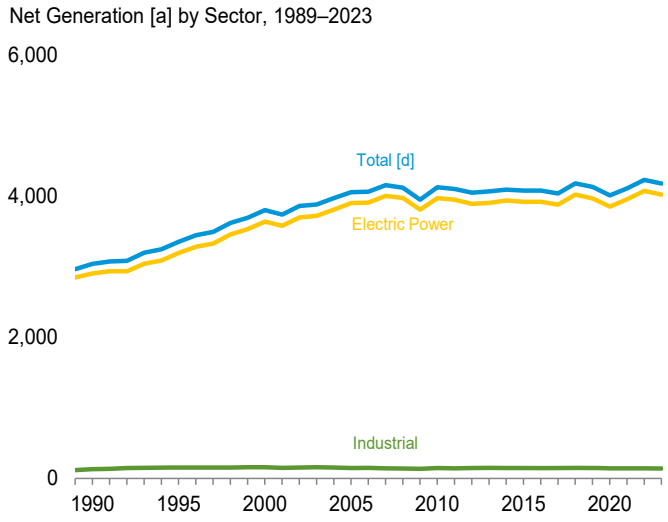
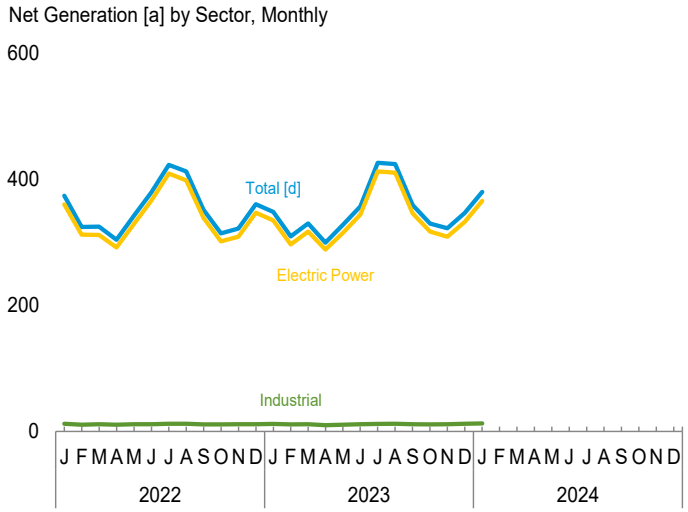
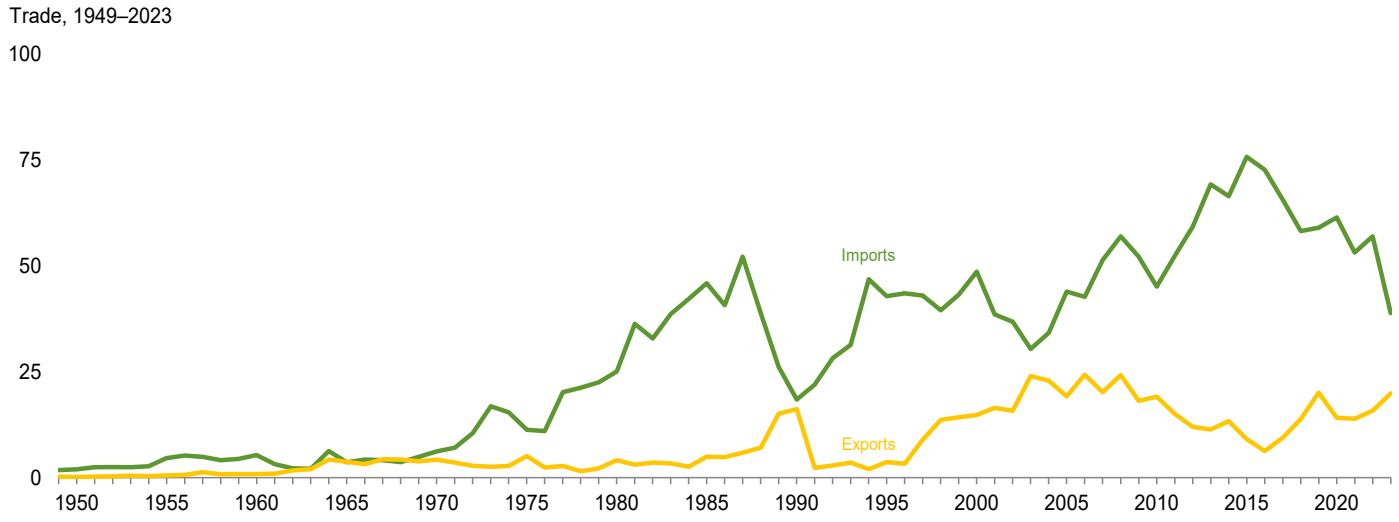
7. Electricity

Figure 7.1 Electricity Overview

(Billion Kilowatthours)







[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]	Commercial Sector[c]	Industrial 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	[F] 4	[F] 2	[F] 2	28	341	[E] 13	354

[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.

E=Estimate. NA=Not available. F=Forecast. (s)=Less than 0.5 billion kilowatthours.

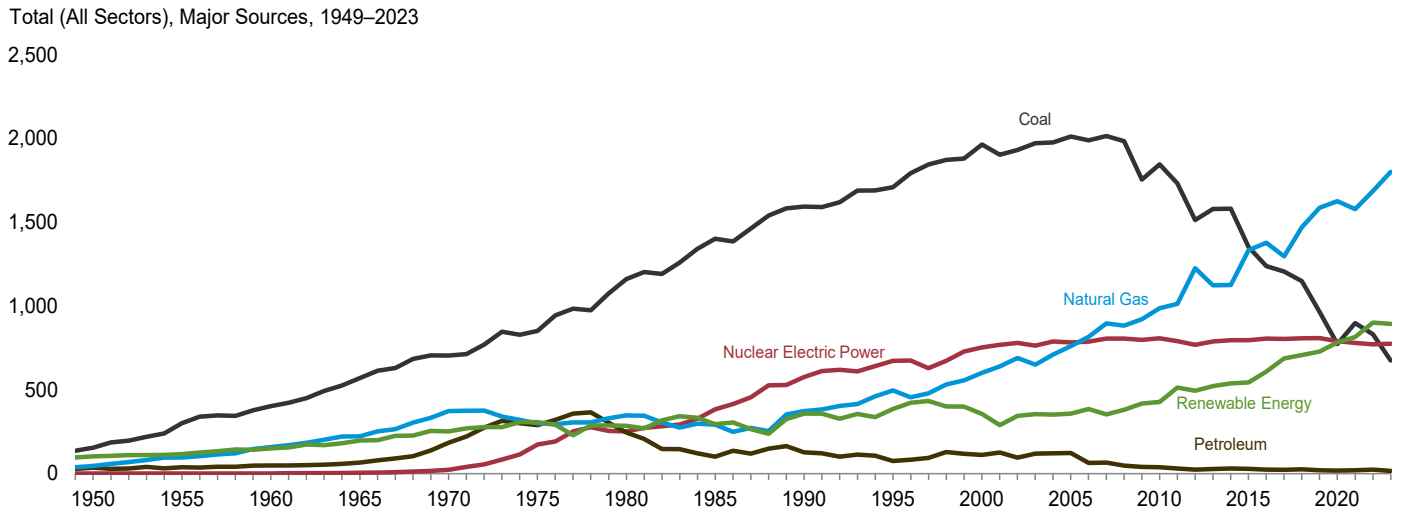
Notes: • See Note 1, "Coverage of Electricity Statistics," and Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Data values preceded by "F" are derived from the U.S. Energy Information Administration's Short-Term Integrated Forecasting System. See Note 3, "Electricity 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.

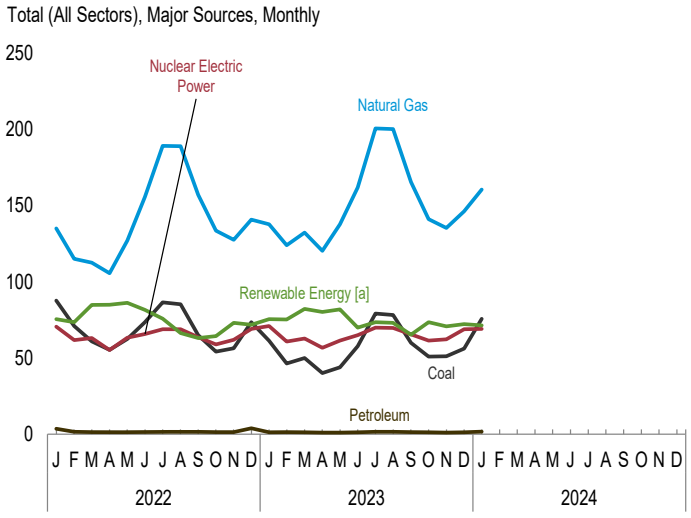
Web Page: See http://www.eia.gov/totalenergy/data/monthly/#electricity (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

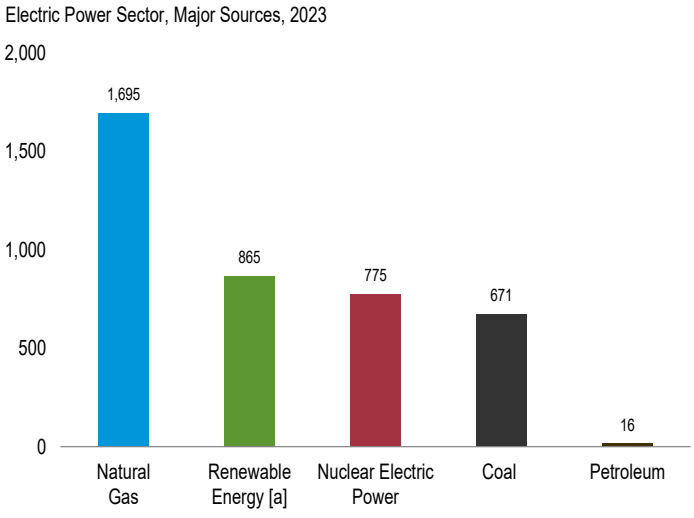
Sources: See end of section.

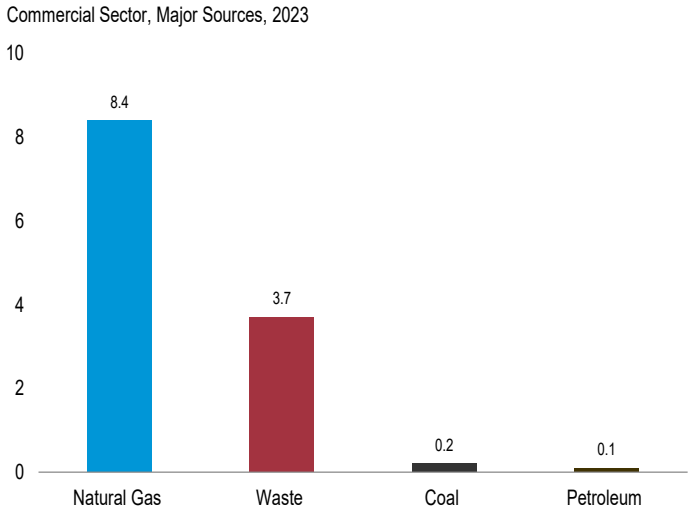
Figure 7.2 Electricity Net Generation

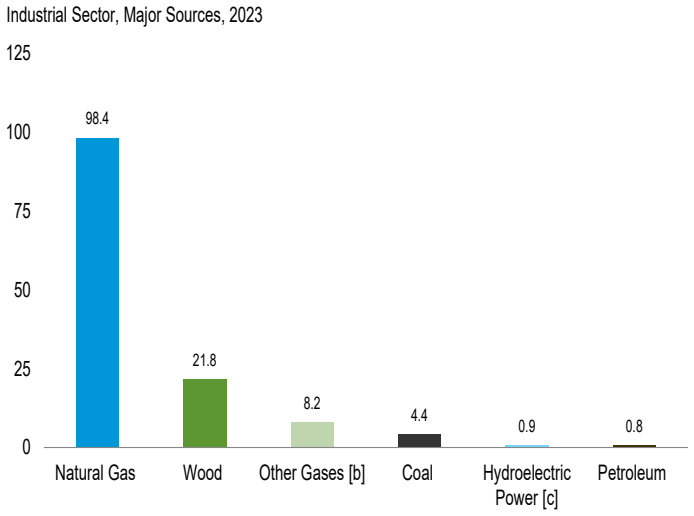
(Billion Kilowatthours)











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

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

	Fossil Fuels						Renewable Energy						
								Biomass					
	Coal[a]	Petroleum[b]	Natural Gas[c]	Other Gases[d]	Nuclear Electric Power	Hydroelectric Pumped Storage[e]	Conventional Hydroelectric Power[f]	Wood[g]	Waste[h]	Geothermal	Solar[i]	Wind	Total[j]
1950 Total	154,520	33,734	44,559	NA	0	([f])	100,885	390	NA	NA	NA	NA	334,088
1955 Total	301,363	37,138	95,285	NA	0	([f])	116,236	276	NA	NA	NA	NA	550,299
1960 Total	403,067	47,987	157,970	NA	518	([f])	149,440	140	NA	33	NA	NA	759,156
1965 Total	570,926	64,801	221,559	NA	3,657	([f])	196,984	269	NA	189	NA	NA	1,058,386
1970 Total	704,394	184,183	372,890	NA	21,804	([f])	250,957	136	220	525	NA	NA	1,535,111
1975 Total	852,786	289,095	299,778	NA	172,505	([f])	303,153	18	174	3,246	NA	NA	1,920,755
1980 Total	1,161,562	245,994	346,240	NA	251,116	([f])	279,182	275	158	5,073	NA	NA	2,289,600
1985 Total	1,402,128	100,202	291,946	NA	383,691	([f])	284,311	743	640	9,325	11	6	2,473,002
1990 Total[k]	1,594,011	126,460	372,765	10,383	576,862	-3,508	292,866	32,522	13,260	15,434	367	2,789	3,037,827
1995 Total	1,709,426	74,554	496,058	13,870	673,402	-2,725	310,833	36,521	20,405	13,378	497	3,164	3,353,487
2000 Total	1,966,265	111,221	601,038	13,955	753,893	-5,539	275,573	37,595	23,131	14,093	493	5,593	3,802,105
2005 Total	2,012,873	122,225	760,960	13,464	781,986	-6,558	270,321	38,856	15,420	14,692	550	17,811	4,055,423
2010 Total	1,847,290	37,061	987,697	11,313	806,968	-5,501	260,203	37,172	18,917	15,219	1,212	94,652	4,125,060
2011 Total	1,733,430	30,182	1,013,689	11,566	790,204	-6,421	319,355	37,449	19,222	15,316	1,818	120,177	4,100,141
2012 Total	1,514,043	23,190	1,225,894	11,898	769,331	-4,950	276,240	37,799	19,823	15,562	4,327	140,822	4,047,765
2013 Total	1,581,115	27,164	1,124,836	12,853	789,016	-4,681	268,565	40,028	20,830	15,775	9,036	167,840	4,065,964
2014 Total	1,581,710	30,232	1,126,635	12,022	797,166	-6,174	259,367	42,340	21,650	15,877	17,691	181,655	4,093,564
2015 Total	1,352,398	28,249	1,334,668	13,117	797,178	-5,091	249,080	41,929	21,703	15,918	24,893	190,719	4,078,714
2016 Total	1,239,149	24,205	1,379,271	12,807	805,694	-6,686	267,812	40,947	21,813	15,826	36,054	226,993	4,077,574
2017 Total	1,205,835	21,390	1,297,703	12,469	804,950	-6,495	300,333	41,124	21,610	15,927	53,287	254,303	4,035,443
2018 Total	1,149,487	25,226	1,471,843	13,463	807,084	-5,905	292,524	40,936	20,896	15,967	63,825	272,667	4,180,988
2019 Total	964,957	18,341	1,588,533	12,591	809,409	-5,261	287,874	38,543	18,964	15,473	71,937	295,882	4,130,574
2020 Total	773,393	17,341	1,626,790	11,818	789,879	-5,321	285,274	36,219	18,493	15,890	89,199	337,938	4,009,767
2021 Total	897,999	19,173	1,579,190	11,397	779,645	-5,112	251,585	36,463	17,790	15,975	115,258	378,197	4,109,699
2022 January	87,588	3,669	134,948	1,005	70,577	-493	24,198	3,106	1,432	1,470	7,822	37,416	373,766
February	70,966	1,735	114,945	886	61,852	-412	21,321	2,897	1,306	1,243	9,027	37,645	324,311
March	61,019	1,459	112,477	953	63,154	-318	24,436	2,934	1,426	1,286	11,695	43,031	324,531
April	55,329	1,277	105,506	921	55,290	-265	20,066	2,736	1,342	1,282	13,402	46,167	303,994
May	62,532	1,431	127,094	1,036	63,382	-467	23,359	2,905	1,371	1,327	15,121	42,124	342,184
June	73,463	1,580	155,517	987	65,715	-589	25,988	3,045	1,373	1,276	16,053	33,768	379,134
July	86,415	1,532	189,042	1,083	68,857	-768	24,567	3,276	1,406	1,341	15,766	29,475	422,976
August	85,215	1,577	188,860	1,008	68,897	-640	21,133	3,206	1,379	1,354	14,503	24,718	412,134
September	64,998	1,590	156,948	987	63,733	-598	17,026	2,864	1,315	1,329	13,287	27,331	351,655
October	54,228	1,561	133,492	968	58,945	-434	14,367	2,624	1,368	1,298	11,942	32,745	313,949
November	56,377	1,479	127,523	911	62,041	-495	17,898	2,865	1,318	1,397	8,403	41,199	321,781
December	73,381	4,039	140,716	978	69,094	-548	20,430	3,005	1,348	1,482	6,777	38,680	360,257
Total	**831,512**	**22,931**	**1,687,067**	**11,722**	**771,537**	**-6,028**	**254,789**	**35,464**	**16,383**	**16,087**	**143,797**	**434,297**	**4,230,672**
2023 January	61,275	1,401	137,725	990	70,870	-612	22,287	3,042	1,420	1,558	7,982	39,212	348,031
February	46,488	1,464	123,928	912	60,807	-448	18,680	2,613	1,275	1,302	9,251	42,184	309,258
March	50,057	1,299	132,207	961	62,820	-511	20,197	2,623	1,348	1,380	12,144	44,580	329,920
April	40,141	1,195	120,294	717	56,662	-281	17,479	2,295	1,212	1,347	14,755	43,072	299,628
May	43,835	1,189	137,728	901	61,473	-450	27,445	2,783	1,369	1,371	16,927	32,066	327,493
June	57,700	1,288	161,827	894	64,965	-542	19,467	2,646	1,321	1,273	17,631	27,545	356,863
July	79,121	1,669	200,554	995	69,888	-648	21,199	2,807	1,362	1,303	18,880	27,903	425,902
August	78,187	1,691	199,995	1,151	69,744	-644	21,120	2,890	1,352	1,341	17,816	28,546	424,042
September	60,001	1,554	165,406	951	65,560	-544	16,469	2,476	1,256	1,351	15,563	28,230	359,047
October	50,956	1,284	140,963	913	61,403	-371	18,076	2,126	1,343	1,414	14,082	36,484	329,497
November	51,231	1,166	135,260	999	62,258	-339	18,100	2,555	1,322	1,410	10,271	37,042	322,103
December	56,271	1,271	146,174	1,067	68,898	-506	19,336	2,584	1,447	1,413	9,200	38,371	346,387
Total	**675,264**	**16,472**	**1,802,062**	**11,451**	**775,347**	**-5,897**	**239,855**	**31,439**	**16,025**	**16,462**	**164,502**	**425,235**	**4,178,171**
2024 January	75,662	1,809	160,450	1,029	69,080	-411	21,237	2,821	1,322	1,368	9,651	34,976	379,799

[a] Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

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

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

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

[e] Pumped storage facility production minus energy used for pumping.

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

[g] Wood and wood-derived fuels.

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

[i] Electricity net generation from solar thermal and photovoltaic (PV) energy at utility-scale facilities. Does not include small-scale solar photovoltaic generation. See Table 10.6.

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

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

NA=Not available.

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

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

Sources: Tables 7.2b and 7.2c.

Table 7.2b Electricity Net Generation: Electric Power Sector

(Subset of Table 7.2a; Million Kilowatthours)

	Fossil Fuels				Nuclear Electric Power	Hydroelectric Pumped Storage[e]	Renewable Energy						
							Conventional Hydroelectric Power[f]	Biomass		Geothermal	Solar[i]	Wind	Total[j]
	Coal[a]	Petroleum[b]	Natural Gas[c]	Other Gases[d]				Wood[g]	Waste[h]				
1950 Total	154,520	33,734	44,559	NA	0	([f])	95,938	390	NA	NA	NA	NA	329,141
1955 Total	301,363	37,138	95,285	NA	0	([f])	112,975	276	NA	NA	NA	NA	547,038
1960 Total	403,067	47,987	157,970	NA	518	([f])	145,833	140	NA	33	NA	NA	755,549
1965 Total	570,926	64,801	221,559	NA	3,657	([f])	193,851	269	NA	189	NA	NA	1,055,252
1970 Total	704,394	184,183	372,890	NA	21,804	([f])	247,714	136	220	525	NA	NA	1,531,868
1975 Total	852,786	289,095	299,778	NA	172,505	([f])	300,047	18	174	3,246	NA	NA	1,917,649
1980 Total	1,161,562	245,994	346,240	NA	251,116	([f])	276,021	275	158	5,073	NA	NA	2,286,439
1985 Total	1,402,128	100,202	291,946	NA	383,691	([f])	281,149	743	640	9,325	11	6	2,469,841
1990 Total[k]	1,572,109	118,864	309,486	621	576,862	-3,508	289,753	7,032	11,500	15,434	367	2,789	2,901,322
1995 Total	1,686,056	68,146	419,179	1,927	673,402	-2,725	305,410	7,597	17,986	13,378	497	3,164	3,194,230
2000 Total	1,943,111	105,192	517,978	2,028	753,893	-5,539	271,338	8,916	20,307	14,093	493	5,593	3,637,529
2005 Total	1,992,054	116,482	683,829	3,777	781,986	-6,558	267,040	10,570	13,031	14,692	550	17,811	3,902,192
2010 Total	1,827,738	34,679	901,389	2,967	806,968	-5,501	258,455	11,446	16,376	15,219	1,206	94,636	3,972,386
2011 Total	1,717,891	28,202	926,290	2,939	790,204	-6,421	317,531	10,733	15,989	15,316	1,727	120,121	3,948,186
2012 Total	1,500,557	20,072	1,132,791	2,984	769,331	-4,950	273,859	11,050	16,555	15,562	4,164	140,749	3,890,358
2013 Total	1,567,722	24,510	1,028,949	4,322	789,016	-4,681	265,058	12,302	16,918	15,775	8,724	167,742	3,903,715
2014 Total	1,568,774	28,043	1,033,198	3,358	797,166	-6,174	258,046	15,027	17,602	15,877	17,304	181,496	3,936,961
2015 Total	1,340,993	26,505	1,238,842	3,715	797,178	-5,091	247,636	14,563	17,823	15,918	24,456	190,547	3,920,407
2016 Total	1,229,663	22,710	1,280,344	3,912	805,694	-6,686	266,326	13,420	18,183	15,826	35,497	226,790	3,918,977
2017 Total	1,197,838	20,039	1,198,014	4,126	804,950	-6,495	298,711	13,641	18,084	15,927	52,724	254,074	3,878,625
2018 Total	1,142,173	23,928	1,368,532	4,086	807,084	-5,905	291,148	13,385	17,623	15,934	63,253	272,396	4,020,877
2019 Total	958,732	17,220	1,479,858	4,037	809,409	-5,261	286,652	12,020	16,091	15,031	71,265	295,604	3,968,348
2020 Total	767,702	16,333	1,522,299	3,174	789,879	-5,321	284,059	11,211	15,625	15,441	88,511	337,153	3,853,656
2021 Total	892,440	18,308	1,476,603	3,304	779,645	-5,112	250,391	11,897	14,834	15,473	114,523	377,917	3,957,181
2022 January	87,114	3,564	125,609	292	70,577	-493	24,097	1,042	1,032	1,470	7,773	37,386	359,856
February	70,538	1,651	106,942	251	61,852	-412	21,216	1,019	947	1,243	8,969	37,613	312,158
March	60,541	1,381	103,941	270	63,154	-318	24,302	964	1,032	1,286	11,618	42,997	311,530
April	54,915	1,200	97,597	291	55,290	-265	19,943	825	952	1,282	13,312	46,134	291,815
May	62,061	1,349	118,690	365	63,382	-467	23,248	929	973	1,327	15,022	42,096	329,318
June	72,986	1,498	146,881	281	65,715	-589	25,897	1,037	994	1,276	15,946	33,746	366,018
July	85,936	1,448	179,569	342	68,857	-768	24,489	1,170	1,018	1,341	15,663	29,458	408,874
August	84,733	1,500	179,279	277	68,897	-640	21,050	1,157	990	1,354	14,403	24,706	398,041
September	64,564	1,510	148,410	306	63,733	-598	16,948	992	949	1,329	13,199	27,315	338,966
October	53,805	1,481	125,017	276	58,945	-434	14,301	870	973	1,298	11,866	32,721	301,419
November	55,978	1,392	118,778	236	62,041	-495	17,818	940	927	1,397	8,345	41,168	308,816
December	72,925	3,853	131,973	264	69,094	-548	20,318	1,057	953	1,482	6,735	38,653	347,081
Total	**826,097**	**21,827**	**1,582,687**	**3,451**	**771,537**	**-6,028**	**253,627**	**12,002**	**11,739**	**16,087**	**142,852**	**433,994**	**4,073,892**
2023 January	60,855	NM	128,757	285	70,870	-612	22,173	1,033	1,033	1,558	7,930	39,184	334,696
February	46,115	NM	115,515	239	60,807	-448	18,584	833	939	1,302	9,193	42,153	296,905
March	49,688	1,207	123,369	261	62,820	-511	20,093	767	993	1,380	12,063	44,548	316,973
April	39,779	1,127	112,809	171	56,662	-281	17,391	593	871	1,347	14,666	43,043	288,428
May	43,463	1,127	129,494	282	61,473	-450	27,333	858	991	1,371	16,822	32,043	315,117
June	57,318	1,218	152,789	242	64,965	-542	19,383	864	945	1,273	17,528	27,527	343,813
July	78,715	1,587	191,069	292	69,888	-648	21,105	1,003	976	1,303	18,769	27,889	412,235
August	77,801	1,614	190,358	344	69,744	-644	21,024	1,005	979	1,341	17,711	28,530	410,087
September	59,625	1,485	156,193	277	65,560	-544	16,389	780	914	1,351	15,473	28,214	345,956
October	50,587	1,223	132,178	246	61,403	-371	17,987	464	961	1,414	14,003	36,464	316,802
November	50,872	1,106	126,257	277	62,258	-339	18,012	679	929	1,410	10,192	37,019	308,934
December	55,884	1,204	136,471	317	68,898	-506	19,238	666	1,043	1,413	9,133	38,349	332,392
Total	**670,700**	**15,596**	**1,695,259**	**3,234**	**775,347**	**-5,897**	**238,712**	**9,545**	**11,573**	**16,462**	**163,485**	**424,963**	**4,022,339**
2024 January	75,245	1,720	150,546	286	69,080	-411	21,125	935	934	1,368	9,586	34,955	365,625

[a] Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

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

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

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

[e] Pumped storage facility production minus energy used for pumping.

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

[g] Wood and wood-derived fuels.

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

[i] Electricity net generation from solar thermal and photovoltaic (PV) energy at utility-scale facilities. Does not include small-scale solar photovoltaic generation. See Table 10.6.

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

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

NA=Not available. NM=Not meaningful.

Notes: • Data are for utility-scale facilities. See Note 1, "Coverage of Electricity Statistics," at end of section. • The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

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

Sources: See end of section.

Table 7.2c Electricity Net Generation: Commercial and Industrial Sectors

(Subset of Table 7.2a; Million Kilowatthours)

	Commercial Sector[a]					Industrial Sector[b]							
				Biomass							Biomass		
	Coal[c]	Petroleum[d]	Natural Gas[e]	Waste[f]	Total[g]	Coal[c]	Petroleum[d]	Natural Gas[e]	Other Gases[h]	Hydroelectric Power[i]	Wood[j]	Waste[f]	Total[k]
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

[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.

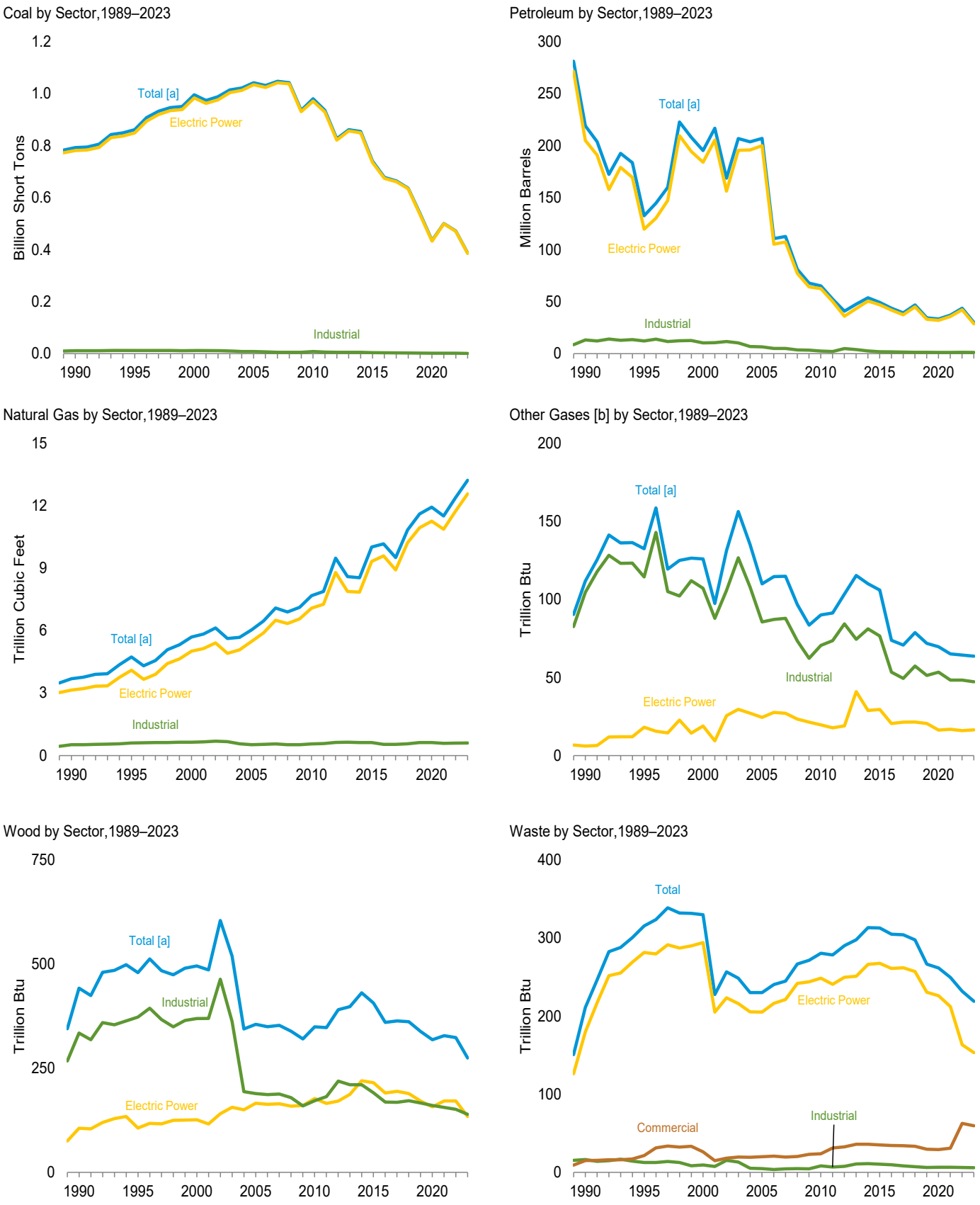
NA=Not available. NM=Not meaningful.

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



[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[j]
		Distillate Fuel Oil[b]	Residual Fuel Oil[c]	Other Liquids[d]	Petroleum Coke[e]	Total[e]			Wood[h]	Waste[i]	
	Thousand Short Tons	Thousand Barrels			Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu			
1950 Total	**91,871**	**5,423**	**69,998**	**NA**	**NA**	**75,421**	**629**	**NA**	**5**	**NA**	**NA**
1955 Total	**143,759**	**5,412**	**69,862**	**NA**	**NA**	**75,274**	**1,153**	**NA**	**3**	**NA**	**NA**
1960 Total	**176,685**	**3,824**	**84,371**	**NA**	**NA**	**88,195**	**1,725**	**NA**	**2**	**NA**	**NA**
1965 Total	**244,788**	**4,928**	**110,274**	**NA**	**NA**	**115,203**	**2,321**	**NA**	**3**	**NA**	**NA**
1970 Total	**320,182**	**24,123**	**311,381**	**NA**	**636**	**338,686**	**3,932**	**NA**	**1**	**2**	**NA**
1975 Total	**405,962**	**38,907**	**467,221**	**NA**	**70**	**506,479**	**3,158**	**NA**	**(s)**	**2**	**NA**
1980 Total	**569,274**	**29,051**	**391,163**	**NA**	**179**	**421,110**	**3,682**	**NA**	**3**	**2**	**NA**
1985 Total	**693,841**	**14,635**	**158,779**	**NA**	**231**	**174,571**	**3,044**	**NA**	**8**	**7**	**NA**
1990 Total[k]	**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

[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[j]
		Distillate Fuel Oil[b]	Residual Fuel Oil[c]	Other Liquids[d]	Petroleum Coke[e]	Total[e]			Wood[h]	Waste[i]	
	Thousand Short Tons	Thousand Barrels			Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu			
1950 Total	**91,871**	**5,423**	**69,998**	**NA**	**NA**	**75,421**	**629**	**NA**	**5**	**NA**	**NA**
1955 Total	**143,759**	**5,412**	**69,862**	**NA**	**NA**	**75,274**	**1,153**	**NA**	**3**	**NA**	**NA**
1960 Total	**176,685**	**3,824**	**84,371**	**NA**	**NA**	**88,195**	**1,725**	**NA**	**2**	**NA**	**NA**
1965 Total	**244,788**	**4,928**	**110,274**	**NA**	**NA**	**115,203**	**2,321**	**NA**	**3**	**NA**	**NA**
1970 Total	**320,182**	**24,123**	**311,381**	**NA**	**636**	**338,686**	**3,932**	**NA**	**1**	**2**	**NA**
1975 Total	**405,962**	**38,907**	**467,221**	**NA**	**70**	**506,479**	**3,158**	**NA**	**(s)**	**2**	**NA**
1980 Total	**569,274**	**29,051**	**391,163**	**NA**	**179**	**421,110**	**3,682**	**NA**	**3**	**2**	**NA**
1985 Total	**693,841**	**14,635**	**158,779**	**NA**	**231**	**174,571**	**3,044**	**NA**	**8**	**7**	**NA**
1990 Total[k]	**781,301**	**16,394**	**183,285**	**25**	**1,008**	**204,745**	**3,147**	**6**	**106**	**180**	**(s)**
1995 Total	**847,854**	**18,066**	**88,895**	**441**	**2,452**	**119,663**	**4,094**	**18**	**106**	**282**	**2**
2000 Total	**982,713**	**29,722**	**138,047**	**403**	**3,155**	**183,946**	**5,014**	**19**	**126**	**294**	**1**
2005 Total	**1,033,567**	**19,450**	**138,337**	**2,591**	**7,877**	**199,760**	**5,485**	**24**	**166**	**205**	**116**
2010 Total	**971,245**	**13,677**	**23,560**	**1,848**	**4,679**	**62,477**	**7,085**	**20**	**177**	**249**	**116**
2011 Total	**928,857**	**10,961**	**13,861**	**1,655**	**4,726**	**50,105**	**7,265**	**18**	**166**	**241**	**133**
2012 Total	**820,762**	**9,000**	**11,292**	**1,339**	**2,861**	**35,937**	**8,788**	**19**	**171**	**250**	**132**
2013 Total	**855,546**	**9,511**	**11,322**	**1,488**	**4,189**	**43,265**	**7,888**	**41**	**187**	**251**	**130**
2014 Total	**848,803**	**14,052**	**14,132**	**2,157**	**4,039**	**50,537**	**7,849**	**29**	**220**	**266**	**127**
2015 Total	**735,433**	**12,056**	**13,893**	**2,086**	**3,789**	**46,978**	**9,322**	**29**	**215**	**268**	**127**
2016 Total	**674,239**	**9,421**	**11,056**	**1,284**	**4,018**	**41,853**	**9,590**	**20**	**191**	**261**	**126**
2017 Total	**661,033**	**9,398**	**10,299**	**1,332**	**3,273**	**37,394**	**8,917**	**21**	**195**	**262**	**121**
2018 Total	**633,593**	**13,795**	**12,259**	**1,757**	**3,444**	**45,030**	**10,224**	**21**	**189**	**257**	**125**
2019 Total	**535,382**	**9,254**	**9,163**	**1,724**	**2,545**	**32,868**	**10,939**	**21**	**171**	**231**	**133**
2020 Total	**433,477**	**7,609**	**8,228**	**1,523**	**2,917**	**31,947**	**11,258**	**16**	**157**	**226**	**132**
2021 Total	**498,614**	**10,246**	**8,908**	**1,798**	**2,942**	**35,660**	**10,872**	**17**	**171**	**212**	**124**
2022 January	48,518	2,527	2,374	218	229	6,266	916	1	15	14	7
February	39,807	1,034	839	135	235	3,181	775	1	15	13	6
March	34,239	831	707	131	205	2,695	747	1	14	15	7
April	30,777	667	574	108	215	2,423	718	1	12	13	6
May	35,059	804	661	61	235	2,701	895	2	13	14	6
June	41,592	894	606	137	271	2,991	1,115	1	15	14	6
July	49,282	914	864	173	208	2,992	1,372	2	16	14	6
August	48,204	861	798	179	230	2,988	1,348	1	16	14	6
September	37,163	690	843	143	270	3,027	1,097	1	14	13	6
October	31,323	726	882	150	252	3,015	920	1	12	13	6
November	32,267	758	760	125	214	2,713	875	1	13	13	6
December	41,602	3,619	1,778	277	286	7,103	962	1	15	13	6
Total	**469,833**	**14,325**	**11,687**	**1,836**	**2,849**	**42,096**	**11,740**	**16**	**171**	**163**	**75**
2023 January	35,327	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

[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. • 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]						
				Biomass					Biomass		
	Coal[c]	Petroleum[d]	Natural Gas[e]	Waste[f]	Coal[c]	Petroleum[d]	Natural Gas[e]	Other Gases[g]	Wood[h]	Waste[f]	Other[i]
	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

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

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

[c] Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

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

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

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

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

[h] Wood and wood-derived fuels.

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

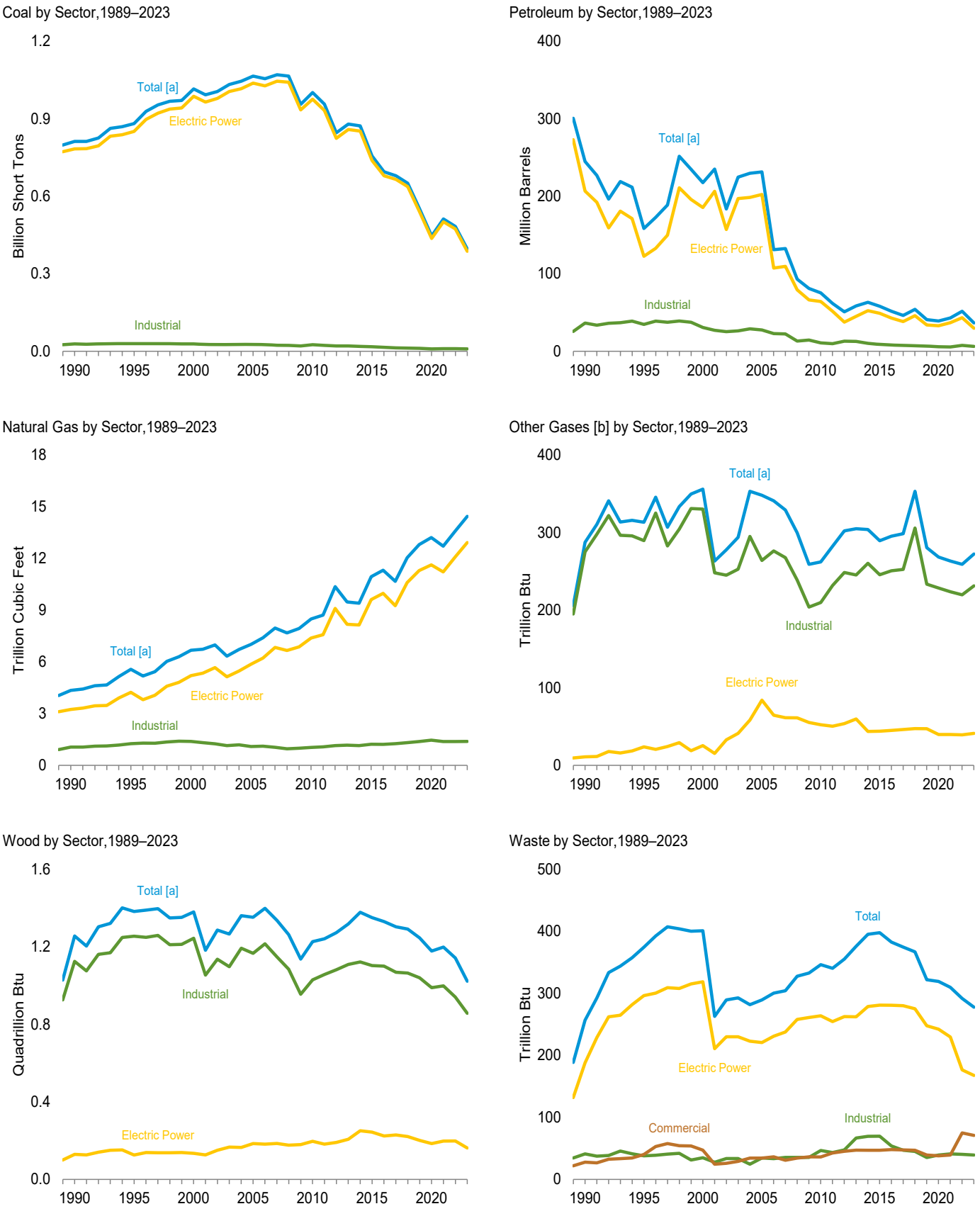
NM=Not meaningful. (s)=Less than 0.5 trillion Btu.

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

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

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

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



[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]	Petroleum					Natural Gas[f]	Other Gases[g]	Biomass		Other[j]
		Distillate Fuel Oil[b]	Residual Fuel Oil[c]	Other Liquids[d]	Petroleum Coke[e]	Total[e]			Wood[h]	Waste[i]	
	Thousand Short Tons	Thousand Barrels			Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu			
1950 Total	**91,871**	**5,423**	**69,998**	**NA**	**NA**	**75,421**	**629**	**NA**	**5**	**NA**	**NA**
1955 Total	**143,759**	**5,412**	**69,862**	**NA**	**NA**	**75,274**	**1,153**	**NA**	**3**	**NA**	**NA**
1960 Total	**176,685**	**3,824**	**84,371**	**NA**	**NA**	**88,195**	**1,725**	**NA**	**2**	**NA**	**NA**
1965 Total	**244,788**	**4,928**	**110,274**	**NA**	**NA**	**115,203**	**2,321**	**NA**	**3**	**NA**	**NA**
1970 Total	**320,182**	**24,123**	**311,381**	**NA**	**636**	**338,686**	**3,932**	**NA**	**1**	**2**	**NA**
1975 Total	**405,962**	**38,907**	**467,221**	**NA**	**70**	**506,479**	**3,158**	**NA**	**(s)**	**2**	**NA**
1980 Total	**569,274**	**29,051**	**391,163**	**NA**	**179**	**421,110**	**3,682**	**NA**	**3**	**2**	**NA**
1985 Total	**693,841**	**14,635**	**158,779**	**NA**	**231**	**174,571**	**3,044**	**NA**	**8**	**7**	**NA**
1990 Total[k]	**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

[a] Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

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

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

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

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

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

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

[h] Wood and wood-derived fuels.

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

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

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

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

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

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

Sources: Tables 7.4b and 7.4c.

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

	Coal[a]	Petroleum					Natural Gas[f]	Other Gases[g]	Biomass		Other[j]
		Distillate Fuel Oil[b]	Residual Fuel Oil[c]	Other Liquids[d]	Petroleum Coke[e]	Total[e]			Wood[h]	Waste[i]	
	Thousand Short Tons	Thousand Barrels			Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu			
1950 Total	**91,871**	**5,423**	**69,998**	**NA**	**NA**	**75,421**	**629**	**NA**	**5**	**NA**	**NA**
1955 Total	**143,759**	**5,412**	**69,862**	**NA**	**NA**	**75,274**	**1,153**	**NA**	**3**	**NA**	**NA**
1960 Total	**176,685**	**3,824**	**84,371**	**NA**	**NA**	**88,195**	**1,725**	**NA**	**2**	**NA**	**NA**
1965 Total	**244,788**	**4,928**	**110,274**	**NA**	**NA**	**115,203**	**2,321**	**NA**	**3**	**NA**	**NA**
1970 Total	**320,182**	**24,123**	**311,381**	**NA**	**636**	**338,686**	**3,932**	**NA**	**1**	**2**	**NA**
1975 Total	**405,962**	**38,907**	**467,221**	**NA**	**70**	**506,479**	**3,158**	**NA**	**(s)**	**2**	**NA**
1980 Total	**569,274**	**29,051**	**391,163**	**NA**	**179**	**421,110**	**3,682**	**NA**	**3**	**2**	**NA**
1985 Total	**693,841**	**14,635**	**158,779**	**NA**	**231**	**174,571**	**3,044**	**NA**	**8**	**7**	**NA**
1990 Total[k]	**782,567**	**16,567**	**184,915**	**26**	**1,008**	**206,550**	**3,245**	**11**	**129**	**188**	**(s)**
1995 Total	**850,230**	**18,553**	**90,023**	**499**	**2,674**	**122,447**	**4,237**	**24**	**125**	**296**	**2**
2000 Total	**985,821**	**30,016**	**138,513**	**454**	**3,275**	**185,358**	**5,206**	**25**	**134**	**318**	**1**
2005 Total	**1,037,485**	**19,675**	**139,409**	**2,685**	**8,083**	**202,184**	**5,869**	**84**	**185**	**221**	**123**
2010 Total	**975,052**	**13,790**	**24,503**	**1,877**	**4,777**	**64,055**	**7,387**	**52**	**196**	**264**	**124**
2011 Total	**932,484**	**11,021**	**14,803**	**1,658**	**4,837**	**51,667**	**7,574**	**50**	**182**	**255**	**143**
2012 Total	**823,551**	**9,080**	**12,203**	**1,339**	**2,974**	**37,495**	**9,111**	**54**	**190**	**262**	**143**
2013 Total	**857,962**	**9,598**	**12,283**	**1,489**	**4,285**	**44,794**	**8,191**	**60**	**207**	**262**	**139**
2014 Total	**851,602**	**14,235**	**15,132**	**2,208**	**4,132**	**52,235**	**8,146**	**44**	**251**	**279**	**137**
2015 Total	**738,444**	**12,193**	**14,929**	**2,131**	**3,907**	**48,787**	**9,613**	**44**	**244**	**281**	**136**
2016 Total	**678,554**	**9,510**	**11,242**	**1,322**	**4,138**	**42,763**	**9,985**	**45**	**224**	**281**	**139**
2017 Total	**664,993**	**9,481**	**10,464**	**1,375**	**3,399**	**38,318**	**9,266**	**46**	**229**	**280**	**132**
2018 Total	**637,217**	**13,967**	**12,446**	**1,855**	**3,549**	**46,013**	**10,599**	**47**	**221**	**275**	**136**
2019 Total	**538,606**	**9,336**	**9,352**	**1,750**	**2,655**	**33,712**	**11,299**	**47**	**201**	**248**	**145**
2020 Total	**435,827**	**7,673**	**8,382**	**1,543**	**3,057**	**32,885**	**11,632**	**40**	**185**	**242**	**144**
2021 Total	**501,435**	**10,359**	**9,115**	**1,835**	**3,075**	**36,686**	**11,229**	**40**	**197**	**229**	**134**
2022 January	48,805	2,563	2,425	228	239	6,410	949	3	18	16	7
February	40,063	1,044	859	136	254	3,307	804	3	17	15	6
March	34,498	840	738	133	216	2,788	777	3	16	16	7
April	31,012	672	598	109	223	2,495	743	4	14	14	7
May	35,264	810	686	63	244	2,778	923	4	15	14	7
June	41,817	900	631	139	278	3,060	1,145	3	17	15	7
July	49,556	921	886	174	211	3,034	1,405	4	19	15	7
August	48,469	865	821	183	239	3,062	1,380	3	19	15	7
September	37,409	695	870	144	279	3,102	1,125	3	16	14	6
October	31,554	731	912	151	260	3,096	946	3	14	14	6
November	32,503	763	791	126	228	2,821	902	3	15	14	6
December	41,883	3,658	1,815	278	295	7,226	992	3	17	15	7
Total	**472,834**	**14,463**	**12,031**	**1,864**	**2,965**	**43,181**	**12,092**	**39**	**198**	**176**	**81**
2023 January	35,549	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

[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]						
				Biomass					Biomass		
	Coal[c]	Petroleum[d]	Natural Gas[e]	Waste[f]	Coal[c]	Petroleum[d]	Natural Gas[e]	Other Gases[g]	Wood[h]	Waste[f]	Other[i]
	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

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

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

[c] Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

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

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

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

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

[h] Wood and wood-derived fuels.

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

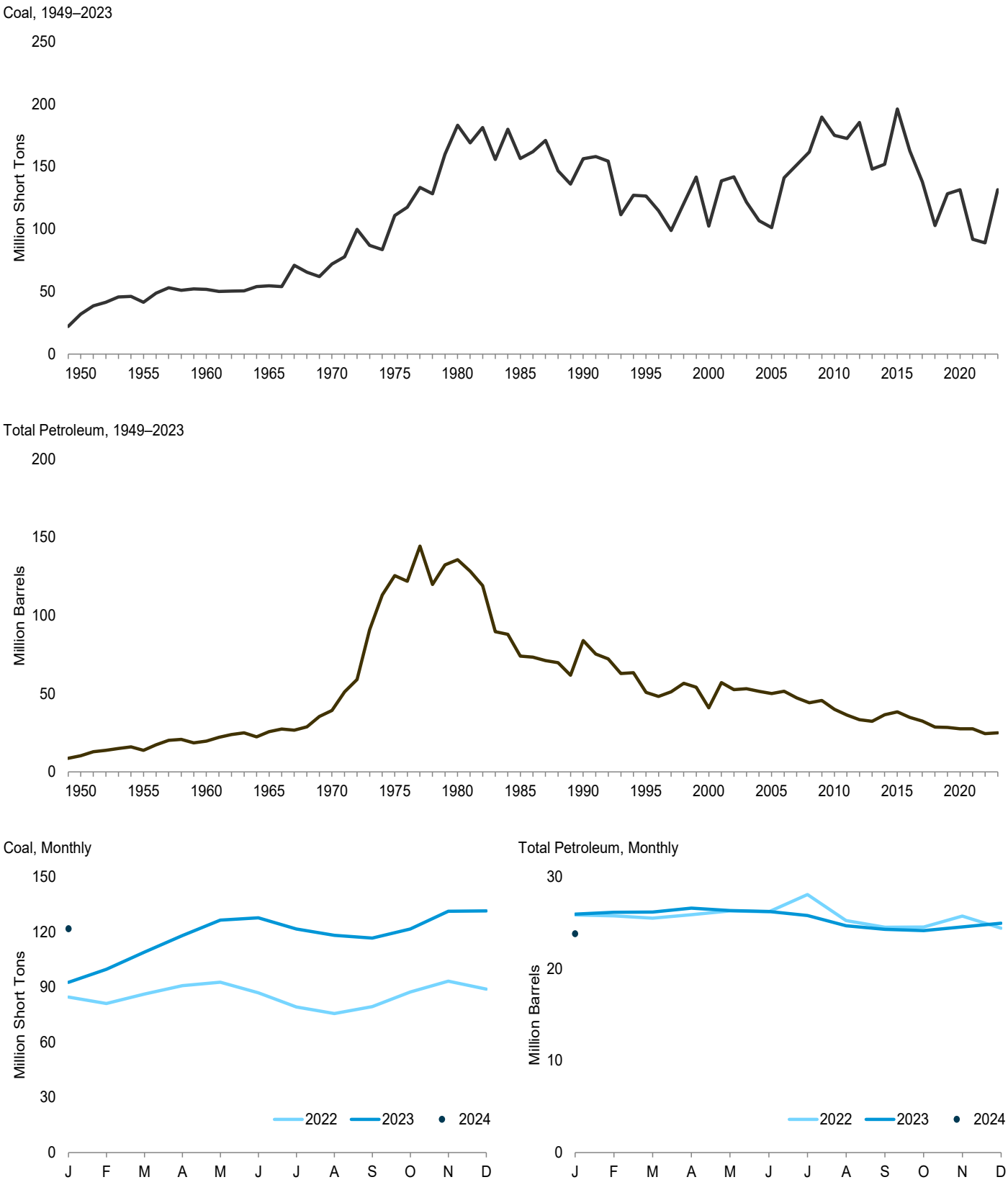
NM=Not meaningful.

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

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

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

Figure 7.5 Stocks of Coal and Petroleum: Electric Power Sector



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

Table 7.5 Stocks of Coal and Petroleum: Electric Power Sector

	Coal[a]	Petroleum				
		Distillate Fuel Oil[b]	Residual Fuel Oil[c]	Other Liquids[d]	Petroleum Coke[e]	Total[e,f]
	Thousand Short Tons	Thousand Barrels			Thousand Short Tons	Thousand Barrels
1950 Year	**31,842**	**NA**	**NA**	**NA**	**NA**	**10,201**
1955 Year	**41,391**	**NA**	**NA**	**NA**	**NA**	**13,671**
1960 Year	**51,735**	**NA**	**NA**	**NA**	**NA**	**19,572**
1965 Year	**54,525**	**NA**	**NA**	**NA**	**NA**	**25,647**
1970 Year	**71,908**	**NA**	**NA**	**NA**	**239**	**39,151**
1975 Year	**110,724**	**16,432**	**108,825**	**NA**	**31**	**125,413**
1980 Year	**183,010**	**30,023**	**105,351**	**NA**	**52**	**135,635**
1985 Year	**156,376**	**16,386**	**57,304**	**NA**	**49**	**73,933**
1990 Year	**156,166**	**16,471**	**67,030**	**NA**	**94**	**83,970**
1995 Year	**126,304**	**15,392**	**35,102**	**NA**	**65**	**50,821**
2000 Year[g]	**102,296**	**15,127**	**24,748**	**NA**	**211**	**40,932**
2005 Year	**101,137**	**18,778**	**27,624**	**NA**	**530**	**50,062**
2010 Year	**174,917**	**16,758**	**16,629**	**1,454**	**1,019**	**39,936**
2011 Year	**172,387**	**16,649**	**15,491**	**1,603**	**508**	**36,282**
2012 Year	**185,116**	**16,433**	**12,999**	**1,430**	**495**	**33,336**
2013 Year	**147,884**	**16,068**	**12,926**	**1,393**	**390**	**32,336**
2014 Year	**151,792**	**18,309**	**12,764**	**1,249**	**827**	**36,459**
2015 Year	**195,912**	**17,955**	**12,566**	**1,173**	**1,340**	**38,396**
2016 Year	**162,476**	**17,855**	**11,789**	**949**	**845**	**34,818**
2017 Year	**137,721**	**16,342**	**10,930**	**816**	**864**	**32,407**
2018 Year	**102,793**	**16,436**	**8,785**	**756**	**539**	**28,674**
2019 Year	**128,102**	**16,733**	**8,549**	**678**	**471**	**28,317**
2020 Year	**131,431**	**17,116**	**8,269**	**678**	**298**	**27,552**
2021 Year	**91,884**	**18,220**	**7,038**	**744**	**302**	**27,513**
2022 January	84,541	17,370	6,108	688	336	25,848
February	81,034	17,448	6,106	697	299	25,745
March	86,143	17,332	5,772	652	350	25,503
April	90,746	17,185	5,920	654	424	25,877
May	92,692	17,530	5,816	680	454	26,295
June	86,869	17,297	6,119	662	423	26,195
July	79,172	19,050	6,070	587	474	28,075
August	75,570	16,460	5,834	501	490	25,243
September	79,354	16,218	5,775	490	405	24,508
October	87,342	16,263	6,014	494	351	24,524
November	93,203	16,970	6,192	517	408	25,718
December	**88,861**	**16,521**	**5,777**	**513**	**318**	**24,404**
2023 January	92,604	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

[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.

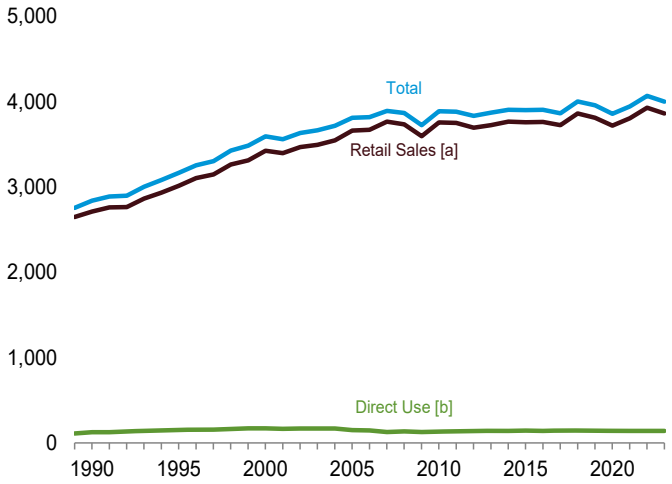
Web Page: See http://www.eia.gov/totalenergy/data/monthly/#electricity (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

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."

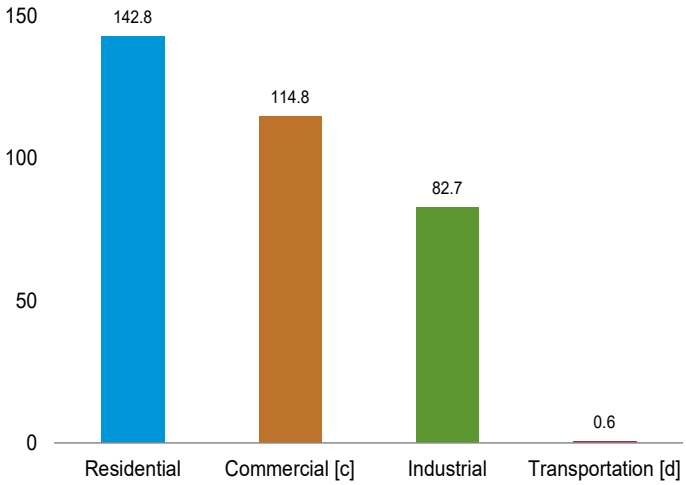
Figure 7.6 Electricity End Use

(Billion Kilowatthours)

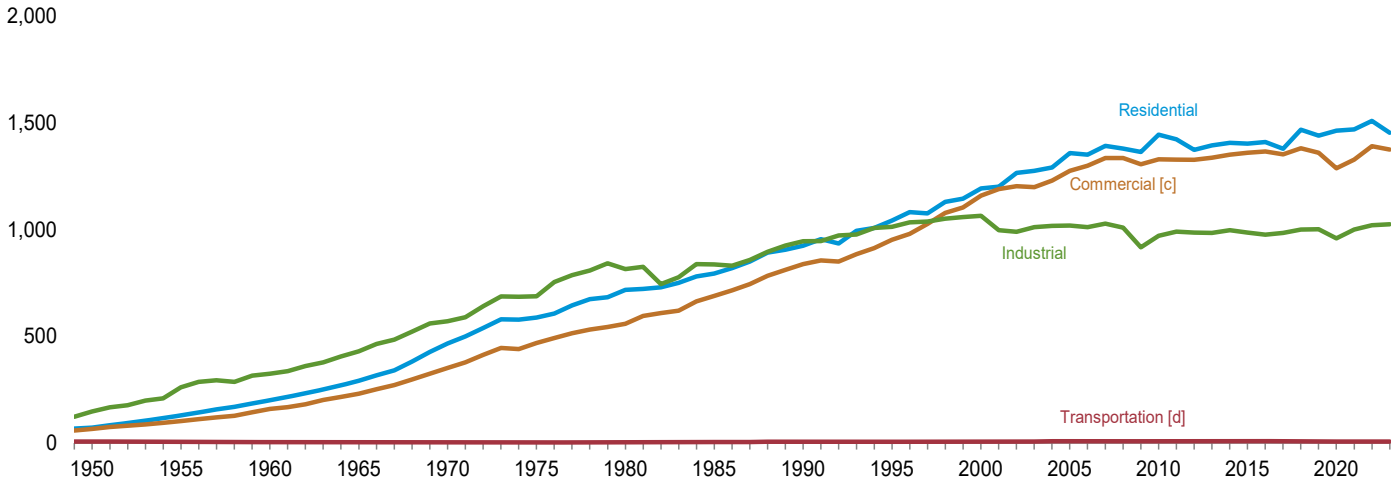
Electricity End Use Overview,1989–2023



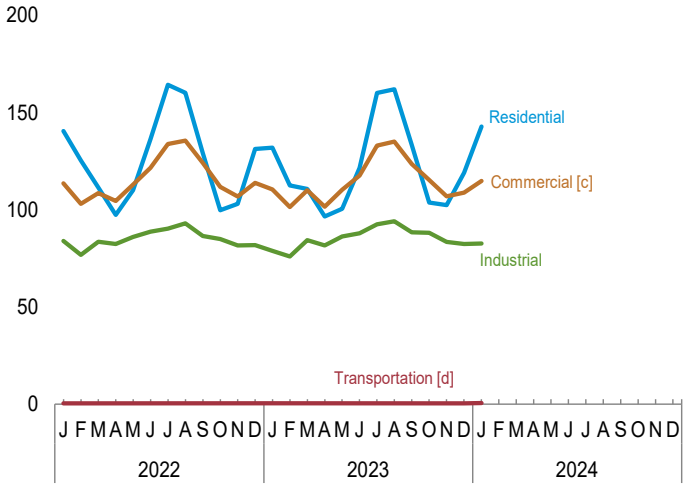
Sales to Ultimate Customers [a] by Sector, January 2024



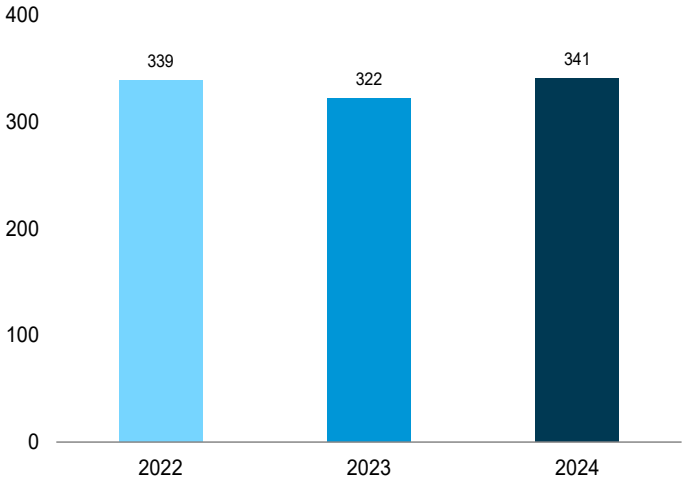
Sales to Ultimate Customers [a] by Sector, 1949–2023



Sales to Ultimate Customers [a] by Sector, Monthly



Sales to Ultimate Customers [a] Total, January



[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]							
	Residential[b]	Commercial[b,c]	Industrial[b,d]	Transportation[e]	Total Sales[f]	Direct Use[g]	Total End Use[h]	*Electric Vehicle Use*[b,i]
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	**1,509,233**	**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*

[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. EV 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]
							Conventional Hydroelectric Power[e]	Biomass		Geothermal	Solar[h]	Wind	Total		
	Coal[a]	Petroleum[b]	Natural Gas[c]	Total[d]				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	.2	1.6	([k])	(s)	90.8	NA	655.2
1990 Year[l]	307.4	77.9	140.8	527.8	99.6	19.5	73.9	5.5	2.5	2.7	.3	1.8	86.8	NA	734.1
1995 Year	311.4	66.6	174.5	554.2	99.5	21.4	78.6	6.8	3.5	3.0	.3	1.7	93.9	NA	769.5
2000 Year	315.1	61.8	219.6	598.9	97.9	19.5	79.4	6.1	3.9	2.8	.4	2.4	94.9	NA	811.7
2005 Year	313.4	58.5	383.1	757.1	100.0	21.3	77.5	6.2	3.6	2.3	.4	8.7	98.7	NA	978.0
2010 Year	317.3	55.6	405.1	780.3	101.2	22.2	78.8	7.0	4.4	2.4	.9	39.1	132.6	(s)	1,039.1
2011 Year	317.6	51.5	415.2	786.2	101.4	22.3	78.7	7.1	4.5	2.4	1.5	45.7	139.9	.1	1,051.3
2012 Year	309.7	47.2	422.4	781.2	101.9	22.4	78.7	7.5	4.8	2.6	3.2	59.1	155.9	.1	1,063.0
2013 Year	303.3	43.5	425.4	774.3	99.2	22.4	79.2	8.4	5.0	2.6	6.6	60.0	161.8	.1	1,060.1
2014 Year	299.1	41.1	432.2	774.3	98.6	22.5	79.7	8.4	5.2	2.5	10.3	64.2	170.3	.2	1,068.4
2015 Year	279.7	36.8	439.4	758.5	98.7	22.6	79.7	9.0	5.1	2.5	13.7	72.6	182.5	.3	1,064.1
2016 Year	266.6	34.4	446.8	750.3	99.6	22.8	79.9	8.9	5.1	2.5	22.0	81.3	199.7	.6	1,074.3
2017 Year	256.5	33.3	456.0	748.2	99.6	22.8	79.8	8.8	5.1	2.5	27.0	87.6	210.8	.7	1,084.4
2018 Year	242.8	32.2	470.2	747.8	99.4	22.8	79.9	8.7	5.0	2.4	31.9	94.4	222.3	.9	1,094.7
2019 Year	228.7	31.4	476.6	739.1	98.1	22.8	79.8	8.4	4.7	2.6	37.5	103.6	236.5	1.0	1,099.1
2020 Year	215.6	27.6	485.8	731.2	96.5	23.0	79.9	8.3	4.6	2.6	48.1	118.4	261.9	1.5	1,115.7
2021 Year	209.8	28.2	491.9	731.8	95.5	23.0	79.9	7.9	4.5	2.6	61.6	132.8	289.2	4.7	1,145.9
2022 January	202.0	31.3	498.4	733.4	95.4	23.0	80.0	7.8	4.5	2.6	62.8	133.7	291.5	5.0	1,149.7
February	202.0	31.3	498.5	733.4	95.4	23.0	80.0	7.8	4.5	2.6	63.2	134.0	292.0	5.1	1,150.4
March	200.8	31.2	498.2	732.0	95.4	23.0	80.1	7.8	4.4	2.6	64.1	135.1	294.1	5.3	1,151.3
April	200.4	31.1	498.2	731.5	95.4	23.0	80.1	7.8	4.4	2.6	64.6	137.4	296.9	6.1	1,154.3
May	198.9	31.1	500.4	732.1	95.4	23.0	80.1	7.8	4.4	2.6	65.4	137.6	297.9	6.1	1,155.9
June	195.9	31.0	501.5	730.1	94.7	23.0	80.1	7.8	4.4	2.6	66.6	138.0	299.5	6.6	1,155.3
July	195.9	31.0	502.6	731.2	94.7	23.0	80.1	7.8	4.4	2.6	67.2	138.0	300.1	6.9	1,157.3
August	194.9	31.0	502.5	730.0	94.7	23.0	80.1	7.8	4.4	2.7	67.9	138.0	300.8	7.5	1,157.5
September	192.4	30.9	502.4	727.5	94.7	23.0	80.1	7.8	4.4	2.7	68.7	138.0	301.6	8.0	1,156.2
October	192.4	30.8	502.4	727.4	94.7	23.0	80.1	7.8	4.4	2.6	69.2	138.0	302.1	8.6	1,157.3
November	192.3	30.8	502.7	727.6	94.7	23.0	80.1	7.8	4.4	2.6	70.0	139.7	304.7	8.7	1,160.1
December	189.3	30.8	502.4	724.2	94.7	23.0	80.1	7.8	4.3	2.6	72.9	141.4	309.1	9.0	1,161.4
2023 January	186.9	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

[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, 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						Renewable Energy								
								Biomass							
	Coal[a]	Petroleum[b]	Natural Gas[c]	Total[d]	Nuclear Electric Power	Hydroelectric Pumped Storage	Conventional Hydroelectric Power[e]	Wood[f]	Waste[g]	Geothermal	Solar[h]	Wind	Total	Battery Storage	Total[i]
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**	**.2**	**1.6**	([k])	**(s)**	**90.8**	**NA**	**655.2**
1990 Year[l]	**302.3**	**76.8**	**129.9**	**509.3**	**99.6**	**19.5**	**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**	**21.4**	**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**	**19.5**	**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**	**21.3**	**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**	**22.2**	**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**	**22.3**	**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**	**22.4**	**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**	**22.4**	**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**	**22.5**	**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**	**22.6**	**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**	**22.8**	**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**	**22.8**	**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**	**22.8**	**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**	**22.8**	**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**	**23.0**	**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**	**23.0**	**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

[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						Renewable Energy								
								Biomass							
	Coal[a]	Petroleum[b]	Natural Gas[c]	Total[d]	Nuclear Electric Power	Hydroelectric Pumped Storage	Conventional Hydroelectric Power	Wood[e]	Waste[f]	Geothermal	Solar[g]	Wind	Total	Battery Storage	Total[h]
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

[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	Hydroelectric Pumped Storage	Renewable Energy							Battery Storage	Total[h]
							Conventional Hydroelectric Power	Biomass		Geothermal	Solar[g]	Wind	Total		
	Coal[a]	Petroleum[b]	Natural Gas[c]	Total[d]				Wood[e]	Waste[f]						
1990 Year	**4.8**	**0.9**	**10.3**	**17.3**	**–**	**–**	**0.6**	**4.3**	**0.2**	**–**	**–**	**–**	**5.1**	**–**	**22.9**
1995 Year	**5.0**	**1.0**	**11.3**	**18.7**	**–**	**–**	**1.1**	**4.9**	**.2**	**–**	**–**	**–**	**6.3**	**–**	**25.5**
2000 Year	**4.6**	**.8**	**13.7**	**21.2**	**–**	**–**	**1.1**	**4.4**	**.2**	**–**	**–**	**–**	**5.7**	**–**	**27.3**
2005 Year	**4.0**	**.8**	**14.5**	**21.0**	**–**	**–**	**.7**	**4.5**	**.2**	**–**	**–**	**–**	**5.4**	**–**	**27.2**
2010 Year	**4.0**	**.7**	**14.2**	**20.8**	**–**	**–**	**.3**	**4.9**	**.2**	**–**	**(s)**	**(s)**	**5.5**	**–**	**27.4**
2011 Year	**3.5**	**.7**	**14.3**	**20.4**	**–**	**–**	**.3**	**5.0**	**.2**	**–**	**(s)**	**(s)**	**5.6**	**–**	**27.1**
2012 Year	**3.3**	**1.0**	**14.3**	**20.5**	**–**	**–**	**.6**	**5.2**	**.2**	**–**	**(s)**	**(s)**	**6.1**	**–**	**27.8**
2013 Year	**3.0**	**.7**	**14.4**	**20.0**	**–**	**–**	**.7**	**5.5**	**.2**	**–**	**(s)**	**(s)**	**6.4**	**–**	**27.5**
2014 Year	**2.9**	**.6**	**14.7**	**20.0**	**–**	**–**	**.3**	**5.4**	**.2**	**–**	**(s)**	**(s)**	**5.9**	**–**	**27.2**
2015 Year	**2.5**	**.7**	**14.5**	**19.8**	**–**	**–**	**.3**	**5.8**	**.2**	**–**	**(s)**	**(s)**	**6.4**	**–**	**27.4**
2016 Year	**2.1**	**.7**	**14.5**	**19.4**	**–**	**–**	**.3**	**5.7**	**.2**	**–**	**(s)**	**(s)**	**6.2**	**–**	**26.8**
2017 Year	**2.0**	**.6**	**14.5**	**19.1**	**–**	**–**	**.3**	**5.7**	**.2**	**–**	**(s)**	**(s)**	**6.3**	**(s)**	**26.7**
2018 Year	**2.0**	**.6**	**14.4**	**19.1**	**–**	**–**	**.2**	**5.8**	**.1**	**–**	**(s)**	**(s)**	**6.2**	**(s)**	**26.6**
2019 Year	**1.7**	**.5**	**14.8**	**19.2**	**–**	**–**	**.2**	**5.6**	**.1**	**–**	**.1**	**(s)**	**6.0**	**(s)**	**26.5**
2020 Year	**1.5**	**.5**	**15.3**	**19.3**	**–**	**–**	**.2**	**5.6**	**.1**	**–**	**.1**	**(s)**	**6.3**	**(s)**	**26.8**
2021 Year	**1.4**	**.5**	**16.1**	**19.6**	**–**	**–**	**.2**	**5.4**	**.1**	**–**	**.1**	(s)	**5.9**	**(s)**	**26.8**
2022 January	1.4	.6	16.4	19.7	–	–	.2	5.2	.1	–	.1	(s)	5.8	(s)	26.7
February	1.4	.6	16.4	19.7	–	–	.2	5.2	.1	–	.1	(s)	5.8	(s)	26.7
March	1.4	.6	16.4	19.8	–	–	.2	5.2	.1	–	.1	(s)	5.8	(s)	26.8
April	1.4	.6	16.4	19.8	–	–	.2	5.2	.1	–	.1	(s)	5.8	(s)	26.8
May	1.4	.6	16.4	19.8	–	–	.2	5.2	.1	–	.1	.1	5.8	(s)	26.8
June	1.4	.6	16.4	19.8	–	–	.2	5.2	.1	–	.2	.1	5.8	(s)	26.8
July	1.4	.6	16.4	19.8	–	–	.2	5.3	.1	–	.2	.1	5.8	(s)	26.8
August	1.4	.6	16.4	19.8	–	–	.2	5.3	.1	–	.2	.1	5.8	(s)	26.8
September	1.4	.6	16.4	19.8	–	–	.2	5.3	.1	–	.2	.1	5.8	(s)	26.8
October	1.4	.6	16.4	19.7	–	–	.2	5.3	.1	–	.2	.1	5.8	(s)	26.8
November	1.4	.6	16.4	19.7	–	–	.2	5.3	.1	–	.2	.1	5.8	(s)	26.8
December	**1.4**	**.6**	**16.4**	**19.7**	**–**	**–**	**.2**	**5.3**	**.1**	**–**	**.2**	**.1**	**5.8**	**(s)**	**26.8**
2023 January	1.4	.5	16.6	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

[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]	
			Natural Gas[f]							Solar				
	Coal[c,d]	Petroleum[c,e]	Combined Cycle	Gas Turbine	Steam Turbine	Nuclear Electric Power[g]	Conventional Hydroelectric Power	Biomass[c,h]	Geothermal	Photovoltaic[i]	Thermal	Wind[j]	Hydroelectric Pumped Storage	Battery Storage
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**
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

[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. • 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]	
			Natural Gas[f]							Solar				
	Coal[c,d]	Petroleum[c,e]	Combined Cycle	Gas Turbine	Steam Turbine	Nuclear Electric Power[g]	Conventional Hydroelectric Power	Biomass[c,h]	Geothermal	Photovoltaic[i]	Thermal	Wind[j]	Hydroelectric Pumped Storage	Battery Storage
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

[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]	
			Natural Gas[f]							Solar				
	Coal[c,d]	Petroleum[c,e]	Combined Cycle	Gas Turbine	Steam Turbine	Nuclear Electric Power	Conventional Hydroelectric Power	Biomass[c,g]	Geothermal	Photovoltaic[h]	Thermal	Wind[i]	Hydroelectric Pumped Storage	Battery Storage
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

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

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

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

[d] Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

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

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

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

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

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

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

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

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

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

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

(Percent)

	Capacity Factors[a]												Usage Factors[b]	
			Natural Gas[f]							Solar				
	Coal[c,d]	Petroleum[c,e]	Combined Cycle	Gas Turbine	Steam Turbine	Nuclear Electric Power	Conventional Hydroelectric Power	Biomass[c,g]	Geothermal	Photovoltaic[h]	Thermal	Wind[i]	Hydroelectric Pumped Storage	Battery Storage
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	–	–

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

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

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

[d] Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

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

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

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

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

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

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

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

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

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

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

Through 1984, data for electric utilities also include institutions (such as universities) and military facilities that generated electricity primarily for their own use; beginning in 1985, data for electric utilities exclude institutions and military facilities. Beginning in 1989, data for the commercial sector include institutions and military facilities.

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

Note 2. Classification of Power Plants into Energy-Use Sectors. The U.S. Energy Information Administration (EIA) classifies power plants (both electricity-only and combined-heat-and-power plants) into energy-use sectors based on the North American Industry Classification System (NAICS), which replaced the Standard Industrial Classification (SIC) system in 1997. Plants with a NAICS code of 22 are assigned to the Electric Power Sector. Those with NAICS codes beginning with 11 (agriculture, forestry, fishing, and hunting); 21 (mining, including oil and gas extraction); 23 (construction); 31–33 (manufacturing); 2212 (natural gas distribution); and 22131 (water supply and irrigation systems) are assigned to the Industrial Sector. Those with all other codes are assigned to the Commercial Sector. Form EIA-860, "Annual Electric Generator Report," asks respondents to indicate the primary purpose of the facility by assigning a NAICS code from the list at http://www.eia.gov/survey/form/eia_860/instructions.pdf.

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

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

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

Table 7.1 Sources

Net Generation, Electric Power Sector

1949 forward: Table 7.2b.

Net Generation, Commercial and Industrial Sectors

1949 forward: Table 7.2c.

Trade

1949–September 1977: Unpublished Federal Power Commission data.

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

1981: U.S. Department of Energy (DOE), Office of Energy Emergency Operations, "Report on Electric Energy Exchanges with Canada and Mexico for Calendar Year 1981," April 1982 (revised June 1982).

1982 and 1983: DOE, ERA, *Electricity Exchanges Across International Borders*.

1984–1986: DOE, ERA, *Electricity Transactions Across International Borders*.

1987 and 1988: DOE, ERA, Form ERA-781R, "Annual Report of International Electrical Export/Import Data."

1989: DOE, Fossil Energy, Form FE-781R, "Annual Report of International Electrical Export/Import Data."

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

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

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

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

T&D Losses and Unaccounted for

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

End Use

1949 forward: Table 7.6.

Table 7.2b Sources

1949–September 1977: Federal Power Commission, Form FPC-4, "Monthly Power Plant Report."

October 1977–1981: Federal Energy Regulatory Commission, Form FPC-4, "Monthly Power Plant Report."

1982–1988: U.S. Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report."

1989–1997: EIA, Form EIA-759, "Monthly Power Plant Report," and Form EIA-867, "Annual Nonutility Power Producer Report."

1998–2000: EIA, Form EIA-759, "Monthly Power Plant Report," and Form EIA-860B, "Annual Electric Generator Report—Nonutility."

2001–2003: EIA, Form EIA-906, "Power Plant Report."

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

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

Table 7.2c Sources

Industrial Sector, Hydroelectric Power, 1949–1988

1949–September 1977: Federal Power Commission (FPC), Form FPC-4, "Monthly Power Plant Report," for plants with generating capacity exceeding 10 megawatts, and FPC, Form FPC-12C, "Industrial Electric Generating Capacity," for all other plants.

October 1977–1978: Federal Energy Regulatory Commission (FERC), Form FPC-4, "Monthly Power Plant Report," for plants with generating capacity exceeding 10 megawatts, and FERC, Form FPC-12C, "Industrial Electric Generating Capacity," for all other plants.

1979: FERC, Form FPC-4, "Monthly Power Plant Report," for plants with generating capacity exceeding 10 megawatts, and U.S. Energy Information Administration (EIA) estimates for all other plants.

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

All Data, 1989 Forward

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

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

2001–2003: EIA, Form EIA-906, "Power Plant Report."

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

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

Table 7.3b Sources

1949–September 1977: Federal Power Commission, Form FPC-4, "Monthly Power Plant Report."

October 1977–1981: Federal Energy Regulatory Commission, Form FPC-4, "Monthly Power Plant Report."

1982–1988: U.S. Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report."

1989–1997: EIA, Form EIA-759, "Monthly Power Plant Report," and Form EIA-867, "Annual Nonutility Power Producer Report."

1998–2000: EIA, Form EIA-759, "Monthly Power Plant Report," and Form EIA-860B, "Annual Electric Generator Report—Nonutility."

2001–2003: EIA, Form EIA-906, "Power Plant Report."

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

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

Table 7.4b Sources

1949–September 1977: Federal Power Commission, Form FPC-4, "Monthly Power Plant Report."

October 1977–1981: Federal Energy Regulatory Commission, Form FPC-4, "Monthly Power Plant Report."

1982–1988: U.S. Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report."

1989–1997: EIA, Form EIA-759, "Monthly Power Plant Report," and Form EIA-867, "Annual Nonutility Power Producer Report."

1998–2000: EIA, Form EIA-759, "Monthly Power Plant Report," and Form EIA-860B, "Annual Electric Generator Report—Nonutility."

2001–2003: EIA, Form EIA-906, "Power Plant Report."

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

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

Table 7.6 Sources

Sales to Ultimate Customers, Residential and Industrial

1949–September 1977: Federal Power Commission, Form FPC-5, "Monthly Statement of Electric Operating Revenue and Income."

October 1977–February 1980: Federal Energy Regulatory Commission (FERC), Form FPC-5, "Monthly Statement of Electric Operating Revenue and Income."

March 1980–1982: FERC, Form FPC-5, "Electric Utility Company Monthly Statement."

1983: U.S. Energy Information Administration (EIA), Form EIA-826, "Electric Utility Company Monthly Statement."

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

2004 forward: EIA, *Electric Power Monthly* (*EPM*) March 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, March 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 March 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, March 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.”