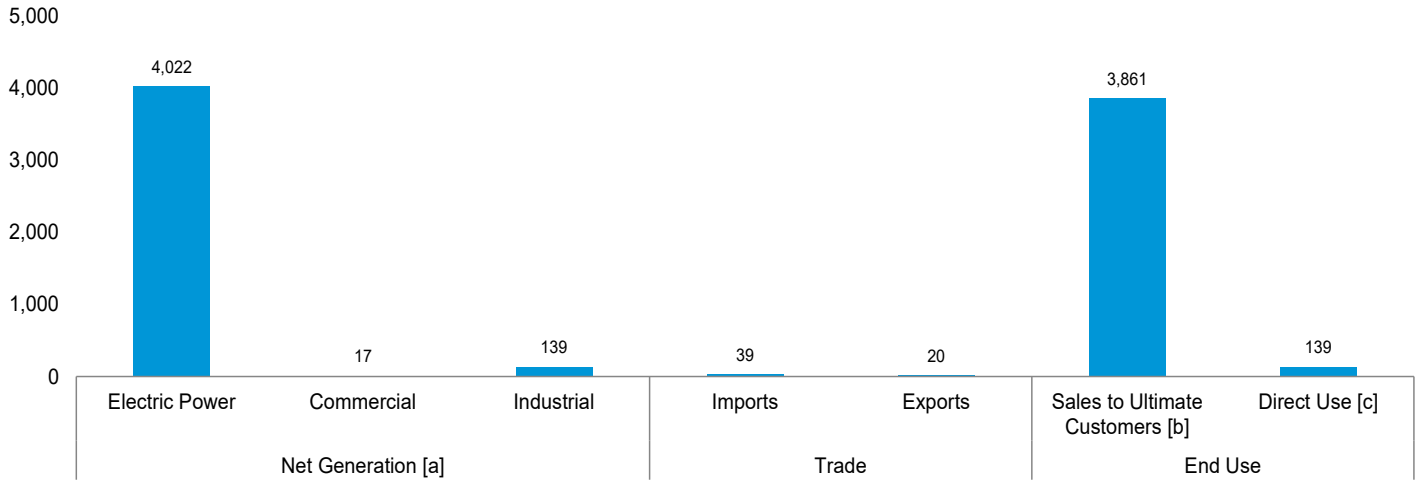


7. Electricity

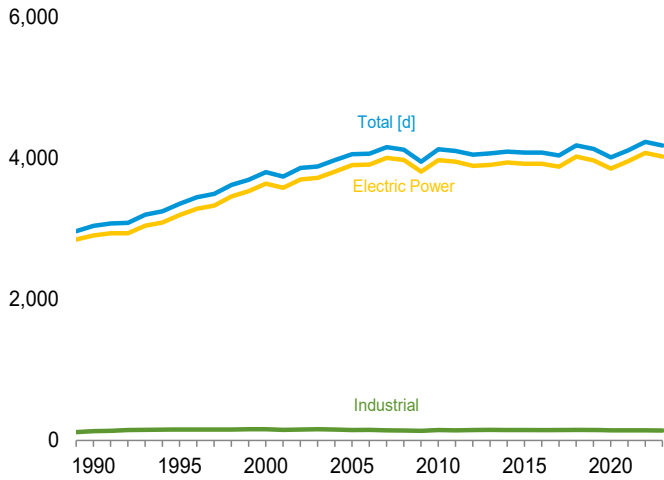
Figure 7.1 Electricity Overview

(Billion Kilowatthours)

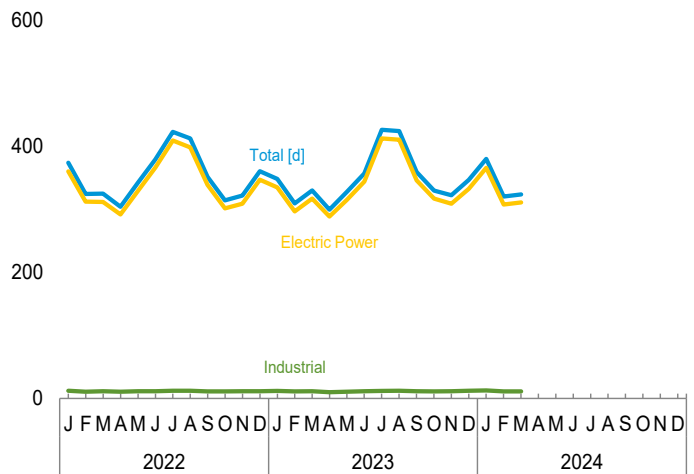
Overview, 2023



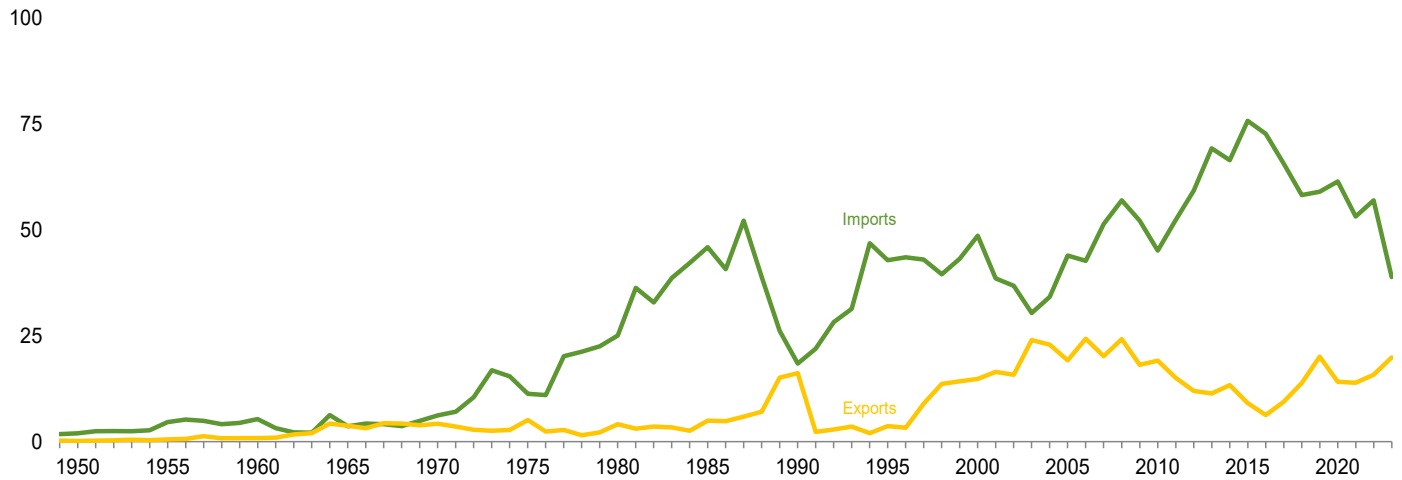
Net Generation [a] by Sector, 1989–2023



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 ^f and Unaccounted for ^g	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	139	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	17	322	^E 12	334
February	297	1	11	309	4	2	2	10	291	^E 11	302
March	317	1	12	330	4	1	3	15	306	^E 12	317
April	288	1	10	300	4	2	2	11	280	^E 10	290
May	315	1	11	327	4	1	3	21	298	^E 11	309
June	344	1	12	357	3	1	2	19	328	^E 12	340
July	412	2	12	426	3	2	1	29	386	^E 12	399
August	410	2	12	424	3	2	1	21	392	^E 12	404
September	346	1	12	359	2	2	(s)	1	346	^E 12	358
October	317	1	11	329	2	2	(s)	11	308	^E 11	319
November	309	1	12	322	2	2	1	18	293	^E 12	305
December	332	1	13	346	3	2	1	24	311	^E 12	323
Total	4,022	17	139	4,178	39	20	19	197	3,861	^E 139	4,000
2024 January	366	1	13	380	4	^R 2	^R 2	28	341	^E 13	354
February	308	1	11	320	^R 3	^R 2	^R (s)	7	303	^E 11	314
March	311	1	11	324	2	3	(s)	17	295	^E 11	306
3-Month Total	984	4	35	1,024	8	7	2	51	939	^E 35	974
2023 3-Month Total	949	4	35	987	12	4	8	42	919	^E 34	953
2022 3-Month Total	984	4	35	1,023	12	5	7	46	949	^E 35	984

^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.

^R=Revised. ^E=Estimate. ^{NA}=Not available. ^(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.

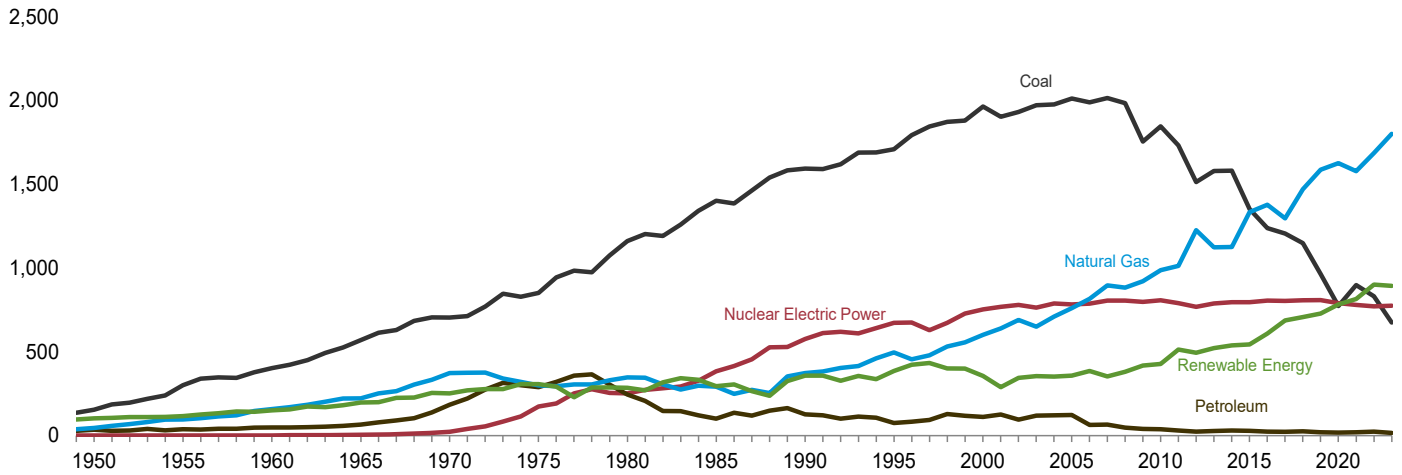
Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: See end of section.

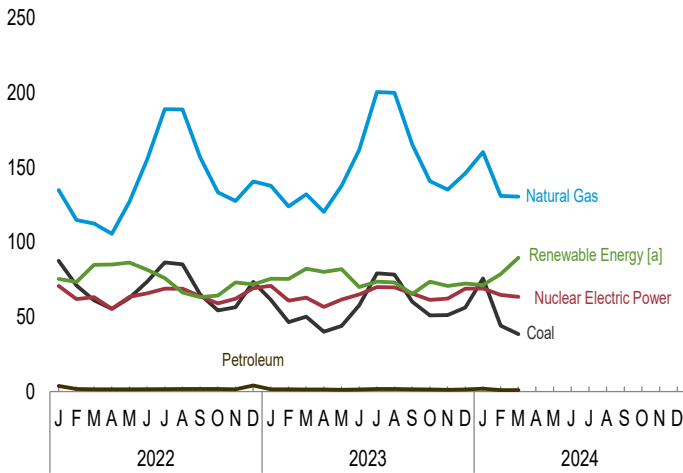
Figure 7.2 Electricity Net Generation

(Billion Kilowatthours)

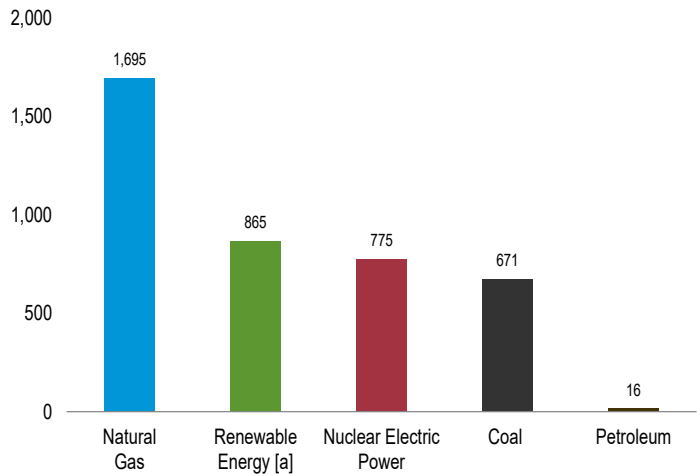
Total (All Sectors), Major Sources, 1949–2023



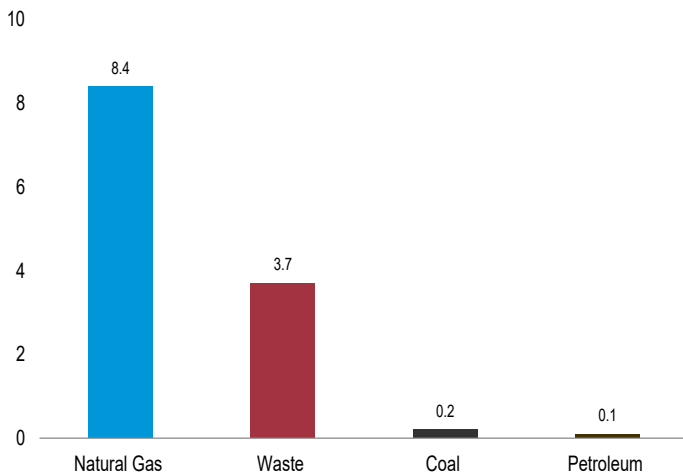
Total (All Sectors), Major Sources, Monthly



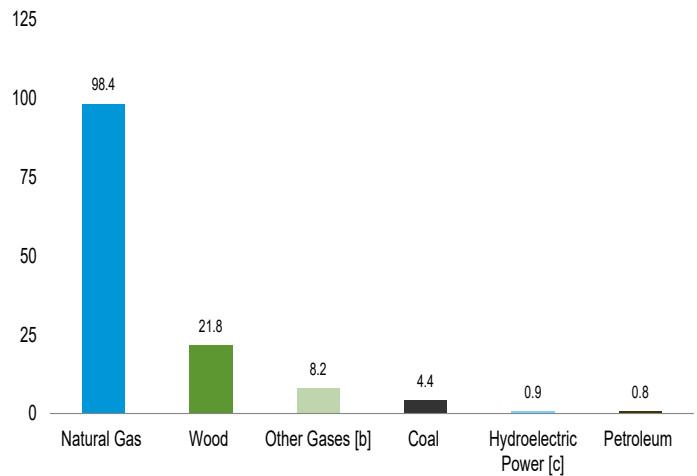
Electric Power Sector, Major Sources, 2023



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 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 7.2c 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 Gases ^h	Hydro- electric Power ⁱ	Biomass		Total ^k
				Waste ^f							Wood ^j	Waste ^f	
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	143,064
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	7,792	671	84	1,959	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	96,550	8,271	899	23,287	806	140,043
2023 January	22	9	664	313	1,365	398	NM	8,304	705	90	1,998	73	11,969
February	20	8	619	269	1,231	353	NM	7,794	673	77	1,773	67	11,122
March	16	7	651	283	1,300	353	85	8,187	700	85	1,849	72	11,647
April	20	NM	599	275	1,233	342	NM	6,885	546	71	1,697	65	9,966
May	18	NM	624	308	1,345	355	56	7,611	618	80	1,922	70	11,032
June	NM	4	727	317	1,447	375	NM	8,312	652	63	1,772	60	11,603
July	12	6	820	326	1,566	394	NM	8,665	703	73	1,794	59	12,102
August	11	5	820	315	1,542	375	NM	8,817	807	74	1,870	58	12,413
September	14	5	765	291	1,427	362	NM	8,448	674	66	1,683	51	11,664
October	19	5	673	310	1,364	350	56	8,112	667	NM	1,654	72	11,330
November	18	6	678	316	1,393	341	55	8,325	721	71	1,867	77	11,776
December	21	7	729	329	1,462	366	60	8,973	750	79	1,907	75	12,534
Total	200	72	8,370	3,652	16,675	4,364	804	98,433	8,217	904	21,786	799	139,157
2024 January	30	12	751	317	1,481	387	78	9,153	743	90	1,871	70	12,693
February	20	5	692	286	1,346	352	63	8,005	561	83	1,745	70	11,164
March	18	6	725	287	1,390	393	54	7,920	523	88	1,817	81	11,171
3-Month Total	68	23	2,168	891	4,217	1,132	195	25,079	1,827	261	5,433	221	35,028
2023 3-Month Total	58	24	1,934	866	3,897	1,104	235	24,285	2,078	253	5,620	212	34,738
2022 3-Month Total	67	38	1,824	934	3,962	1,313	229	24,054	2,030	270	5,872	219	35,102

^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 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.

NA=Not available. NM=Not meaningful.

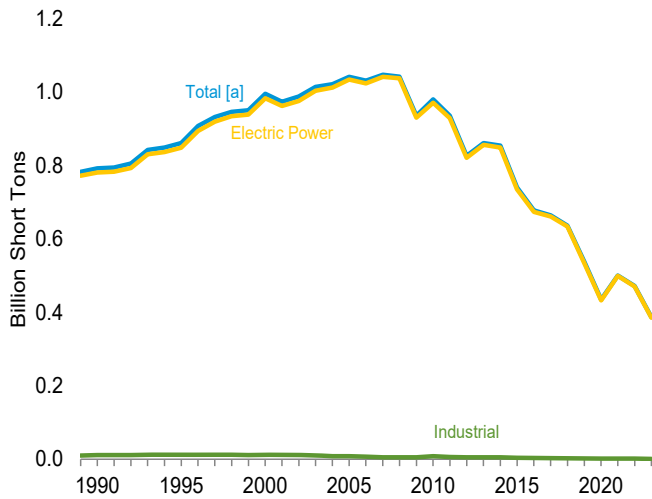
Notes: • Data are for utility-scale facilities. See Note 1, "Coverage of Electricity Statistics," at end of section. • See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is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

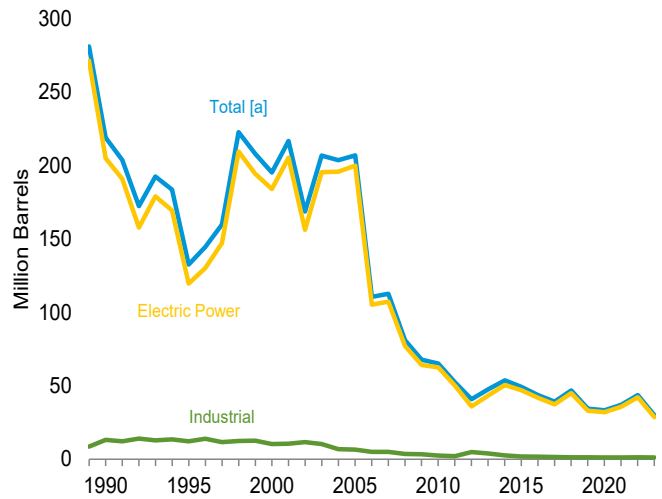
Sources: See end of section.

Figure 7.3 Consumption of Selected Combustible Fuels for Electricity Generation

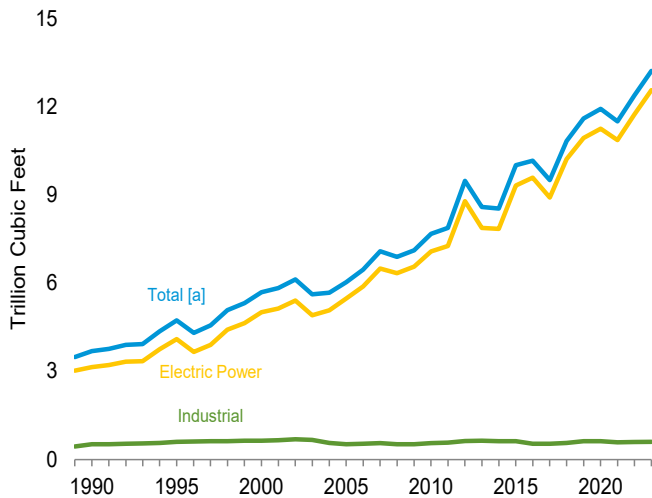
Coal by Sector, 1989–2023



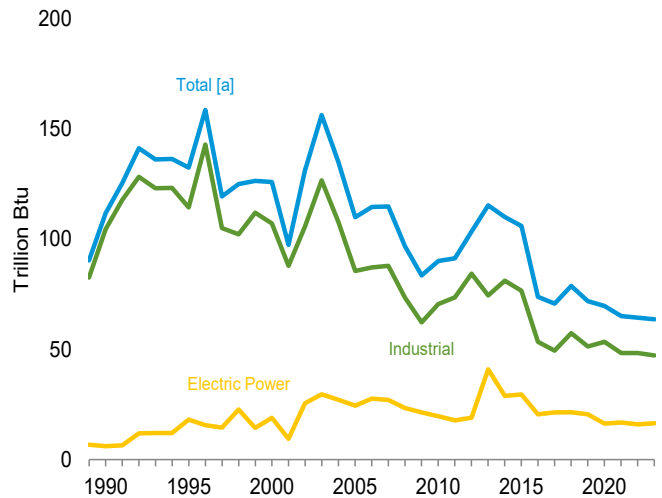
Petroleum by Sector, 1989–2023



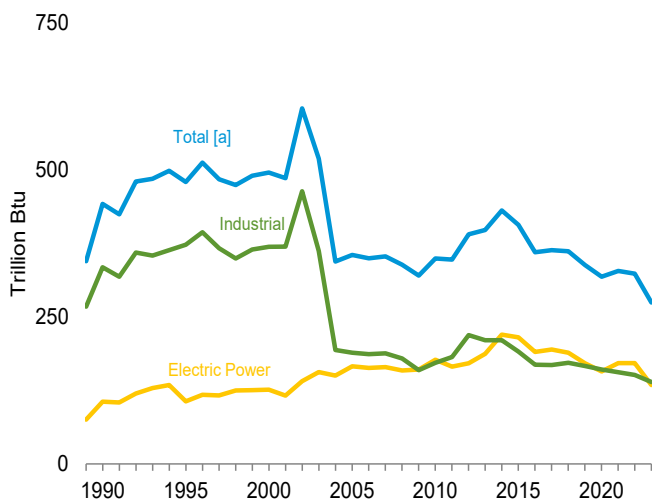
Natural Gas by Sector, 1989–2023



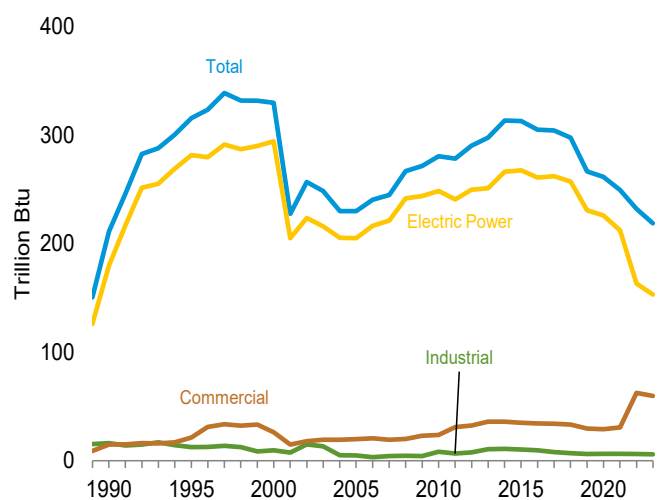
Other Gases [b] by Sector, 1989–2023



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)

	Coal ^a	Petroleum					Natural Gas ^f	Other Gases ^g	Biomass		Other ⁱ
		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	
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	35,469	773	825	190	163	2,603	992	5	27	19	12
February	26,887	742	1,117	144	135	2,680	892	5	23	17	11
March	28,612	738	816	159	115	2,290	956	5	23	18	11
April	22,864	677	760	141	107	2,111	888	4	20	17	11
May	25,567	758	762	179	117	2,285	1,020	5	24	19	12
June	33,457	693	764	153	147	2,346	1,202	5	24	18	12
July	44,484	649	917	121	252	2,945	1,496	6	26	19	13
August	43,865	772	853	129	254	3,025	1,488	6	26	19	13
September	34,207	581	927	135	226	2,772	1,217	5	22	18	12
October	29,616	670	901	164	121	2,340	1,041	5	18	18	12
November	29,605	746	842	135	87	2,158	989	5	21	17	12
December	31,968	824	819	135	123	2,395	1,043	6	22	20	12
Total	386,601	8,623	10,304	1,785	1,848	29,951	13,223	64	274	219	143
2024 January	42,396	1,507	1,077	198	134	3,453	1,158	5	25	18	12
February	25,891	560	729	134	104	1,941	936	4	21	18	11
March	22,241	620	713	126	59	1,753	938	4	21	18	11
3-Month Total	90,527	2,687	2,519	458	297	7,148	3,032	14	67	54	34
2023 3-Month Total	90,968	2,253	2,759	493	414	7,573	2,840	16	72	55	35
2022 3-Month Total	123,018	4,517	3,975	524	703	12,533	2,596	16	83	59	39

^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 Gases ^g	Biomass		Other ⁱ
		Distillate Fuel Oil ^b	Residual Fuel Oil ^c	Other Liquids ^d	Petroleum Coke ^e	Total ^e			Wood ^h	Waste ⁱ	
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	35,327	739	808	161	153	2,473	937	1	14	14	6
February	26,763	712	1,100	130	127	2,579	841	1	11	12	5
March	28,490	704	798	143	NM	NM	902	1	11	13	6
April	22,743	650	745	126	NM	NM	841	1	9	12	5
May	25,440	728	750	163	110	2,190	969	1	12	13	6
June	33,330	668	751	130	140	2,247	1,147	1	12	13	6
July	44,344	621	906	100	240	2,829	1,438	1	14	13	6
August	43,734	742	842	111	244	2,915	1,429	2	14	13	6
September	34,080	557	915	120	217	2,677	1,161	1	11	13	6
October	29,485	643	890	146	114	2,250	987	1	7	12	6
November	29,480	716	829	120	81	2,069	934	1	9	11	5
December	31,835	793	803	120	115	2,292	983	2	10	14	6
Total	385,051	8,276	10,136	1,570	1,744	28,701	12,569	16	134	153	70
2024 January	42,255	1,468	1,051	183	126	3,333	1,098	1	13	12	6
February	25,762	530	716	109	98	1,843	884	1	10	12	5
March	22,102	589	700	112	52	1,663	885	1	10	13	5
3-Month Total	90,119	2,587	2,468	404	276	6,839	2,866	3	33	38	17
2023 3-Month Total	90,579	2,156	2,706	434	383	7,213	2,679	4	36	39	17
2022 3-Month Total	122,565	4,392	3,921	483	669	12,142	2,438	4	44	42	19

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

^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 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	7	23	4	5	134	107	52	4	13	1	1
February	6	17	4	5	118	84	47	4	11	1	1
March	5	16	4	5	117	113	50	4	12	1	1
April	6	NM	4	5	115	81	42	3	11	(s)	1
May	6	16	4	5	121	79	47	4	12	1	1
June	3	12	4	5	124	87	51	4	11	(s)	1
July	4	14	5	5	136	102	53	4	11	(s)	1
August	4	15	5	5	127	95	54	5	12	(s)	1
September	5	13	5	5	122	82	51	4	11	(s)	1
October	7	14	4	5	124	77	50	4	11	1	1
November	6	16	4	5	119	74	51	4	12	1	1
December	7	22	4	5	126	81	56	4	12	1	1
Total	66	188	51	60	1,484	1,061	603	47	139	6	12
2024 January	9	25	5	5	131	96	56	4	12	1	1
February	6	14	4	5	123	84	49	3	11	1	1
March	6	17	4	5	133	74	49	3	12	1	1
3-Month Total	22	56	13	15	387	254	153	11	35	2	3
2022 3-Month Total	19	56	12	14	370	305	149	12	36	2	3
2021 3-Month Total	20	81	11	15	433	311	147	12	38	2	5

^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 symfuel.

^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.

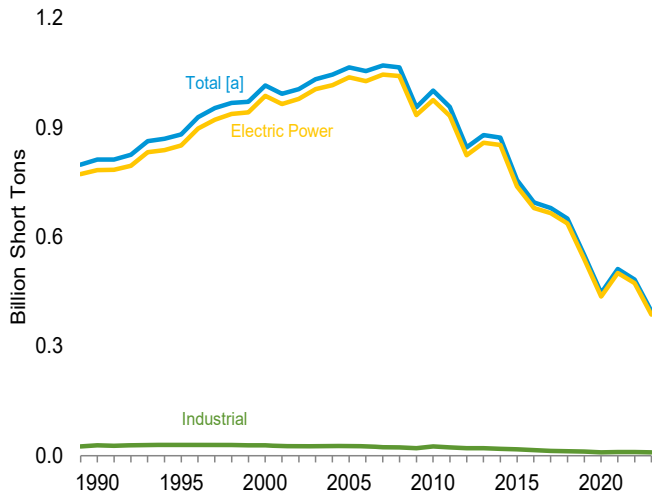
Notes: • Data are for utility-scale facilities. See Note 1, "Coverage of Electricity Statistics," at end of section. • See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Data are for fuels consumed to produce electricity. Through 1988, data are not available. • 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.

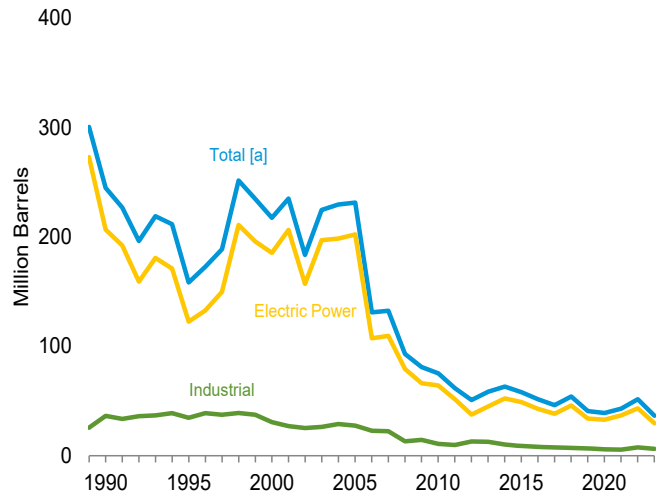
Sources: • 1989–1997: U.S. Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • 1998–2000: EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • 2001–2003: EIA, Form EIA-906, "Power Plant Report." • 2004–2007: EIA, Form EIA-906, "Power Plant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

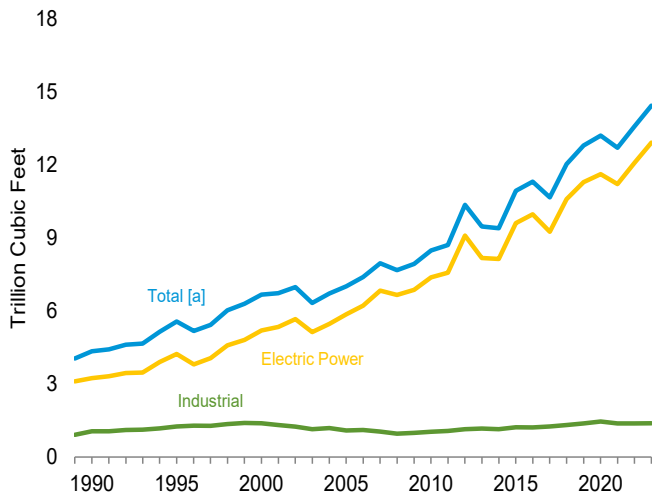
Coal by Sector, 1989–2023



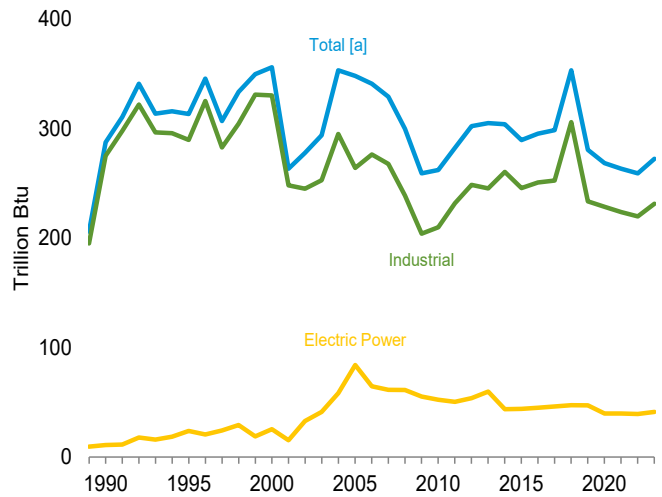
Petroleum by Sector, 1989–2023



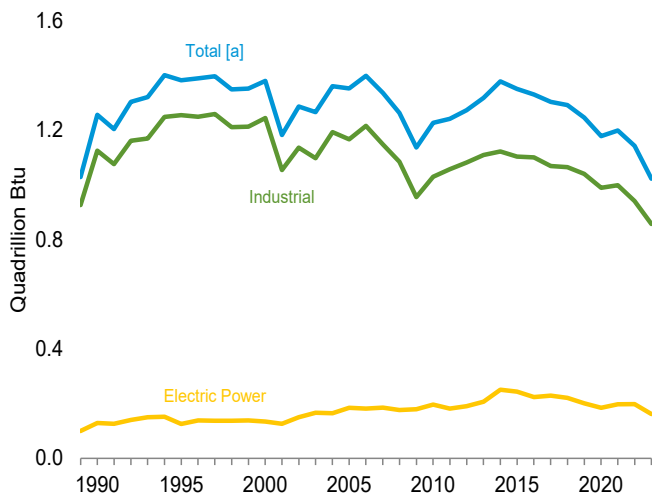
Natural Gas by Sector, 1989–2023



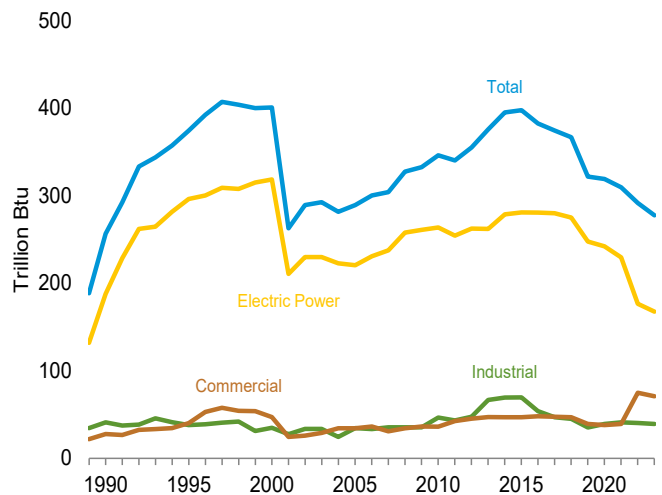
Other Gases [b] by Sector, 1989–2023



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)

	Coal ^a Thousand Short Tons	Petroleum					Natural Gas ^f Billion Cubic Feet	Other Gases ^g	Biomass		Other ⁱ
		Distillate Fuel Oil ^b Thousand Barrels	Residual Fuel Oil ^c Thousand Barrels	Other Liquids ^d	Petroleum Coke ^e Thousand Short Tons	Total ^e Thousand Barrels			Wood ^h Trillion Btu	Waste ^j 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	36,421	867	1,068	241	206	3,205	1,101	23	98	26	15
February	27,698	808	1,309	174	184	3,210	990	21	85	23	13
March	29,462	811	1,057	194	173	2,928	1,062	22	89	24	14
April	23,614	726	954	175	157	2,640	982	20	78	22	13
May	26,353	798	910	215	173	2,789	1,115	22	88	24	14
June	34,220	723	907	198	198	2,816	1,300	22	83	22	14
July	45,286	684	1,055	158	306	3,427	1,600	22	86	23	15
August	44,618	810	999	167	315	3,550	1,591	24	87	22	15
September	34,973	620	1,077	169	278	3,258	1,317	28	79	22	14
October	30,374	711	1,061	201	177	2,859	1,140	26	78	23	14
November	30,386	804	1,017	169	136	2,670	1,094	20	85	22	15
December	32,784	944	1,056	177	176	3,058	1,154	22	86	26	16
Total	396,188	9,308	12,471	2,238	2,479	36,410	14,446	273	1,022	278	171
2024 January	43,343	1,636	1,418	237	188	4,232	1,275	22	89	24	15
February	26,681	629	890	179	144	2,415	1,038	19	77	23	13
March	23,139	700	896	165	99	2,255	1,041	20	83	24	14
3-Month Total	93,163	2,964	3,204	581	430	8,902	3,355	62	250	71	41
2023 3-Month Total	93,582	2,487	3,435	609	563	9,343	3,154	66	272	72	41
2022 3-Month Total	126,003	4,803	4,578	635	885	14,442	2,909	65	288	77	47

^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 Thousand Short Tons	Petroleum					Natural Gas ^f Billion Cubic Feet	Other Gases ^g	Biomass		Other ⁱ
		Distillate Fuel Oil ^b	Residual Fuel Oil ^c	Other Liquids ^d	Petroleum Coke ^e	Total ^e			Wood ^h	Waste ⁱ	
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	536,606	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	35,549	750	836	162	162	2,558	967	3	16	15	7
February	26,934	724	1,124	132	151	2,737	870	3	13	14	6
March	28,692	712	819	145	NM	NM	932	3	14	14	6
April	22,873	660	768	128	NM	NM	869	3	11	13	6
May	25,601	736	775	165	118	2,266	996	3	14	14	6
June	33,496	674	774	132	146	2,312	1,176	3	15	13	6
July	44,548	626	929	101	249	2,902	1,471	3	16	14	7
August	43,926	746	864	113	254	2,990	1,462	4	16	14	7
September	34,263	561	939	121	224	2,742	1,191	4	13	14	6
October	29,646	649	921	148	122	2,331	1,016	4	10	13	6
November	29,639	721	852	122	89	2,139	965	3	12	13	6
December	32,005	797	831	123	124	2,369	1,014	4	12	15	7
Total	387,170	8,357	10,433	1,592	1,863	29,699	12,930	41	162	167	76
2024 January	42,464	1,485	1,075	187	134	3,420	1,131	3	15	14	7
February	25,928	533	734	110	105	1,904	914	2	11	14	6
March	22,281	593	721	114	60	1,727	915	3	12	14	6
3-Month Total	90,673	2,612	2,530	411	300	7,051	2,961	8	38	42	19
2023 3-Month Total	91,175	2,186	2,780	440	427	7,542	2,769	9	44	43	19
2022 3-Month Total	123,367	4,446	4,022	496	708	12,505	2,530	9	51	47	21

^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 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	80	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	46	87	11	6	826	561	123	20	81	4	2
February	40	44	10	5	724	428	110	18	72	4	2
March	37	44	11	6	734	638	120	19	75	4	2
April	36	NM	9	6	704	513	104	18	67	4	2
May	31	28	9	6	720	496	110	18	73	4	2
June	25	30	10	6	699	475	114	18	68	2	2
July	27	32	11	6	711	493	118	19	70	2	2
August	28	32	11	6	663	527	117	20	71	2	2
September	30	34	10	6	680	482	116	24	66	2	2
October	33	33	10	6	695	495	113	23	68	3	2
November	35	54	10	6	712	477	118	17	73	4	3
December	40	137	11	6	738	551	129	18	73	4	3
Total	409	576	123	71	8,608	6,136	1,392	231	857	39	24
2024 January	56	117	12	6	823	695	132	19	74	4	2
February	40	61	11	6	713	450	113	17	66	4	2
March	37	81	11	6	820	447	115	17	71	4	2
3-Month Total	133	259	33	18	2,356	1,591	361	54	211	12	6
2022 3-Month Total	123	175	31	17	2,284	1,627	353	57	228	12	6
2021 3-Month Total	148	282	31	18	2,488	1,654	348	56	236	12	8

^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.

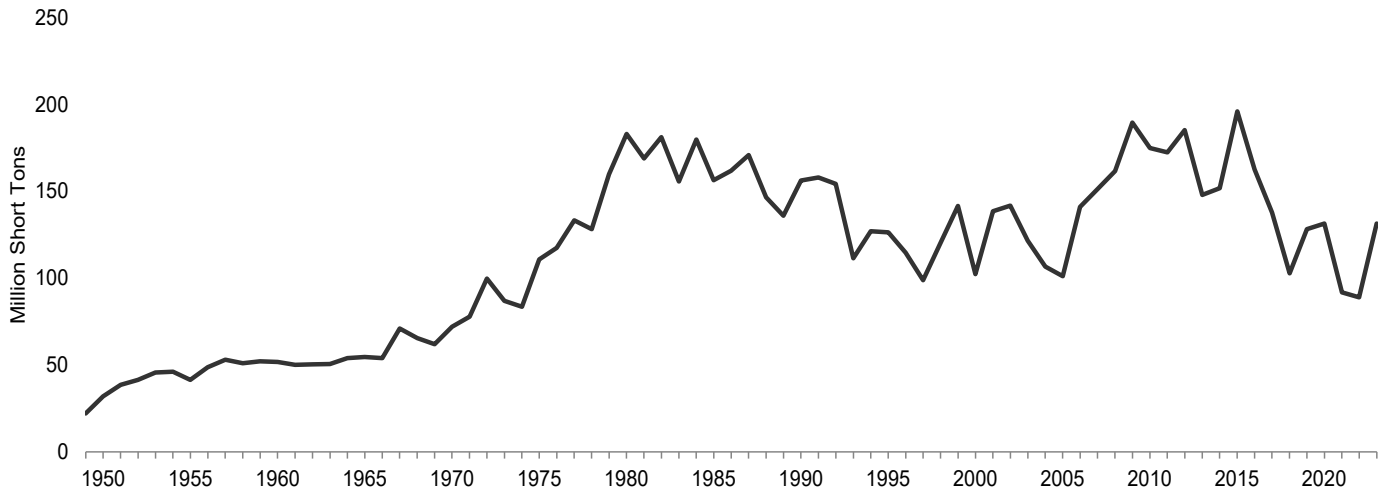
Notes: • Data are for utility-scale facilities. See Note 1, "Coverage of Electricity Statistics," at end of section. • See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is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

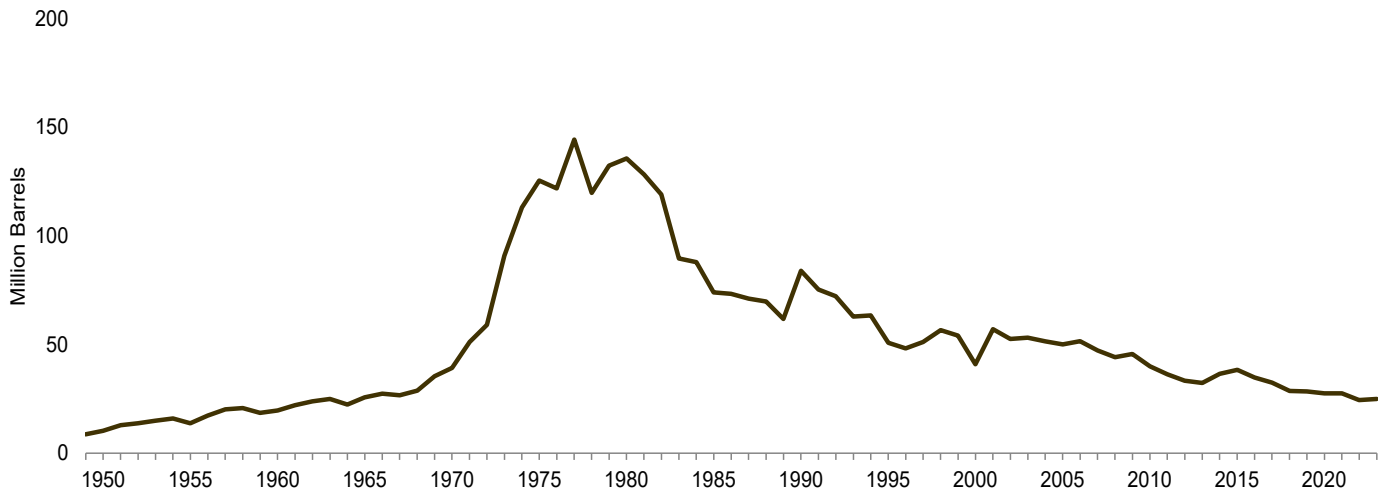
Sources: • **1989–1997:** U.S. Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • **1998–2000:** EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • **2001–2003:** EIA, Form EIA-906, "Power Plant Report." • **2004–2007:** EIA, Form EIA-906,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

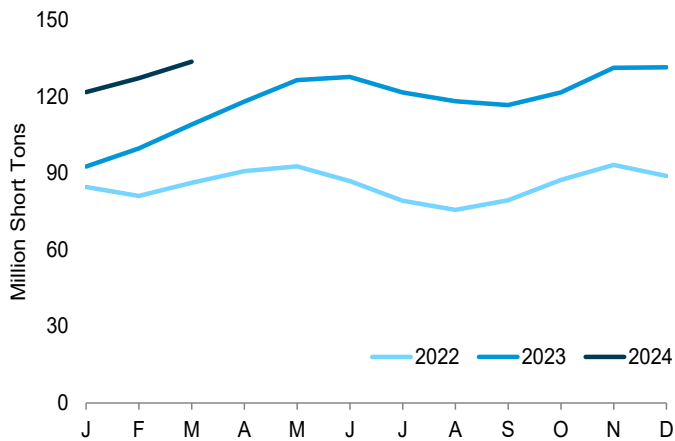
Coal, 1949–2023



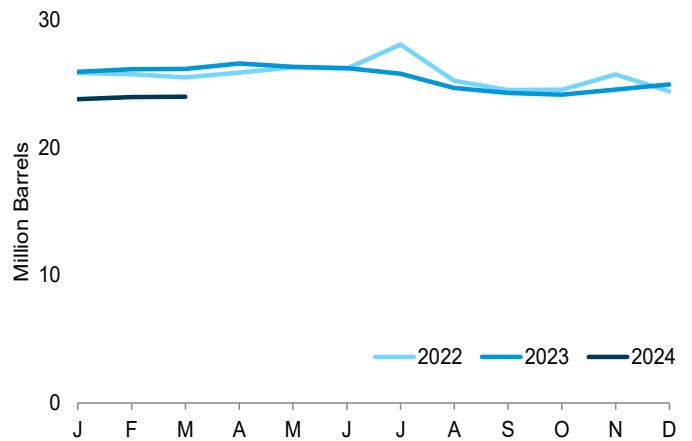
Total Petroleum, 1949–2023



Coal, Monthly



Total Petroleum, Monthly



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				Total ^{e,f}
		Distillate Fuel Oil ^b	Residual Fuel Oil ^c	Other Liquids ^d	Petroleum Coke ^e	
	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	92,604	17,382	6,127	545	374	25,923
February	99,700	17,523	6,236	537	368	26,135
March	109,004	16,959	6,138	496	513	26,159
April	118,035	16,806	6,240	500	607	26,579
May	126,414	16,692	6,193	441	600	26,326
June	127,710	16,881	6,248	427	533	26,221
July	121,590	16,714	6,442	418	441	25,777
August	118,144	16,115	6,384	405	356	24,684
September	116,635	16,087	6,393	397	279	24,271
October	121,621	15,995	6,353	388	284	24,157
November	131,266	16,040	6,325	385	362	24,557
December	131,426	16,141	6,291	381	428	24,951
2024 January	121,722	15,747	6,130	361	312	23,798
February	127,107	15,715	6,338	357	309	23,953
March	133,607	15,530	6,433	357	333	23,987

^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.

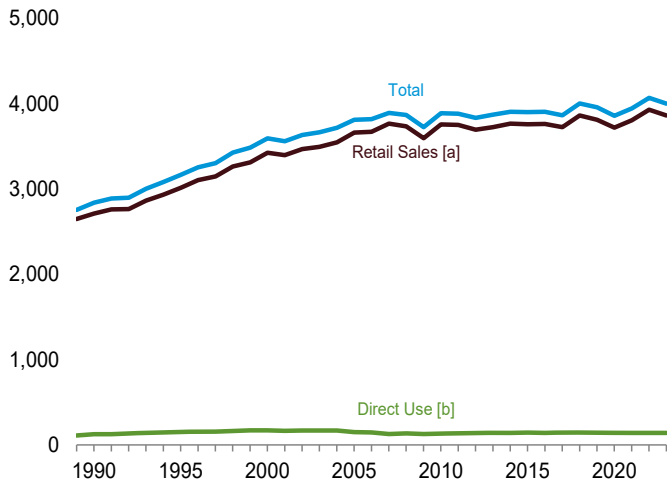
Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

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."

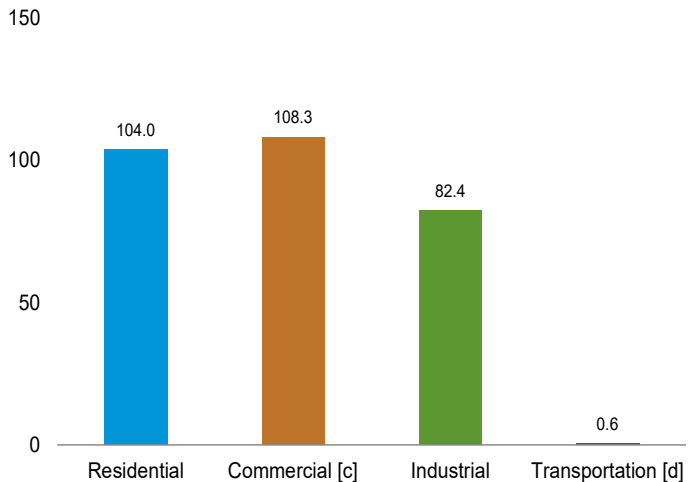
Figure 7.6 Electricity End Use

(Billion Kilowatthours)

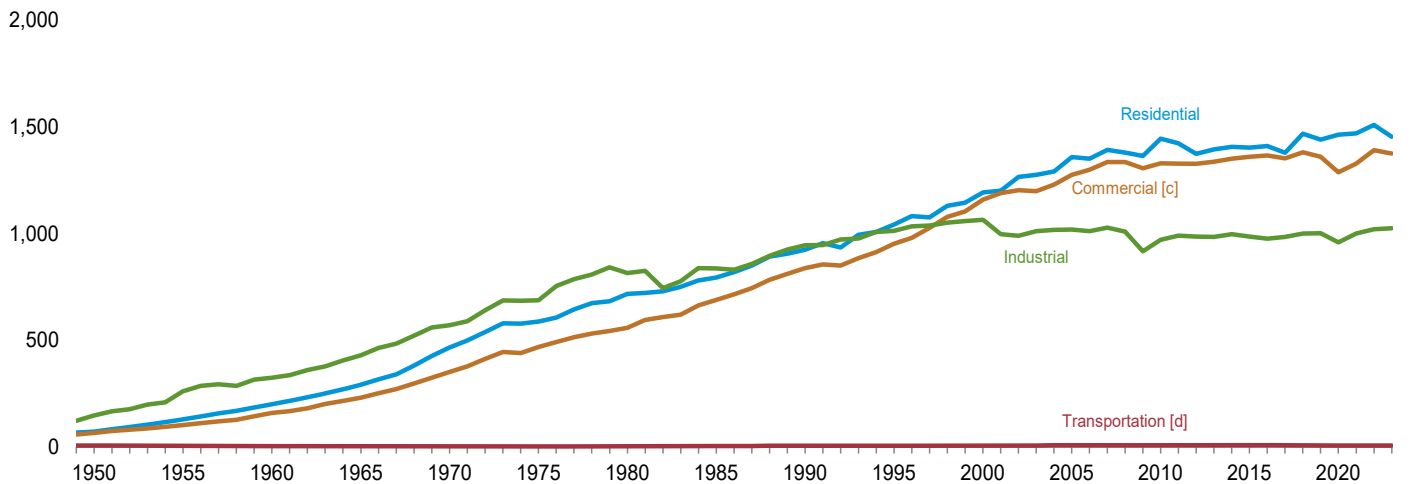
Electricity End Use Overview, 1989–2023



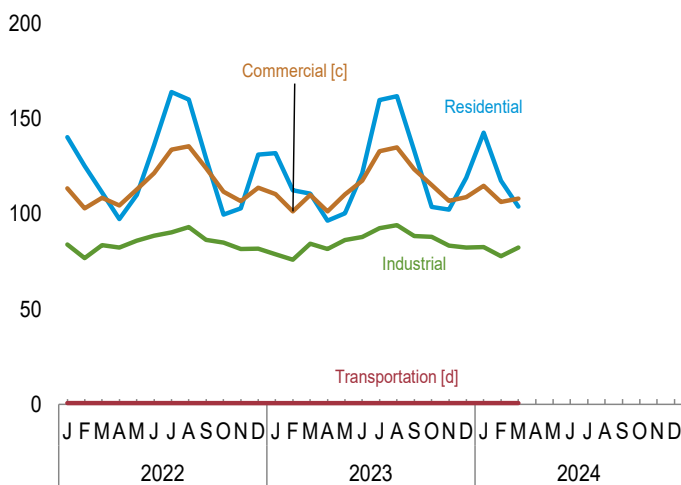
Sales to Ultimate Customers [a] by Sector, March 2024



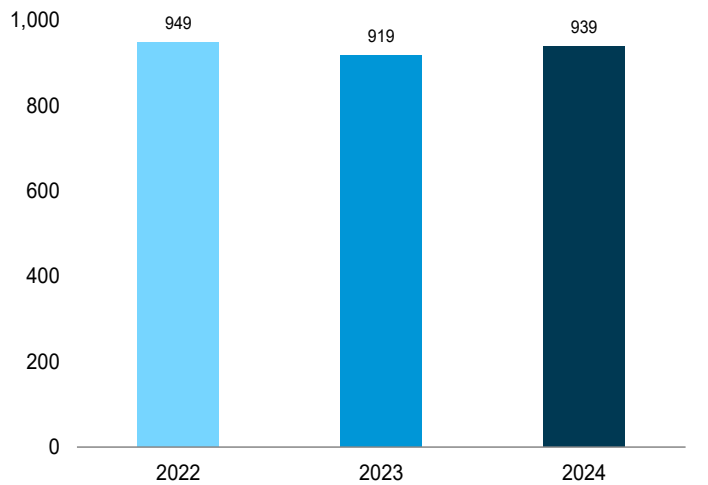
Sales to Ultimate Customers [a] by Sector, 1949–2023



Sales to Ultimate Customers [a] by Sector, Monthly



Sales to Ultimate Customers [a] Total, January–March



[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	138,703	3,856,377	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 11,689	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	1,590,233	1,390,873	1,020,464	6,599	3,927,169	139,726	4,066,895	E 5,252
2023 January	132,059	110,493	78,965	569	322,084	E 11,884	333,968	E 527
February	112,543	101,434	76,054	550	290,582	E 11,009	301,591	E 512
March	110,792	110,071	84,426	567	305,856	E 11,539	317,394	E 592
April	96,542	101,556	81,765	511	280,373	E 9,981	290,354	E 546
May	100,479	110,404	86,394	518	297,795	E 11,030	308,825	E 602
June	121,568	117,727	88,009	568	327,872	E 11,631	339,503	E 621
July	160,085	133,161	92,565	621	386,432	E 12,181	398,612	E 662
August	162,031	135,067	94,226	577	391,900	E 12,436	404,336	E 678
September	133,320	123,663	88,495	650	346,129	E 11,667	357,795	E 661
October	103,767	115,379	88,164	565	307,874	E 11,314	319,188	E 704
November	102,428	107,051	83,460	549	293,487	E 11,737	305,224	E 714
December	119,052	108,918	82,427	562	310,959	E 12,473	323,432	E 776
Total	1,454,667	1,374,922	1,024,949	6,804	3,861,342	E 138,881	4,000,224	E 7,596
2024 January	142,839	114,843	82,723	606	341,010	E 12,632	353,643	E 831
February	117,716	106,394	77,915	518	302,543	E 11,149	313,691	E 747
March	103,974	108,266	82,428	611	295,280	E 11,194	306,474	E 853
3-Month Total	364,529	329,503	243,067	1,734	938,833	E 34,975	973,808	E 2,432
2023 3-Month Total	355,394	321,998	239,445	1,686	918,522	E 34,432	952,954	E 1,631
2022 3-Month Total	377,285	325,271	244,554	1,710	948,819	E 34,815	983,634	E 1,152

^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.

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	Hydroelectric Pumped Storage	Renewable Energy							Battery Storage	Total ⁱ	
	Coal ^a	Petroleum ^b	Natural Gas ^c	Total ^d			Conventional Hydroelectric Power ^e	Biomass		Geothermal	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)	.2	1.6	(k)	(s)	90.8	NA	655.2
1990 Year	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	186.9	28.8	504.3	721.7	94.6	23.1	80.1	7.8	4.3	2.6	74.0	141.9	310.8	9.2	1,160.8	
February	186.9	28.8	505.5	723.0	94.6	23.1	80.1	7.8	4.3	2.6	74.7	142.7	312.3	9.3	1,163.6	
March	186.9	28.8	505.9	723.3	94.6	23.2	80.1	7.8	4.3	2.6	75.4	143.1	313.3	9.5	1,165.3	
April	186.9	28.8	507.9	725.3	94.6	23.2	80.1	7.8	4.3	2.7	76.2	143.7	314.9	9.7	1,169.1	
May	185.4	29.2	506.8	723.1	94.6	23.2	80.1	7.8	4.3	2.7	77.3	144.5	316.7	9.8	1,168.9	
June	183.2	29.1	507.8	721.9	94.6	23.2	80.1	7.8	4.3	2.7	78.9	144.5	318.2	10.9	1,170.2	
July	182.6	29.1	508.6	722.0	95.7	23.2	80.1	7.8	4.3	2.7	80.9	144.5	320.3	12.4	1,175.0	
August	182.0	29.1	508.6	721.4	95.7	23.2	80.1	7.8	4.3	2.7	81.6	144.5	321.0	12.9	1,175.6	
September	182.0	29.1	508.3	721.0	95.7	23.2	80.1	7.8	4.3	2.7	82.5	144.6	321.9	13.4	1,176.7	
October	181.5	29.1	508.2	720.5	95.7	23.2	80.1	7.8	4.3	2.7	84.0	145.3	324.2	13.6	1,178.7	
November	181.5	29.1	508.9	721.2	95.7	23.2	80.1	7.7	4.3	2.7	84.9	145.3	325.0	14.1	1,180.6	
December	180.8	29.1	508.3	719.9	95.7	23.2	80.1	7.7	4.3	2.7	91.3	147.6	333.7	15.4	1,189.4	
2024 January	178.3	29.1	509.4	718.6	95.7	23.1	80.0	7.6	4.3	2.7	94.7	148.4	337.7	15.9	1,192.5	
February	177.9	29.4	507.8	716.9	95.7	23.1	80.0	7.6	4.3	2.7	95.5	148.8	338.8	15.9	1,191.9	
March	177.7	29.4	508.7	717.5	95.7	23.2	80.0	7.5	4.2	2.7	98.2	148.9	341.7	16.8	1,196.5	

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

^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 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)	.2	1.6	(k)	90.8	NA	655.2
1990 Year	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	27.3	485.3	698.4	94.6	23.1	79.8	2.4	2.9	2.6	73.4	141.8	303.0	9.1	1,128.4
February	185.4	27.3	486.5	699.6	94.6	23.1	79.8	2.4	2.9	2.6	74.1	142.5	304.4	9.2	1,131.1
March	185.4	27.3	487.1	700.2	94.6	23.2	79.8	2.4	2.9	2.6	74.7	142.9	305.4	9.5	1,133.1
April	185.4	27.3	489.1	702.2	94.6	23.2	79.8	2.4	2.9	2.7	75.6	143.6	307.0	9.6	1,136.9
May	183.9	27.7	488.0	700.0	94.6	23.2	79.8	2.4	2.9	2.7	76.7	144.4	308.8	9.8	1,136.6
June	181.8	27.6	489.0	698.8	94.6	23.2	79.8	2.4	2.9	2.7	78.3	144.4	310.4	10.8	1,138.0
July	181.1	27.6	489.8	698.9	95.7	23.2	79.8	2.4	2.9	2.7	80.3	144.4	312.5	12.3	1,142.8
August	180.5	27.6	489.8	698.3	95.7	23.2	79.8	2.4	2.9	2.7	81.0	144.4	313.2	12.8	1,143.4
September	180.5	27.6	489.5	697.9	95.7	23.2	79.8	2.4	2.9	2.7	81.9	144.5	314.1	13.4	1,144.5
October	180.0	27.6	489.4	697.4	95.7	23.2	79.8	2.4	2.9	2.7	83.3	145.2	316.3	13.6	1,146.4
November	180.0	27.6	490.1	698.1	95.7	23.2	79.8	2.4	2.9	2.7	84.2	145.2	317.1	14.0	1,148.4
December	179.4	27.6	489.5	696.9	95.7	23.2	79.8	2.4	2.9	2.7	90.5	147.5	325.8	15.4	1,157.2
2024 January	176.9	27.6	490.7	695.5	95.7	23.1	79.7	2.3	2.9	2.7	94.0	148.3	329.9	15.8	1,160.3
February	176.5	27.9	489.0	693.8	95.7	23.1	79.7	2.3	2.9	2.7	94.7	148.7	331.0	15.9	1,159.8
March	176.3	27.9	490.0	694.5	95.7	23.2	79.7	2.3	2.8	2.7	97.5	148.8	333.9	16.8	1,164.3

^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 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			Conventional Hydroelectric 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)	5.5
February	(s)	1.0	2.4	3.4	-	-	.1	.1	1.3	-	.4	.1	2.0	(s)	5.5
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)	5.5
July	(s)	1.0	2.4	3.4	-	-	.1	.1	1.3	-	.4	.1	2.0	(s)	5.5
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	-	.5	.1	2.1	(s)	5.5
November	(s)	1.0	2.4	3.4	-	-	.1	.1	1.3	-	.5	.1	2.1	(s)	5.5
December	(s)	1.0	2.4	3.4	-	-	.1	.1	1.3	-	.5	.1	2.1	(s)	5.5
2024 January	(s)	1.0	2.4	3.4	-	-	.1	.1	1.3	-	.5	.1	2.1	(s)	5.5
February	(s)	1.0	2.4	3.4	-	-	.1	.1	1.3	-	.5	.1	2.1	(s)	5.5
March	(s)	1.0	2.4	3.4	-	-	.1	.1	1.3	-	.5	.1	2.1	(s)	5.5

^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 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	(s)	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	16.6	19.9	-	-	.2	5.3	.1	-	.2	.1	5.8	(s)	27.0
February	1.4	.5	16.6	19.9	-	-	.2	5.3	.1	-	.2	.1	5.8	(s)	27.0
March	1.4	.5	16.4	19.7	-	-	.2	5.3	.1	-	.2	.1	5.8	(s)	26.8
April	1.4	.5	16.4	19.7	-	-	.2	5.3	.1	-	.2	.1	5.8	(s)	26.8
May	1.4	.5	16.4	19.7	-	-	.2	5.2	.1	-	.2	.1	5.8	(s)	26.8
June	1.4	.5	16.4	19.7	-	-	.2	5.2	.1	-	.2	.1	5.8	(s)	26.8
July	1.4	.5	16.4	19.7	-	-	.2	5.2	.1	-	.2	.1	5.8	(s)	26.8
August	1.4	.5	16.4	19.7	-	-	.2	5.2	.1	-	.2	.1	5.8	(s)	26.8
September	1.4	.5	16.4	19.7	-	-	.2	5.2	.1	-	.2	.1	5.8	(s)	26.8
October	1.4	.5	16.4	19.7	-	-	.2	5.2	.1	-	.2	.1	5.8	(s)	26.8
November	1.4	.5	16.4	19.7	-	-	.2	5.2	.1	-	.2	.1	5.7	(s)	26.7
December	1.4	.5	16.4	19.7	-	-	.2	5.2	.1	-	.2	.1	5.8	(s)	26.7
2024 January	1.4	.5	16.4	19.7	-	-	.2	5.1	.1	-	.2	.1	5.7	(s)	26.7
February	1.4	.5	16.4	19.7	-	-	.2	5.1	.1	-	.2	.1	5.7	(s)	26.6
March	1.4	.5	16.4	19.7	-	-	.2	5.1	.1	-	.2	.1	5.7	(s)	26.6

^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 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
			Comb- ined 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	86.1	39.6	62.1	68.3	20.4	23.6	32.4	-	-
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	7.7
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	93.5	41.2	60.3	69.6	24.3	21.2	34.8	10.4	5.4
2020 Year	40.5	5.2	57.1	11.6	14.2	92.5	40.7	59.5	69.1	24.2	20.6	35.4	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	8.3	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	20.2	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	18.6	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	13.9	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	10.3	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	11.3	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	44.3	3.8	56.8	9.3	9.9	100.7	37.4	60.1	78.4	14.6	7.7	37.1	9.2	5.6
February	37.1	4.2	56.6	8.9	10.0	95.6	34.7	58.5	72.6	18.3	11.0	43.9	9.6	5.2
March	35.9	4.0	52.8	10.4	11.5	89.2	33.9	54.1	69.4	21.5	14.0	41.4	9.2	5.9
April	30.4	4.1	47.4	12.2	13.4	83.2	30.3	50.0	69.6	26.6	27.9	41.5	8.8	5.7
May	32.4	3.9	52.2	13.7	15.5	87.3	46.0	56.2	68.5	29.2	27.5	29.8	11.0	5.2
June	44.1	5.0	62.7	17.0	21.0	95.3	33.8	56.3	65.7	30.8	34.6	26.3	13.8	5.1
July	58.0	6.9	72.5	23.2	30.6	99.1	35.6	56.7	65.2	31.1	35.0	25.9	15.8	5.5
August	57.7	6.8	72.8	22.5	29.6	97.9	35.4	57.5	67.1	29.0	28.4	26.4	15.6	5.7
September	46.1	6.3	64.9	15.2	21.6	95.1	28.6	52.7	69.8	25.7	27.7	27.0	13.3	5.5
October	38.3	4.5	52.6	14.2	16.4	86.2	30.3	48.7	70.7	22.1	26.2	33.6	8.7	6.3
November	39.4	3.6	54.0	12.3	14.2	90.3	31.4	55.7	72.8	16.6	15.7	35.3	8.3	6.0
December	41.7	3.4	59.1	9.9	10.8	96.7	32.4	56.4	70.5	13.7	9.9	34.9	8.1	5.7
Average	42.1	4.7	58.8	14.1	17.1	93.1	34.2	55.2	70.0	23.3	22.2	33.5	11.0	5.7
2024														
January	56.4	4.7	62.7	14.1	16.6	97.1	35.7	58.4	66.5	13.7	7.3	31.6	9.5	5.3
February	35.8	3.4	56.1	10.3	11.1	96.9	35.2	55.2	65.9	18.7	11.7	40.1	9.7	6.3
March	29.3	3.2	50.4	11.2	13.5	88.9	38.5	52.8	60.2	21.7	20.4	41.4	7.4	6.9

^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 syrefuel.

^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.

– = 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}	Geothermal	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	32.4	-	-
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	6.2	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	28.5	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	9.4	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	44.3	3.6	56.6	5.9	8.7	100.7	37.4	60.1	78.4	14.6	7.7	37.1	9.2	5.6
February	37.1	4.0	56.3	5.4	8.8	95.6	34.7	57.9	72.6	18.4	11.0	43.9	9.6	5.2
March	35.9	3.6	52.6	7.0	10.4	89.2	33.8	52.9	69.4	21.6	14.0	41.4	9.2	5.9
April	30.3	3.9	47.3	9.5	12.4	83.2	30.3	46.1	69.6	26.7	27.9	41.5	8.8	5.7
May	32.4	3.7	52.1	10.8	14.6	87.3	46.0	54.5	68.5	29.3	27.5	29.8	11.0	5.2
June	44.2	4.9	62.6	13.9	20.2	95.3	33.7	55.3	65.7	30.9	34.6	26.3	13.8	5.2
July	58.2	6.8	72.7	20.4	30.0	99.1	35.6	58.1	65.2	31.2	35.0	25.9	15.8	5.5
August	57.9	6.7	72.9	19.6	29.0	97.9	35.4	57.9	67.1	29.1	28.4	26.4	15.6	5.7
September	46.1	6.2	64.8	12.0	20.6	95.1	28.5	51.7	69.8	25.8	27.7	27.0	13.3	5.6
October	38.4	4.4	52.3	11.3	15.5	86.2	30.3	43.8	70.7	22.2	26.2	33.6	8.7	6.3
November	39.4	3.4	53.6	8.9	13.1	90.3	31.4	50.8	72.8	16.6	15.7	35.3	8.3	6.1
December	41.7	3.2	58.8	6.3	9.4	96.7	32.4	51.0	70.5	13.7	9.9	35.0	8.1	5.7
Average	42.2	4.5	58.6	10.9	16.1	93.1	34.1	53.3	70.0	23.3	22.2	33.5	11.0	5.7
2024														
January	56.5	4.4	62.5	10.6	15.4	97.1	35.7	56.3	66.5	13.7	7.3	31.6	9.5	5.3
February	35.8	3.2	55.8	6.9	9.8	96.9	35.1	51.3	65.9	18.7	11.7	40.1	9.7	6.4
March	29.2	2.9	50.0	8.1	12.4	88.9	38.5	48.1	60.2	21.7	20.4	41.4	7.4	7.0

^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.

– =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
			Combi- ned 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	102.1	18.2	-	27.8	-	1.0
2020 Year	27.4	.4	43.3	50.1	32.2	-	32.8	52.0	103.5	17.4	-	28.3	-	4.4
2021 Year	30.8	.4	40.7	54.2	25.5	-	34.1	49.3	84.6	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	38.9	.7	41.3	57.7	24.6	-	35.8	57.3	-	10.7	-	31.2	-	.4
February	39.7	.7	44.5	57.0	26.3	-	33.2	54.0	-	13.0	-	37.3	-	.4
March	29.9	.8	44.0	53.9	22.3	-	30.1	51.3	-	16.9	-	36.1	-	.3
April	36.9	.7	40.5	48.2	24.6	-	27.4	51.7	-	18.7	-	33.4	-	.3
May	34.0	.5	40.4	50.6	20.8	-	48.8	56.4	-	21.3	-	26.0	-	.5
June	17.7	.7	52.5	58.8	22.4	-	32.9	60.1	-	21.4	-	19.7	-	.9
July	31.6	.8	55.4	61.9	26.6	-	30.8	60.3	-	22.4	-	13.3	-	1.3
August	30.8	.7	57.1	62.5	24.7	-	31.7	58.2	-	21.4	-	14.7	-	.9
September	34.4	.6	55.8	61.2	23.3	-	23.4	55.7	-	18.8	-	15.3	-	.8
October	35.9	.5	46.8	52.7	20.0	-	22.4	57.4	-	15.8	-	19.0	-	.2
November	39.6	.6	44.6	59.8	22.7	-	27.4	59.9	-	15.1	-	23.1	-	.2
December	36.5	.6	47.2	61.2	24.6	-	29.1	60.3	-	11.4	-	20.8	-	.2
Average	33.8	.7	47.5	57.1	23.6	-	31.1	56.9	-	17.1	-	24.1	-	.5
2024 January	39.0	.6	49.2	63.5	27.3	-	33.0	59.2	-	11.0	-	20.3	-	.3
February	36.2	.5	49.0	62.0	26.3	-	32.6	55.0	-	15.5	-	21.7	-	.1
March	36.7	.5	48.0	59.1	25.9	-	35.0	51.7	-	17.1	-	26.5	-	.2

^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 syfuel.

^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."

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	Con-ventional Hydro-electric Power	Bio-mass ^{c,g}	Geo-thermal	Solar		Wind ⁱ	Hydro-electric Pumped Storage	Battery Storage
			Combi-ned 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	39.3	21.8	66.2	74.2	43.9	-	58.2	61.0	-	13.0	-	26.0	-	-
February	38.6	22.5	68.2	75.6	44.9	-	54.9	60.3	-	16.3	-	34.5	-	-
March	34.6	26.1	63.8	74.1	45.9	-	54.9	56.1	-	19.7	-	31.7	-	-
April	35.4	21.3	52.5	65.5	42.9	-	47.0	53.5	-	23.6	-	31.9	-	-
May	35.7	19.3	57.4	71.0	43.2	-	51.2	57.7	-	26.3	-	23.8	-	-
June	39.6	21.2	66.9	77.6	48.4	-	42.1	56.4	-	27.5	-	19.8	-	-
July	39.8	22.5	68.6	75.8	50.5	-	47.3	54.4	-	28.0	-	16.9	-	-
August	37.7	22.5	69.4	78.3	50.1	-	47.9	57.0	-	26.2	-	19.6	-	-
September	37.2	20.6	68.7	77.8	51.4	-	43.6	53.0	-	23.2	-	19.5	-	-
October	35.5	16.7	64.4	71.4	46.0	-	48.6	51.3	-	20.1	-	24.4	-	-
November	35.3	18.3	67.7	76.5	49.4	-	47.7	59.4	-	15.1	-	28.5	-	-
December	36.9	19.5	70.6	79.8	52.1	-	51.3	60.7	-	12.1	-	27.2	-	-
Average	37.1	21.0	65.4	74.8	47.4	-	49.6	56.7	-	20.9	-	25.2	-	-
2024 January	37.4	24.3	71.3	82.0	52.7	-	58.7	60.3	-	12.6	-	25.8	-	-
February	37.4	21.3	68.0	75.6	48.9	-	57.4	59.0	-	17.5	-	31.5	-	-
March	38.7	20.1	62.1	69.6	48.0	-	56.9	57.9	-	20.3	-	35.0	-	-

^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 syfuel.

^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)* May 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, May 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 May 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."

2001–2022: EIA, *Electric Power Annual 2023*, October 2023, 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, May 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."