9	4.5	63.5	8.9	15.0	97.1	36.8	58.4	70.2	13.8	7.3	31.6	9.5	5.4
February	35.9	3.0	55.8	6.4	10.4	96.9	36.1	53.5	69.7	18.7	11.7	40.0	9.7	6.5
March	29.3	2.9	50.4	7.9	12.9	89.0	39.2	51.3	63.6	21.8	20.4	41.0	7.4	6.9
April	29.8	3.5	46.1	10.6	15.1	83.2	33.7	48.6	68.2	26.4	31.6	43.7	9.1	7.3
May	35.5	3.8	53.2	10.9	19.7	90.2	38.0	54.8	61.6	29.1	38.1	34.5	12.5	6.7
June	48.8	4.3	65.1	13.4	26.7	97.8	36.8	55.9	65.1	31.7	39.1	35.1	15.5	7.0
July	54.8	6.1	75.0	21.3	33.1	97.0	35.6	55.1	65.8	30.4	33.0	24.8	16.7	7.8
August	53.0	5.5	73.9	19.0	32.5	96.8	35.9	56.2	65.0	29.9	32.6	25.5	16.2	7.8
September	43.7	3.7	66.8	12.3	21.9	89.9	28.9	54.0	65.1	25.4	31.8	26.6	12.9	7.7
October	37.0	3.5	54.7	11.6	18.6	81.6	26.6	48.0	58.6	23.2	22.8	35.6	8.3	8.4

^a Capacity factors are a measure of how often electric generators operate over a specific period of time, using a ratio of actual output (net generation) to the maximum possible output over that same time period (using time-adjusted capacity).

^b Usage factors are a measure of how often electric generators operate over a specific period of time, using a ratio of actual output (gross generation) to the maximum possible output over that same time period (using time-adjusted capacity).

^c Steam turbine, gas turbine, internal combustion engine, combined-cycle, and other plants.

^d Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

^e Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, waste oil, and, beginning in 2011, propane.

^f Natural gas, plus a small amount of supplemental gaseous fuels. Capacity factors for natural gas internal combustion engine, energy storage, fuel cell, and other plants are not displayed.

^g See Table 8.1 for nuclear capacity factors for 1957–2007.

^h Wood and wood-derived fuels, municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic

sources, and tire-derived fuels).

ⁱ Solar photovoltaic (PV) energy at utility-scale facilities. Does not include small-scale solar photovoltaic generators.

^j Onshore wind plants, and, beginning in 2017, offshore wind plants.

R=Revised. — =No data reported.

Notes: • Data are for utility-scale facilities. See Note 1, "Coverage of Electricity Statistics," at end of section. • Monthly factors are based on a time-adjusted total net summer capacity of generators in operation for the entire month. Annual factors are based on a time-weighted average of the monthly time-adjusted capacity. • For plants that use multiple energy sources or technologies, capacity is assigned to the reported combination of predominant energy source and technology. • See EIA's *Electric Power Annual*, "Technical notes," for further information. • See "Capacity factor" in Glossary. • 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. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual and monthly data beginning in 2008.

Sources: U.S. Energy Information Administration (EIA), Form EIA-860, "Annual Electric Generator Report"; Form EIA-860M, "Monthly Update to the Annual Electric Generator Report"; and Form EIA-923, "Power Plant Operations Report."

Table 7.8c Capacity Factors and Usage Factors at Electric Generators: Commercial Sector
(Percent)

	Capacity Factors ^a											Usage Factors ^b		
	Coal ^{c,d}	Petro- leum ^{c,e}	Natural Gas ^f			Nuclear Electric Power	Conven- tional Hydro- electric Power	Bio- mass ^{c,g}	Geo- thermal	Solar		Wind ⁱ	Hydro- electric Pumped Storage	Battery Storage
			Com- bined Cycle	Gas Turbine	Steam Turbine					Photo- voltaic ^h	Thermal			
2008 Year	36.5	3.6	52.2	43.9	36.8	—	31.6	56.2	—	9.9	—	—	—	—
2009 Year	28.1	3.6	53.6	43.1	33.6	—	38.0	57.3	—	4.8	—	2.0	—	—
2010 Year	34.5	3.2	54.6	53.8	32.2	—	42.7	55.7	—	11.1	—	17.6	—	—
2011 Year	32.1	2.3	50.9	58.8	33.4	—	17.0	60.1	—	18.7	—	24.2	—	—
2012 Year	31.8	1.9	54.5	52.2	26.7	—	17.0	60.0	—	19.5	—	22.4	—	—
2013 Year	31.7	1.9	52.8	51.9	33.7	—	28.2	60.3	—	20.6	—	22.4	—	—
2014 Year	30.2	2.4	48.6	55.1	31.5	—	20.5	57.4	—	19.9	—	25.5	—	—
2015 Year	35.0	2.6	51.7	53.2	28.6	—	18.6	56.0	—	18.7	—	24.4	—	—
2016 Year	29.4	1.5	53.3	49.7	32.1	—	33.3	52.5	—	20.5	—	26.3	—	4.8
2017 Year	29.8	1.3	53.4	54.0	29.5	—	36.5	52.2	—	19.5	—	26.8	—	5.4
2018 Year	31.4	.7	51.5	56.2	32.0	—	34.7	50.1	—	18.7	—	27.5	—	5.2
2019 Year	30.2	.7	51.0	52.6	35.1	—	28.7	52.3	R—	18.2	—	27.8	—	1.0
2020 Year	27.4	.4	43.3	50.1	32.2	—	32.8	52.0	R—	17.4	—	28.3	—	4.4
2021 Year	30.8	.4	40.7	54.2	25.5	—	34.1	49.3	R—	17.0	—	28.3	—	(s)
2022 January	21.3	1.1	41.8	56.8	29.7	—	38.2	59.4	—	11.4	—	33.8	—	.7
February	20.6	.7	42.2	51.1	25.2	—	37.5	59.8	—	14.8	—	36.6	—	.9
March	18.9	.6	41.9	48.4	26.1	—	38.4	57.3	—	17.1	—	35.8	—	1.0
April	17.9	.5	40.0	44.9	22.3	—	33.5	62.5	—	21.0	—	38.4	—	1.1
May	17.8	.5	44.5	47.6	18.9	—	40.3	62.5	—	21.5	—	30.2	—	1.1
June	36.7	.8	50.0	55.2	22.9	—	43.2	63.2	—	23.2	—	25.3	—	1.3
July	36.4	.6	53.7	68.8	23.6	—	40.1	62.2	—	21.9	—	17.6	—	2.1
August	32.4	.5	52.7	72.6	24.6	—	34.2	62.1	—	21.0	—	14.1	—	1.6
September	35.6	.5	50.5	59.5	23.2	—	28.7	59.5	—	19.1	—	19.1	—	1.1
October	35.6	.4	40.1	45.7	21.2	—	23.6	59.6	—	15.7	—	24.1	—	.9
November	44.1	.7	38.6	52.2	25.4	—	28.3	61.5	—	12.5	—	35.0	—	.9
December	40.0	.9	39.3	58.0	30.7	—	30.8	59.8	—	8.9	—	28.4	—	.7
Average	29.7	.6	44.6	55.1	24.5	—	34.7	60.8	—	17.4	—	28.1	—	1.1
2023 January	45.0	.3	40.9	52.4	25.5	—	44.0	57.6	—	8.4	—	24.5	—	.6
February	45.0	.6	45.3	53.8	27.6	—	43.6	54.4	—	12.6	—	32.1	—	.6
March	39.0	.4	43.5	47.9	24.0	—	46.4	51.7	—	15.4	—	31.0	—	.5
April	42.5	.2	39.0	47.4	23.1	—	47.0	51.6	—	21.0	—	32.4	—	.6
May	37.1	.2	40.3	50.4	20.2	—	40.1	57.0	—	21.6	—	24.3	—	.8
June	24.4	.2	52.0	54.9	20.1	—	30.5	60.5	—	20.7	—	14.9	—	1.2
July	34.2	.3	55.1	64.7	23.2	—	36.5	60.6	—	21.1	—	8.1	—	1.6
August	33.9	.2	54.7	60.3	22.2	—	36.8	59.2	—	18.8	—	12.5	—	1.2
September	36.8	.2	55.0	58.5	22.5	—	29.0	56.2	—	16.8	—	13.9	—	1.0
October	38.9	.3	43.8	51.6	20.2	—	35.5	57.7	—	13.9	—	18.4	—	.5
November	43.4	.3	41.4	54.5	21.4	—	34.2	60.1	—	11.5	—	21.4	—	.5
December	44.5	.4	42.6	54.5	23.1	—	35.1	60.8	—	7.7	—	23.9	—	.4
Average	38.7	.3	46.1	54.3	22.7	—	38.2	57.3	—	15.8	—	21.4	—	.8
2024 January	42.6	.5	47.7	61.2	27.4	—	42.3	59.4	—	9.9	—	21.2	—	.3
February	39.7	.3	48.1	60.0	26.4	—	40.9	55.5	—	14.6	—	22.3	—	.1
March	40.5	.4	46.6	56.8	25.8	—	42.1	52.0	—	17.1	—	27.3	—	.2
April	33.0	.4	43.1	47.3	21.4	—	36.0	53.6	—	20.3	—	34.2	—	.2
May	19.7	.2	43.2	51.1	20.5	—	42.3	57.6	—	22.2	—	27.7	—	.3
June	28.6	.2	51.5	53.8	23.0	—	46.9	56.6	—	24.0	—	28.1	—	.4
July	31.4	.4	54.9	56.8	27.0	—	42.8	58.7	—	21.9	—	21.4	—	.7
August	38.6	.3	55.4	57.8	25.9	—	40.3	59.9	—	21.8	—	18.6	—	.5
September	36.9	.3	52.6	52.2	24.7	—	29.1	55.9	—	19.0	—	18.1	—	.3
October	31.2	.3	45.3	46.3	20.9	—	28.3	56.5	—	17.7	—	20.0	—	.3

^a Capacity factors are a measure of how often electric generators operate over a specific period of time, using a ratio of actual output (net generation) to the maximum possible output over that same time period (using time-adjusted capacity).

^b Usage factors are a measure of how often electric generators operate over a specific period of time, using a ratio of actual output (gross generation) to the maximum possible output over that same time period (using time-adjusted capacity).

^c Steam turbine, gas turbine, internal combustion engine, combined-cycle, and other plants.

^d Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal syngas.

^e Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, waste oil, and, beginning in 2011, propane.

^f Natural gas, plus a small amount of supplemental gaseous fuels. Capacity factors for natural gas internal combustion engine, energy storage, fuel cell, and other plants are not displayed.

^g Wood and wood-derived fuels, municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic

sources, and tire-derived fuels).

^h Solar photovoltaic (PV) energy at utility-scale facilities. Does not include small-scale solar photovoltaic generators.

ⁱ Onshore wind plants, and, beginning in 2017, offshore wind plants.

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

Notes: • Data are for utility-scale facilities. See Note 1, "Coverage of Electricity Statistics," at end of section. • Monthly factors are based on a time-adjusted total net summer capacity of generators in operation for the entire month. Annual factors are based on a time-weighted average of the monthly time-adjusted capacity. • For plants that use multiple energy sources or technologies, capacity is assigned to the reported combination of predominant energy source and technology. • See EIA's *Electric Power Annual*, "Technical notes," for further information. • See "Capacity factor" in Glossary. • See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual and monthly data beginning in 2008.

Sources: U.S. Energy Information Administration (EIA), Form EIA-860, "Annual Electric Generator Report"; Form EIA-860M, "Monthly Update to the Annual Electric Generator Report"; and Form EIA-923, "Power Plant Operations Report."

Table 7.8d Capacity Factors and Usage Factors at Electric Generators: Industrial Sector
(Percent)

	Capacity Factors ^a											Usage Factors ^b		
	Coal ^{c,d}	Petro- leum ^{c,e}	Natural Gas ^f			Nuclear Electric Power	Conven- tional Hydro- electric Power	Bio- mass ^{c,g}	Geo- thermal	Solar		Wind ⁱ	Hydro- electric Pumped Storage	Battery Storage
			Com- bined Cycle	Gas Turbine	Steam Turbine					Photo- voltaic ^h	Thermal			
2008 Year	51.8	32.6	55.2	53.1	45.2	—	54.9	63.1	—	—	—	—	—	—
2009 Year	46.6	33.4	52.9	54.3	46.9	—	61.6	61.7	—	—	—	—	—	—
2010 Year	54.3	33.9	62.4	69.6	54.3	—	55.9	62.2	—	19.3	—	—	—	—
2011 Year	50.6	29.5	61.1	69.7	56.8	—	61.0	60.2	—	30.3	—	11.6	—	—
2012 Year	48.8	38.2	64.5	71.0	57.0	—	43.4	60.9	—	25.2	—	25.6	—	—
2013 Year	49.8	30.0	70.7	75.1	50.2	—	61.1	60.7	—	25.6	—	25.6	—	—
2014 Year	49.9	27.5	67.5	71.0	48.8	—	52.4	60.9	—	24.3	—	26.4	—	—
2015 Year	48.2	28.1	66.1	72.7	41.2	—	57.6	62.2	—	20.6	—	25.1	—	—
2016 Year	46.3	25.2	69.7	73.0	40.3	—	51.4	61.7	—	16.7	—	25.3	—	—
2017 Year	46.7	24.4	68.9	74.9	37.7	—	55.9	62.7	—	14.8	—	27.0	—	.9
2018 Year	45.6	26.2	71.8	75.3	40.8	—	62.8	63.6	—	12.1	—	25.8	—	.8
2019 Year	41.6	26.3	73.4	75.9	44.2	—	55.0	62.2	—	17.2	—	25.3	—	15.3
2020 Year	41.9	23.2	67.0	74.5	44.0	—	53.2	61.2	—	16.3	—	39.7	—	2.4
2021 Year	42.0	19.6	63.8	74.1	45.1	—	49.9	62.1	—	16.3	—	23.2	—	(s)
2022 January	42.5	26.9	72.7	74.0	45.7	—	49.3	63.0	—	12.8	—	29.6	—	2.9
February	42.5	30.4	66.5	74.3	39.2	—	59.0	63.2	—	16.8	—	36.4	—	2.8
March	42.4	21.8	65.2	68.5	41.4	—	71.2	60.0	—	19.7	—	34.7	—	2.5
April	38.6	26.0	61.9	65.4	43.8	—	68.1	58.7	—	22.8	—	33.8	—	3.1
May	44.0	28.3	62.6	70.2	41.3	—	54.4	57.7	—	25.5	—	27.9	—	3.0
June	45.2	26.6	64.2	77.1	43.2	—	42.1	59.6	—	27.1	—	20.3	—	2.5
July	44.8	25.2	68.2	81.8	43.8	—	33.9	60.4	—	26.0	—	17.3	—	2.3
August	44.4	26.4	69.0	82.4	44.2	—	39.1	58.8	—	24.0	—	12.3	—	2.3
September	40.6	25.3	64.3	75.5	39.7	—	40.2	56.2	—	21.4	—	15.3	—	2.4
October	38.4	25.5	67.6	68.0	38.3	—	33.1	52.7	—	19.0	—	26.8	—	2.4
November	38.3	28.7	72.5	70.4	41.9	—	41.1	58.4	—	14.3	—	33.3	—	2.4
December	41.8	24.7	69.1	70.5	37.4	—	58.9	59.0	—	9.9	—	27.9	—	2.4
Average	42.0	26.3	67.0	73.2	41.7	—	49.1	59.0	—	19.9	—	26.2	—	2.6
2023 January	41.0	18.7	67.1	69.9	37.6	—	55.0	58.9	—	12.1	—	25.3	—	—
February	38.8	16.9	67.6	72.5	40.7	—	61.6	57.6	—	15.8	—	35.1	—	—
March	34.9	18.1	64.6	69.9	45.5	—	66.7	56.1	—	18.9	—	31.2	—	—
April	35.6	13.4	54.6	63.6	41.8	—	58.1	52.8	—	26.8	—	27.3	—	—
May	36.9	14.1	58.9	71.9	41.8	—	54.4	54.8	—	26.6	—	20.8	—	—
June	40.0	13.4	67.1	79.2	45.3	—	45.6	53.5	—	27.7	—	17.4	—	—
July	39.5	15.2	68.8	80.5	46.3	—	44.2	52.8	—	28.2	—	11.2	—	—
August	37.5	15.1	68.3	83.6	45.1	—	36.4	55.7	—	25.6	—	15.3	—	—
September	37.6	13.1	69.0	79.8	46.6	—	30.8	54.2	—	22.9	—	11.7	—	—
October	34.9	12.8	65.7	70.9	43.7	—	26.0	51.8	—	18.4	—	23.2	—	—
November	35.0	13.8	68.8	74.2	47.9	—	30.1	58.0	—	15.2	—	30.2	—	—
December	37.1	13.5	70.9	75.2	45.2	—	46.9	60.8	—	11.6	—	24.8	—	—
Average	37.4	14.8	65.9	74.3	44.0	—	46.3	55.6	—	20.7	—	22.7	—	—
2024 January	37.2	16.4	71.0	80.7	50.4	—	55.6	60.7	—	13.1	—	23.7	—	—
February	37.5	15.2	68.4	74.6	47.1	—	54.3	59.2	—	17.8	—	28.7	—	—
March	38.3	13.8	61.8	68.5	45.6	—	53.6	58.0	—	20.7	—	31.9	—	—
April	31.9	14.5	64.4	71.6	44.6	—	48.7	58.9	—	25.2	—	31.9	—	—
May	35.7	13.0	60.5	71.7	46.1	—	51.6	58.5	—	27.7	—	24.4	—	—
June	39.0	15.6	59.6	71.3	50.0	—	50.4	57.2	—	30.2	—	24.6	—	—
July	39.6	16.7	64.3	75.7	50.9	—	42.5	58.0	—	28.6	—	16.5	—	—
August	38.5	13.7	71.1	76.2	52.2	—	48.7	59.3	—	28.0	—	17.3	—	—
September	36.5	13.8	65.4	74.2	48.9	—	42.7	56.9	—	24.0	—	19.2	—	—
October	32.9	14.6	56.1	66.9	45.5	—	39.0	52.2	—	21.8	—	25.4	—	—

^a Capacity factors are a measure of how often electric generators operate over a specific period of time, using a ratio of actual output (net generation) to the maximum possible output over that same time period (using time-adjusted capacity).

^b Usage factors are a measure of how often electric generators operate over a specific period of time, using a ratio of actual output (gross generation) to the maximum possible output over that same time period (using time-adjusted capacity).

^c Steam turbine, gas turbine, internal combustion engine, combined-cycle, and other plants.

^d Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

^e Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, waste oil, and, beginning in 2011, propane.

^f Natural gas, plus a small amount of supplemental gaseous fuels. Capacity factors for natural gas internal combustion engine, energy storage, fuel cell, and other plants are not displayed.

^g Wood and wood-derived fuels, municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic

sources, and tire-derived fuels).

^h Solar photovoltaic (PV) energy at utility-scale facilities. Does not include small-scale solar photovoltaic generators.

ⁱ Onshore wind plants, and, beginning in 2017, offshore wind plants.

—=No data reported. (s)=Less than 0.5 percent.

Notes: • Data are for utility-scale facilities. See Note 1, "Coverage of Electricity Statistics," at end of section. • Monthly factors are based on a time-adjusted total net summer capacity of generators in operation for the entire month. Annual factors are based on a time-weighted average of the monthly time-adjusted capacity. • For plants that use multiple energy sources or technologies, capacity is assigned to the reported combination of predominant energy source and technology. • See EIA's *Electric Power Annual*, "Technical notes," for further information. • See "Capacity factor" in Glossary. • See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual and monthly data beginning in 2008.

Sources: U.S. Energy Information Administration (EIA), Form EIA-860, "Annual Electric Generator Report"; Form EIA-860M, "Monthly Update to the Annual Electric Generator Report"; and Form EIA-923, "Power Plant Operations Report."

Note 1. Coverage of Electricity Statistics. Data in Section 7 cover the following:

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. Beginning in 1989, data for the commercial sector include institutions and military facilities.

The generation, consumption, and stocks data in Section 7 are for utility-scale facilities—those with a combined generation nameplate capacity of 1 megawatt or more. Data exclude small-scale facilities—those with a combined generator nameplate capacity of less than 1 megawatt. For data on small-scale solar photovoltaic (PV) generation in the residential, commercial, and industrial sectors, see Table 10.6.

Note 2. Classification of Power Plants into Energy-Use Sectors. The U.S. 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.gov/survey/form/eia_860/instructions.pdf.

Note 3. Electricity Forecast Values. Data values preceded by "F" in this section are forecast values. They are derived from EIA's Short-Term Integrated Forecasting System (STIFS). STIFS is driven primarily by data and assumptions about key macroeconomic variables, energy prices, and weather. The electricity forecast relies on additional variables such as alternative fuel prices (natural gas and oil) and power generation by sources other than fossil fuels, including nuclear, renewables, and hydroelectric power. Each month, EIA staff review the model output and make adjustments, if appropriate, based on their knowledge of developments in the electricity industry.

The STIFS model results are published monthly in EIA's Short-Term Energy Outlook, which is accessible on the Web at <http://www.eia.gov/forecasts/steo/>.

Note 4. Experimental Estimates of Electric Vehicle Use. These are experimental estimates of on-road light-duty electric vehicle (EV) electricity consumption to operate and move the vehicle. These estimates are based on models and are subject to model error. The electricity consumed by light-duty EVs is not identified as a separate class of service by electric utilities. Instead, the electricity consumption by light-duty EVs is accounted for based on the location of where the vehicle is charged. This results in electric utilities reporting light-duty EV consumption as part of the Residential, Commercial, and Industrial Sales to Ultimate Customers. Estimates are for light-duty Battery Electric Vehicles and Plug-in Hybrid Electric Vehicles that weigh less than or equal to 8,500 pounds. Estimates exclude plug-in hybrid motor gasoline consumption, on-road medium- and heavy-duty EVs, and off-road EVs such as golf carts and forklifts. For more information, see the detailed estimation methodology at <https://www.eia.gov/electricity/monthly/pdf/technotes-appendix-d.pdf>.

Table 7.1 Sources

Net Generation, Electric Power Sector

1949 forward: Table 7.2b.

Net Generation, Commercial and Industrial Sectors

1949 forward: Table 7.2c.

Trade

1949–September 1977: Unpublished Federal Power Commission data.

October 1977–1980: Unpublished Economic Regulatory Administration (ERA) data.

1981: U.S. 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."

1990–2000: National Energy Board of Canada; and DOE, Office of Electricity Delivery and Energy Reliability, Form FE-781R, "Annual Report of International Electrical Export/Import Data."

2001–May 2011: National Energy Board of Canada; DOE, Office of Electricity Delivery and Energy Reliability, Form OE-781R, "Monthly Electricity Imports and Exports Report," and predecessor form; and California Independent System Operator.

June 2011–2015: National Energy Board of Canada; California Independent System Operator; and EIA estimates for Texas transfers.

2016 forward: EIA, Form EIA-111, "Quarterly Electricity Imports and Exports Report"; and for forecast values, EIA Short-Term Integrated Forecasting System (STIFS).

T&D Losses and Unaccounted for

1949 forward: Calculated as the sum of total net generation and imports minus end use and exports.

End Use

1949 forward: Table 7.6.

Table 7.2b 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: U.S. 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."

2004–2007: EIA, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report."

2008 forward: EIA, Form EIA-923, "Power Plant Operations Report".

Table 7.2c Sources

Industrial Sector, Hydroelectric Power, 1949–1988

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 U.S. Energy Information Administration (EIA) estimates for all other plants.

1980–1988: Estimated by EIA as the average generation over the 6-year period of 1974–1979.

All Data, 1989 Forward

1989–1997: 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."

2004–2007: EIA, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report."

2008 forward: EIA, Form EIA-923, "Power Plant Operations Report".

Table 7.3b 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: U.S. 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."

2004–2007: EIA, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report."

2008 forward: EIA, Form EIA-923, "Power Plant Operations Report".

Table 7.4b 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: U.S. 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."

2004–2007: EIA, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report."

2008 forward: EIA, Form EIA-923, "Power Plant Operations Report".

Table 7.6 Sources

Sales to Ultimate Customers, 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: U.S. Energy Information Administration (EIA), Form EIA-826, "Electric Utility Company Monthly Statement."

1984–2003: EIA, Form EIA-861, "Annual Electric Utility Report."

2004 forward: EIA, *Electric Power Monthly (EPM)* December 2024, Table 5.1.

Sales to Ultimate Customers, Commercial

1949–2002: Data are estimates. See estimation methodology at http://www.eia.gov/state/seds/sep_use/notes/use_elec.pdf.

2003: EIA, Form EIA-861, "Annual Electric Utility Report."

2004 forward: EIA, EPM, December 2024, Table 5.1.

Sales to Ultimate Customers, Transportation

1949–2002: Data are estimates. See estimation methodology at http://www.eia.gov/state/seds/sep_use/notes/use_elec.pdf.

2003: EIA, Form EIA-861, "Annual Electric Utility Report."

2004 forward: EIA, EPM December 2024, Table 5.1.

Direct Use, Annual

1989–1997: EIA, Form EIA-867, "Annual Nonutility Power Producer Report."

1998–2000: EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility."

2001–2023: EIA, *Electric Power Annual* 2024, October 2024, Table 2.2.

Direct Use, Monthly

1989 forward: Annual shares are calculated as annual direct use divided by annual commercial and industrial net generation (on Table 7.1). Then monthly direct use estimates are calculated as the annual share multiplied by the monthly commercial and industrial net generation values. For 2021, the 2020 annual share is used.

Electric Vehicle Use

2018 forward: EIA, EPM, December 2024, Table D1.

Table 7.7b Sources

Net Summer Capacity, Nuclear Power

1949 forward: Table 8.1.

All Other Data

1949–1984: U.S. 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."

2001–2007: EIA, Form EIA-860, "Annual Electric Generator Report."

2008 forward: EIA, Form EIA-860, "Annual Electric Generator Report," and Form EIA-860M, "Monthly Update to the Annual Electric Generator Report."