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Chapter 1

National Summary Data

Table 1.1. Total Electric Power Industry Summary Statistics, 2011 and 2010

Net Generation and Consumption of Fuels for January through December											
	Total (All Sectors)			Electric Power Sector				Commercial		Industrial	
				Electric Utilities		Independent Power Producers					
Fuel	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010
Net Generation (Thousand Megawatthours)											
Coal	1,733,430	1,847,290	-6.2%	1,301,107	1,378,028	416,783	449,709	1,049	1,111	14,490	18,441
Petroleum Liquids	16,086	23,337	-31.1%	11,688	17,258	3,655	5,117	86	117	657	844
Petroleum Coke	14,096	13,724	2.7%	9,428	8,807	3,431	3,497	3	7	1,234	1,414
Natural Gas	1,013,689	987,697	2.6%	414,843	392,616	511,447	508,774	5,487	4,725	81,911	81,583
Other Gas	11,566	11,313	2.2%	29	52	2,911	2,915	3	3	8,624	8,343
Nuclear	790,204	806,968	-2.1%	415,298	424,843	374,906	382,126	--	--	--	--
Hydroelectric Conventional	319,355	260,203	22.7%	291,413	236,104	26,117	22,351	26	80	1,799	1,668
Other Renewables	193,981	167,173	16.0%	21,933	17,927	141,954	120,956	2,476	1,714	27,619	26,576
Wood and Wood-Derived Fuels	37,449	37,172	0.7%	2,023	2,328	8,709	9,118	26	21	26,691	25,706
Other Biomass	19,222	18,917	1.6%	1,417	1,291	14,573	15,085	2,315	1,672	917	869
Geothermal	15,316	15,219	0.6%	1,137	1,118	14,180	14,101	--	--	--	--
Solar Thermal and Photovoltaic	1,818	1,212	50.0%	216	101	1,511	1,105	84	5	7	2
Wind	120,177	94,652	27.0%	17,140	13,089	102,981	81,547	51	16	5	--
Hydroelectric Pumped Storage	-5,905	-5,501	7.3%	-5,298	-4,466	-607	-1,035	--	--	--	--
Other Energy Sources	14,154	12,855	10.1%	604	462	7,059	6,345	950	834	5,541	5,214
All Energy Sources	4,100,656	4,125,060	-0.6%	2,461,045	2,471,632	1,487,657	1,500,754	10,080	8,592	141,875	144,082
Consumption of Fossil Fuels for Electricity Generation											
Coal (1000 tons)	934,938	979,684	-4.6%	689,316	721,431	239,541	249,814	347	314	5,735	8,125
Petroleum Liquids (1000 barrels)	27,326	40,103	-31.9%	20,844	30,806	5,633	8,278	133	164	716	855
Petroleum Coke (1000 tons)	5,012	4,994	0.4%	3,449	3,325	1,277	1,354	1	2	286	313
Natural Gas (1000 Mcf)	7,883,865	7,680,185	2.7%	3,446,087	3,290,993	3,819,107	3,794,423	47,170	39,462	571,501	555,307
Consumption of Fossil Fuels for Useful Thermal Output											
Coal (1000 tons)	21,532	21,727	-0.9%	--	--	3,628	3,808	1,321	1,406	16,584	16,513
Petroleum Liquids (1000 barrels)	3,826	4,866	-21.4%	--	--	1,004	1,086	168	212	2,654	3,567
Petroleum Coke (1000 tons)	1,080	1,059	1.9%	--	--	112	98	6	11	962	950
Natural Gas (1000 Mcf)	839,681	821,775	2.2%	--	--	308,669	301,769	39,856	46,324	491,155	473,683
Consumption of Fossil Fuels for Electricity Generation and Useful Thermal Output											
Coal (1000 tons)	956,470	1,001,411	-4.5%	689,316	721,431	243,168	253,621	1,668	1,720	22,319	24,638
Petroleum Liquids (1000 barrels)	31,152	44,968	-30.7%	20,844	30,806	6,637	9,364	301	376	3,370	4,422
Petroleum Coke (1000 tons)	6,092	6,053	0.6%	3,449	3,325	1,388	1,452	6	12	1,248	1,264
Natural Gas (1000 Mcf)	8,723,546	8,501,960	2.6%	3,446,087	3,290,993	4,127,777	4,096,192	87,026	85,786	1,062,657	1,028,990

Sales, Revenue, and Average Retail Price for January through December									
	Total U.S. Electric Power Industry								
	Retail Sales (million kWh)			Retail Revenue (million dollars)			Average Retail Price (cents/kWh)		
Sector	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Percentage Change
Residential	1,422,801	1,445,708	-1.6%	166,714	166,782	0.0%	11.72	11.54	1.6%
Commercial	1,328,057	1,330,199	-0.2%	135,926	135,559	0.3%	10.23	10.19	0.4%
Industrial	991,316	970,873	2.1%	67,606	65,750	2.8%	6.82	6.77	0.7%
Transportation	7,672	7,712	-0.5%	803	815	-1.5%	10.46	10.57	-1.0%
All Sectors	3,749,846	3,754,493	-0.1%	371,049	368,906	0.6%	9.90	9.83	0.7%

NM = Not meaningful due to large relative standard error.
W = Withheld to avoid disclosure of individual company data.
* = Value is less than half of the smallest unit of measure.
Coal generation and consumption includes anthracite, bituminous, subbituminous, lignite, waste coal, refined coal, synfuel, and coal-derived synthesis gas.
Petroleum Liquids includes distillate fuel oil, residual fuel oil, jet fuel, kerosene, propane, and waste oil.
Petroleum Coke includes petroleum coke and synthesis gas derived from petroleum coke.
Natural gas includes a small amount of supplemental gaseous fuels that cannot be identified separately.
Other Gases includes blast furnace gas and other manufactured and waste gases derived from fossil fuels.
Wood and Wood-Derived Fuels include wood, black liquor, and other wood waste.
Other Biomass includes biogenic municipal solid waste, landfill gas, sludge waste, agricultural byproducts, and other biomass.
Coal stocks include anthracite, bituminous, subbituminous, lignite, refined coal, and coal synfuel ; waste coal is excluded.
Retail sales and net generation may not correspond exactly for a particular month for a variety of reasons (e.g., sales data may include imported electricity).
Net generation is presented for the calendar month while retail sales and associated revenue accumulate from bills collected for periods of time that vary depending upon customer class and consumption occurring during and outside the calendar month.
Note: Values are final. Percentage change is calculated before rounding.
See technical notes for additional information including more on the Commercial, Industrial, and Transportation sectors.
Sources: U.S. Energy Information Administration, Form EIA-826, 'Monthly Electric Sales and Revenue With State Distributions Report.'
U.S. Energy Information Administration, Form EIA-923, 'Power Plant Operations Report.'

Table 1.2. Summary Statistics for the United States, 2001 - 2011

(From Table 2.1.) Number of Ultimate Customers

Year	Residential	Commer-cial	Industrial	Transpor-tation	Other	Total
2001	114,890,240	14,867,490	571,463	N/A	1,030,046	131,359,239
2002	116,622,037	15,333,700	601,744	N/A	1,066,554	133,624,035
2003	117,280,481	16,549,519	713,221	1,127	N/A	134,544,348
2004	118,763,768	16,606,783	747,600	1,025	N/A	136,119,176
2005	120,760,839	16,871,940	733,862	518	N/A	138,367,159
2006	122,471,071	17,172,499	759,604	791	N/A	140,403,965
2007	123,949,916	17,377,219	793,767	750	N/A	142,121,652
2008	124,937,469	17,562,726	774,713	727	N/A	143,275,635
2009	125,177,175	17,561,661	757,519	705	N/A	143,497,060
2010	125,717,935	17,674,338	747,746	239	N/A	144,140,258
2011	126,143,072	17,638,062	727,920	92	N/A	144,509,146

(From Table 2.2.) Sales to Ultimate Customers (Thousand Megawatthours)

Year	Residential	Commer-cial	Industrial	Transpor-tation	Other	Total
2001	1,201,607	1,083,069	996,609	N/A	113,174	3,394,458
2002	1,265,180	1,104,497	990,238	N/A	105,552	3,465,466
2003	1,275,824	1,198,728	1,012,373	6,810	N/A	3,493,734
2004	1,291,982	1,230,425	1,017,850	7,224	N/A	3,547,479
2005	1,359,227	1,275,079	1,019,156	7,506	N/A	3,660,969
2006	1,351,520	1,299,744	1,011,298	7,358	N/A	3,669,919
2007	1,392,241	1,336,315	1,027,832	8,173	N/A	3,764,561
2008	1,379,981	1,335,981	1,009,300	7,700	N/A	3,732,962
2009	1,364,474	1,307,168	917,442	7,781	N/A	3,596,865
2010	1,445,708	1,330,199	970,873	7,712	N/A	3,754,493
2011	1,422,801	1,328,057	991,316	7,672	N/A	3,749,846

(From Table 2.3.) Revenue From Ultimate Customers (Million Dollars)

Year	Residential	Commer-cial	Industrial	Transpor-tation	Other	Total
2001	103,158	85,741	50,293	N/A	8,151	247,343
2002	106,834	87,117	48,336	N/A	7,124	249,411
2003	111,249	96,263	51,741	514	N/A	259,767
2004	115,577	100,546	53,477	519	N/A	270,119
2005	128,393	110,522	58,445	643	N/A	298,003
2006	140,582	122,914	62,308	702	N/A	326,506
2007	148,295	128,903	65,712	792	N/A	343,703
2008	155,433	138,469	68,920	827	N/A	363,650
2009	157,008	132,940	62,504	828	N/A	353,280
2010	166,782	135,559	65,750	815	N/A	368,906
2011	166,714	135,926	67,606	803	N/A	371,049

Table 1.2. Summary Statistics for the United States, 2001 - 2011

(From Table 2.4.) Average Retail Price
(Cents per Kilowatthour)

Year	Residential	Commer-cial	Industrial	Transpor-tation	Other	Total
2001	8.58	7.92	5.05	N/A	7.20	7.29
2002	8.44	7.89	4.88	N/A	6.75	7.20
2003	8.72	8.03	5.11	7.54	N/A	7.44
2004	8.95	8.17	5.25	7.18	N/A	7.61
2005	9.45	8.67	5.73	8.57	N/A	8.14
2006	10.40	9.46	6.16	9.54	N/A	8.90
2007	10.65	9.65	6.39	9.70	N/A	9.13
2008	11.26	10.36	6.83	10.74	N/A	9.74
2009	11.51	10.17	6.81	10.65	N/A	9.82
2010	11.54	10.19	6.77	10.57	N/A	9.83
2011	11.72	10.23	6.82	10.46	N/A	9.90

(From Tables 2.11. - 2.13.) Trade
(Thousand Megawatthours)

Year	Purchases	Sales for Resale	Imports	Exports
2001	N/A	N/A	38,500	16,473
2002	8,754,807	8,568,678	36,779	15,796
2003	6,979,669	6,920,954	30,395	23,975
2004	6,998,549	6,758,975	34,210	22,898
2005	6,092,285	6,071,659	43,929	19,151
2006	5,502,584	5,493,473	42,691	24,271
2007	5,411,422	5,479,394	51,396	20,144
2008	5,612,781	5,680,733	57,019	24,198
2009	5,028,647	5,065,031	52,191	18,138
2010	5,770,134	5,929,211	45,083	19,106
2011	5,024,621	5,143,121	52,300	15,049

Table 1.2. Summary Statistics for the United States, 2001 - 2011

(From Tables 3.1.A. and 3.1.B.) Net Generation (Thousand Megawatthours)

Year	Coal	Petroleum	Natural Gas	Other Gas	Nuclear	Hydro Conven-tional	Wind
2001	1,903,956	124,880	639,129	9,039	768,826	216,961	6,737
2002	1,933,130	94,567	691,006	11,463	780,064	264,329	10,354
2003	1,973,737	119,406	649,908	15,600	763,733	275,806	11,187
2004	1,978,301	121,145	710,100	15,252	788,528	268,417	14,144
2005	2,012,873	122,225	760,960	13,464	781,986	270,321	17,811
2006	1,990,511	64,166	816,441	14,177	787,219	289,246	26,589
2007	2,016,456	65,739	896,590	13,453	806,425	247,510	34,450
2008	1,985,801	46,243	882,981	11,707	806,208	254,831	55,363
2009	1,755,904	38,937	920,979	10,632	798,855	273,445	73,886
2010	1,847,290	37,061	987,697	11,313	806,968	260,203	94,652
2011	1,733,430	30,182	1,013,689	11,566	790,204	319,355	120,177

Year	Solar Thermal and Photo-voltaic	Wood and Wood-Derived Fuels	Geothermal	Other Biomass	Hydro Pumped Storage	Other Energy Sources	All Energy Sources
2001	543	35,200	13,741	14,548	-8,823	11,906	3,736,644
2002	555	38,665	14,491	15,044	-8,743	13,527	3,858,452
2003	534	37,529	14,424	15,812	-8,535	14,045	3,883,185
2004	575	38,117	14,811	15,421	-8,488	14,232	3,970,555
2005	550	38,856	14,692	15,420	-6,558	12,821	4,055,423
2006	508	38,762	14,568	16,099	-6,558	12,974	4,064,702
2007	612	39,014	14,637	16,525	-6,896	12,231	4,156,745
2008	864	37,300	14,840	17,734	-6,288	11,804	4,119,388
2009	891	36,050	15,009	18,443	-4,627	11,928	3,950,331
2010	1,212	37,172	15,219	18,917	-5,501	12,855	4,125,060
2011	1,818	37,449	15,316	19,222	-5,905	14,154	4,100,656

Table 1.2. Summary Statistics for the United States, 2001 - 2011

(From Tables 4.2.A. and 4.2.B.) Net Summer Generating Capacity (Megawatts)

Year	Coal	Petroleum	Natural Gas	Other Gas	Nuclear	Hydro Conven-tional	Wind
2001	314,230	66,162	252,832	1,670	98,159	78,916	3,864
2002	315,350	59,651	312,512	2,008	98,657	79,356	4,417
2003	313,019	60,730	355,442	1,994	99,209	78,694	5,995
2004	313,020	59,119	371,011	2,296	99,628	77,641	6,456
2005	313,380	58,548	383,061	2,063	99,988	77,541	8,706
2006	312,956	58,097	388,294	2,256	100,334	77,821	11,329
2007	312,738	56,068	392,876	2,313	100,266	77,885	16,515
2008	313,322	57,445	397,460	1,995	100,755	77,930	24,651
2009	314,294	56,781	401,272	1,932	101,004	78,518	34,296
2010	316,800	55,647	407,028	2,700	101,167	78,825	39,135
2011	317,640	51,482	415,191	1,934	101,419	78,652	45,676

Year	Solar Thermal and Photo-voltaic	Wood and Wood-Derived Fuels	Geothermal	Other Biomass	Hydro Pumped Storage	Other Energy Sources	All Energy Sources
2001	392	5,882	2,216	3,748	19,664	519	848,254
2002	397	5,844	2,252	3,800	20,371	686	905,301
2003	397	5,871	2,133	3,758	20,522	684	948,446
2004	398	6,182	2,152	3,529	20,764	746	962,942
2005	411	6,193	2,285	3,609	21,347	887	978,020
2006	411	6,372	2,274	3,727	21,461	882	986,215
2007	502	6,704	2,214	4,134	21,886	788	994,888
2008	536	6,864	2,229	4,186	21,858	942	1,010,171
2009	619	6,939	2,382	4,317	22,160	888	1,025,400
2010	866	7,037	2,405	4,369	22,199	884	1,039,062
2011	1,524	7,077	2,409	4,536	22,293	1,420	1,051,251

Table 1.2. Summary Statistics for the United States, 2001 - 2011

(From Chapter 5.) Consumption of Fossil Fuels

	For Electricity Generation				For Useful Thermal Output			
Year	Coal (Thousand Tons)	Petroleum (Thousand Barrels)	Natural Gas (Millions of Cubic Feet)	Other Gas (Millions of BTU)	Coal (Thousand Tons)	Petroleum (Thousand Barrels)	Natural Gas (Millions of Cubic Feet)	Other Gas (Millions of BTU)
2001	972,691	216,672	5,832,305	97,308	18,944	18,268	898,286	166,161
2002	987,583	168,597	6,126,062	131,230	17,676	15,036	866,529	146,881
2003	1,014,058	206,653	5,616,135	156,306	17,720	17,939	721,267	137,838
2004	1,020,523	203,494	5,674,580	135,144	24,275	25,870	1,052,100	218,295
2005	1,041,448	206,785	6,036,370	109,916	23,833	24,408	984,340	238,396
2006	1,030,556	110,634	6,461,615	114,665	23,227	20,371	942,817	226,464
2007	1,046,795	112,615	7,089,342	114,904	22,810	19,775	872,579	214,321
2008	1,042,335	80,932	6,895,843	96,757	22,168	12,016	793,537	203,236
2009	934,683	67,668	7,121,069	83,593	20,507	13,161	816,787	175,671
2010	979,684	65,071	7,680,185	90,058	21,727	10,161	821,775	172,081
2011	934,938	52,387	7,883,865	91,290	21,532	9,223	839,681	191,138

	Total			
Year	Coal (Thousand Tons)	Petroleum (Thousand Barrels)	Natural Gas (Millions of Cubic Feet)	Other Gas (Millions of BTU)
2001	991,635	234,940	6,730,591	263,469
2002	1,005,144	183,408	6,986,081	278,111
2003	1,031,778	224,593	6,337,402	294,143
2004	1,044,798	229,364	6,726,679	353,438
2005	1,065,281	231,193	7,020,709	348,312
2006	1,053,783	131,005	7,404,432	341,129
2007	1,069,606	132,389	7,961,922	329,225
2008	1,064,503	92,948	7,689,380	299,993
2009	955,190	80,830	7,937,856	259,265
2010	1,001,411	75,231	8,501,960	262,138
2011	956,470	61,610	8,723,546	282,428

Table 1.2. Summary Statistics for the United States, 2001 - 2011

(From Tables 6.1. and 7.1)

Year End Stocks, Annual Receipts and Average Costs

	Electric Power Sector Year End Stocks		Annual Receipts a All Electricty Generators			Average Cost of Fuel at All Electricty Generators		
Year	Coal (Thousand Tons)	Petroleum (Thousand Barrels)	Coal (Thousand Tons)	Petroleum (Thousand Barrels)	Natural Gas (Millions of Cubic Feet)	Coal (Dollars per MMBtu)	Petroleum (Dollars per MMBtu)	Natural Gas (Dollars per MMBtu)
2001	138,496	57,031	762,815	124,618	2,148,924	1.23	3.69	4.49
2002	141,714	52,490	884,287	120,851	5,607,737	1.25	3.34	3.56
2003	121,567	53,170	986,026	185,567	5,500,704	1.28	4.33	5.39
2004	106,669	51,434	1,002,032	186,655	5,734,054	1.36	4.29	5.96
2005	101,137	50,062	1,021,437	194,733	6,181,717	1.54	6.44	8.21
2006	140,964	51,583	1,079,943	100,965	6,675,246	1.69	6.23	6.94
2007	151,221	47,203	1,054,664	88,347	7,200,316	1.77	7.17	7.11
2008	161,589	44,498	1,069,709	96,341	7,879,046	2.07	10.87	9.02
2009	189,467	46,181	981,477	88,951	8,118,550	2.21	7.02	4.74
2010	174,917	40,800	979,918	75,285	8,673,070	2.27	9.54	5.09
2011	172,387	37,387	948,668	66,058	9,056,164	2.39	12.48	4.72

(From Tables 8.3. and 8.5.) Revenues And Expenses

(Million Dollars)

	Major U.S. Investor-Owned Electric Utilities			U.S. Cooperative Borrower Owned Electric Utilities		
Year	Operating Revenues	Operating Expenses	Net Operating Income	Operating Revenues	Operating Expenses	Net Operating Income
2001	267,276	234,910	32,366	26,458	23,763	2,696
2002	219,609	189,062	30,548	27,458	24,561	2,897
2003	230,151	201,057	29,094	29,228	26,361	2,867
2004	238,759	206,960	31,799	30,650	27,828	2,822
2005	265,652	236,786	28,866	34,088	31,209	2,879
2006	275,501	245,589	29,912	36,723	33,550	3,173
2007	270,964	241,198	29,766	38,208	34,843	3,365
2008	298,962	267,263	31,699	42,087	38,511	3,576
2009	276,124	244,243	31,881	42,189	38,337	3,852
2010	285,512	253,022	32,490	45,264	41,138	4,126
2011	280,520	247,118	33,402	46,146	42,099	4,047

Table 1.2. Summary Statistics for the United States, 2001 - 2011

(From Table 8.8.A.)

Summer Demand and Capacity

Year	Summer Net Internal Demand	Summer Capacity	Summer Capacity Margin
2001	674,833	788,990	14.5%
2002	696,376	833,380	16.4%
2003	696,752	856,131	18.6%
2004	692,908	875,870	20.9%
2005	746,470	882,125	15.4%
2006	776,479	891,226	12.9%
2007	766,786	914,397	16.1%
2008	744,151	909,504	18.2%
2009	713,106	916,449	22.2%
2010	746,513	923,599	19.2%
2011	759,642	892,426	14.9%

(From Table 9.1.) Emissions

(Thousand Metric Tons)

Year	Carbon Dioxide (CO2)	Sulfur Dioxide (SO2)	Nitrogen Oxides (NOx)
2001	2,418,607	11,174	5,290
2002	2,423,963	10,881	5,194
2003	2,445,094	10,646	4,532
2004	2,486,982	10,309	4,143
2005	2,543,838	10,340	3,961
2006	2,488,918	9,524	3,799
2007	2,547,032	9,042	3,650
2008	2,484,012	7,830	3,330
2009	2,269,508	5,970	2,395
2010	2,388,596	5,400	2,491
2011	2,287,071	4,845	2,406

Table 1.2. Summary Statistics for the United States, 2001 - 2011

(From Tables 10.1. and 10.5.) Demand Side Management Savings and Costs

	Energy Efficiency		Load Management		Total DSM Cost
Year	Energy Savings: Thousand MWh	Actual Peak Load Reduction: MW	Energy Savings: Thousand MWh	Actual Peak Load Reduction: MW	Thousand Dollars
2002	50,328	13,457	1,700	9,256	1,649,403
2003	48,254	13,585	1,935	9,298	1,340,686
2004	52,663	14,272	1,966	9,263	1,560,578
2005	59,000	15,394	930	10,341	1,939,115
2006	63,076	16,006	790	11,268	2,072,962
2007	67,278	17,773	1,859	12,545	2,604,711
2008	74,871	19,708	1,822	12,064	3,186,742
2009	76,912	19,761	1,027	11,972	3,607,076
2010	86,914	20,828	447	12,536	4,230,420
2011	120,659	26,314	556	12,126	5,544,396

Coal includes anthracite, bituminous, subbituminous and lignite coal. Starting in 2002 waste coal is included in all coal metrics except for year-end stocks. Starting in 2002 Synthetic coal is included in all coal metrics. Starting in 2011 Coal-derived synthesis gas is included in all coal metrics. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
Petroleum includes Distillate fuel oil (all diesel and No. 1, No. 2, and No. 4 fuel oils), residual fuel oil (No. 5 and No. 6 fuel oils and bunker C fuel oil), jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology) and waste oil. Prior to 2011 propane was in the Other Gas category. Beginning in 2004 small quantities of waste oil were excluded from petroleum stocks.
Natural gas includes a small number of generators for which waste heat is the primary energy source. Natural gas also includes a small amount of supplemental gaseous fuels that cannot be identified separately.
Prior to 2011, synthesis gas derived from petroleum coke was in the Other Gas category. Other Gas includes blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.
Conventional hydroelectric power excludes pumped storage facilities.
Wood and wood derived fuels include wood/wood waste solids (including paper pellets, railroad ties, utility poles, wood chips, bark, and wood waste solids), wood waste liquids (red liquor, sludge wood, spent sulfite liquor, and other wood-based liquids), and black liquor.
Other biomass includes biogenic municipal solid waste, landfill gas, sludge waste, agricultural byproducts, other biomass solids, other biomass liquids, and other biomass gases (including digester gases, methane, and other biomass gases). The reported summer capacity for other biomass also includes non-biogenic municipal solid waste.
Pumped storage is the capacity to generate electricity from water previously pumped to an elevated reservoir and then released through a conduit to turbine generators located at a lower level. The generation from a hydroelectric pumped storage facility is the net value of production minus the energy used for pumping.
Other energy sources include batteries, hydrogen, purchased steam, sulfur, tire-derived fuels and other miscellaneous energy sources, and for generation values, non-biogenic muncipal solid waste.

Table 1.2. Summary Statistics for the United States, 2001 - 2011

Costs of fuels for 2002 through 2007 include data from the Form EIA-423 for independent power producers, commercial power-producing facilities, and industrial power-producing facilities. Beginning in 2008, data are collected on the Form EIA-923 for utilities, independent power producers, commerical power-producing facilities, and industrial power-producing facilities. Receipts, cost, and quality data are collected from plants above a 50 MW threshold, and imputed for plants between 1 and 50 MW. Therefore, there may be a notable increase in fuel receipts beginning with 2008 data. Receipts of coal include imported coal.

N/A = Not available.
Notes: See Glossary reference for definitions. See Technical Notes Appendix for conversion to different units of measure. Capacity by energy source is based on the capacity associated with the energy source reported as the most predominant (primary) one, where more than one energy source is associated with a generator. Dual-fired capacity returned to respective fuel categories for current and all historical years. New fuel switchable capacity tables have replaced dual-fired breakouts. Totals may not equal sum of components because of independent rounding.

Sources: U.S. Energy Information Administration Form EIA-411, 'Coordinated Bulk Power Supply Program Report;' Form EIA-412, 'Annual Electric Industry Financial Report'. The Form EIA-412 was terminated in 2003; Form EIA-767, 'Steam-Electric Plant Operation and Design Report' was suspended; Form EIA-860, 'Annual Electric Generator Report;' Form EIA-861, 'Annual Electric Power Industry Report;' Form EIA-923, 'Power Plant Operations Report' replaces several form(s) including: Form EIA-906, 'Power Plant Report;' Form EIA-920 'Combined Heat and Power Plant Report;' Form EIA-423, 'Monthly Cost and Quality of Fuels for Electric Plants Report;' and FERC Form 423, 'Monthly Report of Cost and Quality of Fuels for Electric Plants,' and their predecessor forms. Federal Energy Regulatory Commission, FERC Form 1, 'Annual Report of Major Utilities, Licensees and Others;' FERC Form 1-F, 'Annual Report for Nonmajor Public Utilities and Licensees;' Rural Utilities Service (RUS) Form 7, 'Operating Report;' RUS Form 12, 'Operating Report;'
Imports and Exports: DOE, Office of Electricity Delivery and Energy Reliability, Form OE-781R, 'Annual Report of International Electric Export/Import Data,' predecessor forms, and National Energy Board of Canada. For 2001 forward, data from the California Independent System Operator are used in combination with the Form OE-781R values to estimate electricity trade with Mexico.

Table 1.3. Supply and Disposition of Electricity, 2002 through 2011

(From Chapter 2.) Supply (Million Megawatthours)

	Generation						
Year	Electric Utilities	IPP (Non-CHP)	IPP (CHP)	Commercial Sector	Industrial Sector	Total Imports	Total Supply
2002	2,549	955	194	7	153	37	3,895
2003	2,462	1,063	196	7	155	30	3,914
2004	2,505	1,119	184	8	154	34	4,005
2005	2,475	1,247	180	8	145	44	4,099
2006	2,484	1,259	165	8	148	43	4,107
2007	2,504	1,324	177	8	143	51	4,208
2008	2,475	1,332	167	8	137	57	4,176
2009	2,373	1,278	159	8	132	52	4,003
2010	2,472	1,339	162	9	144	45	4,170
2011	2,461	1,332	156	10	142	52	4,153

(From Chapter 2.) Disposition (Million Megawatthours)

	Retail Sales						
Year	Full-Service Providers	Energy-Only Providers	Facility Direct	Direct Use	Total Exports	Losses and Unaccounted For	Total Disposition
2002	3,307	141	17	166	16	248	3,895
2003	3,285	189	20	168	24	228	3,914
2004	3,318	222	8	168	23	266	4,005
2005	3,413	237	11	150	19	269	4,099
2006	3,438	219	12	147	24	266	4,107
2007	3,468	283	14	126	20	298	4,208
2008	3,434	286	14	132	24	287	4,176
2009	3,289	295	13	127	18	261	4,003
2010	3,365	379	10	132	19	265	4,170
2011	3,273	467	10	133	15	255	4,153

N/A = Not Available.
Facility Direct Retail Sales typically represent bilateral electric power sales between industrial and commercial generating facilities.
Direct Use represents commercial and industrial facility use of onsite net electricity generation; electricity sales or transfers to adjacent or co-located facilities; and barter transactions. Losses and Unaccounted For includes: (1) reporting by utilities and power marketers that represent losses incurred in transmission and distribution, as well as volumes unaccounted for in their own energy balance; and (2) discrepancies among the differing categories upon balancing the table.
Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-923, "Power Plant Operations Report" and predecessor form(s) including U.S. Energy Information Administration, Form EIA-906, "Power Plant Report;" and Form EIA-920, "Combined Heat and Power Plant Report;" Form EIA-861, "Annual Electric Power Industry Report;" and predecessor forms. Imports and Exports: Mexico data - DOE, Fossil Fuels, Office of Fuels Programs, Form OE-781R, "Annual Report of International Electrical Export/Import Data:" Canada data - National Energy Board of Canada (metered energy firm and interruptible).

Chapter 2

Electricity Sales

Table 2.1. Number of Ultimate Customers Served by Sector, by Provider

2001 through 2011

Year	Residential	Commercial	Industrial	Transportation	Other	Total
Total Electric Industry						
2001	114,890,240	14,867,490	571,463	N/A	1,030,046	131,359,239
2002	116,622,037	15,333,700	601,744	N/A	1,066,554	133,624,035
2003	117,280,481	16,549,519	713,221	1,127	N/A	134,544,348
2004	118,763,768	16,606,783	747,600	1,025	N/A	136,119,176
2005	120,760,839	16,871,940	733,862	518	N/A	138,367,159
2006	122,471,071	17,172,499	759,604	791	N/A	140,403,965
2007	123,949,916	17,377,219	793,767	750	N/A	142,121,652
2008	124,937,469	17,562,726	774,713	727	N/A	143,275,635
2009	125,177,175	17,561,661	757,519	705	N/A	143,497,060
2010	125,717,935	17,674,338	747,746	239	N/A	144,140,258
2011	126,143,072	17,638,062	727,920	92	N/A	144,509,146
Full-Service Providers						
2001	112,472,629	14,364,578	553,280	N/A	1,004,027	128,394,514
2002	113,790,812	14,899,747	586,217	N/A	1,035,604	130,312,380
2003	115,029,545	16,136,616	695,616	1,042	N/A	131,862,819
2004	116,325,747	16,161,269	733,809	941	N/A	133,221,766
2005	118,469,928	16,389,549	719,219	496	N/A	135,579,192
2006	120,677,627	16,673,766	745,645	764	N/A	138,097,802
2007	121,782,003	16,767,635	771,637	710	N/A	139,321,985
2008	122,595,644	16,952,660	756,294	664	N/A	140,305,262
2009	122,533,214	16,860,320	736,751	666	N/A	140,130,951
2010	121,555,089	16,675,341	718,651	198	N/A	138,949,279
2011	120,306,190	16,321,174	682,906	56	N/A	137,310,326
Energy-Only Providers						
2001	2,417,611	502,912	18,183	N/A	26,019	2,964,725
2002	2,831,225	433,953	15,527	N/A	30,950	3,311,655
2003	2,250,936	412,903	17,605	85	N/A	2,681,529
2004	2,438,021	445,514	13,791	84	N/A	2,897,410
2005	2,290,911	482,391	14,643	22	N/A	2,787,967
2006	1,793,444	498,733	13,959	27	N/A	2,306,163
2007	2,167,913	609,584	22,130	40	N/A	2,799,667
2008	2,341,825	610,066	18,419	63	N/A	2,970,373
2009	2,643,961	701,341	20,768	39	N/A	3,366,109
2010	4,162,846	998,997	29,095	41	N/A	5,190,979
2011	5,836,882	1,316,888	45,014	36	N/A	7,198,820

N/A = Not Available.

Pursuant to applicable Texas statutes establishing competitive electricity markets within the Electric Reliability Council of Texas (ERCOT), all customers served by Retail Energy Providers must be provided bundled energy and delivery services, so they are included under "Full-Service Providers".

Full-Service Providers sell bundled electricity services (e.g., both energy and delivery) to end users. Full-Service Providers may purchase electricity from others (such as Independent Power Producers or other Full-Service Providers) prior to delivery. Direct sales from independent facility generators to end use consumers are reported under Full-Service Providers. Energy-Only Providers sell energy to end use customers; incumbent utility distribution firms provide Delivery-Only Services for these customers.

Source: U.S. Energy Information Administration, Form EIA-861, "Annual Electric Power Industry Report."

Table 2.2. Retail Sales and Direct Use of Electricity to Ultimate Customers by Sector, by Provider 2001 through 2011 (Megawatthours)

Year	Residential	Commercial	Industrial	Transportation	Other	Total	Direct Use	Total End Use
Total Electric Industry								
2001	1,201,606,593	1,083,068,516	996,609,310	N/A	113,173,685	3,394,458,104	162,648,615	3,557,106,719
2002	1,265,179,869	1,104,496,607	990,237,631	N/A	105,551,904	3,465,466,011	166,184,296	3,631,650,307
2003	1,275,823,910	1,198,727,601	1,012,373,247	6,809,728	N/A	3,493,734,486	168,294,526	3,662,029,012
2004	1,291,981,578	1,230,424,731	1,017,849,532	7,223,642	N/A	3,547,479,483	168,470,002	3,715,949,485
2005	1,359,227,107	1,275,079,020	1,019,156,065	7,506,321	N/A	3,660,968,513	150,015,531	3,810,984,044
2006	1,351,520,036	1,299,743,695	1,011,297,566	7,357,543	N/A	3,669,918,840	146,926,612	3,816,845,452
2007	1,392,240,996	1,336,315,196	1,027,831,925	8,172,595	N/A	3,764,560,712	125,670,185	3,890,230,897
2008	1,379,981,104	1,335,981,135	1,009,300,309	7,699,632	N/A	3,732,962,180	132,196,685	3,865,158,865
2009	1,364,474,417	1,307,167,813	917,442,063	7,780,573	N/A	3,596,864,866	126,937,958	3,723,802,824
2010	1,445,708,403	1,330,199,364	970,872,874	7,712,412	N/A	3,754,493,053	131,910,249	3,886,403,302
2011	1,422,801,093	1,328,057,439	991,315,564	7,672,084	N/A	3,749,846,180	132,754,037	3,882,600,217
Full-Service Providers								
2001	1,188,219,590	1,037,998,484	961,812,417	N/A	108,632,086	3,296,662,577	N/A	3,296,662,577
2002	1,248,349,458	1,036,366,268	937,138,192	N/A	102,238,786	3,324,092,704	N/A	3,324,092,704
2003	1,257,766,998	1,112,206,121	931,661,404	3,315,043	N/A	3,304,949,566	N/A	3,304,949,566
2004	1,272,237,425	1,116,497,417	933,529,502	3,188,466	N/A	3,325,452,810	N/A	3,325,452,810
2005	1,339,568,275	1,151,327,861	929,675,932	3,341,814	N/A	3,423,913,882	N/A	3,423,913,882
2006	1,337,837,993	1,170,661,399	939,194,648	3,040,062	N/A	3,450,734,102	N/A	3,450,734,102
2007	1,375,450,126	1,180,789,042	923,148,031	2,635,498	N/A	3,482,022,697	N/A	3,482,022,697
2008	1,362,811,730	1,152,674,093	929,246,647	2,515,304	N/A	3,447,247,774	N/A	3,447,247,774
2009	1,345,125,375	1,140,767,357	813,292,567	2,453,843	N/A	3,301,639,142	N/A	3,301,639,142
2010	1,409,355,244	1,123,328,313	840,091,476	2,440,567	N/A	3,375,215,600	N/A	3,375,215,600
2011	1,368,453,770	1,090,292,969	822,404,124	1,730,820	N/A	3,282,881,683	N/A	3,282,881,683
Energy-Only Providers								
2001	13,387,003	45,070,032	34,796,893	N/A	4,541,599	97,795,527	N/A	97,795,527
2002	16,830,411	68,130,339	53,099,439	N/A	3,313,118	141,373,307	N/A	141,373,307
2003	18,056,912	86,521,480	80,711,843	3,494,685	N/A	188,784,920	N/A	188,784,920
2004	19,744,153	113,927,314	84,320,030	4,035,176	N/A	222,026,673	N/A	222,026,673
2005	19,658,832	123,751,159	89,480,133	4,164,507	N/A	237,054,631	N/A	237,054,631
2006	13,682,043	129,082,296	72,102,918	4,317,481	N/A	219,184,738	N/A	219,184,738
2007	16,790,870	155,526,154	104,683,894	5,537,097	N/A	282,538,015	N/A	282,538,015
2008	17,169,374	183,307,042	80,053,662	5,184,328	N/A	285,714,406	N/A	285,714,406
2009	19,349,042	166,400,456	104,149,496	5,326,730	N/A	295,225,724	N/A	295,225,724
2010	36,353,159	206,871,051	130,781,398	5,271,845	N/A	379,277,453	N/A	379,277,453
2011	54,347,323	237,764,470	168,911,440	5,941,264	N/A	466,964,497	N/A	466,964,497

N/A = Not Available.

Direct Use represents commercial and industrial facility use of onsite net electricity generation; and electricity sales or transfers to adjacent or co-located facilities for which revenue information is not available.

Pursuant to applicable Texas statutes establishing competitive electricity markets within the Electric Reliability Council of Texas (ERCOT), all customers served by Retail Energy Providers must be provided bundled energy and delivery services, so they are included under "Full-Service Providers".

Full-Service Providers sell bundled electricity services (e.g., both energy and delivery) to end users. Full-Service Providers may purchase electricity from others (such as Independent Power Producers or other Full-Service Providers) prior to delivery. Direct sales from independent facility generators to end use consumers are reported under Full-Service Providers. Energy-Only Providers sell energy to end use customers; incumbent utility distribution firms provide Delivery-Only Services for these customers.

Source: U.S. Energy Information Administration, Form EIA-861, "Annual Electric Power Industry Report."and Form EIA-923, "Power Plant Operations Report"

Table 2.3. Revenue from Retail Sales of Electricity to Ultimate Customers by Sector, by Provider 2001 through 2011 (Million Dollars)

Year	Residential	Commercial	Industrial	Transportation	Other	Total
Total Electric Industry						
2001	103,158	85,741	50,293	N/A	8,151	247,343
2002	106,834	87,117	48,336	N/A	7,124	249,411
2003	111,249	96,263	51,741	514	N/A	259,767
2004	115,577	100,546	53,477	519	N/A	270,119
2005	128,393	110,522	58,445	643	N/A	298,003
2006	140,582	122,914	62,308	702	N/A	326,506
2007	148,295	128,903	65,712	792	N/A	343,703
2008	155,433	138,469	68,920	827	N/A	363,650
2009	157,008	132,940	62,504	828	N/A	353,280
2010	166,782	135,559	65,750	815	N/A	368,906
2011	166,714	135,926	67,606	803	N/A	371,049
Full-Service Providers						
2001	101,541	81,385	48,182	N/A	7,766	238,874
2002	104,814	80,573	44,826	N/A	6,803	237,014
2003	109,165	87,764	46,686	226	N/A	243,841
2004	113,306	89,597	47,993	238	N/A	251,134
2005	125,983	97,405	52,113	249	N/A	275,749
2006	138,608	107,432	56,385	257	N/A	302,683
2007	145,642	109,703	56,950	232	N/A	312,527
2008	152,429	115,062	61,286	250	N/A	329,027
2009	153,723	112,111	53,345	226	N/A	319,405
2010	161,221	110,298	54,561	233	N/A	326,312
2011	158,788	108,318	54,285	162	N/A	321,552
Restructured Retail Service Providers						
2001	1,617	4,356	2,111	N/A	385	8,469
2002	2,020	6,545	3,510	N/A	321	12,396
2003	2,084	8,499	5,055	288	N/A	15,926
2004	2,272	10,949	5,484	281	N/A	18,985
2005	2,410	13,117	6,333	394	N/A	22,254
2006	1,974	15,482	5,922	445	N/A	23,823
2007	2,653	19,200	8,762	560	N/A	31,176
2008	3,004	23,407	7,635	577	N/A	34,622
2009	3,286	20,828	9,159	602	N/A	33,875
2010	5,560	25,261	11,190	582	N/A	42,593
2011	7,926	27,609	13,321	641	N/A	49,497
Energy-Only Providers						
2001	714	2,806	1,632	N/A	237	5,390
2002	914	3,989	2,408	N/A	143	7,454
2003	980	5,210	3,605	215	N/A	10,011
2004	1,086	6,859	3,881	201	N/A	12,027
2005	1,285	8,844	4,749	308	N/A	15,186
2006	1,127	10,792	4,510	356	N/A	16,784
2007	1,646	13,553	7,197	458	N/A	22,854
2008	1,873	17,126	6,212	455	N/A	25,667
2009	1,877	14,271	7,205	460	N/A	23,813
2010	3,230	16,999	8,664	425	N/A	29,318
2011	4,578	18,085	10,392	463	N/A	33,519
Delivery-Only Providers						
2001	903	1,551	479	N/A	147	3,080
2002	1,106	2,556	1,102	N/A	178	4,942
2003	1,104	3,289	1,450	72	N/A	5,915
2004	1,186	4,090	1,603	79	N/A	6,958
2005	1,125	4,273	1,584	86	N/A	7,068
2006	847	4,690	1,412	90	N/A	7,040
2007	1,007	5,647	1,565	102	N/A	8,322
2008	1,131	6,281	1,422	121	N/A	8,956
2009	1,409	6,557	1,954	143	N/A	10,062
2010	2,330	8,262	2,526	157	N/A	13,276
2011	3,348	9,523	2,929	178	N/A	15,978

N/A = Not Available.

Pursuant to applicable Texas statutes establishing competitive electricity markets within the Electric Reliability Council of Texas (ERCOT), all customers served by Retail Energy Providers must be provided bundled energy and delivery services, so they are included under "Full-Service Providers".

Full-Service Providers sell bundled electricity services (e.g., both energy and delivery) to end users. Full-Service Providers may purchase electricity from others (such as Independent Power Producers or other Full-Service Providers) prior to delivery. Direct sales from independent facility generators to end use consumers are reported under Full-Service Providers. Energy-Only Providers sell energy to end use customers; incumbent utility distribution firms provide Delivery-Only Services for these customers. Data reported under Restructured Retail Service Providers represent the sum of Energy-Only and Delivery-Only Services."

Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration, Form EIA-861, "Annual Electric Power Industry Report."

Table 2.4. Average Retail Price of Electricity to Ultimate Customers by End-Use Sectors 2001 through 2011 (Cents per kilowatthour)

Year	Residential	Commercial	Industrial	Transportation	Other	Total
Total Electric Industry						
2001	8.58	7.92	5.05	N/A	7.20	7.29
2002	8.44	7.89	4.88	N/A	6.75	7.20
2003	8.72	8.03	5.11	7.54	N/A	7.44
2004	8.95	8.17	5.25	7.18	N/A	7.61
2005	9.45	8.67	5.73	8.57	N/A	8.14
2006	10.40	9.46	6.16	9.54	N/A	8.90
2007	10.65	9.65	6.39	9.70	N/A	9.13
2008	11.26	10.36	6.83	10.74	N/A	9.74
2009	11.51	10.17	6.81	10.65	N/A	9.82
2010	11.54	10.19	6.77	10.57	N/A	9.83
2011	11.72	10.23	6.82	10.46	N/A	9.90
Full-Service Providers						
2001	8.55	7.84	5.01	N/A	7.15	7.25
2002	8.40	7.77	4.78	N/A	6.65	7.13
2003	8.68	7.89	5.01	6.82	N/A	7.38
2004	8.91	8.02	5.14	7.47	N/A	7.55
2005	9.40	8.46	5.61	7.45	N/A	8.05
2006	10.36	9.18	6.0	8.44	N/A	8.77
2007	10.59	9.29	6.17	8.82	N/A	8.98
2008	11.18	9.98	6.60	9.96	N/A	9.54
2009	11.43	9.83	6.56	9.20	N/A	9.67
2010	11.44	9.82	6.49	9.55	N/A	9.67
2011	11.60	9.93	6.60	9.35	N/A	9.79
Restructured Retail Service Providers						
2001	12.08	9.67	6.07	N/A	8.47	8.66
2002	12.0	9.61	6.61	N/A	9.69	8.77
2003	11.54	9.82	6.26	8.23	N/A	8.44
2004	11.51	9.61	6.50	6.95	N/A	8.55
2005	12.26	10.60	7.08	9.47	N/A	9.39
2006	14.43	11.99	8.21	10.32	N/A	10.87
2007	15.80	12.35	8.37	10.11	N/A	11.03
2008	17.49	12.77	9.54	11.12	N/A	12.12
2009	16.98	12.52	8.79	11.31	N/A	11.47
2010	15.30	12.21	8.56	11.04	N/A	11.23
2011	14.58	11.61	7.89	10.79	N/A	10.60
Energy-Only Providers						
2001	5.34	6.22	4.69	N/A	5.23	5.51
2002	5.43	5.86	4.53	N/A	4.30	5.27
2003	5.43	6.02	4.47	6.16	N/A	5.30
2004	5.50	6.02	4.60	4.99	N/A	5.42
2005	6.54	7.15	5.31	7.40	N/A	6.41
2006	8.23	8.36	6.25	8.24	N/A	7.66
2007	9.80	8.71	6.87	8.28	N/A	8.09
2008	10.91	9.34	7.76	8.79	N/A	8.98
2009	9.70	8.58	6.92	8.63	N/A	8.07
2010	8.88	8.22	6.62	8.06	N/A	7.73
2011	8.42	7.61	6.15	7.80	N/A	7.18
Delivery-Only Providers						
2001	6.74	3.44	1.38	N/A	3.24	3.15
2002	6.57	3.75	2.08	N/A	5.39	3.50
2003	6.11	3.80	1.80	2.07	N/A	3.13
2004	6.0	3.59	1.90	1.96	N/A	3.13
2005	5.72	3.45	1.77	2.07	N/A	2.98
2006	6.19	3.63	1.96	2.08	N/A	3.21
2007	6.0	3.63	1.50	1.84	N/A	2.95
2008	6.59	3.43	1.78	2.34	N/A	3.13
2009	7.28	3.94	1.88	2.68	N/A	3.41
2010	6.41	3.99	1.93	2.98	N/A	3.50
2011	6.16	4.01	1.73	2.99	N/A	3.42

N/A = Not Available.

Pursuant to applicable Texas statutes establishing competitive electricity markets within the Electric Reliability Council of Texas (ERCOT), all customers served by Retail Energy Providers must be provided bundled energy and delivery services, so they are included under "Full-Service Providers".

Full-Service Providers sell bundled electricity services (e.g., both energy and delivery) to end users. Full-Service Providers may purchase electricity from others (such as Independent Power Producers or other Full-Service Providers) prior to delivery. Direct sales from independent facility generators to end use consumers are reported under Full-Service Providers. Energy-Only Providers sell energy to end use customers; incumbent utility distribution firms provide Delivery-Only Services for these customers. Data reported under Restructured Retail Service Providers represent the sum of Energy-Only and Delivery-Only Services."

Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration, Form EIA-861, "Annual Electric Power Industry Report."

Table 2.5. Retail Sales of Electricity to Ultimate Customers: Total by End-Use Sector, 2003 - December 2011 (Million Kilowatthours)

Period	Residential	Commercial	Industrial	Transportation	All Sectors
Annual Totals					
2003	1,275,824	1,198,728	1,012,373	6,810	3,493,734
2004	1,291,982	1,230,425	1,017,850	7,224	3,547,479
2005	1,359,227	1,275,079	1,019,156	7,506	3,660,969
2006	1,351,520	1,299,744	1,011,298	7,358	3,669,919
2007	1,392,241	1,336,315	1,027,832	8,173	3,764,561
2008	1,379,981	1,335,981	1,009,300	7,700	3,732,962
2009	1,364,474	1,307,168	917,442	7,781	3,596,865
2010	1,445,708	1,330,199	970,873	7,712	3,754,493
2011	1,422,801	1,328,057	991,316	7,672	3,749,846
2009					
January	136,080	109,523	75,003	774	321,379
February	115,536	99,358	71,304	672	286,869
March	106,544	102,646	73,913	671	283,773
April	91,473	100,020	73,662	611	265,766
May	94,180	105,215	75,198	599	275,193
June	114,347	114,752	75,246	611	304,956
July	137,681	121,608	78,045	674	338,009
August	138,447	123,662	82,298	644	345,051
September	115,372	115,027	80,022	638	311,059
October	98,522	108,635	79,584	607	287,348
November	92,722	98,646	75,917	592	267,877
December	123,570	108,076	77,251	688	309,585
2010					
January	147,500	108,120	75,506	715	331,841
February	122,840	100,747	74,164	689	298,440
March	111,790	101,756	78,303	656	292,505
April	88,046	99,791	78,597	600	267,034
May	94,843	106,176	82,088	606	283,712
June	127,496	119,388	83,347	658	330,889
July	154,688	127,925	85,725	667	369,006
August	154,053	129,143	87,904	628	371,728
September	124,582	119,137	83,353	639	327,711
October	96,688	108,461	82,046	615	287,811
November	93,166	101,524	79,575	607	274,871
December	130,015	108,031	80,264	633	318,943
2011					
January	145,054	108,243	80,077	710	334,084
February	120,121	99,789	76,332	637	296,879
March	104,921	104,263	82,196	664	292,044
April	93,700	100,505	80,356	629	275,190
May	97,688	107,624	82,095	619	288,026
June	125,983	118,169	83,941	643	328,736
July	154,729	128,063	87,245	650	370,686
August	153,739	129,371	89,014	625	372,749
September	122,720	117,951	84,959	634	326,263
October	94,585	108,655	84,287	616	288,144
November	93,220	100,552	80,858	590	275,220
December	116,341	104,873	79,956	656	301,826

See Technical notes for additional information on the Commercial, Industrial, and Transportation sectors. NA = Not available. See Glossary for definitions.
Geographic coverage is the 50 States and the District of Columbia. Values include energy service provider (power marketer) data.
Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-826. Utilities and energy service providers may classify commercial and industrial customers based on either NAICS codes or demands or usage falling within specified limits by rate schedule. Changes from year to year in consumer counts, sales and revenues, particularly involving the commercial and industrial consumer sectors, may result from respondent implementation of changes in the definitions of consumers, and reclassifications. Retail sales and net generation may not correspond exactly for a particular month for a variety of reasons (i.e., sales data may include purchases of electricity from nonutilities or imported electricity). Net generation is for the calendar month while retail sales and associated revenue accumulate from bills collected for periods of time (28 to 35 days) that vary dependent upon customer class and consumption occurring in and outside the calendar month.
Sources: U.S. Energy Information Administration, Form EIA-826, Monthly Electric Sales and Revenue Report with State Distributions Report;
Form EIA-861, Annual Electric Power Industry Report.

Table 2.6. Revenue from Retail Sales of Electricity to Ultimate Customers: Total by End-Use Sector, 2003 - December 2011 (Million Dollars)

Period	Residential	Commercial	Industrial	Transportation	All Sectors
Annual Totals					
2003	111,249	96,263	51,741	514	259,767
2004	115,577	100,546	53,477	519	270,119
2005	128,393	110,522	58,445	643	298,003
2006	140,582	122,914	62,308	702	326,506
2007	148,295	128,903	65,712	792	343,703
2008	155,433	138,469	68,920	827	363,650
2009	157,008	132,940	62,504	828	353,280
2010	166,782	135,559	65,750	815	368,906
2011	166,714	135,926	67,606	803	371,049
2009					
January	14,902	10,912	5,164	81	31,058
February	12,882	10,077	4,916	70	27,945
March	12,038	10,269	4,994	71	27,371
April	10,531	9,912	4,930	64	25,438
May	11,082	10,595	5,108	67	26,852
June	13,496	12,011	5,323	65	30,896
July	16,316	12,881	5,533	74	34,804
August	16,552	13,041	5,822	68	35,483
September	13,792	12,035	5,535	68	31,430
October	11,484	11,050	5,282	66	27,883
November	10,473	9,681	4,881	62	25,097
December	13,462	10,476	5,015	72	29,025
2010					
January	15,476	10,328	4,910	73	30,787
February	13,375	9,960	4,861	72	28,268
March	12,415	10,126	5,114	67	27,722
April	10,309	9,934	5,147	63	25,453
May	11,296	10,776	5,453	64	27,589
June	15,189	12,605	5,805	73	33,673
July	18,620	13,713	6,196	73	38,601
August	18,529	13,714	6,344	68	38,656
September	14,890	12,533	5,831	67	33,321
October	11,471	11,118	5,576	65	28,230
November	10,828	10,144	5,219	64	26,254
December	14,384	10,608	5,295	66	30,353
2011					
January	15,770	10,590	5,228	73	31,662
February	13,286	9,968	5,058	67	28,380
March	12,090	10,354	5,369	68	27,881
April	10,936	10,015	5,243	63	26,257
May	11,656	10,962	5,481	66	28,166
June	15,079	12,592	5,993	71	33,736
July	18,709	13,661	6,381	73	38,824
August	18,582	13,874	6,583	68	39,107
September	14,934	12,494	6,076	68	33,572
October	11,427	11,142	5,706	63	28,338
November	10,982	10,034	5,281	59	26,355
December	13,262	10,241	5,205	64	28,772

See Technical notes for additional information on the Commercial, Industrial, and Transportation sectors. NA = Not available. See Glossary for definitions.
Geographic coverage is the 50 States and the District of Columbia. Values include energy service provider (power marketer) data.
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Sources: U.S. Energy Information Administration, Form EIA-826, Monthly Electric Sales and Revenue Report with State Distributions Report;
Form EIA-861, Annual Electric Power Industry Report.

Table 2.7. Average Retail Price of Electricity to Ultimate Customers: Total by End-Use Sector, 2003 - December 2011 (Cents per Kilowatthour)

Period	Residential	Commercial	Industrial	Transportation	All Sectors
Annual Totals					
2003	8.72	8.03	5.11	7.54	7.44
2004	8.95	8.17	5.25	7.18	7.61
2005	9.45	8.67	5.73	8.57	8.14
2006	10.40	9.46	6.16	9.54	8.90
2007	10.65	9.65	6.39	9.70	9.13
2008	11.26	10.36	6.83	10.74	9.74
2009	11.51	10.17	6.81	10.65	9.82
2010	11.54	10.19	6.77	10.57	9.83
2011	11.72	10.23	6.82	10.46	9.90
2009					
January	10.95	9.96	6.88	10.42	9.66
February	11.15	10.14	6.89	10.47	9.74
March	11.30	10.00	6.76	10.55	9.65
April	11.51	9.91	6.69	10.48	9.57
May	11.77	10.07	6.79	11.18	9.76
June	11.80	10.47	7.07	10.69	10.13
July	11.85	10.59	7.09	11.02	10.30
August	11.96	10.55	7.07	10.61	10.28
September	11.95	10.46	6.92	10.61	10.10
October	11.66	10.17	6.64	10.84	9.70
November	11.30	9.81	6.43	10.50	9.37
December	10.89	9.69	6.49	10.47	9.38
2010					
January	10.49	9.55	6.50	10.17	9.28
February	10.89	9.89	6.55	10.48	9.47
March	11.11	9.95	6.53	10.28	9.48
April	11.71	9.95	6.55	10.52	9.53
May	11.91	10.15	6.64	10.52	9.72
June	11.91	10.56	6.96	11.14	10.18
July	12.04	10.72	7.23	10.95	10.46
August	12.03	10.62	7.22	10.86	10.40
September	11.95	10.52	7.00	10.53	10.17
October	11.86	10.25	6.80	10.49	9.81
November	11.62	9.99	6.56	10.47	9.55
December	11.06	9.82	6.60	10.39	9.52
2011					
January	10.87	9.78	6.53	10.29	9.48
February	11.06	9.99	6.63	10.55	9.56
March	11.52	9.93	6.53	10.24	9.55
April	11.67	9.96	6.53	9.97	9.54
May	11.93	10.19	6.68	10.70	9.78
June	11.97	10.66	7.14	11.01	10.26
July	12.09	10.67	7.31	11.21	10.47
August	12.09	10.72	7.40	10.82	10.49
September	12.17	10.59	7.15	10.80	10.29
October	12.08	10.25	6.77	10.25	9.83
November	11.78	9.98	6.53	9.93	9.58
December	11.40	9.77	6.51	9.79	9.53

See Technical notes for additional information on the Commercial, Industrial, and Transportation sectors. NA = Not available. See Glossary for definitions.
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Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-826. Utilities and energy service providers may classify commercial and industrial customers based on either NAICS codes or demands or usage falling within specified limits by rate schedule. Changes from year to year in consumer counts, sales and revenues, particularly involving the commercial and industrial consumer sectors, may result from respondent implementation of changes in the definitions of consumers, and reclassifications. Retail sales and net generation may not correspond exactly for a particular month for a variety of reasons (i.e., sales data may include purchases of electricity from nonutilities or imported electricity). Net generation is for the calendar month while retail sales and associated revenue accumulate from bills collected for periods of time (28 to 35 days) that vary dependent upon customer class and consumption occurring in and outside the calendar month.
Sources: U.S. Energy Information Administration, Form EIA-826, Monthly Electric Sales and Revenue Report with State Distributions Report;
Form EIA-861, Annual Electric Power Industry Report.

Table 2.8. Retail Sales of Electricity to Ultimate Customers by End-Use Sector, by State, 2011 and 2010 (Million Kilowatthours)

Census Division and State	Residential		Commercial		Industrial		Transportation		All Sectors	
	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010
New England	47,481	48,577	45,018	45,948	27,927	28,237	569	568	120,995	123,331
Connecticut	12,919	13,065	13,087	13,428	3,668	3,713	185	186	29,859	30,392
Maine	4,382	4,372	4,018	4,101	3,016	3,059	--	--	11,415	11,532
Massachusetts	20,473	21,409	17,767	18,243	16,974	17,116	357	355	55,570	57,123
New Hampshire	4,454	4,485	4,478	4,462	1,936	1,942	--	--	10,869	10,890
Rhode Island	3,129	3,118	3,660	3,693	916	961	27	27	7,732	7,799
Vermont	2,125	2,128	2,009	2,021	1,417	1,446	--	--	5,550	5,595
Middle Atlantic	135,434	136,506	159,059	164,765	71,039	67,367	4,131	4,130	369,664	372,767
New Jersey	29,399	30,307	39,118	40,123	8,033	8,429	310	321	76,860	79,179
New York	51,240	50,946	76,406	77,276	13,420	13,480	2,981	2,922	144,047	144,624
Pennsylvania	54,796	55,253	43,536	47,366	49,585	45,458	840	887	148,757	148,964
East North Central	191,617	195,096	183,359	183,452	201,563	198,133	576	621	577,115	577,302
Illinois	47,057	48,583	50,468	51,437	44,844	44,180	516	560	142,886	144,761
Indiana	33,912	35,058	24,111	24,365	47,774	46,552	21	20	105,818	105,994
Michigan	34,811	34,681	38,613	38,123	31,624	30,841	5	5	105,054	103,649
Ohio	53,687	54,474	47,112	46,526	53,913	53,109	34	36	154,746	154,145
Wisconsin	22,150	22,299	23,055	23,001	23,407	23,452	--	--	68,612	68,752
West North Central	106,281	107,783	99,483	100,021	88,491	86,064	41	44	294,296	293,913
Iowa	14,327	14,555	12,088	12,025	19,240	18,865	--	--	45,655	45,445
Kansas	14,344	14,334	15,609	15,436	10,807	10,651	--	--	40,760	40,421
Minnesota	22,524	22,465	22,371	22,515	23,619	22,798	19	22	68,533	67,800
Missouri	35,941	37,302	30,962	31,431	17,330	17,330	22	22	84,255	86,085
Nebraska	9,947	10,107	9,139	9,532	10,590	10,210	--	--	29,676	29,849
North Dakota	4,552	4,393	4,866	4,714	4,319	3,850	--	--	13,737	12,956
South Dakota	4,646	4,628	4,447	4,368	2,586	2,360	--	--	11,680	11,356
South Atlantic	354,455	375,510	305,563	310,063	139,809	138,538	1,321	1,320	801,147	825,432
Delaware	4,632	4,760	4,260	4,320	2,591	2,526	--	--	11,483	11,606
District of Columbia	2,061	2,123	8,966	9,209	216	230	319	315	11,562	11,877
Florida	116,341	122,245	91,778	91,614	16,886	17,265	86	86	225,090	231,210
Georgia	57,750	61,554	46,930	47,897	31,521	31,047	171	173	136,371	140,672
Maryland	27,296	28,934	30,750	30,771	5,007	5,083	547	547	63,600	65,335
North Carolina	58,056	62,160	46,467	47,932	26,555	26,316	7	7	131,085	136,415
South Carolina	30,802	32,852	21,593	22,320	28,094	27,307	--	--	80,489	82,479
Virginia	45,771	48,439	47,051	48,037	17,218	17,141	188	189	110,228	113,806
West Virginia	11,746	12,443	7,768	7,962	11,720	11,623	4	4	31,239	32,032
East South Central	122,605	130,032	83,741	85,598	122,257	122,009	2	2	328,605	337,641
Alabama	33,003	35,529	22,257	22,984	33,735	32,350	--	--	88,995	90,863
Kentucky	27,198	29,137	18,721	19,411	43,619	45,022	--	--	89,538	93,569
Mississippi	19,336	20,175	13,738	13,805	16,263	15,707	--	--	49,338	49,687
Tennessee	43,068	45,191	29,025	29,399	28,638	28,930	2	2	100,733	103,522
West South Central	220,886	212,760	184,254	176,864	164,990	159,868	80	86	570,209	549,578
Arkansas	18,787	19,231	12,146	12,188	16,994	16,775	*	*	47,928	48,194
Louisiana	32,019	32,679	24,281	24,203	30,058	28,187	11	11	86,369	85,080
Oklahoma	24,425	23,689	19,613	19,005	15,809	15,152	--	--	59,847	57,846
Texas	145,654	137,161	128,214	121,467	102,129	99,754	68	74	376,065	358,458
Mountain	94,775	93,359	93,413	91,865	80,414	78,018	93	89	268,697	263,330
Arizona	33,079	32,448	29,512	28,943	12,352	11,442	--	--	74,944	72,833
Colorado	18,277	18,102	19,889	19,597	15,242	15,172	50	46	53,458	52,918
Idaho	8,390	8,137	5,969	5,865	8,912	8,796	--	--	23,272	22,798
Montana	4,913	4,743	4,892	4,789	3,983	3,891	--	--	13,788	13,423
Nevada	11,493	11,615	8,995	8,970	13,420	13,180	8	8	33,916	33,773
New Mexico	6,874	6,752	9,258	9,016	6,910	6,660	--	--	23,042	22,428
Utah	8,947	8,834	10,544	10,368	9,333	8,808	35	34	28,859	28,044
Wyoming	2,803	2,727	4,353	4,317	10,262	10,069	--	--	17,418	17,113
Pacific Contiguous	144,204	141,003	167,944	165,439	89,832	87,642	859	853	402,838	394,937
California	88,398	87,257	122,781	121,152	49,936	49,301	827	821	261,942	258,531
Oregon	19,429	18,839	15,754	15,454	11,963	11,708	25	25	47,171	46,026
Washington	36,376	34,907	29,409	28,833	27,933	26,633	7	7	93,725	90,380
Pacific Noncontiguous	5,063	5,083	6,223	6,184	4,995	4,997	--	--	16,281	16,264
Alaska	2,134	2,093	2,854	2,830	1,331	1,324	--	--	6,320	6,247
Hawaii	2,929	2,989	3,368	3,355	3,665	3,672	--	--	9,962	10,017
U.S. Total	1,422,801	1,445,708	1,328,057	1,330,199	991,316	970,873	7,672	7,712	3,749,846	3,754,493

See Technical notes for additional information on the Commercial, Industrial, and Transportation sectors.
* = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
Notes: - See Glossary for definitions. - Values are final.
See Technical Notes for a discussion of the sample design for the Form EIA-826.
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Changes from year to year in consumer counts, sales and revenues, particularly involving the commercial and industrial consumer sectors, may result from respondent implementation of changes in the definitions of consumers, and reclassifications.
Totals may not equal sum of components because of independent rounding.
Source: U.S. Energy Information Administration, Form EIA-826, Monthly Electric Sales and Revenue Report with State Distributions Report.

Table 2.9. Revenue from Retail Sales of Electricity to Ultimate Customers by End-Use Sector, by State, 2011 and 2010 (Million Dollars)

Census Division and State	Residential		Commercial		Industrial		Transportation		All Sectors	
	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010
New England	7,546	7,887	6,441	6,765	3,504	3,665	45	48	17,536	18,364
Connecticut	2,339	2,516	2,038	2,208	486	538	19	21	4,882	5,284
Maine	674	687	494	513	268	280	--	--	1,436	1,481
Massachusetts	3,003	3,124	2,547	2,651	2,270	2,347	22	23	7,842	8,145
New Hampshire	736	732	629	636	238	248	--	--	1,602	1,616
Rhode Island	449	496	453	484	103	114	4	4	1,008	1,098
Vermont	346	331	281	272	139	138	--	--	766	741
Middle Atlantic	21,395	21,586	21,712	22,958	5,803	5,660	509	510	49,419	50,714
New Jersey	4,773	5,022	5,268	5,572	918	995	33	38	10,991	11,627
New York	9,357	9,547	12,079	12,603	1,051	1,184	401	402	22,889	23,735
Pennsylvania	7,265	7,017	4,365	4,783	3,834	3,481	75	70	15,540	15,351
East North Central	22,595	22,256	17,404	17,174	13,153	12,934	40	43	53,191	52,407
Illinois	5,545	5,599	4,361	4,567	2,879	3,013	35	38	12,821	13,216
Indiana	3,410	3,350	2,116	2,041	2,946	2,734	2	2	8,474	8,127
Michigan	4,621	4,321	3,989	3,741	2,315	2,183	*	1	10,926	10,245
Ohio	6,133	6,165	4,535	4,529	3,298	3,398	2	3	13,969	14,095
Wisconsin	2,885	2,821	2,403	2,296	1,715	1,606	--	--	7,003	6,723
West North Central	10,751	10,394	8,185	7,867	5,380	5,042	3	3	24,319	23,307
Iowa	1,499	1,517	949	952	1,003	1,011	--	--	3,451	3,480
Kansas	1,527	1,437	1,370	1,273	725	664	--	--	3,623	3,374
Minnesota	2,469	2,379	1,930	1,887	1,528	1,433	2	2	5,929	5,701
Missouri	3,503	3,386	2,491	2,358	1,013	954	2	1	7,008	6,699
Nebraska	927	903	730	728	681	613	--	--	2,338	2,244
North Dakota	391	357	370	340	269	224	--	--	1,030	921
South Dakota	435	415	345	330	160	143	--	--	940	888
South Atlantic	39,652	41,173	28,912	28,806	9,317	9,220	119	124	78,000	79,323
Delaware	635	657	453	491	231	242	--	--	1,319	1,390
District of Columbia	276	297	1,157	1,236	15	18	32	35	1,481	1,586
Florida	13,389	13,982	9,040	8,942	1,444	1,529	8	7	23,880	24,460
Georgia	6,384	6,198	4,631	4,338	2,080	1,932	14	13	13,109	12,481
Maryland	3,634	4,144	3,468	3,616	439	487	49	54	7,590	8,300
North Carolina	5,955	6,288	3,780	3,911	1,597	1,623	1	1	11,332	11,823
South Carolina	3,405	3,450	2,008	1,986	1,669	1,568	--	--	7,081	7,004
Virginia	4,871	5,062	3,743	3,676	1,118	1,141	15	15	9,748	9,894
West Virginia	1,103	1,094	632	610	724	681	*	*	2,460	2,386
East South Central	12,429	12,451	8,203	7,993	7,566	7,116	*	*	28,197	27,561
Alabama	3,661	3,791	2,331	2,339	2,107	1,945	--	--	8,100	8,075
Kentucky	2,503	2,497	1,589	1,530	2,326	2,274	--	--	6,418	6,300
Mississippi	1,966	1,992	1,302	1,286	1,062	993	--	--	4,331	4,271
Tennessee	4,298	4,172	2,980	2,839	2,070	1,904	*	*	9,348	8,915
West South Central	23,019	22,708	15,767	15,527	9,899	9,791	8	8	48,692	48,034
Arkansas	1,694	1,703	911	891	957	913	*	*	3,562	3,507
Louisiana	2,870	2,935	2,050	2,058	1,711	1,646	1	1	6,632	6,640
Oklahoma	2,313	2,164	1,490	1,415	863	811	--	--	4,666	4,390
Texas	16,142	15,906	11,315	11,163	6,368	6,420	7	7	33,832	33,497
Mountain	10,012	9,795	8,275	8,042	4,892	4,780	9	8	23,189	22,625
Arizona	3,666	3,558	2,803	2,742	810	759	--	--	7,279	7,059
Colorado	2,059	1,998	1,878	1,790	1,076	1,048	5	4	5,018	4,840
Idaho	661	650	383	389	455	453	--	--	1,498	1,492
Montana	479	434	446	409	210	214	--	--	1,135	1,057
Nevada	1,334	1,436	814	878	892	972	1	1	3,041	3,286
New Mexico	756	711	840	773	419	400	--	--	2,015	1,883
Utah	802	769	775	741	476	434	3	3	2,057	1,948
Wyoming	255	239	336	320	555	501	--	--	1,146	1,061
Pacific Contiguous	17,924	17,351	19,506	19,163	6,842	6,549	70	70	44,342	43,133
California	13,061	12,873	16,018	15,865	5,046	4,830	67	68	34,193	33,637
Oregon	1,853	1,672	1,284	1,173	654	633	2	2	3,793	3,479
Washington	3,010	2,806	2,203	2,125	1,142	1,085	1	1	6,356	6,016
Pacific Noncontiguous	1,392	1,180	1,521	1,264	1,250	993	--	--	4,163	3,438
Alaska	376	340	431	395	209	187	--	--	1,016	922
Hawaii	1,016	840	1,090	870	1,041	806	--	--	3,147	2,516
U.S. Total	166,714	166,782	135,926	135,559	67,606	65,750	803	815	371,049	368,906

See Technical notes for additional information on the Commercial, Industrial, and Transportation sectors.
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Totals may not equal sum of components because of independent rounding.
Source: U.S. Energy Information Administration, Form EIA-826, Monthly Electric Sales and Revenue Report with State Distributions Report.

Table 2.10. Average Retail Price of Electricity to Ultimate Customers by End-Use Sector, by State, 2011 and 2010 (Cents per Kilowatthour)

Census Division and State	Residential		Commercial		Industrial		Transportation		All Sectors	
	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010
New England	15.89	16.24	14.31	14.72	12.55	12.98	7.85	8.45	14.49	14.89
Connecticut	18.11	19.25	15.57	16.45	13.24	14.50	10.25	11.46	16.35	17.39
Maine	15.38	15.71	12.29	12.51	8.88	9.17	--	--	12.58	12.84
Massachusetts	14.67	14.59	14.33	14.53	13.38	13.71	6.14	6.46	14.11	14.26
New Hampshire	16.52	16.32	14.04	14.26	12.27	12.75	--	--	14.74	14.84
Rhode Island	14.33	15.92	12.37	13.11	11.27	11.82	14.11	13.86	13.04	14.08
Vermont	16.26	15.57	14.00	13.44	9.83	9.53	--	--	13.80	13.24
Middle Atlantic	15.80	15.81	13.65	13.93	8.17	8.40	12.32	12.35	13.37	13.60
New Jersey	16.23	16.57	13.47	13.89	11.43	11.81	10.69	11.91	14.30	14.68
New York	18.26	18.74	15.81	16.31	7.83	8.78	13.45	13.74	15.89	16.41
Pennsylvania	13.26	12.70	10.03	10.10	7.73	7.66	8.93	7.92	10.45	10.31
East North Central	11.79	11.41	9.49	9.36	6.53	6.53	6.92	6.93	9.22	9.08
Illinois	11.78	11.52	8.64	8.88	6.42	6.82	6.81	6.71	8.97	9.13
Indiana	10.06	9.56	8.77	8.38	6.17	5.87	9.74	9.21	8.01	7.67
Michigan	13.27	12.46	10.33	9.81	7.32	7.08	8.53	10.65	10.40	9.88
Ohio	11.42	11.32	9.63	9.73	6.12	6.40	6.64	8.62	9.03	9.14
Wisconsin	13.02	12.65	10.42	9.98	7.33	6.85	--	--	10.21	9.78
West North Central	10.12	9.64	8.23	7.87	6.08	5.86	7.52	6.95	8.26	7.93
Iowa	10.46	10.42	7.85	7.91	5.21	5.36	--	--	7.56	7.66
Kansas	10.65	10.03	8.78	8.25	6.71	6.23	--	--	8.89	8.35
Minnesota	10.96	10.59	8.63	8.38	6.47	6.29	8.23	7.77	8.65	8.41
Missouri	9.75	9.08	8.04	7.50	5.85	5.50	6.90	6.14	8.32	7.78
Nebraska	9.32	8.94	7.99	7.63	6.43	6.00	--	--	7.88	7.52
North Dakota	8.58	8.13	7.61	7.21	6.24	5.81	--	--	7.50	7.11
South Dakota	9.35	8.97	7.76	7.55	6.20	6.07	--	--	8.05	7.82
South Atlantic	11.19	10.96	9.46	9.29	6.66	6.66	9.03	9.38	9.74	9.61
Delaware	13.70	13.80	10.64	11.36	8.91	9.57	--	--	11.48	11.97
District of Columbia	13.40	14.01	12.90	13.42	6.89	7.78	10.19	11.04	12.81	13.35
Florida	11.51	11.44	9.85	9.76	8.55	8.85	8.81	8.58	10.61	10.58
Georgia	11.05	10.07	9.87	9.06	6.60	6.22	7.94	7.46	9.61	8.87
Maryland	13.31	14.32	11.28	11.75	8.76	9.57	9.03	9.78	11.93	12.70
North Carolina	10.26	10.12	8.13	8.16	6.01	6.17	7.04	7.09	8.64	8.67
South Carolina	11.05	10.50	9.30	8.90	5.94	5.74	--	--	8.80	8.49
Virginia	10.64	10.45	7.95	7.65	6.49	6.66	8.24	7.70	8.84	8.69
West Virginia	9.39	8.79	8.14	7.66	6.18	5.86	8.60	8.33	7.88	7.45
East South Central	10.14	9.58	9.80	9.34	6.19	5.83	12.07	11.09	8.58	8.16
Alabama	11.09	10.67	10.47	10.18	6.25	6.01	--	--	9.10	8.89
Kentucky	9.20	8.57	8.49	7.88	5.33	5.05	--	--	7.17	6.73
Mississippi	10.17	9.87	9.48	9.32	6.53	6.32	--	--	8.78	8.59
Tennessee	9.98	9.23	10.27	9.66	7.23	6.58	12.07	11.09	9.28	8.61
West South Central	10.42	10.67	8.56	8.78	6.00	6.12	9.85	9.78	8.54	8.74
Arkansas	9.02	8.86	7.50	7.31	5.63	5.44	11.10	11.33	7.43	7.28
Louisiana	8.96	8.98	8.44	8.50	5.69	5.84	8.33	9.46	7.68	7.80
Oklahoma	9.47	9.14	7.60	7.45	5.46	5.35	--	--	7.80	7.59
Texas	11.08	11.60	8.83	9.19	6.24	6.44	10.08	9.82	9.00	9.34
Mountain	10.56	10.49	8.86	8.75	6.08	6.13	9.48	9.10	8.63	8.59
Arizona	11.08	10.97	9.50	9.47	6.55	6.63	--	--	9.71	9.69
Colorado	11.27	11.04	9.44	9.13	7.06	6.90	9.79	9.34	9.39	9.15
Idaho	7.87	7.99	6.41	6.64	5.10	5.15	--	--	6.44	6.54
Montana	9.75	9.16	9.12	8.55	5.27	5.49	--	--	8.23	7.88
Nevada	11.61	12.36	9.05	9.78	6.65	7.37	8.58	9.40	8.97	9.73
New Mexico	11.00	10.52	9.07	8.57	6.06	6.01	--	--	8.74	8.40
Utah	8.96	8.71	7.35	7.15	5.10	4.93	9.24	8.69	7.13	6.94
Wyoming	9.11	8.77	7.72	7.42	5.41	4.98	--	--	6.58	6.20
Pacific Contiguous	12.43	12.31	11.61	11.58	7.62	7.47	8.13	8.23	11.01	10.92
California	14.78	14.75	13.05	13.10	10.11	9.80	8.14	8.27	13.05	13.01
Oregon	9.54	8.87	8.15	7.59	5.47	5.41	7.89	6.99	8.04	7.56
Washington	8.28	8.04	7.49	7.37	4.09	4.07	8.54	7.42	6.78	6.66
Pacific Noncontiguous	27.49	23.22	24.45	20.45	25.02	19.88	--	--	25.57	21.14
Alaska	17.62	16.26	15.10	13.95	15.71	14.14	--	--	16.08	14.76
Hawaii	34.68	28.10	32.37	25.93	28.40	21.94	--	--	31.59	25.12
U.S. Total	11.72	11.54	10.23	10.19	6.82	6.77	10.46	10.57	9.90	9.83

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Source: U.S. Energy Information Administration, Form EIA-826, Monthly Electric Sales and Revenue Report with State Distributions Report.

Table 2.11. Electric Power Industry - Electricity Purchases, 2002 through 2011 (Thousand Megawatthours)

Year	Electric Utilities	Energy-Only Providers	Independent Power Producers	Combined Heat and Power	U.S. Total
2002	2,620,712	6,050,159	15,801	68,135	8,754,807
2003	2,610,525	4,264,102	37,921	67,122	6,979,669
2004	2,725,694	4,170,331	24,258	78,267	6,998,549
2005	2,760,043	3,250,298	12,201	69,744	6,092,285
2006	2,605,315	2,793,288	26,628	77,353	5,502,584
2007	2,504,002	2,805,833	24,942	76,646	5,411,422
2008	2,483,927	3,024,730	25,431	78,693	5,612,781
2009	2,364,648	2,564,407	27,922	71,669	5,028,647
2010	2,353,086	3,319,211	23,976	73,861	5,770,134
2011	2,245,381	2,679,803	21,844	77,593	5,024,621

Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-861, "Annual Electric Power Industry Report" and Form EIA-923, "Power Plant Operations Report"

Table 2.12. Electric Power Industry - Electricity Sales for Resale, 2002 through 2011 (Thousand Megawatthours)

Year	Electric Utilities	Energy-Only Providers	Independent Power Producers	Combined Heat and Power	U.S. Total
2002	1,838,901	5,757,283	943,531	28,963	8,568,678
2003	1,824,030	3,906,220	1,156,796	33,909	6,920,954
2004	1,923,440	3,756,175	1,053,364	25,996	6,758,975
2005	1,925,710	2,867,048	1,252,796	26,105	6,071,659
2006	1,698,389	2,446,104	1,321,342	27,638	5,493,473
2007	1,603,179	2,476,740	1,368,310	31,165	5,479,394
2008	1,576,976	2,718,661	1,355,017	30,079	5,680,733
2009	1,495,636	2,240,399	1,295,857	33,139	5,065,031
2010	1,541,554	2,946,452	1,404,137	37,068	5,929,211
2011	1,529,434	2,206,981	1,372,306	34,400	5,143,121

Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-861, "Annual Electric Power Industry Report" and Form EIA-923, "Power Plant Operations Report"

Table 2.13. Electric Power Industry - U.S. Electricity Imports from and Electricity Exports to Canada and Mexico, 2001-2011 (Megawatthours)

	Canada		Mexico		U.S. Total	
Year	Imports from	Exports to	Imports from	Exports to	Imports	Exports
2001	38,401,598	16,105,612	98,649	367,680	38,500,247	16,473,292
2002	36,536,479	15,231,079	242,598	564,602	36,779,077	15,795,681
2003	29,324,625	23,584,513	1,069,926	390,190	30,394,551	23,974,703
2004	33,007,487	22,482,109	1,202,576	415,754	34,210,063	22,897,863
2005	42,332,039	18,680,237	1,597,275	470,731	43,929,314	19,150,968
2006	41,544,052	23,405,387	1,147,258	865,948	42,691,310	24,271,335
2007	50,118,056	19,559,417	1,277,646	584,175	51,395,702	20,143,592
2008	55,731,229	23,614,158	1,288,152	584,001	57,019,381	24,198,159
2009	50,870,451	17,517,112	1,320,144	620,872	52,190,595	18,137,984
2010	43,763,091	18,481,678	1,320,095	624,502	45,083,186	19,106,180
2011	51,075,952	14,398,470	1,223,758	650,082	52,299,710	15,048,552

Sources: National Energy Board of Canada; DOE, Office of Electricity Delivery and Energy Reliability, Form OE-781R, 'Annual Report of International Electric Export/Import Data,' predecessor forms.
To estimate electricity trade with Mexico, for 2001 forward data from the California Independent System Operator are used in combination with the Form OE-781R values.

Table 2.14. Green Pricing Customers by End Use Sector, 2003 through 2011

Year	Residential	Commercial	Industrial	Transportation	Total
2003	819,579	56,423	1,124	--	877,126
2004	864,794	63,189	289	61	928,333
2005	871,774	70,303	695	--	942,772
2006	606,919	35,414	522	1	642,856
2007	773,391	61,608	553	99	835,651
2008	918,284	63,521	987	203	982,995
2009	1,058,185	64,139	1,454	--	1,123,778
2010	1,137,047	78,128	1,407	--	1,216,582
2011	1,187,867	89,677	1,440	--	1,278,984

In 2006 the single largest provider of green pricing services in the country discontinued service in two States. More than 297,600 customers reverted to standard service tariffs, in Ohio and Pennsylvania.
Source: U.S. Energy Information Administration, Form EIA-861, "Annual Electric Power Industry Report."

Chapter 3

Net Generation

Table 3.1.A. Net Generation by Energy Source: Total (All Sectors), 2001 - 2011

(Thousand Megawatthours)

Period	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gas	Nuclear	Hydroelectric Conventional	Other Renewable Sources	Hydroelectric Pumped Storage	Other	Total
Annual Totals											
2001	1,903,956	114,647	10,233	639,129	9,039	768,826	216,961	70,769	-8,823	11,906	3,736,644
2002	1,933,130	78,701	15,867	691,006	11,463	780,064	264,329	79,109	-8,743	13,527	3,858,452
2003	1,973,737	102,734	16,672	649,908	15,600	763,733	275,806	79,487	-8,535	14,045	3,883,185
2004	1,978,301	100,391	20,754	710,100	15,252	788,528	268,417	83,067	-8,488	14,232	3,970,555
2005	2,012,873	99,840	22,385	760,960	13,464	781,986	270,321	87,329	-6,558	12,821	4,055,423
2006	1,990,511	44,460	19,706	816,441	14,177	787,219	289,246	96,525	-6,558	12,974	4,064,702
2007	2,016,456	49,505	16,234	896,590	13,453	806,425	247,510	105,238	-6,896	12,231	4,156,745
2008	1,985,801	31,917	14,325	882,981	11,707	806,208	254,831	126,101	-6,288	11,804	4,119,388
2009	1,755,904	25,972	12,964	920,979	10,632	798,855	273,445	144,279	-4,627	11,928	3,950,331
2010	1,847,290	23,337	13,724	987,697	11,313	806,968	260,203	167,173	-5,501	12,855	4,125,060
2011	1,733,430	16,086	14,096	1,013,689	11,566	790,204	319,355	193,981	-5,905	14,154	4,100,656
2009											
January	171,925	4,968	1,136	66,390	807	74,102	23,490	11,739	-501	936	354,993
February	140,916	2,267	1,051	62,139	784	64,227	17,812	11,231	-413	875	300,887
March	135,530	2,089	1,260	68,203	834	67,241	21,827	12,950	-315	984	310,603
April	125,935	1,658	1,148	61,159	758	59,408	25,770	12,986	-272	987	289,537
May	131,673	2,053	1,156	68,146	773	65,395	29,560	11,864	-349	1,035	311,306
June	148,087	2,090	1,153	84,205	876	69,735	29,233	11,467	-226	1,038	347,658
July	158,234	2,124	1,234	101,894	966	72,949	23,385	11,187	-491	1,061	372,542
August	163,260	2,449	1,193	109,240	1,012	72,245	19,580	11,791	-613	1,064	381,221
September	137,145	1,677	1,176	92,127	1,022	65,752	17,359	10,524	-348	967	327,401
October	139,956	1,815	746	72,603	960	58,021	19,691	12,668	-385	967	307,040
November	136,810	1,315	757	63,285	910	59,069	21,008	12,810	-330	1,000	296,635
December	166,434	1,468	954	71,590	930	70,710	24,730	13,061	-383	1,014	350,507
2010											
January	173,320	3,187	1,161	74,173	909	72,569	22,383	12,805	-565	1,014	360,957
February	153,044	1,251	1,122	66,198	825	65,245	20,590	10,901	-351	909	319,735
March	144,406	1,272	1,198	63,431	1,010	64,635	20,886	14,654	-325	1,002	312,168
April	126,952	1,220	1,067	64,644	943	57,611	19,097	15,607	-335	996	287,800
May	143,272	1,851	1,143	73,665	1,017	66,658	25,079	14,631	-441	1,060	327,936
June	165,491	2,656	1,333	92,268	964	68,301	29,854	14,209	-472	1,153	375,759
July	179,600	2,970	1,441	114,624	963	71,913	24,517	13,107	-557	1,146	409,725
August	177,745	2,419	1,157	121,151	1,061	71,574	20,119	13,100	-600	1,158	408,884
September	148,746	1,675	1,108	93,004	954	69,371	17,265	13,227	-421	1,116	346,045
October	132,270	1,221	1,007	77,738	808	62,751	17,683	13,791	-438	1,090	307,921
November	135,185	1,220	860	69,227	907	62,655	19,562	15,782	-467	1,079	306,010
December	167,258	2,395	1,128	77,573	952	73,683	23,169	15,359	-530	1,131	362,119
2011											
January	170,803	1,902	1,555	74,254	930	72,743	25,531	14,742	-426	1,071	363,105
February	138,311	1,217	1,217	65,924	807	64,789	24,131	16,116	-247	1,027	313,293
March	134,845	1,276	1,416	65,947	945	65,662	31,134	16,650	-349	1,182	318,710
April	124,488	1,459	965	70,029	918	54,547	31,194	18,125	-466	1,141	302,400
May	137,102	1,356	1,023	75,243	875	57,013	32,587	17,638	-418	1,210	323,627
June	158,055	1,374	1,220	90,691	1,013	65,270	32,151	17,284	-567	1,236	367,727
July	176,586	1,714	1,440	119,624	1,098	72,345	31,285	14,000	-708	1,309	418,693
August	171,281	1,295	1,299	119,856	1,087	71,339	25,764	14,054	-663	1,230	406,541
September	140,941	1,119	1,305	91,739	1,004	66,849	21,378	13,048	-553	1,132	337,961
October	126,627	1,114	948	78,819	941	63,337	19,787	16,550	-572	1,176	308,727
November	121,463	1,082	701	75,441	943	64,474	20,681	18,589	-441	1,187	304,119
December	132,929	1,178	1,007	86,122	1,005	71,837	23,732	17,185	-496	1,254	335,753

Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
Petroleum Liquids includes distillate and residual fuel oils, jet fuel, kerosene, waste oil, and beginning in 2011, propane. Prior to 2011 propane was included in Other Gases.
Petroleum Coke includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
Other Gas includes blast furnace gas and other manufactured and waste gases derived from fossil fuels. Prior to 2011, Other Gas included propane and synthesis gases.
See the Technical Notes for fuel conversion factors.
Other Renewable Sources include wood, black liquor, other wood waste, biogenic municipal solid waste, landfill gas, sludge waste, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic energy, and wind.
Other includes non-biogenic municipal solid waste, batteries, hydrogen, purchased steam, sulfur, tire-derived fuel, and other miscellaneous energy sources.
Notes: Beginning with 2001 data, non-biogenic municipal solid waste and tire-derived fuels are reclassified as non-renewable energy sources and included in Other. Biogenic municipal solid waste is included in Other Renewable Sources.
See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
Totals may not equal sum of components because of independent rounding. NM=Not meaningful due to large standard error. W=Withheld to avoid disclosure of individual company data. *=value less than half of smallest unit of measure.
Sources: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report; U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report; and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report;
Form EIA-423, Monthly Cost and Quality of Fuels for Electric Plants Report; and Federal Energy Regulatory Commission, FERC Form 423, Monthly Report of Cost and Quality of Fuels for Electric Plants.

Table 3.1.B. Net Generation by Other Renewable Sources: Total (All Sectors), 2001 - 2011
(Thousand Megawatthours)

Period	Wind	Solar Thermal and Photovoltaic	Wood and Wood-Derived Fuels	Geothermal	Other Biomass	Total (Other Renewable Sources)
Annual Totals						
2001	6,737	543	35,200	13,741	14,548	70,769
2002	10,354	555	38,665	14,491	15,044	79,109
2003	11,187	534	37,529	14,424	15,812	79,487
2004	14,144	575	38,117	14,811	15,421	83,067
2005	17,811	550	38,856	14,692	15,420	87,329
2006	26,589	508	38,762	14,568	16,099	96,525
2007	34,450	612	39,014	14,637	16,525	105,238
2008	55,363	864	37,300	14,840	17,734	126,101
2009	73,886	891	36,050	15,009	18,443	144,279
2010	94,652	1,212	37,172	15,219	18,917	167,173
2011	120,177	1,818	37,449	15,316	19,222	193,981
2009						
January	5,951	7	3,030	1,289	1,462	11,739
February	5,852	30	2,823	1,168	1,357	11,231
March	7,099	78	2,919	1,300	1,553	12,950
April	7,458	99	2,664	1,222	1,542	12,986
May	6,262	110	2,735	1,235	1,522	11,864
June	5,599	103	2,997	1,209	1,558	11,467
July	4,955	121	3,227	1,255	1,628	11,187
August	5,464	116	3,355	1,251	1,604	11,791
September	4,651	95	3,061	1,217	1,501	10,524
October	6,814	68	3,032	1,221	1,533	12,668
November	6,875	40	3,049	1,273	1,572	12,810
December	6,906	21	3,158	1,368	1,608	13,061
2010						
January	6,854	10	3,126	1,312	1,503	12,805
February	5,432	33	2,895	1,159	1,382	10,901
March	8,589	76	3,090	1,307	1,592	14,654
April	9,764	112	2,932	1,240	1,558	15,607
May	8,698	153	2,893	1,311	1,577	14,631
June	8,049	176	3,094	1,264	1,627	14,209
July	6,724	161	3,308	1,274	1,640	13,107
August	6,686	156	3,319	1,297	1,642	13,100
September	7,106	138	3,157	1,253	1,575	13,227
October	7,944	75	3,003	1,222	1,547	13,791
November	9,748	77	3,080	1,252	1,625	15,782
December	9,059	44	3,275	1,330	1,650	15,359
2011						
January	8,550	40	3,290	1,347	1,515	14,742
February	10,452	85	2,937	1,215	1,427	16,116
March	10,545	122	3,081	1,337	1,565	16,650
April	12,422	164	2,798	1,239	1,503	18,125
May	11,772	191	2,794	1,318	1,563	17,638
June	10,985	223	3,230	1,215	1,632	17,284
July	7,489	191	3,362	1,269	1,690	14,000
August	7,474	229	3,384	1,275	1,692	14,054
September	6,869	186	3,178	1,226	1,589	13,048
October	10,525	159	2,954	1,281	1,631	16,550
November	12,439	107	3,088	1,271	1,684	18,589
December	10,656	121	3,353	1,324	1,731	17,185

Wood and Wood-derived fuels include wood/wood waste solids (including paper pellets, railroad ties, utility poles, wood chips, bark, and wood waste solids), wood waste liquids (red liquor, sludge wood, spent sulfite liquor, and other wood-based liquids), and black liquor.
Other Biomass includes Biogenic municipal solid waste, landfill gas, sludge waste, agricultural byproducts, other biomass solids, other biomass liquids, and other biomass gases (including digester gases, methane, and other biomass gases).
Notes: Beginning with 2001 data, non-biogenic municipal solid waste and tire-derived fuels are reclassified as non-renewable energy sources and included in Other. Biogenic municipal solid waste is included in Other Renewable Sources.
See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms. - Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report; U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report; and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report; Form EIA-423, Monthly Cost and Quality of Fuels for Electric Plants Report; and Federal Energy Regulatory Commission, FERC Form 423, Monthly Report of Cost and Quality of Fuels for Electric Plants.

Table 3.2.A. Net Generation by Energy Source: Electric Utilities, 2001 - 2011

(Thousand Megawatthours)

Period	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gas	Nuclear	Hydroelectric Conventional	Other Renewable Sources	Hydroelectric Pumped Storage	Other	Total
Annual Totals											
2001	1,560,146	74,729	4,179	264,434	--	534,207	197,804	1,666	-7,704	486	2,629,946
2002	1,514,670	52,838	6,286	229,639	206	507,380	242,302	3,089	-7,434	480	2,549,457
2003	1,500,281	62,774	7,156	186,967	243	458,829	249,622	3,421	-7,532	519	2,462,281
2004	1,513,641	62,196	11,498	199,662	374	475,682	245,546	3,692	-7,526	467	2,505,231
2005	1,484,855	58,572	11,150	238,204	10	436,296	245,553	4,945	-5,383	643	2,474,846
2006	1,471,421	31,269	9,634	282,088	30	425,341	261,864	6,588	-5,281	700	2,483,656
2007	1,490,985	33,325	7,395	313,785	141	427,555	226,734	8,953	-5,328	586	2,504,131
2008	1,466,395	22,206	5,918	320,190	46	424,256	229,645	11,308	-5,143	545	2,475,367
2009	1,322,092	18,035	7,182	349,166	96	417,275	247,198	14,617	-3,369	483	2,372,776
2010	1,378,028	17,258	8,807	392,616	52	424,843	236,104	17,927	-4,466	462	2,471,632
2011	1,301,107	11,688	9,428	414,843	29	415,298	291,413	21,933	-5,298	604	2,461,045
2009											
January	127,120	2,478	689	24,215	5	39,454	21,395	1,226	-408	42	216,218
February	104,124	1,428	598	23,155	4	33,754	15,938	1,133	-308	31	179,859
March	100,800	1,302	797	26,547	7	34,856	19,416	1,424	-230	44	184,963
April	93,785	1,232	706	22,948	7	31,064	23,209	1,303	-172	47	174,130
May	99,462	1,635	711	26,181	8	33,796	26,842	1,258	-245	46	189,695
June	113,625	1,673	663	33,129	8	36,633	26,688	1,157	-139	44	213,482
July	119,897	1,679	661	38,571	9	39,076	20,998	985	-372	42	221,545
August	123,280	1,812	665	40,382	9	38,084	17,473	1,167	-463	42	222,452
September	105,887	1,328	629	35,179	10	34,002	15,917	975	-247	39	193,720
October	105,590	1,455	302	27,570	7	30,109	17,915	1,309	-271	32	184,019
November	104,003	979	295	24,404	9	29,344	19,056	1,385	-235	38	179,276
December	124,517	1,034	466	26,885	12	37,103	22,350	1,294	-279	35	213,417
2010											
January	129,279	2,418	736	29,332	6	39,345	20,298	1,338	-427	36	222,362
February	113,856	890	696	25,880	6	34,945	18,752	1,087	-246	29	195,895
March	107,626	1,009	816	25,683	6	33,460	18,546	1,540	-232	37	188,491
April	95,791	923	675	25,721	5	30,946	16,812	1,777	-245	36	172,441
May	108,550	1,443	690	30,549	6	34,506	22,803	1,602	-356	42	199,835
June	124,451	2,132	837	36,530	6	35,835	27,661	1,449	-392	42	228,551
July	134,219	1,986	910	44,597	5	38,536	22,611	1,331	-474	34	243,756
August	132,743	1,785	758	47,474	5	38,021	18,465	1,431	-543	46	240,185
September	110,642	1,207	803	36,692	2	37,188	15,854	1,441	-353	45	203,521
October	97,612	877	645	31,613	1	31,226	15,718	1,542	-361	43	178,917
November	99,803	835	511	27,567	1	32,112	17,612	1,778	-397	34	179,858
December	123,456	1,752	730	30,978	2	38,722	20,970	1,610	-439	39	217,820
2011											
January	126,539	1,210	1,082	29,515	1	37,742	23,602	1,713	-500	46	220,951
February	103,607	888	818	25,456	1	34,119	22,187	1,905	-304	49	188,727
March	102,328	982	922	26,612	1	34,201	28,401	1,930	-277	49	195,148
April	93,647	1,178	600	29,154	1	28,964	28,280	2,098	-404	50	183,567
May	104,296	1,062	655	31,372	7	28,502	29,436	1,975	-367	55	196,993
June	119,780	976	831	38,311	6	34,635	29,631	1,795	-491	60	225,535
July	133,078	1,110	983	49,479	1	38,444	29,180	1,428	-612	51	253,142
August	128,915	924	908	49,617	1	37,435	23,866	1,418	-569	55	242,570
September	105,127	819	945	37,391	2	34,639	19,289	1,383	-470	48	199,174
October	94,046	837	618	33,218	1	33,558	17,509	2,041	-488	46	181,388
November	90,103	822	399	30,532	4	34,107	18,732	2,168	-381	45	176,532
December	99,641	879	667	34,186	3	38,952	21,300	2,079	-437	49	197,318

Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
Petroleum Liquids includes distillate and residual fuel oils, jet fuel, kerosene, waste oil, and beginning in 2011, propane. Prior to 2011 propane was included in Other Gases.
Petroleum Coke includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
Other Gas includes blast furnace gas and other manufactured and waste gases derived from fossil fuels. Prior to 2011, Other Gas included propane and synthesis gases.
See the Technical Notes for fuel conversion factors.
Other Renewable Sources include wood, black liquor, other wood waste, biogenic municipal solid waste, landfill gas, sludge waste, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic energy, and wind.
Other includes non-biogenic municipal solid waste, batteries, hydrogen, purchased steam, sulfur, tire-derived fuel, and other miscellaneous energy sources.
Notes: Beginning with 2001 data, non-biogenic municipal solid waste and tire-derived fuels are reclassified as non-renewable energy sources and included in Other. Biogenic municipal solid waste is included in Other Renewable Sources.
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Totals may not equal sum of components because of independent rounding. NM=Not meaningful due to large standard error. W=Withheld to avoid disclosure of individual company data. *=value less than half of smallest unit of measure.
Sources: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report; U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report; and predecessor forms.
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Table 3.2.B. Net Generation by Other Renewable Sources: Electric Utilities, 2001 - 2011

(Thousand Megawatthours)

Period	Wind	Solar Thermal and Photovoltaic	Wood and Wood-Derived Fuels	Geothermal	Other Biomass	Total (Other Renewable Sources)
Annual Totals						
2001	135	3	560	152	815	1,666
2002	213	3	709	1,402	761	3,089
2003	354	2	882	1,249	934	3,421
2004	405	6	1,209	1,248	824	3,692
2005	1,046	16	1,829	1,126	929	4,945
2006	2,351	15	1,937	1,162	1,123	6,588
2007	4,361	11	2,226	1,139	1,217	8,953
2008	6,899	17	1,888	1,197	1,307	11,308
2009	10,348	28	1,748	1,182	1,312	14,617
2010	13,089	101	2,328	1,118	1,291	17,927
2011	17,140	216	2,023	1,137	1,417	21,933
2009						
January	835	1	176	101	113	1,226
February	792	1	157	95	88	1,133
March	1,070	2	132	103	117	1,424
April	990	2	102	95	114	1,303
May	905	2	127	103	121	1,258
June	803	2	146	99	108	1,157
July	607	2	159	100	117	985
August	781	2	174	96	115	1,167
September	647	1	133	93	101	975
October	959	5	135	99	110	1,309
November	1,035	4	143	96	107	1,385
December	924	4	165	101	100	1,294
2010						
January	918	4	216	101	100	1,338
February	706	5	185	90	101	1,087
March	1,145	7	167	90	131	1,540
April	1,406	10	166	85	109	1,777
May	1,229	11	168	88	107	1,602
June	1,043	11	191	93	110	1,449
July	910	10	206	96	110	1,331
August	1,002	10	214	94	111	1,431
September	1,036	10	198	94	103	1,441
October	1,146	9	181	98	108	1,542
November	1,354	8	218	93	105	1,778
December	1,194	7	217	96	96	1,610
2011						
January	1,310	9	191	98	104	1,713
February	1,519	13	174	86	114	1,905
March	1,508	21	185	99	117	1,930
April	1,759	17	119	94	108	2,098
May	1,622	18	126	96	113	1,975
June	1,391	13	187	86	118	1,795
July	997	13	203	95	120	1,428
August	959	19	220	92	128	1,418
September	965	28	180	93	116	1,383
October	1,637	21	154	99	130	2,041
November	1,813	25	108	98	123	2,168
December	1,659	19	176	100	125	2,079

Wood and Wood-derived fuels include wood/wood waste solids (including paper pellets, railroad ties, utility poles, wood chips, bark, and wood waste solids), wood waste liquids (red liquor, sludge wood, spent sulfite liquor, and other wood-based liquids), and black liquor.
Other Biomass includes Biogenic municipal solid waste, landfill gas, sludge waste, agricultural byproducts, other biomass solids, other biomass liquids, and other biomass gases (including digester gases, methane, and other biomass gases).
Notes: Beginning with 2001 data, non-biogenic municipal solid waste and tire-derived fuels are reclassified as non-renewable energy sources and included in Other. Biogenic municipal solid waste is included in Other Renewable Sources.
See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms. - Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report; U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report; and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report; Form EIA-423, Monthly Cost and Quality of Fuels for Electric Plants Report; and Federal Energy Regulatory Commission, FERC Form 423, Monthly Report of Cost and Quality of Fuels for Electric Plants.

Table 3.3.A. Net Generation by Energy Source: Independent Power Producers, 2001 - 2011

(Thousand Megawatthours)

Period	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gas	Nuclear	Hydroelectric Conventional	Other Renewable Sources	Hydroelectric Pumped Storage	Other	Total
Annual Totals											
2001	322,681	35,532	4,709	290,506	586	234,619	15,945	40,593	-1,119	6,055	950,107
2002	395,943	22,241	8,368	378,044	1,763	272,684	18,189	44,466	-1,309	8,612	1,149,001
2003	452,433	35,818	7,949	380,337	2,404	304,904	21,890	46,060	-1,003	8,088	1,258,879
2004	443,547	33,574	7,410	427,510	3,194	312,846	19,518	48,636	-962	7,856	1,303,129
2005	507,199	37,096	9,664	445,625	3,767	345,690	21,486	51,708	-1,174	6,285	1,427,346
2006	498,316	10,396	8,409	452,329	4,223	361,877	24,390	59,345	-1,277	6,412	1,424,421
2007	507,406	13,645	6,942	500,967	3,901	378,869	19,109	65,751	-1,569	6,191	1,501,212
2008	502,442	8,021	6,737	482,182	3,154	381,952	23,451	85,776	-1,145	6,414	1,498,982
2009	419,031	6,306	4,288	491,839	2,962	381,579	24,308	101,860	-1,259	6,146	1,437,061
2010	449,709	5,117	3,497	508,774	2,915	382,126	22,351	120,956	-1,035	6,345	1,500,754
2011	416,783	3,655	3,431	511,447	2,911	374,906	26,117	141,954	-607	7,059	1,487,657
2009											
January	43,505	2,242	327	35,753	214	34,648	1,922	8,266	-94	514	127,298
February	35,619	646	327	33,009	208	30,473	1,724	7,998	-105	464	110,362
March	33,514	624	354	35,290	232	32,385	2,208	9,259	-85	514	114,294
April	31,018	280	340	32,352	224	28,344	2,361	9,531	-100	514	104,864
May	31,064	281	338	35,944	226	31,599	2,522	8,422	-104	509	110,801
June	33,220	282	376	44,462	245	33,101	2,368	8,040	-87	523	122,529
July	37,046	341	430	55,916	279	33,873	2,245	7,741	-119	545	138,296
August	38,636	526	388	61,254	269	34,161	1,970	8,081	-150	552	145,687
September	30,063	245	405	49,763	288	31,749	1,346	7,180	-101	506	121,443
October	33,077	271	312	38,282	272	27,912	1,637	8,933	-114	490	111,073
November	31,641	247	326	32,331	247	29,725	1,809	9,015	-94	489	105,735
December	40,629	323	367	37,482	256	33,608	2,198	9,393	-105	527	124,678
2010											
January	42,381	655	302	37,515	269	33,224	1,909	9,142	-138	507	125,766
February	37,605	266	314	33,676	241	30,300	1,669	7,669	-105	463	112,099
March	35,039	192	281	30,809	269	31,174	2,145	10,760	-93	502	111,080
April	29,824	228	283	32,403	268	26,666	2,087	11,509	-91	505	103,681
May	33,119	333	335	36,313	273	32,152	2,100	10,747	-84	533	115,821
June	39,461	459	364	48,503	259	32,466	2,050	10,402	-80	550	134,434
July	43,559	900	403	62,363	262	33,377	1,794	9,305	-83	558	152,439
August	43,105	568	265	65,487	244	33,553	1,554	9,193	-57	553	154,465
September	36,515	401	197	48,806	238	32,183	1,334	9,391	-68	540	129,537
October	33,051	267	248	39,263	169	31,525	1,843	9,914	-77	527	116,729
November	34,012	310	224	34,738	218	30,543	1,813	11,642	-70	545	113,975
December	42,038	540	280	38,897	205	34,962	2,054	11,282	-91	562	130,729
2011											
January	42,852	588	349	37,417	242	35,000	1,785	10,446	74	530	129,282
February	33,475	252	298	33,924	206	30,670	1,782	11,904	58	503	113,071
March	31,255	229	393	32,750	251	31,461	2,544	12,260	-72	589	111,660
April	29,625	221	258	34,103	243	25,583	2,728	13,669	-63	584	106,952
May	31,525	242	259	36,802	235	28,511	2,950	13,346	-51	590	114,409
June	36,936	347	284	45,115	253	30,635	2,367	12,911	-76	621	129,393
July	42,051	554	358	62,024	261	33,901	1,993	9,969	-96	645	151,659
August	40,884	320	298	61,922	263	33,903	1,800	9,991	-94	614	149,901
September	34,521	246	261	46,908	251	32,210	1,965	9,121	-83	569	125,969
October	31,395	213	225	38,745	239	29,779	2,150	12,071	-84	582	115,317
November	30,220	204	207	37,730	224	30,367	1,801	13,840	-60	593	115,124
December	32,045	238	241	44,007	244	32,885	2,252	12,425	-59	639	124,919

Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
Petroleum Liquids includes distillate and residual fuel oils, jet fuel, kerosene, waste oil, and beginning in 2011, propane. Prior to 2011 propane was included in Other Gases.
Petroleum Coke includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
Other Gas includes blast furnace gas and other manufactured and waste gases derived from fossil fuels. Prior to 2011, Other Gas included propane and synthesis gases.
See the Technical Notes for fuel conversion factors.
Other Renewable Sources include wood, black liquor, other wood waste, biogenic municipal solid waste, landfill gas, sludge waste, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic energy, and wind.
Other includes non-biogenic municipal solid waste, batteries, hydrogen, purchased steam, sulfur, tire-derived fuel, and other miscellaneous energy sources.
Notes: Beginning with 2001 data, non-biogenic municipal solid waste and tire-derived fuels are reclassified as non-renewable energy sources and included in Other. Biogenic municipal solid waste is included in Other Renewable Sources.
See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
Totals may not equal sum of components because of independent rounding. NM=Not meaningful due to large standard error. W=Withheld to avoid disclosure of individual company data. *=value less than half of smallest unit of measure.
Sources: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report; U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report; and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report;
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Table 3.3.B. Net Generation by Other Renewable Sources: Independent Power Producers, 2001 - 2011
(Thousand Megawatthours)

Period	Wind	Solar Thermal and Photovoltaic	Wood and Wood-Derived Fuels	Geothermal	Other Biomass	Total (Other Renewable Sources)
Annual Totals						
2001	6,602	539	7,734	13,588	12,129	40,593
2002	10,141	552	8,300	13,089	12,384	44,466
2003	10,834	532	8,645	13,175	12,874	46,060
2004	13,739	569	8,528	13,563	12,238	48,636
2005	16,764	535	8,741	13,566	12,102	51,708
2006	24,238	493	8,404	13,406	12,805	59,345
2007	30,089	601	8,486	13,498	13,078	65,751
2008	48,464	847	8,750	13,643	14,072	85,776
2009	63,538	863	8,990	13,826	14,642	101,860
2010	81,547	1,105	9,118	14,101	15,085	120,956
2011	102,981	1,511	8,709	14,180	14,573	141,954
2009						
January	5,116	6	814	1,188	1,143	8,266
February	5,061	29	745	1,073	1,091	7,998
March	6,029	76	730	1,197	1,226	9,259
April	6,467	97	620	1,127	1,220	9,531
May	5,357	109	622	1,132	1,202	8,422
June	4,797	102	782	1,110	1,250	8,040
July	4,348	120	818	1,156	1,300	7,741
August	4,684	115	848	1,155	1,280	8,081
September	4,004	94	759	1,124	1,200	7,180
October	5,854	63	690	1,122	1,204	8,933
November	5,840	36	724	1,177	1,238	9,015
December	5,982	18	840	1,266	1,287	9,393
2010						
January	5,936	6	795	1,211	1,194	9,142
February	4,725	28	741	1,069	1,105	7,669
March	7,443	69	772	1,217	1,260	10,760
April	8,356	102	671	1,155	1,226	11,509
May	7,468	142	662	1,223	1,252	10,747
June	7,005	164	764	1,171	1,299	10,402
July	5,812	151	855	1,178	1,309	9,305
August	5,683	146	861	1,203	1,301	9,193
September	6,068	127	776	1,159	1,261	9,391
October	6,796	66	706	1,124	1,222	9,914
November	8,392	69	716	1,159	1,307	11,642
December	7,864	36	801	1,233	1,348	11,282
2011						
January	7,237	28	789	1,249	1,143	10,446
February	8,929	68	712	1,129	1,066	11,904
March	9,032	96	713	1,238	1,182	12,260
April	10,657	139	586	1,145	1,143	13,669
May	10,145	163	634	1,222	1,183	13,346
June	9,590	197	749	1,129	1,247	12,911
July	6,489	167	845	1,174	1,293	9,969
August	6,512	198	818	1,183	1,279	9,991
September	5,900	149	736	1,132	1,203	9,121
October	8,882	130	653	1,182	1,225	12,071
November	10,618	78	691	1,173	1,280	13,840
December	8,990	98	783	1,224	1,330	12,425

Wood and Wood-derived fuels include wood/wood waste solids (including paper pellets, railroad ties, utility poles, wood chips, bark, and wood waste solids), wood waste liquids (red liquor, sludge wood, spent sulfite liquor, and other wood-based liquids), and black liquor.
Other Biomass includes Biogenic municipal solid waste, landfill gas, sludge waste, agricultural byproducts, other biomass solids, other biomass liquids, and other biomass gases (including digester gases, methane, and other biomass gases).
Notes: Beginning with 2001 data, non-biogenic municipal solid waste and tire-derived fuels are reclassified as non-renewable energy sources and included in Other. Biogenic municipal solid waste is included in Other Renewable Sources.
See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms. - Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report; U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report; and predecessor forms.
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Table 3.4.A. Net Generation by Energy Source: Commerical Sector, 2001 - 2011

(Thousand Megawatthours)

Period	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gas	Nuclear	Hydroelectric Conventional	Other Renewable Sources	Hydroelectric Pumped Storage	Other	Total
Annual Totals											
2001	995	434	4	4,434	*	--	66	1,025	--	457	7,416
2002	992	426	6	4,310	*	--	13	1,065	--	603	7,415
2003	1,206	416	8	3,899	--	--	72	1,302	--	594	7,496
2004	1,340	493	7	3,969	--	--	105	1,575	--	781	8,270
2005	1,353	368	7	4,249	--	--	86	1,673	--	756	8,492
2006	1,310	228	7	4,355	*	--	93	1,619	--	758	8,371
2007	1,371	180	9	4,257	--	--	77	1,614	--	764	8,273
2008	1,261	136	6	4,188	--	--	60	1,555	--	720	7,926
2009	1,096	157	5	4,225	--	--	71	1,769	--	842	8,165
2010	1,111	117	7	4,725	3	--	80	1,714	--	834	8,592
2011	1,049	86	3	5,487	3	--	26	2,476	--	950	10,080
2009											
January	105	43	1	362	--	--	9	133	--	64	717
February	92	19	1	333	--	--	6	122	--	54	627
March	86	11	1	344	--	--	10	148	--	68	668
April	74	11	--	324	--	--	9	147	--	69	633
May	76	9	--	310	--	--	9	156	--	79	640
June	82	5	--	345	--	--	9	156	--	77	675
July	96	8	--	394	--	--	2	157	--	75	733
August	109	12	1	414	--	--	1	155	--	77	769
September	89	8	1	374	--	--	1	149	--	70	693
October	85	8	--	346	--	--	3	148	--	70	659
November	94	10	1	311	--	--	6	153	--	73	648
December	107	12	1	367	--	--	7	144	--	65	703
2010											
January	116	12	1	367	*	--	6	140	--	66	709
February	102	10	1	339	*	--	6	114	--	51	623
March	91	7	1	351	*	--	7	137	--	66	661
April	80	8	1	326	*	--	11	147	--	73	645
May	84	12	--	326	*	--	12	152	--	79	666
June	97	10	--	350	*	--	11	153	--	77	699
July	110	18	--	459	*	--	4	149	--	72	812
August	105	11	1	490	*	--	1	155	--	77	838
September	89	9	1	421	*	--	2	152	--	77	750
October	80	6	1	419	*	--	4	137	--	66	712
November	69	3	1	401	*	--	6	138	--	64	683
December	88	11	1	476	*	--	11	141	--	66	793
2011											
January	108	20	1	421	*	--	2	194	--	71	817
February	104	10	1	367	*	--	2	180	--	61	725
March	100	6	1	373	*	--	3	200	--	71	753
April	77	4	--	357	*	--	3	195	--	71	706
May	82	5	--	471	*	--	3	218	--	88	867
June	90	3	--	463	*	--	2	218	--	84	860
July	104	7	--	605	*	--	2	220	--	85	1,023
August	94	7	--	571	*	--	2	225	--	87	985
September	84	7	--	487	*	--	2	208	--	83	870
October	65	6	--	438	*	--	2	204	--	84	799
November	62	6	*	437	*	--	2	208	--	84	800
December	78	5	1	499	*	--	2	207	--	81	874

Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
Petroleum Liquids includes distillate and residual fuel oils, jet fuel, kerosene, waste oil, and beginning in 2011, propane. Prior to 2011 propane was included in Other Gases.
Petroleum Coke includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
Other Gas includes blast furnace gas and other manufactured and waste gases derived from fossil fuels. Prior to 2011, Other Gas included propane and synthesis gases.
See the Technical Notes for fuel conversion factors.
Other Renewable Sources include wood, black liquor, other wood waste, biogenic municipal solid waste, landfill gas, sludge waste, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic energy, and wind.
Other includes non-biogenic municipal solid waste, batteries, hydrogen, purchased steam, sulfur, tire-derived fuel, and other miscellaneous energy sources.
Notes: Beginning with 2001 data, non-biogenic municipal solid waste and tire-derived fuels are reclassified as non-renewable energy sources and included in Other. Biogenic municipal solid waste is included in Other Renewable Sources.
See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
Totals may not equal sum of components because of independent rounding. NM=Not meaningful due to large standard error. W=Withheld to avoid disclosure of individual company data. *=value less than half of smallest unit of measure.
Sources: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report; U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report; and predecessor forms.
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Table 3.4.B. Net Generation by Other Renewable Sources: Commerical Sector, 2001 - 2011

(Thousand Megawatthours)

Period	Wind	Solar Thermal and Photovoltaic	Wood and Wood-Derived Fuels	Geothermal	Other Biomass	Total (Other Renewable Sources)
Annual Totals						
2001	--	--	18	--	1,007	1,025
2002	--	--	13	--	1,053	1,065
2003	--	--	13	--	1,289	1,302
2004	--	--	13	--	1,562	1,575
2005	--	--	16	--	1,657	1,673
2006	--	--	21	--	1,599	1,619
2007	--	--	15	--	1,599	1,614
2008	--	*	21	--	1,534	1,555
2009	*	*	20	--	1,748	1,769
2010	16	5	21	--	1,672	1,714
2011	51	84	26	--	2,315	2,476
2009						
January	*	*	1	--	131	133
February	*	*	2	--	120	122
March	*	*	3	--	145	148
April	*	*	2	--	145	147
May	*	*	1	--	155	156
June	*	*	2	--	155	156
July	*	*	1	--	156	157
August	*	*	2	--	154	155
September	*	*	2	--	148	149
October	*	*	1	--	146	148
November	*	*	2	--	151	153
December	*	*	2	--	143	144
2010						
January	1	NM	2	--	137	140
February	1	NM	2	--	111	114
March	2	NM	2	--	134	137
April	2	NM	2	--	144	147
May	2	NM	2	--	149	152
June	1	1	2	--	150	153
July	1	1	2	--	146	149
August		1	2	--	152	155
September	1	1	2	--	148	152
October	2	*	2	--	133	137
November	2	NM	2	--	134	138
December		1	2	--	136	141
2011						
January	3	2	2	--	186	194
February	4	4	3	--	169	180
March	4	6	2	--	188	200
April	5	8	2	--	179	195
May	5	9	2	--	202	218
June	4	11	2	--	200	218
July	3	10	3	--	205	220
August	3	11	2	--	210	225
September	3	8	2	--	195	208
October	6	7	1	--	190	204
November	6	4	2	--	195	208
December	6	4	3	--	195	207

Wood and Wood-derived fuels include wood/wood waste solids (including paper pellets, railroad ties, utility poles, wood chips, bark, and wood waste solids), wood waste liquids (red liquor, sludge wood, spent sulfite liquor, and other wood-based liquids), and black liquor.
Other Biomass includes Biogenic municipal solid waste, landfill gas, sludge waste, agricultural byproducts, other biomass solids, other biomass liquids, and other biomass gases (including digester gases, methane, and other biomass gases).
Notes: Beginning with 2001 data, non-biogenic municipal solid waste and tire-derived fuels are reclassified as non-renewable energy sources and included in Other. Biogenic municipal solid waste is included in Other Renewable Sources.
See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms. - Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report; U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report; and predecessor forms.
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Table 3.5.A. Net Generation by Energy Source: Industrial Sector, 2001 - 2011

(Thousand Megawatthours)

Period	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gas	Nuclear	Hydroelectric Conventional	Other Renewable Sources	Hydroelectric Pumped Storage	Other	Total
Annual Totals											
2001	20,135	3,952	1,341	79,755	8,454	--	3,145	27,485	--	4,908	149,175
2002	21,525	3,196	1,207	79,013	9,493	--	3,825	30,489	--	3,832	152,580
2003	19,817	3,726	1,559	78,705	12,953	--	4,222	28,704	--	4,843	154,530
2004	19,773	4,128	1,839	78,959	11,684	--	3,248	29,164	--	5,129	153,925
2005	19,466	3,804	1,564	72,882	9,687	--	3,195	29,003	--	5,137	144,739
2006	19,464	2,567	1,656	77,669	9,923	--	2,899	28,972	--	5,103	148,254
2007	16,694	2,355	1,889	77,580	9,411	--	1,590	28,919	--	4,690	143,128
2008	15,703	1,555	1,664	76,421	8,507	--	1,676	27,462	--	4,125	137,113
2009	13,686	1,474	1,489	75,748	7,574	--	1,868	26,033	--	4,457	132,329
2010	18,441	844	1,414	81,583	8,343	--	1,668	26,576	--	5,214	144,082
2011	14,490	657	1,234	81,911	8,624	--	1,799	27,619	--	5,541	141,875
2009											
January	1,194	204	119	6,059	587	--	165	2,114	--	316	10,760
February	1,081	174	125	5,642	571	--	144	1,978	--	325	10,040
March	1,130	152	109	6,022	595	--	193	2,119	--	358	10,678
April	1,058	135	103	5,534	527	--	191	2,005	--	357	9,910
May	1,070	128	107	5,710	539	--	187	2,029	--	401	10,170
June	1,160	130	114	6,269	623	--	169	2,114	--	394	10,973
July	1,195	96	143	7,013	678	--	140	2,305	--	400	11,968
August	1,235	99	140	7,189	734	--	136	2,387	--	393	12,314
September	1,105	96	142	6,810	725	--	95	2,220	--	352	11,545
October	1,204	80	132	6,405	680	--	136	2,278	--	375	11,289
November	1,072	79	136	6,239	655	--	137	2,257	--	400	10,975
December	1,181	99	120	6,855	662	--	175	2,229	--	387	11,709
2010											
January	1,544	102	123	6,959	634	--	169	2,185	--	404	12,120
February	1,481	86	111	6,303	578	--	162	2,031	--	366	11,118
March	1,649	63	100	6,588	735	--	188	2,217	--	397	11,936
April	1,258	61	108	6,194	669	--	187	2,174	--	382	11,034
May	1,519	63	118	6,477	738	--	164	2,130	--	406	11,614
June	1,482	55	132	6,885	700	--	132	2,205	--	485	12,075
July	1,713	67	128	7,205	696	--	107	2,321	--	482	12,718
August	1,792	55	133	7,701	812	--	99	2,321	--	482	13,395
September	1,499	58	107	7,085	713	--	76	2,244	--	455	12,238
October	1,527	71	113	6,443	637	--	117	2,199	--	455	11,562
November	1,301	72	124	6,520	688	--	130	2,224	--	436	11,493
December	1,677	92	118	7,223	744	--	134	2,326	--	464	12,777
2011											
January	1,304	84	123	6,901	687	--	143	2,389	--	423	12,054
February	1,125	68	100	6,177	600	--	160	2,126	--	414	10,770
March	1,161	59	101	6,212	693	--	187	2,260	--	474	11,149
April	1,139	56	107	6,416	674	--	184	2,164	--	436	11,175
May	1,199	47	109	6,597	633	--	198	2,099	--	477	11,359
June	1,249	48	104	6,802	753	--	150	2,360	--	471	11,938
July	1,353	43	98	7,517	836	--	109	2,384	--	529	12,868
August	1,389	45	94	7,745	823	--	96	2,420	--	474	13,085
September	1,209	46	99	6,953	752	--	122	2,336	--	432	11,948
October	1,120	58	104	6,419	700	--	126	2,233	--	463	11,224
November	1,077	49	95	6,742	715	--	146	2,374	--	465	11,663
December	1,165	55	100	7,429	758	--	178	2,474	--	483	12,642

Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
Petroleum Liquids includes distillate and residual fuel oils, jet fuel, kerosene, waste oil, and beginning in 2011, propane. Prior to 2011 propane was included in Other Gases.
Petroleum Coke includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
Other Gas includes blast furnace gas and other manufactured and waste gases derived from fossil fuels. Prior to 2011, Other Gas included propane and synthesis gases.
See the Technical Notes for fuel conversion factors.
Other Renewable Sources include wood, black liquor, other wood waste, biogenic municipal solid waste, landfill gas, sludge waste, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic energy, and wind.
Other includes non-biogenic municipal solid waste, batteries, hydrogen, purchased steam, sulfur, tire-derived fuel, and other miscellaneous energy sources.
Notes: Beginning with 2001 data, non-biogenic municipal solid waste and tire-derived fuels are reclassified as non-renewable energy sources and included in Other. Biogenic municipal solid waste is included in Other Renewable Sources.
See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
Totals may not equal sum of components because of independent rounding. NM=Not meaningful due to large standard error. W=Withheld to avoid disclosure of individual company data. *=value less than half of smallest unit of measure.
Sources: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report; U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report; and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report;
Form EIA-423, Monthly Cost and Quality of Fuels for Electric Plants Report; and Federal Energy Regulatory Commission, FERC Form 423, Monthly Report of Cost and Quality of Fuels for Electric Plants.

Table 3.5.B. Net Generation by Other Renewable Sources: Industrial Sector, 2001 - 2011

(Thousand Megawatthours)

Period	Wind	Solar Thermal and Photovoltaic	Wood and Wood-Derived Fuels	Geothermal	Other Biomass	Total (Other Renewable Sources)
Annual Totals						
2001	--	--	26,888	--	596	27,485
2002	--	--	29,643	--	846	30,489
2003	--	--	27,988	--	715	28,704
2004	--	--	28,367	--	797	29,164
2005	--	--	28,271	--	733	29,003
2006	--	--	28,400	--	572	28,972
2007	--	--	28,287	--	631	28,919
2008	--	--	26,641	--	821	27,462
2009	--	--	25,292	--	740	26,033
2010	--	2	25,706	--	869	26,576
2011	5	7	26,691	--	917	27,619
2009						
January	--	--	2,039	--	75	2,114
February	--	--	1,919	--	59	1,978
March	--	--	2,054	--	65	2,119
April	--	--	1,941	--	63	2,005
May	--	--	1,984	--	44	2,029
June	--	--	2,068	--	46	2,114
July	--	--	2,249	--	55	2,305
August	--	--	2,332	--	55	2,387
September	--	--	2,168	--	52	2,220
October	--	--	2,206	--	72	2,278
November	--	--	2,181	--	76	2,257
December	--	--	2,152	--	78	2,229
2010						
January	--	*	2,114	--	72	2,185
February	--	*	1,967	--	64	2,031
March	--	*	2,149	--	67	2,217
April	--	*	2,094	--	80	2,174
May	--	*	2,061	--	69	2,130
June	--	*	2,137	--	68	2,205
July	--	*	2,246	--	75	2,321
August	--	*	2,243	--	78	2,321
September	--	*	2,182	--	62	2,244
October	--	*	2,114	--	84	2,199
November	--	*	2,145	--	79	2,224
December	--	*	2,255	--	71	2,326
2011						
January	*	*	2,307	--	82	2,389
February	*	*	2,048	--	78	2,126
March	*	*	2,181	--	78	2,260
April	*	1	2,090	--	73	2,164
May	*	1	2,033	--	66	2,099
June	*	1	2,292	--	67	2,360
July	*	1	2,312	--	71	2,384
August	*	1	2,343	--	76	2,420
September	*	1	2,260	--	75	2,336
October	1	1	2,146	--	86	2,233
November	1	*	2,286	--	86	2,374
December	1	*	2,392	--	81	2,474

Wood and Wood-derived fuels include wood/wood waste solids (including paper pellets, railroad ties, utility poles, wood chips, bark, and wood waste solids), wood waste liquids (red liquor, sludge wood, spent sulfite liquor, and other wood-based liquids), and black liquor.
Other Biomass includes Biogenic municipal solid waste, landfill gas, sludge waste, agricultural byproducts, other biomass solids, other biomass liquids, and other biomass gases (including digester gases, methane, and other biomass gases).
Notes: Beginning with 2001 data, non-biogenic municipal solid waste and tire-derived fuels are reclassified as non-renewable energy sources and included in Other. Biogenic municipal solid waste is included in Other Renewable Sources.
See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms. - Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report; U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report; and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report; Form EIA-423, Monthly Cost and Quality of Fuels for Electric Plants Report; and Federal Energy Regulatory Commission, FERC Form 423, Monthly Report of Cost and Quality of Fuels for Electric Plants.

Table 3.6. Net Generation
by State, by Sector, 2011 and 2010 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010
New England	123,338	129,728	-4.9%	4,408	5,581	112,613	117,860	949	796	5,368	5,490
Connecticut	33,745	33,350	1.2%	93	66	33,208	32,908	211	70	233	306
Maine	15,974	17,019	-6.1%	1	2	10,890	11,881	176	179	4,907	4,957
Massachusetts	38,055	42,805	-11.1%	610	803	36,783	41,336	490	497	172	169
New Hampshire	20,066	22,196	-9.6%	2,994	3,979	17,020	18,163	20	20	31	34
Rhode Island	8,722	7,739	12.7%	10	11	8,664	7,696	48	32	--	--
Vermont	6,776	6,620	2.4%	700	721	6,049	5,874	4	--	24	25
Middle Atlantic	429,938	432,396	-0.6%	37,650	35,533	386,342	391,064	1,518	1,423	4,428	4,376
New Jersey	64,694	65,682	-1.5%	-173	-186	63,548	64,727	509	402	811	740
New York	137,608	136,962	0.5%	36,063	34,633	99,807	100,516	732	765	1,005	1,047
Pennsylvania	227,636	229,752	-0.9%	1,760	1,087	222,987	225,821	277	256	2,612	2,588
East North Central	629,676	645,996	-2.5%	334,633	347,716	283,163	286,667	1,747	1,433	10,133	10,180
Illinois	199,500	201,352	-0.9%	12,242	12,418	183,947	185,763	447	432	2,863	2,738
Indiana	122,131	125,181	-2.4%	104,840	107,853	14,049	13,989	224	235	3,019	3,105
Michigan	109,170	111,551	-2.1%	87,609	89,667	19,532	20,045	789	624	1,240	1,215
Ohio	135,586	143,598	-5.6%	85,007	92,198	49,445	50,374	172	--	962	1,026
Wisconsin	63,289	64,314	-1.6%	44,934	45,580	16,191	16,496	115	142	2,050	2,096
West North Central	332,955	332,835	0.0%	298,483	303,334	29,881	25,134	556	519	4,034	3,849
Iowa	56,372	57,509	-2.0%	43,305	46,189	10,896	9,316	227	239	1,944	1,765
Kansas	45,360	47,924	-5.4%	42,583	45,270	2,776	2,654	--	--	1	--
Minnesota	53,120	53,670	-1.0%	44,311	45,429	7,072	6,469	167	143	1,570	1,630
Missouri	94,929	92,313	2.8%	92,674	90,177	2,039	1,897	146	125	71	114
Nebraska	36,095	36,630	-1.5%	34,978	36,243	822	214	17	13	278	160
North Dakota	35,080	34,740	1.0%	30,795	31,344	4,116	3,216	*	*	169	180
South Dakota	11,999	10,050	19.4%	9,839	8,682	2,160	1,367	*	*	--	--
South Atlantic	762,299	802,695	-5.0%	625,354	664,005	117,707	120,707	782	573	18,456	17,410
Delaware	6,590	5,628	17.1%	20	30	6,169	5,598	5	--	397	--
District of Columbia	201	200	0.5%	71	--	130	200	--	--	--	--
Florida	221,895	229,096	-3.1%	200,023	206,062	16,115	17,501	67	69	5,689	5,464
Georgia	124,774	137,577	-9.3%	106,687	120,426	13,327	12,293	25	23	4,736	4,835
Maryland	41,818	43,607	-4.1%	8	3	40,960	43,115	236	40	614	449
North Carolina	118,390	128,678	-8.0%	110,370	121,251	5,832	5,203	62	78	2,126	2,146
South Carolina	102,973	104,153	-1.1%	99,328	100,611	1,592	1,804	*	2	2,053	1,737
Virginia	66,659	72,966	-8.6%	53,317	58,902	11,150	11,848	387	362	1,805	1,855
West Virginia	79,000	80,789	-2.2%	55,530	56,720	22,434	23,145	--	--	1,036	924
East South Central	387,365	387,204	0.0%	336,824	340,896	41,317	37,179	150	123	9,074	9,006
Alabama	156,339	152,151	2.8%	118,835	122,766	33,198	25,166	--	--	4,306	4,218
Kentucky	98,351	98,218	0.1%	97,617	97,472	154	171	--	--	579	574
Mississippi	51,571	54,487	-5.4%	41,831	40,841	7,884	11,779	24	22	1,831	1,845
Tennessee	81,104	82,349	-1.5%	78,540	79,816	81	63	126	101	2,356	2,369
West South Central	676,881	647,831	4.5%	257,463	251,309	349,653	324,017	572	576	69,192	71,929
Arkansas	61,308	61,000	0.5%	44,715	47,108	14,657	11,952	6	6	1,930	1,934
Louisiana	105,491	102,885	2.5%	54,924	51,681	22,195	22,863	47	47	28,325	28,294
Oklahoma	74,606	72,251	3.3%	58,374	57,421	15,411	13,927	23	26	798	876
Texas	435,477	411,695	5.8%	99,451	95,099	297,390	275,274	497	497	38,138	40,824
Mountain	364,847	366,054	-0.3%	295,901	284,497	65,460	77,896	262	212	3,224	3,449
Arizona	108,125	111,751	-3.2%	94,062	91,233	13,699	20,142	68	72	296	304
Colorado	51,433	50,721	1.4%	44,123	39,584	7,224	11,072	22	4	64	61
Idaho	16,569	12,025	37.8%	12,616	8,589	3,330	2,830	--	--	623	606
Montana	30,129	29,791	1.1%	9,548	6,271	20,572	23,417	--	--	9	103
Nevada	31,936	35,146	-9.1%	21,673	23,711	10,002	11,172	92	62	169	201
New Mexico	38,181	36,252	5.3%	32,292	30,848	5,767	5,329	80	73	43	*
Utah	40,836	42,249	-3.3%	38,393	39,522	1,638	1,526	*	*	806	1,201
Wyoming	47,638	48,119	-1.0%	43,195	44,739	3,228	2,408	--	--	1,215	973
Pacific Contiguous	375,763	362,725	3.6%	257,680	226,139	97,673	116,319	2,950	2,389	17,460	17,877
California	200,805	204,126	-1.6%	105,360	96,940	76,912	88,876	2,880	2,300	15,653	16,010
Oregon	59,695	55,127	8.3%	48,985	41,143	10,188	13,373	63	21	459	590
Washington	115,263	103,473	11.4%	103,334	88,057	10,573	14,070	7	68	1,349	1,277
Pacific Noncontiguous	17,594	17,596	0.0%	12,650	12,621	3,846	3,911	593	547	506	516
Alaska	6,871	6,760	1.6%	6,274	6,205	209	204	275	234	113	116
Hawaii	10,723	10,836	-1.0%	6,376	6,416	3,636	3,707	318	313	393	400
U.S. Total	4,100,656	4,125,060	-0.6%	2,461,045	2,471,632	1,487,657	1,500,754	10,080	8,592	141,875	144,082

* = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 3.7. Net Generation from Coal
by State, by Sector, 2011 and 2010 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010
New England	6,848	14,080	-51.4%	2,208	3,083	4,592	10,937	--	--	47	60
Connecticut	526	2,604	-79.8%	--	--	526	2,604	--	--	--	--
Maine	55	87	-36.7%	--	--	38	56	--	--	18	31
Massachusetts	4,059	8,306	-51.1%	--	--	4,029	8,277	--	--	30	29
New Hampshire	2,208	3,083	-28.4%	2,208	3,083	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--	--	--	--	--
Middle Atlantic	114,184	130,370	-12.4%	25	37	112,953	128,913	4	4	1,202	1,416
New Jersey	4,155	6,418	-35.3%	--	--	4,155	6,418	--	--	--	--
New York	9,426	13,583	-30.6%	25	37	9,037	13,175	1	2	363	369
Pennsylvania	100,603	110,369	-8.8%	--	--	99,761	109,320	3	2	839	1,047
East North Central	398,389	429,540	-7.3%	285,135	308,939	109,458	116,714	401	458	3,395	3,429
Illinois	90,013	93,611	-3.8%	11,093	11,854	77,020	79,858	46	47	1,854	1,851
Indiana	104,153	112,328	-7.3%	95,404	103,205	8,570	8,928	132	150	46	44
Michigan	58,948	65,604	-10.1%	58,183	64,767	318	371	202	235	246	232
Ohio	105,337	117,828	-10.6%	81,470	89,928	23,551	27,557	1	--	315	344
Wisconsin	39,938	40,169	-0.6%	38,984	39,186	--	--	20	25	934	958
West North Central	232,119	232,041	0.0%	228,675	228,740	--	--	275	305	3,170	2,996
Iowa	38,229	41,283	-7.4%	36,122	39,368	--	--	183	195	1,925	1,720
Kansas	31,656	32,505	-2.6%	31,656	32,505	--	--	--	--	--	--
Minnesota	28,259	28,083	0.6%	27,429	27,176	--	--	5	--	824	906
Missouri	78,316	75,047	4.4%	78,164	74,829	--	--	87	109	65	109
Nebraska	25,965	23,363	11.1%	25,708	23,215	--	--	--	--	257	148
North Dakota	27,109	28,462	-4.8%	27,011	28,349	--	--	--	--	98	113
South Dakota	2,586	3,298	-21.6%	2,586	3,298	--	--	--	--	--	--
South Atlantic	324,436	372,661	-12.9%	272,063	312,646	49,415	56,931	77	91	2,882	2,993
Delaware	1,455	2,568	-43.3%	--	--	1,455	2,568	--	--	--	--
District of Columbia	--	--	--	--	--	--	--	--	--	--	--
Florida	51,991	59,897	-13.2%	49,487	56,074	2,186	3,465	--	--	317	358
Georgia	60,159	73,298	-17.9%	59,452	72,550	--	--	--	--	707	748
Maryland	21,059	23,668	-11.0%	--	--	20,860	23,435	--	--	199	233
North Carolina	59,758	71,951	-16.9%	57,250	69,274	2,156	2,242	51	65	301	370
South Carolina	34,169	37,671	-9.3%	33,772	37,340	135	126	--	--	262	205
Virginia	19,881	25,459	-21.9%	17,243	21,366	1,959	3,366	26	26	653	702
West Virginia	75,964	78,148	-2.8%	54,859	56,041	20,664	21,730	--	--	441	377
East South Central	198,964	211,403	-5.9%	194,873	206,125	2,533	3,432	23	27	1,535	1,819
Alabama	56,807	63,050	-9.9%	56,539	62,502	58	113	--	--	211	435
Kentucky	91,656	91,054	0.7%	91,656	91,054	--	--	--	--	--	--
Mississippi	9,723	13,629	-28.7%	7,248	10,310	2,476	3,319	--	--	--	--
Tennessee	40,777	43,670	-6.6%	39,430	42,260	--	--	23	27	1,324	1,384
West South Central	246,421	233,724	5.4%	133,827	129,924	112,074	99,956	--	--	520	3,845
Arkansas	29,418	28,152	4.5%	25,158	26,422	4,159	1,619	--	--	101	111
Louisiana	24,628	23,924	2.9%	11,860	11,226	12,749	12,697	--	--	19	--
Oklahoma	34,479	31,475	9.5%	32,204	29,103	1,882	1,962	--	--	393	410
Texas	157,897	150,173	5.1%	64,604	63,173	93,285	83,677	--	--	7	3,323
Mountain	199,443	206,551	-3.4%	180,790	184,218	17,363	20,888	--	--	1,290	1,445
Arizona	43,702	43,644	0.1%	43,412	43,348	--	--	--	--	291	296
Colorado	33,955	34,559	-1.7%	33,792	34,387	163	172	--	--	--	--
Idaho	83	88	-5.5%	--	--	--	--	--	--	83	88
Montana	15,056	18,601	-19.1%	300	315	14,747	18,286	--	--	9	--
Nevada	5,407	6,997	-22.7%	4,093	5,584	1,315	1,413	--	--	--	--
New Mexico	27,141	25,618	5.9%	27,141	25,618	--	--	--	--	--	--
Utah	33,138	34,057	-2.7%	32,277	32,840	419	378	--	--	441	840
Wyoming	40,961	42,987	-4.7%	39,775	42,127	719	639	--	--	467	221
Pacific Contiguous	10,544	14,754	-28.5%	3,334	4,126	6,808	10,238	--	--	403	389
California	1,982	2,100	-5.6%	--	--	1,608	1,751	--	--	374	349
Oregon	3,334	4,126	-19.2%	3,334	4,126	--	--	--	--	--	--
Washington	5,229	8,527	-38.7%	--	--	5,200	8,487	--	--	29	40
Pacific Noncontiguous	2,080	2,166	-3.9%	178	189	1,586	1,700	269	227	47	49
Alaska	656	620	5.8%	178	189	209	204	269	227	--	--
Hawaii	1,424	1,546	-7.9%	--	--	1,377	1,496	--	--	47	49
U.S. Total	1,733,430	1,847,290	-6.2%	1,301,107	1,378,028	416,783	449,709	1,049	1,111	14,490	18,441

Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
See the Technical Notes for fuel conversion factors.
* = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 3.8. Net Generation from Petroleum Liquids by State, by Sector, 2011 and 2010 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010
New England	639	1,065	-40.0%	120	114	374	776	55	69	90	106
Connecticut	166	409	-59.5%	5	3	155	405	--	--	5	1
Maine	178	272	-34.8%	1	2	89	165	3	3	85	103
Massachusetts	197	296	-33.6%	40	43	128	205	28	47	NM	1
New Hampshire	78	72	8.1%	57	51	1	*	20	20	*	*
Rhode Island	14	12	17.0%	10	11	1	1	2	*	--	--
Vermont	8	5	80.9%	6	5	--	--	2	--	--	--
Middle Atlantic	1,452	2,292	-36.6%	479	848	860	1,317	13	20	100	107
New Jersey	107	235	-54.3%	4	7	101	225	1	*	1	2
New York	926	1,490	-37.8%	475	841	345	533	11	17	96	100
Pennsylvania	419	567	-26.2%	*	1	414	559	2	3	3	5
East North Central	784	787	-0.3%	650	607	110	145	5	10	19	25
Illinois	84	110	-23.2%	28	25	56	84	*	*	*	*
Indiana	172	155	11.1%	157	138	*	*	2	2	13	15
Michigan	179	190	-5.4%	174	176	*	*	3	9	2	5
Ohio	313	298	5.1%	264	239	48	57	*	--	2	3
Wisconsin	36	35	2.5%	28	29	6	4	*	*	1	2
West North Central	311	348	-10.7%	301	337	4	4	2	2	4	5
Iowa	69	80	-13.6%	68	77	1	2	*	*	*	*
Kansas	38	45	-16.0%	38	45	--	--	--	--	--	--
Minnesota	38	31	22.1%	33	26	2	1	2	2	1	2
Missouri	80	118	-32.2%	79	117	--	--	*	*	1	1
Nebraska	37	31	20.6%	37	31	--	--	--	--	--	--
North Dakota	42	38	10.2%	40	36	--	--	*	*	2	2
South Dakota	8	6	23.2%	7	6	1	*	*	*	--	--
South Atlantic	2,936	8,560	-65.7%	2,266	7,320	485	1,002	3	5	182	232
Delaware	38	56	-32.7%	2	1	36	55	--	--	--	--
District of Columbia	130	200	-35.1%	--	--	130	200	--	--	--	--
Florida	1,383	5,922	-76.7%	1,326	5,667	12	209	--	--	44	46
Georgia	137	155	-12.1%	71	71	4	20	2	3	59	62
Maryland	229	322	-29.0%	7	3	218	310	*	*	3	9
North Carolina	218	293	-25.8%	186	246	4	5	*	*	27	43
South Carolina	112	163	-31.5%	101	150	--	--	*	1	11	12
Virginia	503	1,293	-61.1%	394	1,034	69	197	1	1	37	61
West Virginia	188	155	21.9%	178	148	10	6	--	--	--	--
East South Central	491	621	-20.9%	461	510	5	16	--	--	25	96
Alabama	120	200	-39.8%	96	98	5	16	--	--	19	86
Kentucky	139	123	13.3%	139	123	--	--	--	--	--	--
Mississippi	36	81	-55.4%	33	77	--	--	--	--	3	5
Tennessee	195	217	-10.0%	193	212	--	--	--	--	2	5
West South Central	257	285	-9.8%	133	166	110	88	2	1	13	30
Arkansas	56	45	23.7%	32	37	21	5	--	--	2	3
Louisiana	49	106	-53.5%	23	78	19	18	--	--	8	10
Oklahoma	16	14	14.6%	15	13	--	--	1	1	--	*
Texas	137	121	13.0%	63	38	70	65	1	1	3	16
Mountain	255	265	-3.8%	230	245	22	16	*	1	2	3
Arizona	53	66	-19.9%	52	63	--	--	*	*	2	3
Colorado	22	17	27.1%	22	17	--	*	*	*	*	*
Idaho	*	*	-64.9%	*	*	--	--	--	--	--	--
Montana	18	13	35.7%	2	*	16	13	--	--	--	--
Nevada	14	11	27.4%	10	8	4	3	--	--	--	--
New Mexico	38	50	-24.2%	35	49	2	--	--	*	--	*
Utah	54	50	7.1%	54	50	*	--	--	--	--	--
Wyoming	55	56	-1.2%	55	56	--	--	--	--	*	*
Pacific Contiguous	92	90	2.4%	49	48	17	26	1	1	24	15
California	47	54	-13.1%	37	41	7	11	1	*	3	2
Oregon	8	3	132.5%	7	3	--	--	*	--	1	*
Washington	37	32	14.4%	6	4	11	15	*	*	20	13
Pacific Noncontiguous	8,869	9,024	-1.7%	6,999	7,064	1,667	1,727	4	8	199	225
Alaska	945	937	0.8%	892	885	--	--	3	7	50	45
Hawaii	7,924	8,087	-2.0%	6,107	6,179	1,667	1,727	1	1	149	180
U.S. Total	16,086	23,337	-31.1%	11,688	17,258	3,655	5,117	86	117	657	844

Petroleum Liquids includes distillate and residual fuel oils, jet fuel, kerosene, waste oil, and beginning in 2011, propane. Prior to 2011 propane was included in Other Gases.
See the Technical Notes for fuel conversion factors.
* = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 3.9. Net Generation from Petroleum Coke
by State, by Sector, 2011 and 2010 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010
New England	--	--	--	--	--	--	--	--	--	--	--
Connecticut	--	--	--	--	--	--	--	--	--	--	--
Maine	--	--	--	--	--	--	--	--	--	--	--
Massachusetts	--	--	--	--	--	--	--	--	--	--	--
New Hampshire	--	--	--	--	--	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--	--	--	--	--
Middle Atlantic	344	519	-33.7%	--	--	263	515	--	--	81	4
New Jersey	58	--	--	--	--	--	--	--	--	58	--
New York	263	515	-48.9%	--	--	263	515	--	--	--	--
Pennsylvania	23	4	460.2%	--	--	--	--	--	--	23	4
East North Central	2,946	2,020	45.8%	1,490	469	1,141	1,125	--	--	314	425
Illinois	--	--	--	--	--	--	--	--	--	--	--
Indiana	1,161	--	--	1,161	--	--	--	--	--	--	--
Michigan	163	193	-15.1%	--	20	67	71	--	--	97	102
Ohio	1,075	1,144	-6.0%	--	--	1,075	1,054	--	--	*	90
Wisconsin	547	684	-20.0%	329	450	--	--	--	--	217	234
West North Central	91	141	-35.4%	88	135	--	--	3	7	--	--
Iowa	72	75	-3.3%	69	68	--	--	3	7	--	--
Kansas	19	58	-67.5%	19	58	--	--	--	--	--	--
Minnesota	--	--	--	--	--	--	--	--	--	--	--
Missouri	--	8	-100.0%	--	8	--	--	--	--	--	--
Nebraska	--	--	--	--	--	--	--	--	--	--	--
North Dakota	--	--	--	--	--	--	--	--	--	--	--
South Dakota	--	--	--	--	--	--	--	--	--	--	--
South Atlantic	2,313	3,713	-37.7%	1,898	3,228	--	--	--	--	415	485
Delaware	--	--	--	--	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--	--	--	--	--
Florida	1,898	3,200	-40.7%	1,898	3,200	--	--	--	--	--	--
Georgia	415	485	-14.5%	--	--	--	--	--	--	415	485
Maryland	--	--	--	--	--	--	--	--	--	--	--
North Carolina	--	--	--	--	--	--	--	--	--	--	--
South Carolina	--	28	-100.0%	--	28	--	--	--	--	--	--
Virginia	--	--	--	--	--	--	--	--	--	--	--
West Virginia	--	--	--	--	--	--	--	--	--	--	--
East South Central	1,596	2,162	-26.2%	1,596	2,162	--	--	--	--	--	--
Alabama	--	--	--	--	--	--	--	--	--	--	--
Kentucky	1,596	2,162	-26.2%	1,596	2,162	--	--	--	--	--	--
Mississippi	--	--	--	--	--	--	--	--	--	--	--
Tennessee	--	--	--	--	--	--	--	--	--	--	--
West South Central	5,498	3,767	46.0%	4,355	2,813	719	455	--	--	424	499
Arkansas	--	--	--	--	--	--	--	--	--	--	--
Louisiana	4,658	3,175	46.7%	4,355	2,813	--	--	--	--	303	362
Oklahoma	--	5	-100.0%	--	--	--	--	--	--	--	5
Texas	840	587	43.0%	--	--	719	455	--	--	121	132
Mountain	443	395	12.0%	--	--	443	395	--	--	--	--
Arizona	--	--	--	--	--	--	--	--	--	--	--
Colorado	--	--	--	--	--	--	--	--	--	--	--
Idaho	--	--	--	--	--	--	--	--	--	--	--
Montana	443	395	12.0%	--	--	443	395	--	--	--	--
Nevada	--	--	--	--	--	--	--	--	--	--	--
New Mexico	--	--	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--	--	--
Wyoming	--	--	--	--	--	--	--	--	--	--	--
Pacific Contiguous	864	1,006	-14.1%	--	--	864	1,006	--	--	--	--
California	864	1,006	-14.1%	--	--	864	1,006	--	--	--	--
Oregon	--	--	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--
Pacific Noncontiguous	--	--	--	--	--	--	--	--	--	--	--
Alaska	--	--	--	--	--	--	--	--	--	--	--
Hawaii	--	--	--	--	--	--	--	--	--	--	--
U.S. Total	14,096	13,724	2.7%	9,428	8,807	3,431	3,497	3	7	1,234	1,414

Petroleum Coke includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
See the Technical Notes for fuel conversion factors.
* = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 3.10. Net Generation from Natural Gas
by State, by Sector, 2011 and 2010 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010
New England	63,236	58,623	7.9%	357	716	59,763	54,399	700	543	2,416	2,966
Connecticut	15,188	11,716	29.6%	NM	31	14,715	11,324	211	70	227	291
Maine	6,877	8,374	-17.9%	--	--	4,850	5,861	*	*	2,026	2,512
Massachusetts	25,940	25,582	1.4%	240	506	25,120	24,500	443	441	136	134
New Hampshire	6,658	5,365	24.1%	80	175	6,552	5,162	--	--	26	28
Rhode Island	8,571	7,583	13.0%	--	--	8,525	7,552	46	31	--	--
Vermont	3	4	-13.4%	3	4	--	--	--	--	--	--
Middle Atlantic	117,798	107,535	9.5%	13,073	13,411	102,605	92,058	671	700	1,448	1,367
New Jersey	25,201	24,902	1.2%	--	--	24,587	24,261	121	102	493	539
New York	50,805	48,916	3.9%	13,068	13,396	36,993	34,710	499	544	246	266
Pennsylvania	41,792	33,718	23.9%	5	14	41,026	33,087	52	54	709	562
East North Central	47,583	37,073	28.3%	16,805	10,236	28,608	24,996	981	596	1,188	1,246
Illinois	5,956	5,724	4.1%	1,063	487	4,094	4,407	401	385	398	445
Indiana	10,064	6,475	55.4%	7,338	3,782	2,195	2,128	49	41	482	524
Michigan	12,982	12,249	6.0%	2,688	1,173	9,866	10,839	279	97	149	140
Ohio	12,338	7,128	73.1%	2,873	1,587	9,230	5,496	171	--	63	45
Wisconsin	6,243	5,497	13.6%	2,842	3,205	3,223	2,126	81	73	97	92
West North Central	12,000	13,156	-8.8%	10,228	11,045	1,485	1,893	175	124	111	95
Iowa	991	1,312	-24.5%	980	1,297	*	*	7	10	4	6
Kansas	2,535	2,287	10.8%	2,534	2,287	--	--	--	--	1	--
Minnesota	3,351	4,341	-22.8%	2,533	3,235	648	943	107	104	64	60
Missouri	4,548	4,690	-3.0%	3,651	3,729	838	950	58	10	1	1
Nebraska	426	375	13.6%	402	362	--	*	3	*	21	12
North Dakota	20	16	21.7%	*	*	--	--	--	--	20	16
South Dakota	129	135	-4.0%	129	135	--	--	--	--	--	--
South Atlantic	212,696	194,794	9.2%	168,055	153,414	42,097	39,131	210	30	2,333	2,219
Delaware	4,731	2,865	65.1%	18	29	4,525	2,836	--	--	188	--
District of Columbia	71	--	--	71	--	--	--	--	--	--	--
Florida	136,364	128,634	6.0%	124,926	116,880	10,060	10,205	29	28	1,349	1,520
Georgia	26,544	23,884	11.1%	12,886	11,282	13,151	12,112	--	--	507	491
Maryland	2,311	2,897	-20.2%	--	--	2,022	2,839	181	*	107	58
North Carolina	11,155	8,447	32.1%	8,539	6,277	2,556	2,122	1	1	60	47
South Carolina	12,936	10,927	18.4%	11,522	9,323	1,392	1,593	--	*	22	11
Virginia	18,332	16,999	7.8%	10,062	9,574	8,176	7,341	--	--	94	84
West Virginia	251	140	80.1%	31	48	215	83	--	--	6	8
East South Central	82,452	72,997	13.0%	42,418	37,975	38,458	33,398	127	96	1,448	1,528
Alabama	47,681	39,235	21.5%	13,959	13,520	32,905	24,778	--	--	818	937
Kentucky	1,546	1,841	-16.0%	1,163	1,455	144	163	--	--	238	223
Mississippi	29,966	29,619	1.2%	24,213	20,812	5,409	8,457	24	22	320	328
Tennessee	3,259	2,302	41.6%	3,083	2,189	--	--	103	74	73	39
West South Central	300,606	284,637	5.6%	82,714	76,558	157,723	149,140	528	530	59,641	58,409
Arkansas	12,947	12,469	3.8%	2,376	2,020	10,362	10,223	*	1	208	224
Louisiana	54,322	51,344	5.8%	22,071	18,924	8,058	8,715	47	47	24,147	23,657
Oklahoma	32,837	33,942	-3.3%	24,140	24,945	8,585	8,862	22	25	90	109
Texas	200,500	186,882	7.3%	34,127	30,668	130,718	121,339	458	457	35,197	34,418
Mountain	71,090	81,599	-12.9%	43,981	40,447	26,045	40,131	202	208	862	813
Arizona	23,253	29,676	-21.6%	9,960	9,753	13,227	19,849	61	68	4	5
Colorado	10,186	11,062	-7.9%	8,564	3,803	1,606	7,242	4	4	12	13
Idaho	1,111	1,689	-34.2%	146	170	923	1,489	--	--	42	30
Montana	418	57	632.2%	406	33	12	20	--	--	--	NM
Nevada	21,841	23,688	-7.8%	15,389	16,001	6,225	7,426	60	62	168	199
New Mexico	8,566	8,512	0.6%	4,921	4,964	3,526	3,475	76	73	43	*
Utah	5,256	6,455	-18.6%	4,566	5,671	518	629	*	*	172	155
Wyoming	459	459	0.0%	30	51	8	3	--	--	422	405
Pacific Contiguous	102,321	133,533	-23.4%	33,363	45,130	54,662	73,628	1,890	1,898	12,406	12,876
California	88,974	107,522	-17.3%	26,905	31,252	47,960	61,671	1,844	1,883	12,264	12,716
Oregon	8,498	15,651	-45.7%	2,839	6,121	5,534	9,411	39	--	86	119
Washington	4,850	10,359	-53.2%	3,620	7,757	1,168	2,546	6	15	56	41
Pacific Noncontiguous	3,906	3,750	4.2%	3,846	3,685	--	--	3	1	57	65
Alaska	3,906	3,750	4.2%	3,846	3,685	--	--	3	1	57	65
Hawaii	--	--	--	--	--	--	--	--	--	--	--
U.S. Total	1,013,689	987,697	2.6%	414,843	392,616	511,447	508,774	5,487	4,725	81,911	81,583

* = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 3.11. Net Generation from Other Gases
by State, by Sector, 2011 and 2010 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010
New England	--	14	-100.0%	--	--	--	14	--	--	--	--
Connecticut	--	14	-100.0%	--	--	--	14	--	--	--	--
Maine	--	--	--	--	--	--	--	--	--	--	--
Massachusetts	--	--	--	--	--	--	--	--	--	--	--
New Hampshire	--	--	--	--	--	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--	--	--	--	--
Middle Atlantic	755	658	14.8%	--	--	41	54	3	3	711	601
New Jersey	139	106	30.8%	--	--	--	--	3	3	136	104
New York	--	--	--	--	--	--	--	--	--	--	--
Pennsylvania	616	552	11.7%	--	--	41	54	--	--	575	497
East North Central	3,075	2,858	7.6%	--	1	386	405	--	--	2,689	2,453
Illinois	319	161	98.3%	--	--	*	2	--	--	318	159
Indiana	2,183	2,144	1.8%	--	--	--	--	--	--	2,183	2,144
Michigan	269	299	-10.0%	--	--	269	299	--	--	--	--
Ohio	304	254	19.5%	--	1	116	104	--	--	188	150
Wisconsin	--	*	-100.0%	--	*	--	--	--	--	--	--
West North Central	39	43	-7.9%	--	7	--	--	--	--	39	36
Iowa	--	--	--	--	--	--	--	--	--	--	--
Kansas	--	--	--	--	--	--	--	--	--	--	--
Minnesota	--	--	--	--	--	--	--	--	--	--	--
Missouri	--	7	-100.0%	--	7	--	--	--	--	--	--
Nebraska	--	--	--	--	--	--	--	--	--	--	--
North Dakota	39	36	10.2%	--	--	--	--	--	--	39	36
South Dakota	--	--	--	--	--	--	--	--	--	--	--
South Atlantic	400	263	52.0%	--	--	--	215	--	--	400	48
Delaware	208	--	--	--	--	--	--	--	--	208	--
District of Columbia	--	--	--	--	--	--	--	--	--	--	--
Florida	6	8	-23.3%	--	--	--	*	--	--	6	8
Georgia	--	--	--	--	--	--	--	--	--	--	--
Maryland	155	215	-28.0%	--	--	--	215	--	--	155	--
North Carolina	--	--	--	--	--	--	--	--	--	--	--
South Carolina	--	--	--	--	--	--	--	--	--	--	--
Virginia	--	--	--	--	--	--	--	--	--	--	--
West Virginia	30	40	-23.9%	--	--	--	--	--	--	30	40
East South Central	308	294	4.7%	--	3	--	--	--	--	308	292
Alabama	292	277	5.4%	--	--	--	--	--	--	292	277
Kentucky	--	3	-100.0%	--	3	--	--	--	--	--	--
Mississippi	--	2	-100.0%	--	--	--	--	--	--	--	2
Tennessee	17	13	24.0%	--	--	--	--	--	--	17	13
West South Central	4,682	4,852	-3.5%	--	--	2,180	1,929	--	--	2,503	2,923
Arkansas	--	--	--	--	--	--	--	--	--	--	--
Louisiana	1,292	1,561	-17.2%	--	--	255	251	--	--	1,037	1,310
Oklahoma	--	--	--	--	--	--	--	--	--	--	--
Texas	3,390	3,291	3.0%	--	--	1,925	1,678	--	--	1,465	1,612
Mountain	305	323	-5.6%	--	--	7	6	--	--	298	317
Arizona	--	--	--	--	--	--	--	--	--	--	--
Colorado	--	--	--	--	--	--	--	--	--	--	--
Idaho	--	--	--	--	--	--	--	--	--	--	--
Montana	*	2	-99.0%	--	--	*	*	--	--	--	2
Nevada	7	6	28.5%	--	--	7	6	--	--	--	--
New Mexico	--	--	--	--	--	--	--	--	--	--	--
Utah	33	36	-9.9%	--	--	--	--	--	--	33	36
Wyoming	265	279	-5.1%	--	--	--	--	--	--	265	279
Pacific Contiguous	1,964	1,987	-1.1%	29	42	297	293	--	--	1,638	1,652
California	1,667	1,695	-1.6%	29	42	--	1	--	--	1,638	1,652
Oregon	--	--	--	--	--	--	--	--	--	--	--
Washington	297	292	1.8%	--	--	297	292	--	--	--	--
Pacific Noncontiguous	38	22	73.3%	--	--	--	--	--	--	38	22
Alaska	3	--	--	--	--	--	--	--	--	3	--
Hawaii	35	22	60.8%	--	--	--	--	--	--	35	22
U.S. Total	11,566	11,313	2.2%	29	52	2,911	2,915	3	3	8,624	8,343

* = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 3.12. Net Generation from Nuclear Energy by State, by Sector, 2011 and 2010 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010
New England	34,283	38,361	-10.6%	--	--	34,283	38,361	--	--	--	--
Connecticut	15,928	16,750	-4.9%	--	--	15,928	16,750	--	--	--	--
Maine	--	--	--	--	--	--	--	--	--	--	--
Massachusetts	5,085	5,918	-14.1%	--	--	5,085	5,918	--	--	--	--
New Hampshire	8,363	10,910	-23.3%	--	--	8,363	10,910	--	--	--	--
Rhode Island	--	--	--	--	--	--	--	--	--	--	--
Vermont	4,907	4,782	2.6%	--	--	4,907	4,782	--	--	--	--
Middle Atlantic	152,448	152,469	0.0%	--	--	152,448	152,469	--	--	--	--
New Jersey	33,606	32,771	2.5%	--	--	33,606	32,771	--	--	--	--
New York	42,695	41,870	2.0%	--	--	42,695	41,870	--	--	--	--
Pennsylvania	76,147	77,828	-2.2%	--	--	76,147	77,828	--	--	--	--
East North Central	155,162	154,900	0.2%	26,248	23,384	128,914	131,516	--	--	--	--
Illinois	95,823	96,190	-0.4%	--	--	95,823	96,190	--	--	--	--
Indiana	--	--	--	--	--	--	--	--	--	--	--
Michigan	32,889	29,625	11.0%	26,248	23,384	6,641	6,241	--	--	--	--
Ohio	14,890	15,805	-5.8%	--	--	14,890	15,805	--	--	--	--
Wisconsin	11,560	13,281	-13.0%	--	--	11,560	13,281	--	--	--	--
West North Central	40,797	47,535	-14.2%	35,582	43,084	5,215	4,451	--	--	--	--
Iowa	5,215	4,451	17.2%	--	--	5,215	4,451	--	--	--	--
Kansas	7,319	9,556	-23.4%	7,319	9,556	--	--	--	--	--	--
Minnesota	11,959	13,478	-11.3%	11,959	13,478	--	--	--	--	--	--
Missouri	9,371	8,996	4.2%	9,371	8,996	--	--	--	--	--	--
Nebraska	6,933	11,054	-37.3%	6,933	11,054	--	--	--	--	--	--
North Dakota	--	--	--	--	--	--	--	--	--	--	--
South Dakota	--	--	--	--	--	--	--	--	--	--	--
South Atlantic	187,696	190,741	-1.6%	173,299	176,747	14,397	13,994	--	--	--	--
Delaware	--	--	--	--	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--	--	--	--	--
Florida	22,015	23,936	-8.0%	22,015	23,936	--	--	--	--	--	--
Georgia	32,306	33,512	-3.6%	32,306	33,512	--	--	--	--	--	--
Maryland	14,397	13,994	2.9%	--	--	14,397	13,994	--	--	--	--
North Carolina	40,527	40,740	-0.5%	40,527	40,740	--	--	--	--	--	--
South Carolina	52,903	51,988	1.8%	52,903	51,988	--	--	--	--	--	--
Virginia	25,548	26,572	-3.9%	25,548	26,572	--	--	--	--	--	--
West Virginia	--	--	--	--	--	--	--	--	--	--	--
East South Central	76,612	75,323	1.7%	76,612	75,323	--	--	--	--	--	--
Alabama	39,356	37,941	3.7%	39,356	37,941	--	--	--	--	--	--
Kentucky	--	--	--	--	--	--	--	--	--	--	--
Mississippi	10,337	9,643	7.2%	10,337	9,643	--	--	--	--	--	--
Tennessee	26,919	27,739	-3.0%	26,919	27,739	--	--	--	--	--	--
West South Central	70,458	74,997	-6.1%	30,809	33,662	39,648	41,335	--	--	--	--
Arkansas	14,194	15,023	-5.5%	14,194	15,023	--	--	--	--	--	--
Louisiana	16,615	18,639	-10.9%	16,615	18,639	--	--	--	--	--	--
Oklahoma	--	--	--	--	--	--	--	--	--	--	--
Texas	39,648	41,335	-4.1%	--	--	39,648	41,335	--	--	--	--
Mountain	31,278	31,200	0.2%	31,278	31,200	--	--	--	--	--	--
Arizona	31,278	31,200	0.2%	31,278	31,200	--	--	--	--	--	--
Colorado	--	--	--	--	--	--	--	--	--	--	--
Idaho	--	--	--	--	--	--	--	--	--	--	--
Montana	--	--	--	--	--	--	--	--	--	--	--
Nevada	--	--	--	--	--	--	--	--	--	--	--
New Mexico	--	--	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--	--	--
Wyoming	--	--	--	--	--	--	--	--	--	--	--
Pacific Contiguous	41,470	41,442	0.1%	41,470	41,442	--	--	--	--	--	--
California	36,663	32,201	13.9%	36,663	32,201	--	--	--	--	--	--
Oregon	--	--	--	--	--	--	--	--	--	--	--
Washington	4,806	9,241	-48.0%	4,806	9,241	--	--	--	--	--	--
Pacific Noncontiguous	--	--	--	--	--	--	--	--	--	--	--
Alaska	--	--	--	--	--	--	--	--	--	--	--
Hawaii	--	--	--	--	--	--	--	--	--	--	--
U.S. Total	790,204	806,968	-2.1%	415,298	424,843	374,906	382,126	--	--	--	--

* = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 3.13. Net Generation from Hydroelectric (Conventional) Power by State, by Sector, 2011 and 2010 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010
New England	8,732	8,026	8.8%	1,148	1,029	6,795	6,251	6	5	783	741
Connecticut	567	391	45.2%	53	32	514	358	--	--	--	--
Maine	3,979	3,810	4.4%	--	--	3,231	3,105	--	--	748	706
Massachusetts	1,149	996	15.3%	281	238	856	749	6	5	6	5
New Hampshire	1,605	1,478	8.6%	359	328	1,241	1,144	--	--	5	5
Rhode Island	7	4	100.0%	--	--	7	4	--	--	--	--
Vermont	1,425	1,347	5.8%	455	430	945	891	--	--	24	25
Middle Atlantic	31,239	27,822	12.3%	24,556	21,960	6,603	5,801	6	3	75	58
New Jersey	24	18	34.7%	--	--	24	18	--	--	--	--
New York	27,997	25,472	9.9%	22,801	20,889	5,116	4,522	6	3	75	58
Pennsylvania	3,217	2,332	37.9%	1,755	1,072	1,462	1,261	--	--	--	--
East North Central	4,437	4,364	1.7%	3,979	3,959	276	241	--	1	183	163
Illinois	140	119	18.5%	47	43	93	75	--	--	--	--
Indiana	409	454	-9.9%	409	454	--	--	--	--	--	--
Michigan	1,357	1,251	8.5%	1,231	1,143	97	79	--	--	29	28
Ohio	384	429	-10.6%	384	429	--	--	--	--	--	--
Wisconsin	2,147	2,112	1.7%	1,909	1,890	85	86	--	1	153	135
West North Central	13,677	11,936	14.6%	13,377	11,607	183	201	--	--	117	127
Iowa	925	948	-2.4%	917	939	8	9	--	--	--	--
Kansas	15	13	11.6%	--	--	15	13	--	--	--	--
Minnesota	746	840	-11.2%	469	534	160	179	--	--	117	127
Missouri	1,185	1,539	-23.0%	1,185	1,539	--	--	--	--	--	--
Nebraska	1,617	1,314	23.1%	1,617	1,314	--	--	--	--	--	--
North Dakota	2,580	2,042	26.3%	2,580	2,042	--	--	--	--	--	--
South Dakota	6,608	5,239	26.1%	6,608	5,239	--	--	--	--	--	--
South Atlantic	13,545	15,167	-10.7%	9,825	12,395	3,121	2,225	10	13	590	534
Delaware	--	--	--	--	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--	--	--	--	--
Florida	182	177	2.6%	182	177	--	--	--	--	--	--
Georgia	2,705	3,322	-18.6%	2,679	3,288	7	11	--	--	19	22
Maryland	2,547	1,667	52.8%	--	--	2,547	1,667	--	--	--	--
North Carolina	3,893	4,757	-18.1%	3,859	4,709	24	34	10	12	1	2
South Carolina	1,554	2,376	-34.6%	1,511	2,313	43	62	*	1	--	--
Virginia	1,210	1,500	-19.3%	1,132	1,425	68	64	--	--	11	12
West Virginia	1,453	1,367	6.3%	462	482	433	387	--	--	559	498
East South Central	21,429	19,422	10.3%	21,419	19,413	10	9	--	--	--	--
Alabama	8,884	8,704	2.1%	8,884	8,704	--	--	--	--	--	--
Kentucky	2,969	2,580	15.1%	2,960	2,571	10	9	--	--	--	--
Mississippi	--	--	--	--	--	--	--	--	--	--	--
Tennessee	9,576	8,138	17.7%	9,576	8,138	--	--	--	--	--	--
West South Central	6,072	8,838	-31.3%	4,949	7,634	1,123	1,204	--	--	--	--
Arkansas	2,958	3,659	-19.2%	2,919	3,607	39	52	--	--	--	--
Louisiana	1,044	1,109	-5.8%	--	--	1,044	1,109	--	--	--	--
Oklahoma	1,507	2,809	-46.3%	1,507	2,809	--	--	--	--	--	--
Texas	563	1,262	-55.4%	523	1,219	40	43	--	--	--	--
Mountain	42,097	30,863	36.4%	37,070	26,362	5,026	4,501	--	--	--	--
Arizona	9,174	6,622	38.5%	9,174	6,622	--	--	--	--	--	--
Colorado	2,083	1,578	32.0%	1,915	1,430	167	148	--	--	--	--
Idaho	13,405	9,154	46.4%	12,470	8,419	934	735	--	--	--	--
Montana	12,596	9,415	33.8%	8,740	5,855	3,856	3,559	--	--	--	--
Nevada	2,191	2,157	1.5%	2,144	2,118	46	40	--	--	--	--
New Mexico	195	217	-10.3%	195	217	--	--	--	--	--	--
Utah	1,230	696	76.9%	1,217	686	13	9	--	--	--	--
Wyoming	1,224	1,024	19.5%	1,214	1,014	10	10	--	--	--	--
Pacific Contiguous	176,690	132,262	33.6%	173,726	130,294	2,956	1,905	5	59	3	3
California	42,557	33,431	27.3%	40,157	31,947	2,396	1,477	5	7	--	--
Oregon	42,315	30,542	38.5%	42,017	30,293	298	249	--	--	--	--
Washington	91,818	68,288	34.5%	91,552	68,055	263	178	--	53	3	3
Pacific Noncontiguous	1,438	1,504	-4.4%	1,365	1,450	25	12	--	--	49	42
Alaska	1,345	1,433	-6.2%	1,345	1,433	--	--	--	--	--	--
Hawaii	93	70	32.3%	20	17	25	12	--	--	49	42
U.S. Total	319,355	260,203	22.7%	291,413	236,104	26,117	22,351	26	80	1,799	1,668

* = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 3.14. Net Generation from Other Renewable Sources by State, by Sector, 2011 and 2010 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010
New England	8,015	8,020	-0.1%	574	641	5,352	5,701	104	102	1,985	1,577
Connecticut	660	740	-10.8%	--	--	660	740	--	--	--	--
Maine	4,495	4,152	8.2%	--	--	2,421	2,477	89	99	1,985	1,576
Massachusetts	1,207	1,274	-5.3%	48	16	1,145	1,254	13	3	--	--
New Hampshire	1,091	1,232	-11.4%	291	342	800	890	--	--	*	*
Rhode Island	130	140	-7.0%	--	--	130	140	--	--	--	--
Vermont	433	482	-10.3%	235	282	196	200	2	--	--	--
Middle Atlantic	9,950	9,910	0.4%	19	*	8,766	8,793	476	388	689	728
New Jersey	956	850	12.4%	19	*	690	684	246	166	--	--
New York	4,896	4,815	1.7%	--	--	4,559	4,447	110	112	226	255
Pennsylvania	4,099	4,245	-3.4%	--	--	3,516	3,662	120	111	463	473
East North Central	17,149	14,390	19.2%	1,137	1,093	14,107	11,349	194	228	1,711	1,721
Illinois	6,865	5,138	33.6%	11	8	6,854	5,130	*	*	1	*
Indiana	3,621	3,246	11.6%	295	274	3,284	2,932	21	24	20	15
Michigan	2,962	2,832	4.6%	5	--	2,116	1,985	158	160	683	687
Ohio	936	700	33.7%	16	15	536	302	--	--	384	383
Wisconsin	2,765	2,474	11.8%	810	796	1,317	999	15	43	624	635
West North Central	33,325	26,420	26.1%	9,852	7,314	22,844	18,473	78	55	552	578
Iowa	10,870	9,360	16.1%	5,149	4,440	5,671	4,854	34	27	15	39
Kansas	3,779	3,459	9.2%	1,018	819	2,761	2,641	--	--	--	--
Minnesota	8,406	6,640	26.6%	1,741	867	6,113	5,234	30	16	522	523
Missouri	1,240	988	25.6%	35	37	1,201	947	--	--	4	4
Nebraska	1,116	493	126.4%	280	267	822	214	14	12	--	--
North Dakota	5,245	4,108	27.7%	1,120	879	4,116	3,216	--	--	10	12
South Dakota	2,668	1,372	94.5%	509	5	2,160	1,367	--	--	--	--
South Atlantic	16,621	15,494	7.3%	1,027	957	6,008	5,392	305	288	9,281	8,857
Delaware	158	138	14.2%	*	--	153	138	5	--	--	--
District of Columbia	--	--	--	--	--	--	--	--	--	--	--
Florida	4,670	4,487	4.1%	188	127	2,371	2,369	39	40	2,073	1,951
Georgia	3,190	3,181	0.3%	*	*	165	151	23	20	3,001	3,009
Maryland	822	574	43.2%	*	*	616	385	55	40	150	149
North Carolina	2,345	2,083	12.6%	10	5	986	772	--	--	1,350	1,306
South Carolina	2,129	1,873	13.7%	410	403	22	23	--	--	1,698	1,448
Virginia	2,196	2,220	-1.1%	419	423	585	614	183	188	1,009	995
West Virginia	1,112	939	18.4%	*	--	1,112	939	--	--	--	--
East South Central	5,779	5,309	8.9%	96	90	312	325	--	--	5,371	4,894
Alabama	2,817	2,377	18.5%	1	1	231	260	--	--	2,585	2,116
Kentucky	436	440	-0.8%	95	89	--	--	--	--	342	351
Mississippi	1,506	1,504	0.1%	*	*	--	2	--	--	1,506	1,503
Tennessee	1,020	988	3.3%	--	--	81	63	--	--	939	924
West South Central	42,213	35,957	17.4%	794	706	36,075	29,910	43	44	5,300	5,297
Arkansas	1,668	1,624	2.7%	--	--	76	52	5	5	1,587	1,567
Louisiana	2,443	2,468	-1.0%	--	--	70	73	--	--	2,372	2,394
Oklahoma	5,919	4,160	42.3%	660	705	4,945	3,103	--	--	314	352
Texas	32,183	27,705	16.2%	134	1	30,984	26,681	38	39	1,027	984
Mountain	19,305	14,084	37.1%	2,636	1,937	16,185	11,635	60	4	424	507
Arizona	529	319	66.0%	65	37	457	278	7	4	--	--
Colorado	5,367	3,555	51.0%	73	67	5,273	3,487	18	--	3	--
Idaho	1,892	1,014	86.6%	--	--	1,472	606	--	--	420	408
Montana	1,265	1,027	23.2%	99	68	1,166	862	--	--	--	97
Nevada	2,437	2,287	6.6%	--	--	2,404	2,285	32	--	1	2
New Mexico	2,242	1,855	20.9%	--	--	2,238	1,855	3	--	--	--
Utah	961	781	23.1%	278	274	683	507	--	--	--	--
Wyoming	4,612	3,247	42.0%	2,120	1,491	2,491	1,756	--	--	--	--
Pacific Contiguous	40,727	36,824	10.6%	5,746	5,175	31,737	28,914	1,054	431	2,190	2,303
California	27,222	25,450	7.0%	1,658	1,629	23,858	22,751	1,031	410	675	661
Oregon	5,490	4,757	15.4%	789	599	4,314	3,674	24	21	363	462
Washington	8,014	6,617	21.1%	3,298	2,947	3,565	2,490	--	--	1,151	1,180
Pacific Noncontiguous	897	766	17.1%	51	14	568	463	161	174	116	114
Alaska	16	19	-16.8%	12	13	--	--	--	--	3	6
Hawaii	881	747	17.9%	39	2	568	463	161	174	112	107
U.S. Total	193,981	167,173	16.0%	21,933	17,927	141,954	120,956	2,476	1,714	27,619	26,576

* = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 3.15. Net Generation from Hydroelectric (Pumped Storage) Power by State, by Sector, 2011 and 2010 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010
New England	-435	-328	32.7%	--	--	-435	-328	--	--	--	--
Connecticut	6	9	-41.0%	--	--	6	9	--	--	--	--
Maine	--	--	--	--	--	--	--	--	--	--	--
Massachusetts	-440	-337	30.6%	--	--	-440	-337	--	--	--	--
New Hampshire	--	--	--	--	--	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--	--	--	--	--
Middle Atlantic	-675	-1,431	-52.9%	-502	-723	-172	-708	--	--	--	--
New Jersey	-197	-194	1.6%	-197	-194	--	--	--	--	--	--
New York	-306	-529	-42.3%	-306	-529	--	--	--	--	--	--
Pennsylvania	-172	-708	-75.7%	--	--	-172	-708	--	--	--	--
East North Central	-945	-1,023	-7.6%	-945	-1,023	--	--	--	--	--	--
Illinois	--	--	--	--	--	--	--	--	--	--	--
Indiana	--	--	--	--	--	--	--	--	--	--	--
Michigan	-945	-1,023	-7.6%	-945	-1,023	--	--	--	--	--	--
Ohio	--	--	--	--	--	--	--	--	--	--	--
Wisconsin	--	--	--	--	--	--	--	--	--	--	--
West North Central	167	888	-81.2%	167	888	--	--	--	--	--	--
Iowa	--	--	--	--	--	--	--	--	--	--	--
Kansas	--	--	--	--	--	--	--	--	--	--	--
Minnesota	--	--	--	--	--	--	--	--	--	--	--
Missouri	167	888	-81.2%	167	888	--	--	--	--	--	--
Nebraska	--	--	--	--	--	--	--	--	--	--	--
North Dakota	--	--	--	--	--	--	--	--	--	--	--
South Dakota	--	--	--	--	--	--	--	--	--	--	--
South Atlantic	-3,080	-2,703	13.9%	-3,080	-2,703	--	--	--	--	--	--
Delaware	--	--	--	--	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--	--	--	--	--
Florida	--	--	--	--	--	--	--	--	--	--	--
Georgia	-709	-278	154.9%	-709	-278	--	--	--	--	--	--
Maryland	--	--	--	--	--	--	--	--	--	--	--
North Carolina	--	--	--	--	--	--	--	--	--	--	--
South Carolina	-890	-935	-4.8%	-890	-935	--	--	--	--	--	--
Virginia	-1,481	-1,491	-0.6%	-1,481	-1,491	--	--	--	--	--	--
West Virginia	--	--	--	--	--	--	--	--	--	--	--
East South Central	-660	-721	-8.5%	-660	-721	--	--	--	--	--	--
Alabama	--	--	--	--	--	--	--	--	--	--	--
Kentucky	--	--	--	--	--	--	--	--	--	--	--
Mississippi	--	--	--	--	--	--	--	--	--	--	--
Tennessee	-660	-721	-8.5%	-660	-721	--	--	--	--	--	--
West South Central	-119	-153	-22.6%	-119	-153	--	--	--	--	--	--
Arkansas	34	-1	NM	34	-1	--	--	--	--	--	--
Louisiana	--	--	--	--	--	--	--	--	--	--	--
Oklahoma	-153	-153	0.2%	-153	-153	--	--	--	--	--	--
Texas	--	--	--	--	--	--	--	--	--	--	--
Mountain	-122	88	-238.7%	-122	88	--	--	--	--	--	--
Arizona	121	209	-42.1%	121	209	--	--	--	--	--	--
Colorado	-243	-121	101.5%	-243	-121	--	--	--	--	--	--
Idaho	--	--	--	--	--	--	--	--	--	--	--
Montana	--	--	--	--	--	--	--	--	--	--	--
Nevada	--	--	--	--	--	--	--	--	--	--	--
New Mexico	--	--	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--	--	--
Wyoming	--	--	--	--	--	--	--	--	--	--	--
Pacific Contiguous	-37	-118	-68.7%	-37	-118	--	--	--	--	--	--
California	-89	-171	-48.2%	-89	-171	--	--	--	--	--	--
Oregon	--	--	--	--	--	--	--	--	--	--	--
Washington	52	53	-2.6%	52	53	--	--	--	--	--	--
Pacific Noncontiguous	--	--	--	--	--	--	--	--	--	--	--
Alaska	--	--	--	--	--	--	--	--	--	--	--
Hawaii	--	--	--	--	--	--	--	--	--	--	--
U.S. Total	-5,905	-5,501	7.3%	-5,298	-4,466	-607	-1,035	--	--	--	--

* = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 3.16. Net Generation from Other Energy Sources by State, by Sector, 2011 and 2010 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010
New England	2,019	1,867	8.1%	--	--	1,888	1,749	84	78	46	41
Connecticut	705	717	-1.6%	--	--	704	703	--	--	1	13
Maine	390	323	20.9%	--	--	261	218	84	78	45	28
Massachusetts	860	771	11.5%	--	--	860	771	--	--	--	--
New Hampshire	64	57	12.2%	--	--	64	57	--	--	--	--
Rhode Island	--	--	--	--	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--	--	--	--	--
Middle Atlantic	2,441	2,252	8.4%	--	--	1,975	1,852	344	305	122	95
New Jersey	644	575	11.9%	--	--	383	350	138	130	122	95
New York	905	832	8.8%	--	--	799	744	106	88	--	--
Pennsylvania	893	845	5.7%	--	--	792	758	100	87	--	--
East North Central	1,095	1,087	0.7%	133	51	163	177	166	141	633	719
Illinois	299	300	-0.4%	--	--	6	17	--	--	293	283
Indiana	369	380	-2.9%	76	--	--	--	19	18	274	362
Michigan	363	332	9.5%	26	27	157	160	146	123	34	22
Ohio	10	12	-16.8%	--	--	--	--	--	--	10	12
Wisconsin	54	63	-14.6%	31	24	--	--	*	*	23	39
West North Central	428	327	30.7%	213	177	150	112	24	27	41	12
Iowa	--	--	--	--	--	--	--	--	--	--	--
Kansas	--	--	--	--	--	--	--	--	--	--	--
Minnesota	362	258	40.5%	148	112	150	112	23	22	41	12
Missouri	21	32	-33.9%	21	27	--	--	*	5	--	--
Nebraska	--	--	--	--	--	--	--	--	--	--	--
North Dakota	44	37	18.9%	44	37	--	--	--	--	--	--
South Dakota	--	--	--	--	--	--	--	--	--	--	--
South Atlantic	4,735	4,004	18.2%	*	*	2,183	1,816	177	148	2,375	2,041
Delaware	--	--	--	--	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--	--	--	--	--
Florida	3,385	2,834	19.5%	--	--	1,486	1,252	--	--	1,899	1,581
Georgia	28	18	58.9%	--	--	--	--	--	--	28	18
Maryland	299	270	10.6%	--	--	298	270	*	*	--	--
North Carolina	493	407	21.0%	--	--	106	28	--	--	387	379
South Carolina	60	61	-1.4%	--	--	--	--	--	--	60	61
Virginia	470	414	13.6%	--	--	293	266	176	147	1	1
West Virginia	*	1	-92.8%	*	*	--	--	--	--	*	*
East South Central	396	393	0.6%	9	15	--	1	--	--	387	377
Alabama	383	366	4.4%	--	--	--	--	--	--	383	366
Kentucky	9	15	-42.1%	9	15	--	--	--	--	--	--
Mississippi	3	9	-65.3%	--	--	--	1	--	--	3	8
Tennessee	1	3	-57.4%	--	--	--	--	--	--	1	3
West South Central	792	927	-14.5%	--	--	--	--	--	--	792	927
Arkansas	32	28	14.1%	--	--	--	--	--	--	32	28
Louisiana	440	559	-21.4%	--	--	--	--	--	--	440	559
Oklahoma	2	--	--	--	--	--	--	--	--	2	--
Texas	319	339	-5.9%	--	--	--	--	--	--	319	339
Mountain	753	686	9.8%	38	--	367	322	--	--	348	363
Arizona	15	15	0.1%	--	--	15	15	--	--	--	--
Colorado	63	70	-9.0%	--	--	15	22	--	--	48	47
Idaho	78	79	-1.4%	--	--	--	--	--	--	78	79
Montana	333	281	18.4%	--	--	333	281	--	--	--	--
Nevada	38	--	--	38	--	--	--	--	--	--	--
New Mexico	--	--	--	--	--	--	--	--	--	--	--
Utah	165	174	-5.1%	--	--	5	4	--	--	160	169
Wyoming	62	68	-8.5%	--	--	--	--	--	--	62	68
Pacific Contiguous	1,128	948	19.0%	--	--	332	309	*	*	796	639
California	917	839	9.3%	--	--	219	209	*	*	698	630
Oregon	51	47	9.6%	--	--	43	38	--	--	9	8
Washington	160	62	156.9%	--	--	70	62	--	--	90	--
Pacific Noncontiguous	366	364	0.6%	211	219	--	8	155	137	--	--
Alaska	--	--	--	--	--	--	--	--	--	--	--
Hawaii	366	364	0.6%	211	219	--	8	155	137	--	--
U.S. Total	14,154	12,855	10.1%	604	462	7,059	6,345	950	834	5,541	5,214

* = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 3.17. Net Generation from Wind
by State, by Sector, 2011 and 2010 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010
New England	870	614	41.7%	55	30	806	582	9	2	--	--
Connecticut	--	--	--	--	--	--	--	--	--	--	--
Maine	707	499	41.6%	--	--	707	499	--	--	--	--
Massachusetts	61	22	178.2%	44	16	8	4	9	2	--	--
New Hampshire	66	76	-12.7%	--	--	66	76	--	--	--	--
Rhode Island	3	3	-6.8%	--	--	3	3	--	--	--	--
Vermont	33	14	138.9%	11	14	22	--	--	--	--	--
Middle Atlantic	4,633	4,463	3.8%	--	--	4,633	4,463	--	--	--	--
New Jersey	11	13	-16.8%	--	--	11	13	--	--	--	--
New York	2,828	2,596	8.9%	--	--	2,828	2,596	--	--	--	--
Pennsylvania	1,794	1,854	-3.2%	--	--	1,794	1,854	--	--	--	--
East North Central	11,341	8,849	28.2%	602	562	10,736	8,285	1	2	2	--
Illinois	6,213	4,454	39.5%	11	8	6,202	4,446	--	--	--	--
Indiana	3,285	2,934	12.0%	--	--	3,284	2,932	1	NM	--	--
Michigan	456	360	26.7%	3	--	454	360	--	--	--	--
Ohio	198	13	NM	14	13	182	--	--	--	2	--
Wisconsin	1,188	1,088	9.1%	574	541	614	547	--	--	--	--
West North Central	31,288	24,182	29.4%	9,376	6,713	21,885	17,457	26	12	--	--
Iowa	10,709	9,170	16.8%	5,122	4,407	5,583	4,764	4	--	--	--
Kansas	3,720	3,405	9.2%	1,018	819	2,702	2,586	--	--	--	--
Minnesota	6,726	4,792	40.4%	1,379	390	5,324	4,390	23	12	--	--
Missouri	1,178	925	27.3%	--	--	1,178	925	--	--	--	--
Nebraska	1,051	422	149.2%	229	213	822	208	--	--	--	--
North Dakota	5,236	4,096	27.8%	1,120	879	4,116	3,216	--	--	--	--
South Dakota	2,668	1,372	94.5%	509	5	2,160	1,367	--	--	--	--
South Atlantic	1,378	943	46.1%	--	--	1,373	943	5	--	--	--
Delaware	5	3	88.8%	--	--	--	3	5	--	--	--
District of Columbia	--	--	--	--	--	--	--	--	--	--	--
Florida	--	--	--	--	--	--	--	--	--	--	--
Georgia	--	--	--	--	--	--	--	--	--	--	--
Maryland	271	1	NM	--	--	271	1	--	--	--	--
North Carolina	--	--	--	--	--	--	--	--	--	--	--
South Carolina	--	--	--	--	--	--	--	--	--	--	--
Virginia	--	--	--	--	--	--	--	--	--	--	--
West Virginia	1,103	939	17.4%	--	--	1,103	939	--	--	--	--
East South Central	53	41	31.0%	--	--	53	41	--	--	--	--
Alabama	--	--	--	--	--	--	--	--	--	--	--
Kentucky	--	--	--	--	--	--	--	--	--	--	--
Mississippi	--	--	--	--	--	--	--	--	--	--	--
Tennessee	53	41	31.0%	--	--	53	41	--	--	--	--
West South Central	36,153	30,059	20.3%	794	706	35,359	29,354	--	--	--	--
Arkansas	--	--	--	--	--	--	--	--	--	--	--
Louisiana	--	--	--	--	--	--	--	--	--	--	--
Oklahoma	5,605	3,808	47.2%	660	705	4,945	3,103	--	--	--	--
Texas	30,548	26,251	16.4%	134	1	30,414	26,251	--	--	--	--
Mountain	15,317	10,484	46.1%	2,292	1,624	13,013	8,861	9	--	3	--
Arizona	256	135	89.4%	--	--	256	135	--	--	--	--
Colorado	5,200	3,452	50.7%	73	65	5,119	3,387	6	--	3	--
Idaho	1,307	441	196.5%	--	--	1,307	441	--	--	--	--
Montana	1,265	930	36.0%	99	68	1,166	862	--	--	--	--
Nevada	--	--	--	--	--	--	--	--	--	--	--
New Mexico	2,104	1,832	14.9%	--	--	2,101	1,832	3	--	--	--
Utah	573	448	27.9%	--	--	573	448	--	--	--	--
Wyoming	4,612	3,247	42.0%	2,120	1,491	2,491	1,756	--	--	--	--
Pacific Contiguous	18,790	14,743	27.4%	4,008	3,442	14,781	11,301	--	--	--	--
California	7,752	6,079	27.5%	507	543	7,245	5,536	--	--	--	--
Oregon	4,775	3,920	21.8%	721	536	4,054	3,384	--	--	--	--
Washington	6,262	4,745	32.0%	2,780	2,364	3,482	2,381	--	--	--	--
Pacific Noncontiguous	353	274	29.1%	12	13	341	261	--	--	--	--
Alaska	12	13	-1.3%	12	13	--	--	--	--	--	--
Hawaii	341	261	30.5%	--	--	341	261	--	--	--	--
U.S. Total	120,177	94,652	27.0%	17,140	13,089	102,981	81,547	51	16	5	--

* = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 3.18. Net Generation from Biomass
by State, by Sector, 2011 and 2010 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010
New England	7,138	7,405	-3.6%	515	611	4,544	5,119	94	99	1,985	1,577
Connecticut	660	740	-10.8%	--	--	660	740	--	--	--	--
Maine	3,788	3,653	3.7%	--	--	1,714	1,978	89	99	1,985	1,576
Massachusetts	1,140	1,251	-8.8%	--	--	1,137	1,250	3	1	--	--
New Hampshire	1,025	1,157	-11.4%	291	342	734	814	--	--	*	*
Rhode Island	127	137	-7.0%	--	--	127	137	--	--	--	--
Vermont	398	468	-15.1%	224	268	172	200	2	--	--	--
Middle Atlantic	5,219	5,418	-3.7%	--	--	4,067	4,302	467	388	684	728
New Jersey	876	816	7.3%	--	--	639	651	237	166	--	--
New York	2,061	2,218	-7.1%	--	--	1,725	1,851	110	112	226	255
Pennsylvania	2,281	2,383	-4.3%	--	--	1,704	1,800	120	110	458	473
East North Central	5,779	5,514	4.8%	534	529	3,342	3,039	193	226	1,709	1,721
Illinois	638	670	-4.8%	--	--	638	670	*	*	1	*
Indiana	336	312	7.7%	295	274	--	--	20	22	20	15
Michigan	2,506	2,472	1.4%	2	--	1,663	1,625	158	160	683	687
Ohio	722	675	7.0%	--	--	340	291	--	--	382	383
Wisconsin	1,577	1,385	13.8%	237	255	702	452	15	43	624	635
West North Central	2,037	2,238	-9.0%	476	601	959	1,016	51	43	552	578
Iowa	161	190	-15.5%	27	33	88	91	30	27	15	39
Kansas	59	54	8.2%	--	--	59	54	--	--	--	--
Minnesota	1,680	1,848	-9.1%	362	477	789	844	7	4	522	523
Missouri	62	62	0.1%	35	37	23	22	--	--	4	4
Nebraska	65	72	-8.5%	52	53	--	6	14	12	--	--
North Dakota	10	12	-20.4%	--	--	--	--	--	--	10	12
South Dakota	--	--	--	--	--	--	--	--	--	--	--
South Atlantic	15,089	14,459	4.4%	924	885	4,584	4,429	300	288	9,281	8,857
Delaware	145	136	6.7%	--	--	145	136	--	--	--	--
District of Columbia	--	--	--	--	--	--	--	--	--	--	--
Florida	4,544	4,406	3.1%	88	58	2,345	2,357	39	40	2,073	1,951
Georgia	3,190	3,181	0.3%	*	*	165	151	23	20	3,001	3,009
Maryland	548	572	-4.2%	*	*	343	384	55	40	150	149
North Carolina	2,328	2,072	12.4%	8	1	971	764	--	--	1,350	1,306
South Carolina	2,129	1,873	13.7%	410	403	22	23	--	--	1,698	1,448
Virginia	2,196	2,220	-1.1%	419	423	585	614	183	188	1,009	995
West Virginia	9	--	--	*	--	9	--	--	--	--	--
East South Central	5,726	5,268	8.7%	96	90	258	284	--	--	5,371	4,894
Alabama	2,817	2,377	18.5%	1	1	231	260	--	--	2,585	2,116
Kentucky	436	440	-0.8%	95	89	--	--	--	--	342	351
Mississippi	1,506	1,504	0.1%	*	*	--	2	--	--	1,506	1,503
Tennessee	967	947	2.1%	--	--	28	23	--	--	939	924
West South Central	6,031	5,889	2.4%	--	--	688	548	43	44	5,300	5,297
Arkansas	1,668	1,624	2.7%	--	--	76	52	5	5	1,587	1,567
Louisiana	2,443	2,468	-1.0%	--	--	70	73	--	--	2,372	2,394
Oklahoma	314	352	-10.8%	--	--	--	--	--	--	314	352
Texas	1,606	1,445	11.2%	--	--	542	422	38	39	1,027	984
Mountain	842	897	-6.2%	24	27	392	361	5	4	420	505
Arizona	190	168	13.2%	24	24	161	140	5	4	--	--
Colorado	62	60	2.5%	*	2	62	58	--	--	--	--
Idaho	522	501	4.1%	--	--	102	93	--	--	420	408
Montana	--	97	-100.0%	--	--	--	--	--	--	--	97
Nevada	--	--	--	--	--	--	--	--	--	--	--
New Mexico	9	14	-31.1%	--	--	9	14	--	--	--	--
Utah	58	56	3.0%	--	--	58	56	--	--	--	--
Wyoming	--	--	--	--	--	--	--	--	--	--	--
Pacific Contiguous	8,495	8,711	-2.5%	831	876	4,447	5,105	1,026	427	2,190	2,303
California	6,029	6,002	0.5%	246	229	4,105	4,706	1,003	406	675	661
Oregon	714	837	-14.6%	68	64	260	290	24	21	363	462
Washington	1,751	1,872	-6.5%	518	583	82	109	--	--	1,151	1,180
Pacific Noncontiguous	316	290	9.0%	39	2	--	--	161	174	116	114
Alaska	3	6	-47.9%	--	--	--	--	--	--	3	6
Hawaii	313	283	10.3%	39	2	--	--	161	174	112	107
U.S. Total	56,671	56,089	1.0%	3,440	3,619	23,282	24,203	2,341	1,693	27,607	26,574

* = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 3.19. Net Generation from Geothermal by State, by Sector, 2011 and 2010 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010
New England	--	--	--	--	--	--	--	--	--	--	--
Connecticut	--	--	--	--	--	--	--	--	--	--	--
Maine	--	--	--	--	--	--	--	--	--	--	--
Massachusetts	--	--	--	--	--	--	--	--	--	--	--
New Hampshire	--	--	--	--	--	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--	--	--	--	--
Middle Atlantic	--	--	--	--	--	--	--	--	--	--	--
New Jersey	--	--	--	--	--	--	--	--	--	--	--
New York	--	--	--	--	--	--	--	--	--	--	--
Pennsylvania	--	--	--	--	--	--	--	--	--	--	--
East North Central	--	--	--	--	--	--	--	--	--	--	--
Illinois	--	--	--	--	--	--	--	--	--	--	--
Indiana	--	--	--	--	--	--	--	--	--	--	--
Michigan	--	--	--	--	--	--	--	--	--	--	--
Ohio	--	--	--	--	--	--	--	--	--	--	--
Wisconsin	--	--	--	--	--	--	--	--	--	--	--
West North Central	--	--	--	--	--	--	--	--	--	--	--
Iowa	--	--	--	--	--	--	--	--	--	--	--
Kansas	--	--	--	--	--	--	--	--	--	--	--
Minnesota	--	--	--	--	--	--	--	--	--	--	--
Missouri	--	--	--	--	--	--	--	--	--	--	--
Nebraska	--	--	--	--	--	--	--	--	--	--	--
North Dakota	--	--	--	--	--	--	--	--	--	--	--
South Dakota	--	--	--	--	--	--	--	--	--	--	--
South Atlantic	--	--	--	--	--	--	--	--	--	--	--
Delaware	--	--	--	--	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--	--	--	--	--
Florida	--	--	--	--	--	--	--	--	--	--	--
Georgia	--	--	--	--	--	--	--	--	--	--	--
Maryland	--	--	--	--	--	--	--	--	--	--	--
North Carolina	--	--	--	--	--	--	--	--	--	--	--
South Carolina	--	--	--	--	--	--	--	--	--	--	--
Virginia	--	--	--	--	--	--	--	--	--	--	--
West Virginia	--	--	--	--	--	--	--	--	--	--	--
East South Central	--	--	--	--	--	--	--	--	--	--	--
Alabama	--	--	--	--	--	--	--	--	--	--	--
Kentucky	--	--	--	--	--	--	--	--	--	--	--
Mississippi	--	--	--	--	--	--	--	--	--	--	--
Tennessee	--	--	--	--	--	--	--	--	--	--	--
West South Central	--	--	--	--	--	--	--	--	--	--	--
Arkansas	--	--	--	--	--	--	--	--	--	--	--
Louisiana	--	--	--	--	--	--	--	--	--	--	--
Oklahoma	--	--	--	--	--	--	--	--	--	--	--
Texas	--	--	--	--	--	--	--	--	--	--	--
Mountain	2,540	2,419	5.0%	278	274	2,262	2,144	--	--	--	--
Arizona	--	--	--	--	--	--	--	--	--	--	--
Colorado	--	--	--	--	--	--	--	--	--	--	--
Idaho	63	72	-11.6%	--	--	63	72	--	--	--	--
Montana	--	--	--	--	--	--	--	--	--	--	--
Nevada	2,146	2,070	3.7%	--	--	2,146	2,070	--	--	--	--
New Mexico	--	--	--	--	--	--	--	--	--	--	--
Utah	330	277	19.2%	278	274	52	3	--	--	--	--
Wyoming	--	--	--	--	--	--	--	--	--	--	--
Pacific Contiguous	12,552	12,600	-0.4%	858	844	11,694	11,757	--	--	--	--
California	12,552	12,600	-0.4%	858	844	11,694	11,757	--	--	--	--
Oregon	--	--	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--
Pacific Noncontiguous	224	201	11.6%	--	--	224	201	--	--	--	--
Alaska	--	--	--	--	--	--	--	--	--	--	--
Hawaii	224	201	11.6%	--	--	224	201	--	--	--	--
U.S. Total	15,316	15,219	0.6%	1,137	1,118	14,180	14,101	--	--	--	--

* = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 3.20. Net Generation from Solar
by State, by Sector, 2011 and 2010 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010
New England	7	1	609.3%	4	1	2	--	1	*	--	--
Connecticut	--	--	--	--	--	--	--	--	--	--	--
Maine	--	--	--	--	--	--	--	--	--	--	--
Massachusetts	5	1	413.7%	4	1	*	--	1	*	--	--
New Hampshire	--	--	--	--	--	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--	--	--	--	--
Vermont	2	--	--	--	--	2	--	--	--	--	--
Middle Atlantic	98	29	239.6%	19	*	65	28	8	1	5	*
New Jersey	69	21	226.7%	19	*	41	20	8	*	--	--
New York	6	--	--	--	--	6	--	--	--	--	--
Pennsylvania	23	8	192.6%	--	--	18	7	*	*	5	*
East North Central	30	27	9.5%	1	2	28	25	--	--	--	--
Illinois	14	14	-0.6%	--	--	14	14	--	--	--	--
Indiana	--	--	--	--	--	--	--	--	--	--	--
Michigan	--	--	--	--	--	--	--	--	--	--	--
Ohio	15	13	20.6%	1	2	14	11	--	--	--	--
Wisconsin	--	--	--	--	--	--	--	--	--	--	--
West North Central	--	--	--	--	--	--	--	--	--	--	--
Iowa	--	--	--	--	--	--	--	--	--	--	--
Kansas	--	--	--	--	--	--	--	--	--	--	--
Minnesota	--	--	--	--	--	--	--	--	--	--	--
Missouri	--	--	--	--	--	--	--	--	--	--	--
Nebraska	--	--	--	--	--	--	--	--	--	--	--
North Dakota	--	--	--	--	--	--	--	--	--	--	--
South Dakota	--	--	--	--	--	--	--	--	--	--	--
South Atlantic	154	92	67.7%	103	72	51	20	--	--	--	--
Delaware	8	--	--	*	--	8	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--	--	--	--	--
Florida	126	80	56.3%	100	69	26	12	--	--	--	--
Georgia	--	--	--	--	--	--	--	--	--	--	--
Maryland	3	*	NM	*	--	3	*	--	--	--	--
North Carolina	17	11	53.3%	2	4	15	8	--	--	--	--
South Carolina	--	--	--	--	--	--	--	--	--	--	--
Virginia	--	--	--	--	--	--	--	--	--	--	--
West Virginia	--	--	--	--	--	--	--	--	--	--	--
East South Central	--	--	--	--	--	--	--	--	--	--	--
Alabama	--	--	--	--	--	--	--	--	--	--	--
Kentucky	--	--	--	--	--	--	--	--	--	--	--
Mississippi	--	--	--	--	--	--	--	--	--	--	--
Tennessee	--	--	--	--	--	--	--	--	--	--	--
West South Central	29	8	248.9%	--	--	29	8	--	--	--	--
Arkansas	--	--	--	--	--	--	--	--	--	--	--
Louisiana	--	--	--	--	--	--	--	--	--	--	--
Oklahoma	--	--	--	--	--	--	--	--	--	--	--
Texas	29	8	248.9%	--	--	29	8	--	--	--	--
Mountain	607	284	113.7%	41	13	518	270	47	--	1	2
Arizona	83	16	429.1%	41	13	40	3	2	--	--	--
Colorado	105	42	146.2%	--	--	92	42	12	--	--	--
Idaho	--	--	--	--	--	--	--	--	--	--	--
Montana	--	--	--	--	--	--	--	--	--	--	--
Nevada	291	217	34.3%	--	--	258	215	32	--	1	2
New Mexico	128	9	NM	--	--	128	9	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--	--	--
Wyoming	--	--	--	--	--	--	--	--	--	--	--
Pacific Contiguous	890	769	15.7%	48	13	814	752	28	4	--	--
California	889	769	15.5%	47	13	814	752	28	4	--	--
Oregon	*	--	--	--	--	*	--	--	--	--	--
Washington	1	--	--	1	--	--	--	--	--	--	--
Pacific Noncontiguous	4	2	103.0%	--	--	4	2	--	--	--	--
Alaska	--	--	--	--	--	--	--	--	--	--	--
Hawaii	4	2	103.0%	--	--	4	2	--	--	--	--
U.S. Total	1,818	1,212	50.0%	216	101	1,511	1,105	84	5	7	2

* = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 3.21. Useful Thermal Output by Energy Source: Total Combined Heat and Power (All Sectors), 2001 - 2011

(Billion Btus)

Period	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gas	Other Renewable Sources	Other	Total
Annual Totals								
2001	354,204	74,927	15,381	740,979	132,937	584,563	55,160	1,958,151
2002	336,848	61,313	11,513	708,738	117,513	571,509	48,263	1,855,697
2003	333,361	68,329	16,934	610,122	110,263	632,366	54,960	1,826,335
2004	351,871	80,824	16,659	654,242	126,157	667,341	45,456	1,942,550
2005	341,806	79,362	13,021	624,008	138,469	664,691	41,400	1,902,757
2006	332,548	54,224	24,009	603,288	126,049	689,549	49,308	1,878,973
2007	326,803	50,882	25,373	554,394	116,313	651,230	46,822	1,771,816
2008	315,244	29,554	18,263	509,330	110,680	610,131	23,729	1,616,931
2009	281,557	32,591	20,308	513,002	99,556	546,974	33,287	1,527,276
2010	300,303	19,914	21,448	524,494	91,439	581,310	28,755	1,567,662
2011	286,210	15,230	21,552	535,150	103,615	586,299	31,067	1,579,124
2009								
January	27,348	4,518	1,608	44,133	8,357	45,295	2,589	133,848
February	24,461	3,261	1,652	38,109	7,726	43,198	2,463	120,871
March	24,768	2,849	1,640	41,028	8,276	45,528	2,374	126,462
April	21,236	2,499	1,397	39,064	7,733	42,216	2,561	116,706
May	21,536	3,504	1,394	40,311	7,863	42,973	3,034	120,616
June	22,271	2,499	1,620	41,345	7,800	43,971	3,152	122,659
July	23,147	2,286	1,852	45,284	8,841	46,825	2,981	131,215
August	23,132	2,146	1,824	47,298	8,877	48,403	2,828	134,508
September	22,166	2,145	1,908	45,278	8,928	45,563	2,678	128,668
October	22,303	2,114	1,763	43,569	8,354	47,612	2,933	128,647
November	23,243	2,146	1,876	40,862	8,256	46,873	2,808	126,062
December	25,947	2,623	1,775	46,721	8,545	48,517	2,886	137,014
2010								
January	27,238	2,420	1,809	46,343	7,527	49,564	1,834	136,735
February	24,966	1,988	1,887	40,962	6,706	45,274	2,142	123,926
March	25,445	1,345	1,610	43,478	7,940	50,043	2,413	132,275
April	32,199	1,472	1,556	39,957	7,688	47,082	2,356	132,311
May	22,885	1,390	1,702	41,049	7,682	46,789	2,572	124,070
June	22,929	1,265	1,861	41,350	7,880	47,068	2,598	124,950
July	24,483	1,631	1,791	47,085	7,573	48,956	2,503	134,022
August	24,539	1,417	1,788	47,723	8,061	49,145	2,653	135,328
September	22,849	1,303	1,782	43,318	7,552	47,918	2,379	127,101
October	22,502	1,647	1,867	43,166	7,379	49,005	2,434	128,000
November	23,552	1,756	1,948	42,425	7,513	48,714	2,311	128,220
December	26,714	2,278	1,846	47,638	7,938	51,751	2,560	140,725
2011								
January	28,049	2,161	1,867	45,950	7,869	53,111	1,943	140,950
February	24,489	1,437	1,798	41,202	8,688	46,989	2,404	127,007
March	25,103	1,325	1,669	42,279	8,789	49,555	2,621	131,341
April	22,645	1,150	1,857	40,914	7,980	45,774	2,332	122,652
May	23,267	1,140	1,903	42,606	8,549	45,054	2,616	125,135
June	22,940	1,148	1,811	42,816	8,424	48,089	2,747	127,974
July	24,535	1,096	1,847	49,682	8,484	48,877	2,714	137,236
August	24,093	1,135	1,610	50,264	8,442	49,078	2,749	137,371
September	22,602	1,096	1,783	45,244	9,122	48,147	2,709	130,703
October	22,495	1,238	1,825	42,548	9,477	48,366	2,762	128,711
November	22,098	1,163	1,740	43,060	8,591	50,337	2,652	129,641
December	23,893	1,140	1,841	48,587	9,203	52,922	2,817	140,403

Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
Petroleum Liquids includes distillate and residual fuel oils, jet fuel, kerosene, waste oil, and beginning in 2011, propane. Prior to 2011 propane was included in Other Gases.
Petroleum Coke includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
Other Gas includes blast furnace gas and other manufactured and waste gases derived from fossil fuels. Prior to 2011, Other Gas included propane and synthesis gases.
See the Technical Notes for fuel conversion factors.
Other Renewable Sources include wood, black liquor, other wood waste, biogenic municipal solid waste, landfill gas, sludge waste, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic energy, and wind.
Other includes non-biogenic municipal solid waste, batteries, hydrogen, purchased steam, sulfur, tire-derived fuel, and other miscellaneous energy sources.
Notes: Beginning with 2001 data, non-biogenic municipal solid waste and tire-derived fuels are reclassified as non-renewable energy sources and included in Other. Biogenic municipal solid waste is included in Other Renewable Sources.
Beginning with the collection of Form EIA-923 in January 2008, the methodology for separating the fuel used for electricity generation and useful thermal output from combined heat and power plants changed. The new methodology was retroactively applied to 2004-2007. See the Technical Notes (Appendix C) for further information.
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Totals may not equal sum of components because of independent rounding. NM=Not meaningful due to large standard error. W=Withheld to avoid disclosure of individual company data.
*=value less than half of smallest unit of measure.
Sources: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report; U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report; and predecessor forms.
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Table 3.22. Useful Thermal Output by Energy Source: Electric Power Sector Combined Heat and Power, 2001 - 2011

(Billion Btus)

Period	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gas	Other Renewable Sources	Other	Total
Annual Totals								
2001	51,515	3,248	2,839	164,206	4,681	12,676	3,343	242,508
2002	40,020	1,319	2,550	214,137	5,961	12,550	4,732	281,269
2003	38,249	5,551	1,828	200,077	9,282	19,786	3,296	278,068
2004	39,014	5,731	2,486	239,416	18,200	17,347	3,822	326,017
2005	39,652	5,571	2,238	239,324	36,694	18,240	3,884	345,605
2006	38,133	4,812	2,253	207,095	22,567	17,284	4,435	296,579
2007	38,260	5,294	1,862	212,705	20,473	19,166	4,459	302,219
2008	37,220	5,479	1,353	204,167	22,109	17,052	4,854	292,234
2009	38,015	5,341	1,445	190,875	19,830	17,625	5,055	278,187
2010	38,325	4,702	1,108	186,772	19,707	17,589	5,040	273,244
2011	35,209	4,484	1,231	190,712	20,435	16,029	6,044	274,143
2009								
January	3,989	746	133	16,984	1,600	1,621	350	25,424
February	3,453	427	122	15,089	1,446	1,572	377	22,486
March	3,461	405	105	15,432	1,525	2,328	437	23,692
April	2,748	429	120	14,953	1,597	1,170	462	21,480
May	3,006	407	121	15,182	1,735	1,155	461	22,067
June	3,065	377	139	15,179	1,693	1,430	385	22,268
July	3,124	392	132	17,215	1,716	1,386	473	24,437
August	3,038	404	117	17,986	1,762	1,320	437	25,063
September	2,710	388	113	16,519	1,752	1,305	460	23,246
October	2,815	480	106	15,564	1,704	1,167	390	22,225
November	2,954	435	114	14,646	1,572	1,575	400	21,696
December	3,653	453	122	16,126	1,729	1,595	426	24,104
2010								
January	3,790	443	116	16,624	1,717	1,660	394	24,745
February	3,505	271	121	14,780	1,598	1,574	367	22,215
March	3,469	202	137	15,718	1,738	1,595	391	23,250
April	2,859	382	94	14,056	1,735	1,274	407	20,807
May	2,828	421	105	14,931	1,709	1,183	333	21,510
June	3,017	403	83	15,064	1,639	1,434	450	22,090
July	3,306	404	87	17,574	1,671	1,390	455	24,888
August	3,215	411	19	17,185	1,669	1,421	465	24,384
September	2,966	398	27	15,517	1,631	1,292	429	22,259
October	2,881	417	100	14,262	1,302	1,514	408	20,885
November	3,049	522	125	14,761	1,615	1,560	420	22,053
December	3,440	427	95	16,301	1,682	1,692	522	24,159
2011								
January	3,424	410	55	16,673	1,708	1,727	550	24,547
February	3,031	312	92	15,005	1,594	1,555	521	22,108
March	3,095	334	122	15,548	1,854	1,329	546	22,828
April	2,804	376	102	14,699	1,625	998	419	21,023
May	3,122	371	119	14,857	1,735	1,223	533	21,960
June	2,756	372	102	15,092	1,601	1,248	527	21,699
July	3,057	393	119	18,064	1,718	1,341	514	25,206
August	2,975	410	116	17,845	1,683	1,278	477	24,785
September	2,753	401	114	15,831	1,748	1,274	452	22,571
October	2,788	391	86	14,690	1,693	1,313	491	21,451
November	2,530	370	94	15,247	1,660	1,337	454	21,692
December	2,874	344	112	17,161	1,817	1,405	560	24,273

Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
Petroleum Liquids includes distillate and residual fuel oils, jet fuel, kerosene, waste oil, and beginning in 2011, propane. Prior to 2011 propane was included in Other Gases.
Petroleum Coke includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
Other Gas includes blast furnace gas and other manufactured and waste gases derived from fossil fuels. Prior to 2011, Other Gas included propane and synthesis gases.
See the Technical Notes for fuel conversion factors.
Other Renewable Sources include wood, black liquor, other wood waste, biogenic municipal solid waste, landfill gas, sludge waste, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic energy, and wind.
Other includes non-biogenic municipal solid waste, batteries, hydrogen, purchased steam, sulfur, tire-derived fuel, and other miscellaneous energy sources.
Notes: Beginning with 2001 data, non-biogenic municipal solid waste and tire-derived fuels are reclassified as non-renewable energy sources and included in Other. Biogenic municipal solid waste is included in Other Renewable Sources.
Beginning with the collection of Form EIA-923 in January 2008, the methodology for separating the fuel used for electricity generation and useful thermal output from combined heat and power plants changed. The new methodology was retroactively applied to 2004-2007. See the Technical Notes (Appendix C) for further information.
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Totals may not equal sum of components because of independent rounding. NM=Not meaningful due to large standard error. W=Withheld to avoid disclosure of individual company data.
*=value less than half of smallest unit of measure.
Sources: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report; U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report; and predecessor forms.
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Table 3.23. Useful Thermal Output by Energy Source: Commerical Combined Heat and Power, 2001 - 2011

(Billion Btus)

Period	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gas	Other Renewable Sources	Other	Total
Annual Totals								
2001	18,495	4,002	116	34,923	--	8,253	5,770	71,560
2002	18,477	2,600	143	36,265	--	6,901	4,801	69,188
2003	22,780	2,520	196	16,955	--	8,297	6,142	56,889
2004	22,450	4,118	165	21,851	--	8,936	6,350	63,871
2005	22,601	3,518	166	20,227	--	8,647	5,921	61,081
2006	22,186	2,092	172	19,370	*	9,359	6,242	59,422
2007	22,595	1,640	221	20,040	--	6,651	3,983	55,131
2008	22,991	1,822	177	20,183	--	8,863	6,054	60,091
2009	20,057	1,095	155	25,902	--	8,450	5,761	61,420
2010	19,216	845	216	29,791	13	7,917	5,333	63,330
2011	17,234	687	111	24,848	14	7,433	5,988	56,314
2009								
January	2,296	467	22	2,288	--	689	431	6,194
February	1,929	153	19	1,999	--	585	367	5,053
March	1,852	58	15	2,088	--	728	474	5,215
April	1,440	41	--	1,796	--	693	504	4,474
May	1,324	27	--	1,734	--	774	621	4,480
June	1,582	22	--	1,928	--	739	588	4,858
July	1,550	38	--	2,455	--	740	515	5,298
August	1,595	69	27	2,626	--	764	524	5,606
September	1,422	17	18	2,551	--	619	443	5,070
October	1,425	25	--	2,154	--	702	408	4,713
November	1,685	76	23	1,961	--	702	439	4,887
December	1,955	100	31	2,322	--	716	447	5,571
2010								
January	2,144	116	24	2,600	1	657	398	5,940
February	1,894	100	21	2,372	1	641	340	5,369
March	1,658	25	27	2,320	1	752	403	5,186
April	1,278	36	16	2,114	1	760	456	4,661
May	1,318	50	--	1,949	1	947	644	4,909
June	1,531	51	--	2,060	1	715	501	4,859
July	1,628	152	--	2,866	1	682	505	5,833
August	1,727	110	21	3,226	1	711	532	6,327
September	1,476	37	20	2,623	1	601	431	5,189
October	1,320	17	23	2,583	1	489	455	4,887
November	1,418	30	30	2,436	1	446	342	4,704
December	1,825	123	34	2,642	1	516	327	5,467
2011								
January	1,966	310	26	2,275	1	542	348	5,469
February	1,770	91	21	1,857	1	511	376	4,627
March	1,665	33	25	1,771	1	554	529	4,579
April	1,263	9	--	1,657	1	562	428	3,921
May	1,306	29	--	1,817	1	612	535	4,301
June	1,378	15	--	1,778	1	664	568	4,404
July	1,534	37	--	2,435	1	623	521	5,152
August	1,372	33	--	2,442	1	726	580	5,154
September	1,272	40	--	2,130	1	622	584	4,649
October	1,086	16	--	1,979	1	613	493	4,189
November	1,176	62	12	2,163	1	720	491	4,624
December	1,445	11	28	2,544	1	683	533	5,245

Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
Petroleum Liquids includes distillate and residual fuel oils, jet fuel, kerosene, waste oil, and beginning in 2011, propane. Prior to 2011 propane was included in Other Gases.
Petroleum Coke includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
Other Gas includes blast furnace gas and other manufactured and waste gases derived from fossil fuels. Prior to 2011, Other Gas included propane and synthesis gases.
See the Technical Notes for fuel conversion factors.
Other Renewable Sources include wood, black liquor, other wood waste, biogenic municipal solid waste, landfill gas, sludge waste, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic energy, and wind.
Other includes non-biogenic municipal solid waste, batteries, hydrogen, purchased steam, sulfur, tire-derived fuel, and other miscellaneous energy sources.
Notes: Beginning with 2001 data, non-biogenic municipal solid waste and tire-derived fuels are reclassified as non-renewable energy sources and included in Other. Biogenic municipal solid waste is included in Other Renewable Sources.
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Table 3.24. Useful Thermal Output by Energy Source: Industrial Combined Heat and Power, 2001 - 2011

(Billion Btus)

Period	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gas	Other Renewable Sources	Other	Total
Annual Totals								
2001	284,194	67,677	12,426	541,850	128,256	563,631	46,049	1,644,083
2002	278,351	57,394	8,820	458,336	111,552	552,056	38,731	1,505,240
2003	272,332	60,258	14,910	393,090	100,981	604,285	45,522	1,491,378
2004	290,407	70,976	14,008	392,974	107,956	641,058	35,284	1,552,663
2005	279,552	70,273	10,616	364,457	101,775	637,803	31,594	1,496,071
2006	272,229	47,320	21,584	376,822	103,481	662,906	38,630	1,522,971
2007	265,948	43,948	23,290	321,648	95,840	625,413	38,380	1,414,466
2008	255,032	22,253	16,733	284,980	88,571	584,216	12,821	1,264,606
2009	223,485	26,155	18,708	296,225	79,726	520,898	22,471	1,187,669
2010	242,762	14,366	20,124	307,931	71,719	555,804	18,382	1,231,088
2011	233,767	10,059	20,209	319,590	83,167	562,838	19,035	1,248,666
2009								
January	21,063	3,304	1,452	24,861	6,758	42,985	1,808	102,231
February	19,078	2,682	1,511	21,021	6,280	41,041	1,719	93,332
March	19,455	2,386	1,520	23,508	6,751	42,472	1,463	97,555
April	17,049	2,028	1,276	22,315	6,137	40,353	1,595	90,753
May	17,206	3,069	1,273	23,395	6,128	41,044	1,953	94,068
June	17,624	2,101	1,482	24,237	6,106	41,802	2,180	95,533
July	18,473	1,856	1,720	25,614	7,124	44,700	1,993	101,480
August	18,499	1,674	1,680	26,685	7,115	46,319	1,867	103,839
September	18,034	1,741	1,778	26,208	7,177	43,639	1,775	100,352
October	18,063	1,609	1,656	25,851	6,650	45,743	2,136	101,709
November	18,603	1,634	1,738	24,256	6,684	44,596	1,969	99,480
December	20,340	2,070	1,621	28,274	6,816	46,205	2,013	107,338
2010								
January	21,304	1,860	1,668	27,119	5,810	47,247	1,042	106,050
February	19,567	1,618	1,746	23,811	5,107	43,059	1,435	96,343
March	20,319	1,118	1,447	25,439	6,201	47,696	1,619	103,839
April	28,063	1,054	1,446	23,787	5,951	45,048	1,493	106,843
May	18,739	919	1,597	24,169	5,972	44,659	1,595	97,652
June	18,381	811	1,778	24,226	6,239	44,919	1,648	98,002
July	19,550	1,076	1,704	26,645	5,901	46,884	1,543	103,302
August	19,597	897	1,749	27,312	6,391	47,013	1,656	104,616
September	18,407	868	1,735	25,178	5,920	46,025	1,519	99,653
October	18,301	1,213	1,744	26,321	6,076	47,002	1,571	102,228
November	19,085	1,204	1,793	25,228	5,896	46,708	1,549	101,464
December	21,449	1,728	1,717	28,696	6,254	49,543	1,711	111,098
2011								
January	22,659	1,441	1,787	27,002	6,159	50,841	1,044	110,933
February	19,689	1,034	1,685	24,341	7,093	44,923	1,507	100,271
March	20,342	958	1,522	24,960	6,934	47,672	1,546	103,933
April	18,577	765	1,756	24,557	6,354	44,215	1,485	97,709
May	18,839	739	1,783	25,932	6,813	43,219	1,547	98,873
June	18,806	761	1,709	25,946	6,821	46,177	1,652	101,872
July	19,944	666	1,728	29,183	6,765	46,913	1,678	106,879
August	19,746	692	1,494	29,976	6,758	47,073	1,692	107,432
September	18,576	656	1,670	27,284	7,373	46,251	1,674	103,483
October	18,621	831	1,740	25,879	7,783	46,439	1,778	103,072
November	18,392	731	1,634	25,650	6,930	48,280	1,708	103,324
December	19,575	786	1,701	28,882	7,384	50,834	1,724	110,885

Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
Petroleum Liquids includes distillate and residual fuel oils, jet fuel, kerosene, waste oil, and beginning in 2011, propane. Prior to 2011 propane was included in Other Gases.
Petroleum Coke includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
Other Gas includes blast furnace gas and other manufactured and waste gases derived from fossil fuels. Prior to 2011, Other Gas included propane and synthesis gases.
See the Technical Notes for fuel conversion factors.
Other Renewable Sources include wood, black liquor, other wood waste, biogenic municipal solid waste, landfill gas, sludge waste, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic energy, and wind.
Other includes non-biogenic municipal solid waste, batteries, hydrogen, purchased steam, sulfur, tire-derived fuel, and other miscellaneous energy sources.
Notes: Beginning with 2001 data, non-biogenic municipal solid waste and tire-derived fuels are reclassified as non-renewable energy sources and included in Other. Biogenic municipal solid waste is included in Other Renewable Sources.
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Chapter 4

Generation Capacity

Table 4.1. Count of Electric Power Industry Power Plants, by Sector, by Predominant Energy Sources within Plant, 2002 through 2011

Year	Coal	Petroleum	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional	Other Renewables	Hydroelectric Pumped Storage	Other Energy Sources
Total (All Sectors)									
2002	633	1,147	1,649	40	66	1,426	682	38	28
2003	629	1,166	1,693	40	66	1,425	741	38	27
2004	625	1,143	1,670	46	66	1,425	749	39	28
2005	619	1,133	1,664	44	66	1,422	781	39	29
2006	616	1,148	1,659	46	66	1,421	843	39	29
2007	606	1,163	1,659	46	66	1,424	929	39	25
2008	598	1,170	1,655	43	66	1,423	1,076	39	29
2009	593	1,168	1,652	43	66	1,427	1,219	39	28
2010	580	1,169	1,657	48	66	1,432	1,355	39	32
2011	589	1,145	1,646	41	66	1,434	1,582	40	54
Electric Utilities									
2002	363	811	699	1	37	913	57	33	--
2003	359	827	715	1	37	912	64	33	1
2004	357	816	722	2	37	908	65	34	1
2005	353	813	743	1	37	906	71	34	1
2006	353	832	758	1	37	905	84	34	1
2007	351	851	767	1	37	904	93	34	1
2008	348	866	774	--	37	902	107	34	1
2009	340	855	768	--	34	887	129	34	1
2010	333	855	775	3	34	888	155	34	--
2011	332	828	777	--	34	884	189	35	1
Independent Power Producers, Non-Combined Heat and Power Plants									
2002	106	180	326	1	29	455	430	5	4
2003	99	182	350	--	29	456	468	5	2
2004	100	173	355	1	29	457	478	5	2
2005	101	170	357	2	29	456	502	5	2
2006	101	166	356	2	29	458	552	5	2
2007	101	166	364	1	29	462	625	5	1
2008	99	166	365	--	29	464	751	5	2
2009	100	173	377	1	32	485	868	5	2
2010	102	175	380	1	32	488	966	5	6
2011	98	166	373	--	32	490	1,106	5	12
Independent Power Producers, Combined Heat and Power Plants									
2002	44	15	169	2	--	--	28	--	--
2003	49	17	187	3	--	--	34	--	--
2004	48	15	180	3	--	--	30	--	--
2005	48	14	177	3	--	--	33	--	--
2006	50	15	173	4	--	--	32	--	--
2007	48	12	170	4	--	--	32	--	--
2008	47	12	169	3	--	--	36	--	--
2009	51	10	166	3	--	--	41	--	--
2010	48	10	161	2	--	--	41	--	--
2011	45	11	156	1	--	--	38	--	1
Commercial Sector									
2002	22	63	122	--	--	9	41	--	--
2003	22	65	121	--	--	9	44	--	--
2004	21	65	121	1	--	9	46	--	--
2005	20	64	113	1	--	9	48	--	--
2006	22	62	109	1	--	9	47	--	--
2007	20	64	106	1	--	9	47	--	1
2008	20	62	106	1	--	9	49	--	1
2009	18	68	107	1	--	9	47	--	1
2010	17	69	110	1	--	9	57	--	1
2011	22	80	118	--	--	10	105	--	2
Industrial Sector									
2002	98	71	317	36	--	49	125	--	24
2003	100	71	310	36	--	48	130	--	24
2004	99	74	292	39	--	51	130	--	25
2005	97	72	274	37	--	51	127	--	26
2006	90	73	263	38	--	49	128	--	26
2007	86	70	252	39	--	49	132	--	22
2008	84	64	241	39	--	48	133	--	25
2009	84	62	234	38	--	46	134	--	24
2010	80	60	231	41	--	47	136	--	25
2011	92	60	222	40	--	50	144	--	38

Notes: The number of power plants for each energy source is the number of sites for which the respective energy source was reported as the most predominant energy source for at least one of its generators. If all generators for a site have the same energy source reported as the most predominant, that site will be counted once under that energy source. However, if the most predominant energy source is not the same for all generators within a site, the site is counted more than once, based on the number of most predominant energy sources for generators at a site. In general, this table translates the number of generators by energy source into the number of sites represented by the generators for an energy source. Therefore, the count for Total (All Sectors) above is the sum of the counts for each sector by energy source and does not necessarily represent unique sites. In addition, changes to predominant energy sources and status codes from year to year may result in changes to previously-posted data.
Capacity by energy source is based on the capacity associated with the energy source reported as the most predominant (primary) one, where more than one energy source is associated with a generator.
In 2011, EIA corrected the NAICS codes of several plants which resulted in a net capacity shift from the electric utility sector to the commercial sector.
Source: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report.'

Table 4.2.A. Existing Net Summer Capacity by Energy Source and Producer Type, 2001 through 2011 (Megawatts)

Year	Coal	Petroleum	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional	Other Renewable Sources	Hydroelectric Pumped Storage	Other Energy Sources	Total
Total (All Sectors)										
2001	314,230	66,162	252,832	1,670	98,159	78,916	16,101	19,664	519	848,254
2002	315,350	59,651	312,512	2,008	98,657	79,356	16,710	20,371	686	905,301
2003	313,019	60,730	355,442	1,994	99,209	78,694	18,153	20,522	684	948,446
2004	313,020	59,119	371,011	2,296	99,628	77,641	18,717	20,764	746	962,942
2005	313,380	58,548	383,061	2,063	99,988	77,541	21,205	21,347	887	978,020
2006	312,956	58,097	388,294	2,256	100,334	77,821	24,113	21,461	882	986,215
2007	312,738	56,068	392,876	2,313	100,266	77,885	30,069	21,886	788	994,888
2008	313,322	57,445	397,460	1,995	100,755	77,930	38,466	21,858	942	1,010,171
2009	314,294	56,781	401,272	1,932	101,004	78,518	48,552	22,160	888	1,025,400
2010	316,800	55,647	407,028	2,700	101,167	78,825	53,811	22,199	884	1,039,062
2011	317,640	51,482	415,191	1,934	101,419	78,652	61,221	22,293	1,420	1,051,251
Electric Utilities										
2001	244,451	38,456	112,841	57	63,060	72,968	979	17,097	13	549,920
2002	244,056	33,876	127,692	61	63,202	73,391	989	17,807	--	561,074
2003	236,473	32,570	125,612	61	60,964	72,827	925	17,803	13	547,249
2004	235,976	31,415	131,734	58	60,651	71,696	960	18,048	13	550,550
2005	229,705	30,867	147,752	--	56,564	71,568	1,545	18,195	39	556,235
2006	230,644	30,419	157,742	104	56,143	71,840	2,291	18,301	39	567,523
2007	231,289	29,115	162,756	104	54,211	72,186	2,806	18,693	39	571,200
2008	231,857	30,657	173,106	--	54,376	72,142	4,066	18,664	39	584,908
2009	234,397	30,174	180,571	--	54,355	72,690	5,614	18,930	39	596,769
2010	235,707	28,972	184,231	539	54,369	72,974	6,316	18,969	--	602,076
2011	236,392	27,670	193,631	--	54,352	72,182	7,811	19,062	5	611,105
Independent Power Producers, Non-Combined Heat and Power Plants										
2001	60,701	25,311	102,693	--	35,099	4,885	9,894	2,567	79	241,230
2002	61,770	23,664	140,404	9	35,455	4,911	10,390	2,564	80	279,246
2003	66,538	26,028	178,624	6	38,244	5,058	11,786	2,719	46	329,049
2004	67,242	25,918	190,855	8	38,978	5,274	12,070	2,717	46	343,106
2005	73,734	26,041	188,043	12	43,424	5,284	13,864	3,152	46	353,601
2006	72,730	25,384	184,196	20	44,190	5,263	15,865	3,160	46	350,854
2007	71,943	24,818	184,888	8	46,055	5,346	21,002	3,193	26	357,278
2008	71,864	24,823	179,169	--	46,379	5,433	28,139	3,193	46	359,044
2009	70,123	24,657	176,035	8	46,649	5,470	36,556	3,230	46	362,773
2010	71,214	24,867	178,190	8	46,798	5,489	41,014	3,230	77	370,887
2011	72,120	22,399	176,517	--	47,067	5,539	46,698	3,230	169	373,739
Independent Power Producers, Combined Heat and Power Plants										
2001	4,628	972	21,226	287	--	1	498	--	28	27,639
2002	5,222	1,084	28,455	182	--	--	555	--	--	35,499
2003	5,534	1,051	34,895	185	--	1	665	--	--	42,332
2004	5,609	677	32,600	289	--	1	555	--	--	39,731
2005	5,560	530	31,740	289	--	1	614	--	--	38,735
2006	5,837	970	30,031	325	--	1	628	--	--	37,793
2007	5,885	907	29,468	339	--	--	656	--	--	37,254
2008	5,927	900	29,575	206	--	--	701	--	--	37,309
2009	5,940	897	28,875	206	--	--	740	--	--	36,658
2010	5,451	766	29,006	182	--	--	846	--	--	36,250
2011	5,146	317	29,373	30	--	--	793	--	53	35,712
Commercial Sector										
2001	295	299	1,950	--	--	22	348	--	--	2,912
2002	292	301	1,216	--	--	22	357	--	--	2,188
2003	347	343	994	--	--	22	371	--	--	2,077
2004	368	321	1,069	5	--	22	404	--	--	2,188
2005	397	333	1,024	5	--	25	435	--	--	2,219
2006	428	341	1,040	5	--	25	433	--	--	2,272
2007	428	348	1,064	5	--	22	443	--	3	2,312
2008	428	352	1,059	5	--	22	444	--	3	2,312
2009	424	348	1,105	5	--	22	480	--	3	2,386
2010	418	368	1,155	5	--	22	520	--	3	2,490
2011	436	406	1,283	--	--	234	694	--	4	3,056
Industrial Sector										
2001	4,156	1,124	14,123	1,327	--	1,041	4,382	--	399	26,553
2002	4,010	726	14,745	1,756	--	1,033	4,419	--	607	27,295
2003	4,127	738	15,316	1,742	--	786	4,406	--	625	27,740
2004	3,825	789	14,753	1,937	--	648	4,728	--	687	27,367
2005	3,984	777	14,501	1,757	--	662	4,747	--	802	27,230
2006	3,317	983	15,285	1,802	--	693	4,896	--	797	27,773
2007	3,194	880	14,699	1,858	--	331	5,163	--	720	26,844
2008	3,246	713	14,551	1,784	--	334	5,116	--	854	26,599
2009	3,412	704	14,686	1,714	--	337	5,162	--	800	26,815
2010	4,010	674	14,447	1,967	--	341	5,116	--	804	27,359
2011	3,547	690	14,389	1,904	--	697	5,225	--	1,188	27,639

Notes: Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011, coal-derived synthesis gas was included in Other Gases.
Petroleum includes distillate fuel oil (all diesel and No. 1, No. 2, and No. 4 fuel oils), residual fuel oil (No. 5 and No. 6 fuel oils and bunker C fuel oil), jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), waste oil, and beginning in 2011, synthetic gas and propane. Prior to 2011, synthetic gas and propane were included in Other Gases.
Other Gases also includes blast furnace gas. Prior to 2011, waste heat was included in Natural Gas.
Hydroelectric Conventional capacity includes conventional hydroelectric power excluding pumped storage facilities.
Other Renewable Sources include wood, black liquor, other wood waste, municipal solid waste, landfill gas, sludge waste, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic energy, and wind.
Other Energy Sources include batteries, hydrogen, purchased steam, sulfur, tire-derived fuels and other miscellaneous energy sources.
In 2011, EIA corrected the NAICS codes of several plants which resulted in a net capacity shift from the electric utility sector to the commercial sector.
Source: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report.'

Table 4.2.B. Existing Net Summer Capacity of Other Renewable Sources by Producer Type, 2001 through 2011 (Megawatts) (Page 1)

Year	Wind	Solar Thermal and Photovoltaic	Wood and Wood-Derived Fuels	Geothermal	Other Biomass	Total (Other Renewable Sources)
Total (All Sectors)						
2001	3,864	392	5,882	2,216	3,748	16,101
2002	4,417	397	5,844	2,252	3,800	16,710
2003	5,995	397	5,871	2,133	3,758	18,153
2004	6,456	398	6,182	2,152	3,529	18,717
2005	8,706	411	6,193	2,285	3,609	21,205
2006	11,329	411	6,372	2,274	3,727	24,113
2007	16,515	502	6,704	2,214	4,134	30,069
2008	24,651	536	6,864	2,229	4,186	38,466
2009	34,296	619	6,939	2,382	4,317	48,552
2010	39,135	866	7,037	2,405	4,369	53,811
2011	45,676	1,524	7,077	2,409	4,536	61,221
Electric Utilities						
2001	60	4	309	271	335	979
2002	111	9	248	271	350	989
2003	140	9	268	162	346	925
2004	326	10	313	152	160	960
2005	765	11	391	242	136	1,545
2006	1,441	11	428	240	172	2,291
2007	1,928	12	418	158	290	2,806
2008	3,190	14	427	159	276	4,066
2009	4,655	42	431	159	327	5,614
2010	5,338	79	414	159	325	6,316
2011	6,735	202	359	159	356	7,811
Independent Power Producers, Non-Combined Heat and Power Plants						
2001	3,804	388	1,178	1,945	2,580	9,894
2002	4,305	388	1,162	1,981	2,553	10,390
2003	5,855	388	1,121	1,972	2,450	11,786
2004	6,130	388	1,138	2,000	2,414	12,070
2005	7,941	400	1,033	2,044	2,447	13,864
2006	9,888	400	1,037	2,034	2,505	15,865
2007	14,587	489	1,066	2,056	2,803	21,002
2008	21,461	521	1,196	2,070	2,891	28,139
2009	29,640	575	1,220	2,223	2,898	36,556
2010	33,784	780	1,275	2,246	2,930	41,014
2011	38,912	1,263	1,313	2,250	2,961	46,698

Notes: Wood and wood-derived fuels include wood/wood waste solids (including paper pellets, railroad ties, utility poles, wood chips, bark, and wood waste solids), wood waste liquids (red liquor, sludge wood, spent sulfite liquor, and other wood-based liquids), and black liquor.
Other Biomass includes municipal solid waste, landfill gas, sludge waste, agricultural byproducts, other biomass solids, other biomass liquids, and other biomass gases (including digester gases, methane, and other biomass gases).
* = Value is less than half of the smallest unit of measure.
Capacity by energy source is based on the capacity associated with the energy source reported as the most predominant (primary) one, where more than one energy source is associated with a generator.
Source: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report.'

Table 4.2.B. Existing Net Summer Capacity of Other Renewable Sources by Producer Type, 2001 through 2011 (Megawatts) (Page 2)

Year	Wind	Solar Thermal and Photovoltaic	Wood and Wood-Derived Fuels	Geothermal	Other Biomass	Total (Other Renewable Sources)
Independent Power Producers, Combined Heat and Power Plants						
2001	--	--	144	--	354	498
2002	--	--	144	--	411	555
2003	--	--	204	--	461	665
2004	--	--	179	--	375	555
2005	--	--	218	--	395	614
2006	--	--	212	--	416	628
2007	--	--	210	--	446	656
2008	--	--	223	--	478	701
2009	--	--	237	--	503	740
2010	--	--	393	--	453	846
2011	--	--	356	--	437	793
Commercial Sector						
2001	--	--	6	--	342	348
2002	--	--	6	--	351	357
2003	--	--	7	--	364	371
2004	--	--	7	--	397	404
2005	--	--	7	--	428	435
2006	--	--	7	--	426	433
2007	--	--	8	--	435	443
2008	--	--	8	--	436	444
2009	1	*	8	--	471	480
2010	11	6	8	--	496	520
2011	25	54	8	--	608	694
Industrial Sector						
2001	--	--	4,245	--	138	4,382
2002	--	--	4,285	--	134	4,419
2003	--	--	4,271	--	136	4,406
2004	--	--	4,545	--	183	4,728
2005	--	--	4,545	--	202	4,747
2006	--	--	4,688	--	208	4,896
2007	--	1	5,002	--	160	5,163
2008	--	1	5,010	--	105	5,116
2009	--	1	5,043	--	118	5,162
2010	2	1	4,948	--	165	5,116
2011	4	4	5,041	--	175	5,225

Notes: Wood and wood-derived fuels include wood/wood waste solids (including paper pellets, railroad ties, utility poles, wood chips, bark, and wood waste solids), wood waste liquids (red liquor, sludge wood, spent sulfite liquor, and other wood-based liquids), and black liquor.
Other Biomass includes municipal solid waste, landfill gas, sludge waste, agricultural byproducts, other biomass solids, other biomass liquids, and other biomass gases (including digester gases, methane, and other biomass gases).
* = Value is less than half of the smallest unit of measure.
Capacity by energy source is based on the capacity associated with the energy source reported as the most predominant (primary) one, where more than one energy source is associated with a generator.
Source: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report.'

Table 4.3. Existing Capacity by Energy Source, 2011 (Megawatts)

Energy Source	Number of Generators	Generator Nameplate Capacity	Net Summer Capacity	Net Winter Capacity
Coal	1,400	343,757	317,640	320,185
Petroleum	3,738	57,537	51,208	55,179
Natural Gas	5,574	477,387	415,191	448,456
Other Gases	91	2,202	1,934	1,919
Nuclear	104	107,001	101,419	103,507
Hydroelectric Conventional	4,048	78,194	78,652	78,107
Wind	781	45,982	45,676	45,689
Solar Thermal and Photovoltaic	326	1,564	1,524	1,411
Wood and Wood-Derived Fuels	345	8,014	7,077	7,151
Geothermal	226	3,500	2,409	2,596
Other Biomass	1,660	5,192	4,536	4,600
Hydroelectric Pumped Storage	154	20,816	22,293	22,268
Other Energy Sources	81	1,697	1,420	1,424
Total	18,530	1,153,149	1,051,251	1,092,780

Notes: Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011, coal-derived synthesis gas was included in Other Gases.
Petroleum includes distillate fuel oil (all diesel and No. 1, No. 2, and No. 4 fuel oils), residual fuel oil (No. 5 and No. 6 fuel oils and bunker C fuel oil), jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), waste oil, and beginning in 2011, synthetic gas and propane. Prior to 2011, synthetic gas and propane were included in Other Gases.
Other Gases includes blast furnace gas. Prior to 2011, waste heat was included in Natural Gas.
Hydroelectric Conventional capacity includes conventional hydroelectric power excluding pumped storage facilities.
Wood and wood-derived fuels include wood/wood waste solids (including paper pellets, railroad ties, utility poles, wood chips, bark, and wood waste solids), wood waste liquids (red liquor, sludge wood, spent sulfite liquor, and other wood-based liquids), and black liquor.
Other Biomass include municipal solid waste, landfill gas, sludge waste, agricultural byproducts, other biomass solids, other biomass liquids, and other biomass gases (including digester gases, methane, and other biomass gases).
Hydroelectric Conventional capacity includes conventional hydroelectric power excluding pumped storage facilities.
Other Energy Sources include batteries, hydrogen, purchased steam, sulfur, tire-derived fuels and other miscellaneous energy sources.
Capacity by energy source is based on the capacity associated with the energy source reported as the most predominant (primary) one, where more than one energy source is associated with a generator.
In 2011, EIA corrected the NAICS codes of several plants which resulted in a net capacity shift from the electric utility sector to the commercial sector.
Source: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report.'

Table 4.4. Existing Capacity by Producer Type, 2011 (Megawatts)

Producer Type	Number of Generators	Generator Nameplate Capacity	Net Summer Capacity	Net Winter Capacity
Electric Power Sector				
Electric Utilities	9,571	666,103	611,105	632,377
Independent Power Producers, Non-Combined Heat and Power Plants	5,904	411,152	373,739	389,481
Independent Power Producers, Combined Heat and Power Plants	588	40,938	35,712	38,512
Total	16,063	1,118,193	1,020,555	1,060,370
Commercial and Industrial Sectors				
Commercial Sector	822	3,383	3,056	3,164
Industrial Sector	1,645	31,573	27,639	29,246
Total	2,467	34,956	30,696	32,410
All Sectors				
Total	18,530	1,153,149	1,051,251	1,092,780

Notes: In 2011, EIA corrected the NAICS codes of several plants which resulted in a net capacity shift from the electric utility sector to the commercial sector.
See Glossary reference for definitions.
Totals may not equal sum of components because of independent rounding.
In the case of some wind, solar and wave energy sites, the capacity for multiple generators is reported in a single generator record and is presented as a single generator in the generator count.
Capacity by energy source is based on the capacity associated with the energy source reported as the most predominant (primary) one, where more than one energy source is associated with a generator.
Source: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report.'

Table 4.5. Planned Generating Capacity Changes, by Energy Source, 2012-2016 (Page 1)

Energy Source	Generator Additions		Generator Retirements		Net Capacity Additions	
	Number of Generators	Net Summer Capacity	Number of Generators	Net Summer Capacity	Number of Generators	Net Summer Capacity
2012						
U.S. Total	564	27,288	156	11,471	408	15,817
Coal	8	4,196	54	8,825	-46	-4,629
Petroleum	18	317	33	1,191	-15	-874
Natural Gas	98	8,242	41	1,134	57	7,107
Other Gases	--	--	--	--	--	--
Nuclear	--	--	--	--	--	--
Hydroelectric Conventional	16	407	16	308	--	99
Wind	123	11,913	--	--	123	11,913
Solar Thermal and Photovoltaic	205	1,544	--	--	205	1,544
Wood and Wood-Derived Fuels	8	273	--	--	8	273
Geothermal	12	133	--	--	12	133
Other Biomass	71	164	12	12	59	152
Hydroelectric Pumped Storage	2	42	--	--	2	42
Other Energy Sources	3	57	--	--	3	57
2013						
U.S. Total	206	15,262	67	3,993	139	11,269
Coal	4	1,564	14	2,098	-10	-535
Petroleum	1	1	3	133	-2	-132
Natural Gas	50	7,521	31	1,419	19	6,102
Other Gases	--	--	--	--	--	--
Nuclear	--	--	--	--	--	--
Hydroelectric Conventional	8	338	12	337	-4	1
Wind	20	1,918	--	--	20	1,918
Solar Thermal and Photovoltaic	85	3,423	--	--	85	3,423
Wood and Wood-Derived Fuels	7	342	--	--	7	342
Geothermal	1	23	--	--	1	23
Other Biomass	26	93	7	6	19	87
Hydroelectric Pumped Storage	--	--	--	--	--	--
Other Energy Sources	2	22	--	--	2	22
2014						
U.S. Total	81	11,286	56	5,678	25	5,609
Coal	3	593	34	4,715	-31	-4,122
Petroleum	2	3	4	440	-2	-437
Natural Gas	39	7,486	8	409	31	7,077
Other Gases	1	3	1	4	--	-1
Nuclear	--	--	--	--	--	--
Hydroelectric Conventional	11	385	9	111	2	274
Wind	3	750	--	--	3	750
Solar Thermal and Photovoltaic	17	1,870	--	--	17	1,870
Wood and Wood-Derived Fuels	1	37	--	--	1	37
Geothermal	2	75	--	--	2	75
Other Biomass	2	85	--	--	2	85
Hydroelectric Pumped Storage	--	--	--	--	--	--
Other Energy Sources	--	--	--	--	--	--

Notes: These data reflect plans as of December 31, 2011.
Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011, coal-derived synthesis gas was included in Other Gases.
Petroleum includes distillate fuel oil (all diesel and No. 1, No. 2, and No. 4 fuel oils), residual fuel oil (No. 5 and No. 6 fuel oils and bunker C fuel oil), jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), waste oil, and beginning in 2011, synthetic gas and propane. Prior to 2011, synthetic gas and propane were included in Other Gases.
Other Gases also includes blast furnace gas. Prior to 2011, waste heat was included in Natural Gas.
Hydroelectric Conventional capacity includes conventional hydroelectric power excluding pumped storage facilities.
Wood and wood-derived fuels include wood/wood waste solids (including paper pellets, railroad ties, utility poles, wood chips, bark, and wood waste solids), wood waste liquids (red liquor, sludge wood, spent sulfite liquor, and other wood-based liquids), and black liquor.
Other Biomass include municipal solid waste, landfill gas, sludge waste, agricultural byproducts, other biomass solids, other biomass liquids, and other biomass gases (including digester gases, methane, and other biomass gases).
Hydroelectric Conventional capacity includes conventional hydroelectric power excluding pumped storage facilities.
Other Energy Sources include batteries, hydrogen, purchased steam, sulfur, tire-derived fuels and other miscellaneous energy sources.
Capacity by energy source is based on the capacity associated with the energy source reported as the most predominant (primary) one, where more than one energy source is associated with a generator.
In the case of wind, solar and wave energy sites, the capacity for multiple generators is reported in a single generator record and is presented as a single generator in the generator count.
Source: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report.'

Table 4.5. Planned Generating Capacity Changes, by Energy Source, 2012-2016 (Page 2)

Energy Source	Generator Additions		Generator Retirements		Net Capacity Additions	
	Number of Generators	Net Summer Capacity	Number of Generators	Net Summer Capacity	Number of Generators	Net Summer Capacity
2015						
U.S. Total	79	15,346	115	11,586	-36	3,760
Coal	2	482	59	8,845	-57	-8,363
Petroleum	--	--	15	709	-15	-709
Natural Gas	49	11,152	39	1,884	10	9,268
Other Gases	--	--	--	--	--	--
Nuclear	1	1,122	--	--	1	1,122
Hydroelectric Conventional	3	153	2	149	1	4
Wind	1	20	--	--	1	20
Solar Thermal and Photovoltaic	10	1,944	--	--	10	1,944
Wood and Wood-Derived Fuels	--	--	--	--	--	--
Geothermal	8	412	--	--	8	412
Other Biomass	5	61	--	--	5	61
Hydroelectric Pumped Storage	--	--	--	--	--	--
Other Energy Sources	--	--	--	--	--	--
2016						
U.S. Total	22	7,434	22	1,425	--	6,010
Coal	4	1,502	9	1,007	-5	495
Petroleum	1	680	7	185	-6	495
Natural Gas	8	2,214	5	129	3	2,085
Other Gases	--	--	--	--	--	--
Nuclear	1	1,100	--	--	1	1,100
Hydroelectric Conventional	1	122	1	104	--	18
Wind	2	500	--	--	2	500
Solar Thermal and Photovoltaic	5	1,317	--	--	5	1,317
Wood and Wood-Derived Fuels	--	--	--	--	--	--
Geothermal	--	--	--	--	--	--
Other Biomass	--	--	--	--	--	--
Hydroelectric Pumped Storage	--	--	--	--	--	--
Other Energy Sources	--	--	--	--	--	--
2012-2016						
U.S. Total	952	76,616	416	34,152	536	42,464
Coal	21	8,336	170	25,490	-149	-17,153
Petroleum	22	1,001	62	2,657	-40	-1,656
Natural Gas	244	36,614	124	4,975	120	31,639
Other Gases	1	3	1	4	--	-1
Nuclear	2	2,222	--	--	2	2,222
Hydroelectric Conventional	39	1,404	40	1,008	-1	396
Wind	149	15,102	--	--	149	15,102
Solar Thermal and Photovoltaic	322	10,097	--	--	322	10,097
Wood and Wood-Derived Fuels	16	652	--	--	16	652
Geothermal	23	642	--	--	23	642
Other Biomass	104	403	19	18	85	385
Hydroelectric Pumped Storage	2	42	--	--	2	42
Other Energy Sources	5	79	--	--	5	79

Notes: These data reflect plans as of December 31, 2011.
Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011, coal-derived synthesis gas was included in Other Gases.
Petroleum includes distillate fuel oil (all diesel and No. 1, No. 2, and No. 4 fuel oils), residual fuel oil (No. 5 and No. 6 fuel oils and bunker C fuel oil), jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), waste oil, and beginning in 2011, synthetic gas and propane. Prior to 2011, synthetic gas and propane were included in Other Gases.
Other Gases also includes blast furnace gas. Prior to 2011, waste heat was included in Natural Gas.
Hydroelectric Conventional capacity includes conventional hydroelectric power excluding pumped storage facilities.
Wood and wood-derived fuels include wood/wood waste solids (including paper pellets, railroad ties, utility poles, wood chips, bark, and wood waste solids), wood waste liquids (red liquor, sludge wood, spent sulfite liquor, and other wood-based liquids), and black liquor.
Other Biomass include municipal solid waste, landfill gas, sludge waste, agricultural byproducts, other biomass solids, other biomass liquids, and other biomass gases (including digester gases, methane, and other biomass gases).
Hydroelectric Conventional capacity includes conventional hydroelectric power excluding pumped storage facilities.
Other Energy Sources include batteries, hydrogen, purchased steam, sulfur, tire-derived fuels and other miscellaneous energy sources.
Capacity by energy source is based on the capacity associated with the energy source reported as the most predominant (primary) one, where more than one energy source is associated with a generator.
In the case of wind, solar and wave energy sites, the capacity for multiple generators is reported in a single generator record and is presented as a single generator in the generator count.
Source: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report.'

Table 4.6. Capacity Additions, Retirements and Changes by Energy Source, 2011 (Count, Megawatts)

	Generator Additions				Generator Retirements			
Energy Source	Number of Generators	Generator Nameplate Capacity	Net Summer Capacity	Net Winter Capacity	Number of Generators	Generator Nameplate Capacity	Net Summer Capacity	Net Winter Capacity
Coal	8	4,075	3,802	3,834	34	2,841	2,582	2,623
Petroleum	75	303	293	296	105	1,700	1,482	1,399
Natural Gas	113	10,755	9,672	10,394	62	2,624	2,017	1,909
Other Gases	1	3	3	3	4	28	26	26
Nuclear	--	--	--	--	--	--	--	--
Hydroelectric Conventional	26	161	161	161	4	122	123	123
Wind	91	6,204	6,192	6,190	1	3	3	3
Solar Thermal and Photovoltaic	133	637	639	622	1	2	2	2
Wood and Wood-Derived Fuels	5	126	124	124	8	63	54	44
Geothermal	5	7	3	4	4	5	3	4
Other Biomass	75	119	115	115	16	32	15	16
Hydroelectric Pumped Storage	--	--	--	--	--	--	--	--
Other Energy Sources	4	140	120	120	1	22	20	20
Total	536	22,529	21,123	21,863	240	7,440	6,326	6,168

	Net Changes to Existing Capacity			
Energy Source		Generator Nameplate Capacity	Net Summer Capacity	Net Winter Capacity
Coal		-452	-918	-768
Petroleum		-3,571	-3,250	-3,294
Natural Gas		4,237	2,424	3,271
Other Gases		-224	-204	-193
Nuclear		270	251	523
Hydroelectric Conventional		-49	-211	-400
Wind		265	352	316
Solar Thermal and Photovoltaic		17	20	20
Wood and Wood-Derived Fuels		2	-31	-23
Geothermal		--	5	6
Other Biomass		62	67	60
Hydroelectric Pumped Storage		277	94	204
Other Energy Sources		-1,643	-1,480	-1,599
Total		-504	-2,608	-1,588

Notes: Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011, coal-derived synthesis gas was included in Other Gases.
Petroleum includes distillate fuel oil (all diesel and No. 1, No. 2, and No. 4 fuel oils), residual fuel oil (No. 5 and No. 6 fuel oils and bunker C fuel oil), jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), waste oil, and beginning in 2011, synthetic gas and propane. Prior to 2011, synthetic gas and propane were included in Other Gases.
Other Gases also includes blast furnace gas and other manufactured and waste gases derived from fossil fuels. Prior to 2011, waste heat was included in Natural Gas.
Hydroelectric Conventional capacity includes conventional hydroelectric power excluding pumped storage facilities.
Wood and wood-derived fuels include wood/wood waste solids (including paper pellets, railroad ties, utility poles, wood chips, bark, and wood waste solids), wood waste liquids (red liquor, sludge wood, spent sulfite liquor, and other wood-based liquids), and black liquor.
Other Biomass include municipal solid waste, landfill gas, sludge waste, agricultural byproducts, other biomass solids, other biomass liquids, and other biomass gases (including digester gases, methane, and other biomass gases).
Other Energy Sources include batteries, hydrogen, purchased steam, sulfur, tire-derived fuels and other miscellaneous energy sources.
Capacity by energy source is based on the capacity associated with the energy source reported as the most predominant (primary) one, where more than one energy source is associated with a generator.
In the case of some wind, solar and wave energy sites, the capacity for multiple generators is reported in a single generator record and is presented as a single generator in the generator count.
Net Changes to Existing Capacity reflect generator additions, generator retirements, and changes to previosuly reported generator capacity.

Source: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report.'

Table 4.7. New U.S. Electric Generating Units by Operating Company, Plant, and Month, 2011

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (Megawatts)	Energy Source	Prime Mover
2011	1	1307	Basin Electric Power Coop	Electric Utility	Prairie Winds SD1	SD	56608	SD1	151.5	WND	WT
2011	1	57031	Beacon Power LLC	Electric Utility	Stephentown Spindle LLC	NY	57710	SRS1	20.0	MWH	FW
2011	1	2522	Buckeye Florida Ltd Partners	Industrial	Buckeye Florida LP	FL	50466	GEN6	15.0	BLQ	ST
2011	1	3179	Caterpillar Inc	Industrial	Caterpillar	IN	50935	ET3	2.5	DFO	IC
2011	1	56706	Chevron Technology Ventures	Electric Utility	Questa Solar Facility	NM	57369	QST	1.0	SUN	PV
2011	1	17833	City Utilities of Springfield - (MO)	Electric Utility	John Twitty Energy Center	MO	6195	ST2	279.0	SUB	ST
2011	1	18947	City of Tipton	Electric Utility	Tipton	IA	8106	5	2.0	DFO	IC
2011	1	18947	City of Tipton	Electric Utility	Tipton	IA	8106	6	2.0	DFO	IC
2011	1	4767	Dane County Public Works	Electric Utility	Dane County Landfill #2 Rodefeld	WI	55770	GEN6	0.8	LFG	IC
2011	1	4767	Dane County Public Works	Electric Utility	Dane County Landfill #2 Rodefeld	WI	55770	GEN7	0.8	LFG	IC
2011	1	15399	Iberdrola Renewables Inc	Electric Utility	Big Horn Wind II	WA	57319	1	50.0	WND	WT
2011	1	15399	Iberdrola Renewables Inc	Electric Utility	Hardscrabble Wind Power LLC	NY	57287	1	74.0	WND	WT
2011	1	56592	Idaho Wind Partners 1 LLC	Electric Utility	Golden Valley Wind Park LLC	ID	56435	GVWP	12.0	WND	WT
2011	1	56592	Idaho Wind Partners 1 LLC	Electric Utility	Oregon Trail Wind Park	ID	56439	OTWP	13.5	WND	WT
2011	1	56592	Idaho Wind Partners 1 LLC	Electric Utility	Pilgrim Stage Wind Park	ID	56440	PSWP	10.5	WND	WT
2011	1	56592	Idaho Wind Partners 1 LLC	Electric Utility	Thousand Springs Wind Park	ID	56442	TSWP	12.0	WND	WT
2011	1	56592	Idaho Wind Partners 1 LLC	Electric Utility	Tuana Gulch Wind Park	ID	56443	TGWP	10.5	WND	WT
2011	1	11249	Louisville Gas & Electric Co	Electric Utility	Trimble County	KY	6071	2	731.9	BIT	ST
2011	1	56815	NorthWestern Energy DGGS	Electric Utility	Dave Gates Generating Station	MT	56908	1	44.1	NG	GT
2011	1	56815	NorthWestern Energy DGGS	Electric Utility	Dave Gates Generating Station	MT	56908	2	44.1	NG	GT
2011	1	56815	NorthWestern Energy DGGS	Electric Utility	Dave Gates Generating Station	MT	56908	3	44.1	NG	GT
2011	1	55723	PPL Renewable Energy LLC	Electric Utility	PPL Frey Farm Landfill Wind	PA	57182	1	3.2	WND	WT
2011	1	15477	Public Service Elec & Gas Co	Electric Utility	Matrix Buildings A&B (Perth Amboy) Solar	NJ	57384	MATR	2.5	SUN	PV
2011	1	56715	Ridgewind Power Partners LLC	Electric Utility	Ridgewind	MN	57386	WTG1	25.3	WND	WT
2011	1	2770	Terra-Gen Operating Co LLC	Electric Utility	Alta Wind Energy Center I	CA	57282	AW01	150.0	WND	WT
2011	1	2770	Terra-Gen Operating Co LLC	Electric Utility	Alta Wind Energy Center II	CA	57291	AW02	150.0	WND	WT
2011	1	54842	WM Renewable Energy LLC	Electric Utility	Farmers Branch Renewable Energy Facility	TX	57165	GEN1	1.6	LFG	IC
2011	1	54842	WM Renewable Energy LLC	Electric Utility	Farmers Branch Renewable Energy Facility	TX	57165	GEN2	1.6	LFG	IC
2011	1	54842	WM Renewable Energy LLC	Electric Utility	Suburban Landfill Gas Recovery	OH	57170	GEN1	0.8	LFG	IC
2011	1	54842	WM Renewable Energy LLC	Electric Utility	Suburban Landfill Gas Recovery	OH	57170	GEN2	0.8	LFG	IC
2011	1	54842	WM Renewable Energy LLC	Electric Utility	Suburban Landfill Gas Recovery	OH	57170	GEN3	0.8	LFG	IC
2011	1	54842	WM Renewable Energy LLC	Electric Utility	Suburban Landfill Gas Recovery	OH	57170	GEN4	0.8	LFG	IC
2011	1	54842	WM Renewable Energy LLC	Electric Utility	Suburban Landfill Gas Recovery	OH	57170	GEN5	0.8	LFG	IC
2011	1	54842	WM Renewable Energy LLC	Electric Utility	Suburban Landfill Gas Recovery	OH	57170	GEN6	0.8	LFG	IC
2011	1	54842	WM Renewable Energy LLC	Electric Utility	Suburban Landfill Gas Recovery	OH	57170	GEN7	0.8	LFG	IC
2011	1	20847	Wisconsin Electric Power Co	Electric Utility	Elm Road Generating Station	WI	56068	2	633.8	BIT	ST
2011	2	57314	ADA Carbon Solutions LLC	Industrial	ADA Carbon Solutions Red River	LA	57938	GEN1	20.5	WH	ST
2011	2	56953	Bos Dairy, LLC	Industrial	Bos Dairy, LLC	IN	57625	BOS2	0.6	OBG	IC
2011	2	56921	Charleston Clean Energy LLC	Electric Utility	The Charleston Clean Energy Facility	WV	57587	1	1.1	LFG	IC
2011	2	56921	Charleston Clean Energy LLC	Electric Utility	The Charleston Clean Energy Facility	WV	57587	2	1.1	LFG	IC
2011	2	34505	Edison Mission Energy	Electric Utility	Big Sky Wind LLC	IL	57135	1	240.0	WND	WT
2011	2	34505	Edison Mission Energy	Electric Utility	Laredo Ridge Wind LLC	NE	57262	1	79.9	WND	WT
2011	2	5701	El Paso Electric Co	Electric Utility	Newman	TX	3456	5CA1	141.9	NG	CA
2011	2	56592	Idaho Wind Partners 1 LLC	Electric Utility	Burley Butte Windpark	ID	56434	BBWP	13.5	WND	WT
2011	2	56592	Idaho Wind Partners 1 LLC	Electric Utility	Milner Dam Wind Park LLC	ID	56437	MDWP	19.5	WND	WT
2011	2	56832	Kit Carson Electric Coop, Inc	Commercial	KTAOS Solar Carport	NM	57510	1	0.1	SUN	PV
2011	2	12119	McGrath Light & Power Co	Electric Utility	McGrath	AK	6555	4A	0.5	DFO	IC
2011	2	13504	New Hanover County	Electric Utility	New Hanover County WASTEC	NC	50271	1TGB	2.0	MSW	ST
2011	2	17543	South Carolina Pub Serv Auth	Electric Utility	Berkeley County Landfill	SC	57945	B1	1.6	LFG	IC
2011	2	17543	South Carolina Pub Serv Auth	Electric Utility	Berkeley County Landfill	SC	57945	B2	1.6	LFG	IC
2011	2	2770	Terra-Gen Operating Co LLC	Electric Utility	Alta Wind Energy Center III	CA	57292	AW03	150.0	WND	WT
2011	2	2782	Terra-Gen Operating Company	Electric Utility	Beowawe Power	NV	10287	GEN2	1.3	GEO	BT
2011	2	20856	Wisconsin Power & Light Co	Electric Utility	Bent Tree Wind Farm Phase 1	MN	57198	1	200.0	WND	WT
2011	3	55963	AE Power Services LLC	Electric Utility	Cedar Creek II	CO	57210	1	250.8	WND	WT
2011	3	56713	Adams Wind Generations LLC	Electric Utility	Adams Wind Generations LLC	MN	57375	AWG	20.0	WND	WT
2011	3	56814	Black Creek Renewable Energy LLC	Electric Utility	Sampson County Landfill	NC	57492	GEN1	1.6	LFG	IC
2011	3	56814	Black Creek Renewable Energy LLC	Electric Utility	Sampson County Landfill	NC	57492	GEN2	1.6	LFG	IC
2011	3	56814	Black Creek Renewable Energy LLC	Electric Utility	Sampson County Landfill	NC	57492	GEN3	1.6	LFG	IC
2011	3	56814	Black Creek Renewable Energy LLC	Electric Utility	Sampson County Landfill	NC	57492	GEN4	1.6	LFG	IC
2011	3	2172	Brazos Electric Power Coop Inc	Electric Utility	Jack County	TX	55230	CT3	165.0	NG	CT
2011	3	2172	Brazos Electric Power Coop Inc	Electric Utility	Jack County	TX	55230	CT4	165.0	NG	CT
2011	3	2172	Brazos Electric Power Coop Inc	Electric Utility	Jack County	TX	55230	ST2	290.5	NG	CA
2011	3	56608	Calpine Mid-Merit LLC	Electric Utility	York Energy Center	PA	55524	CTG1	113.0	NG	CT
2011	3	56608	Calpine Mid-Merit LLC	Electric Utility	York Energy Center	PA	55524	CTG2	122.0	NG	CT
2011	3	56608	Calpine Mid-Merit LLC	Electric Utility	York Energy Center	PA	55524	CTG3	122.0	NG	CT
2011	3	56608	Calpine Mid-Merit LLC	Electric Utility	York Energy Center	PA	55524	STG1	188.0	NG	CA
2011	3	3265	Cleco Power LLC	Electric Utility	Teche	LA	1400	4	34.0	NG	GT
2011	3	56769	Consolidated Edison Development Inc.	Electric Utility	Dartmouth Solar	MA	57473	DSMA	1.6	SUN	PV
2011	3	56976	Constellation Solar New Jersey II, LLC	Electric Utility	Johnson Matthey, Inc. Solar	NJ	57723	PV1	4.0	SUN	PV
2011	3	56721	Danielson Wind Farms LLC	Electric Utility	Danielson Wind Farms LLC	MN	57396	DWF	20.0	WND	WT
2011	3	56728	Dow Jones & Co	Electric Utility	Dow Jones South Brunswick Solar	NJ	57397	PV02	1.6	SUN	PV
2011	3	15399	Iberdrola Renewables Inc	Electric Utility	Juniper Canyon I Wind Project	WA	57320	1	151.2	WND	WT
2011	3	15399	Iberdrola Renewables Inc	Electric Utility	Leaning Juniper Wind Power II	OR	57333	1	201.0	WND	WT
2011	3	56338	Kahuku Wind Power LLC	Electric Utility	Kahuku Wind Power LLC	HI	57087	1	30.0	WND	WT
2011	3	56681	Kent County Levy Court Dept of Pub Work	Electric Utility	Kent County Wastewater Treatment Solar	DE	57330	1	1.2	SUN	PV
2011	3	11208	Los Angeles Department of Water & Power	Commercial	1420 Coil Av #C	CA	57310	1	1.2	SUN	PV
2011	3	56779	Martins Creek Solar NC, LLC	Electric Utility	Martins Creek Solar NC, LLC	NC	57461	1	0.9	SUN	PV
2011	3	35120	Norit Americas Inc	Industrial	Norit Americas Marshall Plant	TX	54972	8512	2.0	LIG	ST
2011	3	14328	Pacific Gas & Electric Co	Electric Utility	Humboldt Bay	CA	246	IC3	16.7	NG	IC
2011	3	24210	Riverbay Corp	Commercial	Riverbay	NY	52168	GEN2	13.8	NG	CA
2011	3	24210	Riverbay Corp	Commercial	Riverbay	NY	52168	GEN3	11.1	NG	CT
2011	3	24210	Riverbay Corp	Commercial	Riverbay	NY	52168	GEN4	11.1	NG	CT
2011	3	56993	SBS Energy Partners LLC	Electric Utility	Seabrook Solar Plant	NJ	57667	SBS1	3.2	SUN	PV
2011	3	56892	Solar Star Colorado II LLC	Electric Utility	AFA Solar Farm	CO	57554	AFA1	5.5	SUN	PV
2011	3	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #03	CA	57217	S003A	0.5	SUN	PV
2011	3	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #03	CA	57217	S003B	0.5	SUN	PV
2011	3	17897	St Mary's Hospital	Commercial	Saint Marys Hospital Power Plant	MN	54262	7	2.5	DFO	IC
2011	3	54842	WM Renewable Energy LLC	Electric Utility	Waste Management Piedmont LFGTE Project	NC	57169	GEN1	0.8	LFG	IC

Table 4.7. New U.S. Electric Generating Units by Operating Company, Plant, and Month, 2011

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (Megawatts)	Energy Source	Prime Mover
2011	3	54842	WM Renewable Energy LLC	Electric Utility	Waste Management Piedmont LFGTE Project	NC	57169	GEN2	0.8	LFG	IC
2011	3	54842	WM Renewable Energy LLC	Electric Utility	Waste Management Piedmont LFGTE Project	NC	57169	GEN3	0.8	LFG	IC
2011	3	56899	Wind Stream Operations LLC	Electric Utility	GE 1 6 100 Prototype	CA	57566	1.6PR	1.6	WND	WT
2011	4	57308	Amonix UASTP Solar Generation 1 LLC	Electric Utility	Amonix UASTP Solar Power Station	AZ	57930	UAST	1.9	SUN	PV
2011	4	56777	Avidan Energy Solutions	Electric Utility	145 Talmadge Solar	NJ	57458	1	3.8	SUN	PV
2011	4	3179	Caterpillar Inc	Industrial	Caterpillar	IN	50935	ET1	2.0	NG	IC
2011	4	3179	Caterpillar Inc	Industrial	Caterpillar	IN	50935	ET2	2.0	NG	IC
2011	4	14840	City of Peru - (IL)	Electric Utility	Peru	IL	955	11	2.7	DFO	IC
2011	4	14840	City of Peru - (IL)	Electric Utility	Peru	IL	955	12	2.7	DFO	IC
2011	4	14840	City of Peru - (IL)	Electric Utility	Peru	IL	955	13	2.7	DFO	IC
2011	4	14840	City of Peru - (IL)	Electric Utility	Peru	IL	955	14	2.7	DFO	IC
2011	4	14840	City of Peru - (IL)	Electric Utility	Peru	IL	955	15	2.7	DFO	IC
2011	4	16088	City of Riverside - (CA)	Electric Utility	Riverside Energy Resource Center	CA	56143	3	48.0	NG	GT
2011	4	16088	City of Riverside - (CA)	Electric Utility	Riverside Energy Resource Center	CA	56143	4	48.0	NG	GT
2011	4	55858	Energy Developments Inc	Electric Utility	Carbon Limestone	OH	56868	15	1.4	LFG	IC
2011	4	55858	Energy Developments Inc	Electric Utility	Carbon Limestone	OH	56868	16	1.4	LFG	IC
2011	4	56615	First Solar Energy LLC	Electric Utility	Albuquerque Solar Energy Center	NM	57567	ASEC1	2.0	SUN	PV
2011	4	6738	Franklin Heating Station	Commercial	Franklin Heating Station	MN	54224	DG5	2.0	DFO	IC
2011	4	56592	Idaho Wind Partners 1 LLC	Electric Utility	Salmon Falls Wind Park	ID	56441	SFWP	21.0	WND	WT
2011	4	57143	Mountain View-Los Altos HS District	Commercial	LAHS PV System	CA	57826	LAHS	0.4	SUN	PV
2011	4	57097	Oak Grove Management Co LLC	Electric Utility	Oak Grove	TX	6180	OG2	825.0	LIG	ST
2011	4	14624	PUD No 2 of Grant County	Electric Utility	Wanapum	WA	3888	7A	122.0	WAT	HY
2011	4	56776	Seneca Sustainable Energy LLC	Industrial	Seneca Sustainable Energy LLC	OR	57457	1	19.8	WDS	ST
2011	4	2770	Terra-Gen Operating Co LLC	Electric Utility	Alta Wind Energy Center IV	CA	57293	AW04	102.0	WND	WT
2011	4	2770	Terra-Gen Operating Co LLC	Electric Utility	Alta Wind Energy Center V	CA	57294	AW05	168.0	WND	WT
2011	4	19391	UGI Development Co	Electric Utility	Crayola Solar Project	PA	57216	2	1.0	SUN	PV
2011	5	56685	Cargill Inc	Industrial	Cargill Kettle Butte Biofactory	ID	57345	1	0.9	OBG	IC
2011	5	56685	Cargill Inc	Industrial	Cargill Kettle Butte Biofactory	ID	57345	2	0.9	OBG	IC
2011	5	56662	Cedar Point LLC	Electric Utility	Cedar Point Wind	CO	57315	1-139	243.0	WND	WT
2011	5	56795	Chittenden County Solar Partners LLC	Electric Utility	Chittenden County Solar Partners	VT	57481	1	2.2	SUN	PV
2011	5	5529	City of Durant	Electric Utility	Durant	IA	6220	8	2.6	DFO	IC
2011	5	10650	City of Lamoni	Electric Utility	Lamoni Municipal Utilities	IA	1155	7	2.3	DFO	IC
2011	5	10650	City of Lamoni	Electric Utility	Lamoni Municipal Utilities	IA	1155	8	2.3	DFO	IC
2011	5	14199	City of Osage City	Electric Utility	Osage City	KS	1313	IC3	1.9	NG	IC
2011	5	56769	Consolidated Edison Development Inc.	Electric Utility	Murray Hill Solar	NJ	57471	MHNJ	1.0	SUN	PV
2011	5	56218	Coolidge Power LLC	Electric Utility	Coolidge Generation Station	AZ	56948	1	43.4	NG	GT
2011	5	56218	Coolidge Power LLC	Electric Utility	Coolidge Generation Station	AZ	56948	10	43.4	NG	GT
2011	5	56218	Coolidge Power LLC	Electric Utility	Coolidge Generation Station	AZ	56948	11	43.4	NG	GT
2011	5	56218	Coolidge Power LLC	Electric Utility	Coolidge Generation Station	AZ	56948	12	43.4	NG	GT
2011	5	56218	Coolidge Power LLC	Electric Utility	Coolidge Generation Station	AZ	56948	2	43.4	NG	GT
2011	5	56218	Coolidge Power LLC	Electric Utility	Coolidge Generation Station	AZ	56948	3	43.4	NG	GT
2011	5	56218	Coolidge Power LLC	Electric Utility	Coolidge Generation Station	AZ	56948	4	43.4	NG	GT
2011	5	56218	Coolidge Power LLC	Electric Utility	Coolidge Generation Station	AZ	56948	5	43.4	NG	GT
2011	5	56218	Coolidge Power LLC	Electric Utility	Coolidge Generation Station	AZ	56948	6	43.4	NG	GT
2011	5	56218	Coolidge Power LLC	Electric Utility	Coolidge Generation Station	AZ	56948	7	43.4	NG	GT
2011	5	56218	Coolidge Power LLC	Electric Utility	Coolidge Generation Station	AZ	56948	8	43.4	NG	GT
2011	5	56218	Coolidge Power LLC	Electric Utility	Coolidge Generation Station	AZ	56948	9	43.4	NG	GT
2011	5	34505	Edison Mission Energy	Electric Utility	Community Wind North LLC	MN	57385	34505	30.0	WND	WT
2011	5	6452	Florida Power & Light Co	Electric Utility	West County Energy Center	FL	56407	3A	232.0	NG	CT
2011	5	6452	Florida Power & Light Co	Electric Utility	West County Energy Center	FL	56407	3B	244.0	NG	CT
2011	5	6452	Florida Power & Light Co	Electric Utility	West County Energy Center	FL	56407	3C	232.0	NG	CT
2011	5	6452	Florida Power & Light Co	Electric Utility	West County Energy Center	FL	56407	3ST	523.0	NG	CA
2011	5	55938	Industrial Power Generating Company LLC	Electric Utility	New Bern	NC	56688	13	0.3	LFG	IC
2011	5	55938	Industrial Power Generating Company LLC	Electric Utility	New Bern	NC	56688	14	0.3	LFG	IC
2011	5	55938	Industrial Power Generating Company LLC	Electric Utility	New Bern	NC	56688	15	0.3	LFG	IC
2011	5	55938	Industrial Power Generating Company LLC	Electric Utility	New Bern	NC	56688	16	0.3	LFG	IC
2011	5	55938	Industrial Power Generating Company LLC	Electric Utility	New Bern	NC	56688	17	0.3	LFG	IC
2011	5	55938	Industrial Power Generating Company LLC	Electric Utility	New Bern	NC	56688	18	0.3	LFG	IC
2011	5	11118	Lockhart Power Co	Electric Utility	Wellford Renewable Energy Plant	SC	57885	LFG1	1.6	LFG	IC
2011	5	11204	Los Alamos County	Electric Utility	Abiquiu Dam	NM	7789	3	3.0	WAT	HY
2011	5	57226	MM Taunton Energy LLC	Electric Utility	MM Taunton Energy	MA	55093	UNT3	0.9	LFG	IC
2011	5	57226	MM Taunton Energy LLC	Electric Utility	MM Taunton Energy	MA	55093	UNT4	0.9	LFG	IC
2011	5	11806	Massachusetts Mun Wholes Electric Co	Electric Utility	Berkshire Wind Power Project	MA	57721	BWP	15.0	WND	WT
2011	5	56816	Masser Farms Realty Ltd	Electric Utility	Masser Farms Realty Solar	PA	57494	MFRS	1.0	SUN	PV
2011	5	12119	McGrath Light & Power Co	Electric Utility	McGrath	AK	6555	3A	0.5	DFO	IC
2011	5	56829	McKinney LFG LLC	Electric Utility	McKinney LFG	TX	57508	GEN1	1.3	LFG	IC
2011	5	56829	McKinney LFG LLC	Electric Utility	McKinney LFG	TX	57508	GEN2	1.3	LFG	IC
2011	5	56409	Milford Wind Corridor Stage II LLC	Electric Utility	Milford Wind Corridor Stage II LLC	UT	57107	1	102.0	WND	WT
2011	5	57143	Mountain View-Los Altos HS District	Commercial	MVHS PV System	CA	57825	MVHS	0.7	SUN	PV
2011	5	57001	Murphy Farm Power, LLC	Electric Utility	Murphy Farm Power, LLC	NC	57677	1	0.9	SUN	PV
2011	5	57049	NFI Solar LLC	Electric Utility	Maple Solar	NJ	57750	P1	1.6	SUN	PV
2011	5	13407	Nevada Power Co	Electric Utility	Harry Allen	NV	7082	5	151.6	NG	CT
2011	5	13407	Nevada Power Co	Electric Utility	Harry Allen	NV	7082	6	151.6	NG	CT
2011	5	13407	Nevada Power Co	Electric Utility	Harry Allen	NV	7082	7	119.6	NG	CA
2011	5	56984	Temescal Canyon RV, LLC	Electric Utility	Temescal Canyon RV, LLC	CA	57656	1	1.5	SUN	PV
2011	5	9442	Town of Ipswich	Electric Utility	Ipswich Wind Turbine	MA	57855	1	1.6	WND	WT
2011	5	19876	Virginia Electric & Power Co	Electric Utility	Bear Garden	VA	56807	1A	165.0	NG	CT
2011	5	19876	Virginia Electric & Power Co	Electric Utility	Bear Garden	VA	56807	1B	170.0	NG	CT
2011	5	19876	Virginia Electric & Power Co	Electric Utility	Bear Garden	VA	56807	1C	254.0	NG	CA
2011	5	54842	WM Renewable Energy LLC	Electric Utility	Waste Management Naples LFGTE Project	FL	57168	GEN1	0.8	LFG	IC
2011	5	54842	WM Renewable Energy LLC	Electric Utility	Waste Management Naples LFGTE Project	FL	57168	GEN2	0.8	LFG	IC
2011	5	54842	WM Renewable Energy LLC	Electric Utility	Waste Management Naples LFGTE Project	FL	57168	GEN3	0.8	LFG	IC
2011	5	54842	WM Renewable Energy LLC	Electric Utility	Waste Management Naples LFGTE Project	FL	57168	GEN4	0.8	LFG	IC
2011	5	54842	WM Renewable Energy LLC	Electric Utility	Waste Management Naples LFGTE Project	FL	57168	GEN5	0.8	LFG	IC
2011	6	56761	6th St Solar Park of Gainesville FL	Electric Utility	6th St Solar Park of Gainesville FL	FL	57438	1	2.0	SUN	PV
2011	6	924	Associated Electric Coop, Inc	Electric Utility	Chouteau	OK	7757	4	165.0	NG	CT
2011	6	924	Associated Electric Coop, Inc	Electric Utility	Chouteau	OK	7757	5	165.0	NG	CT
2011	6	924	Associated Electric Coop, Inc	Electric Utility	Chouteau	OK	7757	6	165.0	NG	CA

Table 4.7. New U.S. Electric Generating Units by Operating Company, Plant, and Month, 2011

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (Megawatts)	Energy Source	Prime Mover
2011	6	57009	Blue Chip Energy LLC	Electric Utility	Rinehart	FL	57685	1	10.0	SUN	PV
2011	6	3453	Chevron Refinery-Hawaii	Industrial	Hawaii Cogen	HI	10194	GEN4	3.2	OG	GT
2011	6	8245	City of Hastings - (NE)	Electric Utility	Whelan Energy Center	NE	60	2	225.0	SUB	ST
2011	6	11740	City of Marshfield - (WI)	Electric Utility	Marshfield Utilities Gas Plant	WI	56480	M1	55.5	NG	GT
2011	6	56974	Denver Airport Solar, LLC	Electric Utility	City & County of Denver at Denver Int'l	CO	57645	PV1	3.4	SUN	PV
2011	6	56615	First Solar Energy LLC	Electric Utility	Los Lunas Solar Energy Center	NM	57571	LLSEC	5.0	SUN	PV
2011	6	56958	Foundation ST Owner, LLC	Electric Utility	Foundation ST	CA	57626	WTG1	2.0	WND	WT
2011	6	56354	GenConn Middletown LLC	Electric Utility	GenConn Middletown LLC	CT	57068	12	48.5	KER	GT
2011	6	56354	GenConn Middletown LLC	Electric Utility	GenConn Middletown LLC	CT	57068	13	48.5	KER	GT
2011	6	56354	GenConn Middletown LLC	Electric Utility	GenConn Middletown LLC	CT	57068	14	48.5	KER	GT
2011	6	56354	GenConn Middletown LLC	Electric Utility	GenConn Middletown LLC	CT	57068	15	48.5	KER	GT
2011	6	7349	Golden Spread Electric Cooperative, Inc	Electric Utility	Antelope Station	TX	57865	E01	8.9	NG	IC
2011	6	7349	Golden Spread Electric Cooperative, Inc	Electric Utility	Antelope Station	TX	57865	E02	8.9	NG	IC
2011	6	7349	Golden Spread Electric Cooperative, Inc	Electric Utility	Antelope Station	TX	57865	E03	8.9	NG	IC
2011	6	7349	Golden Spread Electric Cooperative, Inc	Electric Utility	Antelope Station	TX	57865	E04	8.9	NG	IC
2011	6	7349	Golden Spread Electric Cooperative, Inc	Electric Utility	Antelope Station	TX	57865	E05	8.9	NG	IC
2011	6	7349	Golden Spread Electric Cooperative, Inc	Electric Utility	Antelope Station	TX	57865	E06	8.9	NG	IC
2011	6	7349	Golden Spread Electric Cooperative, Inc	Electric Utility	Antelope Station	TX	57865	E07	8.9	NG	IC
2011	6	7349	Golden Spread Electric Cooperative, Inc	Electric Utility	Antelope Station	TX	57865	E08	8.9	NG	IC
2011	6	7349	Golden Spread Electric Cooperative, Inc	Electric Utility	Antelope Station	TX	57865	E09	8.9	NG	IC
2011	6	7349	Golden Spread Electric Cooperative, Inc	Electric Utility	Antelope Station	TX	57865	E10	8.9	NG	IC
2011	6	7349	Golden Spread Electric Cooperative, Inc	Electric Utility	Antelope Station	TX	57865	E11	8.9	NG	IC
2011	6	7349	Golden Spread Electric Cooperative, Inc	Electric Utility	Antelope Station	TX	57865	E12	8.9	NG	IC
2011	6	7349	Golden Spread Electric Cooperative, Inc	Electric Utility	Antelope Station	TX	57865	E13	8.9	NG	IC
2011	6	7349	Golden Spread Electric Cooperative, Inc	Electric Utility	Antelope Station	TX	57865	E14	8.9	NG	IC
2011	6	7349	Golden Spread Electric Cooperative, Inc	Electric Utility	Antelope Station	TX	57865	E15	8.9	NG	IC
2011	6	7349	Golden Spread Electric Cooperative, Inc	Electric Utility	Antelope Station	TX	57865	E16	8.9	NG	IC
2011	6	7349	Golden Spread Electric Cooperative, Inc	Electric Utility	Antelope Station	TX	57865	E17	8.9	NG	IC
2011	6	7349	Golden Spread Electric Cooperative, Inc	Electric Utility	Antelope Station	TX	57865	E18	8.9	NG	IC
2011	6	56926	Hatch Solar Energy Center I, LLC	Electric Utility	Hatch Solar Energy Center I, LLC	NM	57591	1	5.0	SUN	PV
2011	6	9617	JEA	Electric Utility	Greenland Energy Center	FL	56799	1	148.0	NG	GT
2011	6	9617	JEA	Electric Utility	Greenland Energy Center	FL	56799	2	148.0	NG	GT
2011	6	11118	Lockhart Power Co	Electric Utility	City West Diesel Plant	SC	57886	DI1	1.8	DFO	IC
2011	6	11118	Lockhart Power Co	Electric Utility	City West Diesel Plant	SC	57886	DI2	1.8	DFO	IC
2011	6	11118	Lockhart Power Co	Electric Utility	City West Diesel Plant	SC	57886	DI3	1.8	DFO	IC
2011	6	11118	Lockhart Power Co	Electric Utility	City West Diesel Plant	SC	57886	DI4	1.8	DFO	IC
2011	6	57049	NFI Solar LLC	Electric Utility	Vineland Headquarters	NJ	57742	VHQ	1.1	SUN	PV
2011	6	15458	PPL Holtwood LLC	Electric Utility	PPL Holtwood	PA	3145	HW11	1.3	WAT	HY
2011	6	15458	PPL Holtwood LLC	Electric Utility	PPL Holtwood	PA	3145	HW13	1.3	WAT	HY
2011	6	55723	PPL Renewable Energy LLC	Electric Utility	PPL Glendon LFGTE Plant	PA	57183	1	1.6	LFG	IC
2011	6	55723	PPL Renewable Energy LLC	Electric Utility	PPL Glendon LFGTE Plant	PA	57183	2	1.6	LFG	IC
2011	6	3046	Progress Energy Carolinas Inc	Electric Utility	Sherwood H Smith Jr Energy Complex	NC	7805	10	182.0	NG	CT
2011	6	3046	Progress Energy Carolinas Inc	Electric Utility	Sherwood H Smith Jr Energy Complex	NC	7805	9	182.0	NG	CT
2011	6	3046	Progress Energy Carolinas Inc	Electric Utility	Sherwood H Smith Jr Energy Complex	NC	7805	ST5	250.0	NG	CA
2011	6	15477	Public Service Elec & Gas Co	Electric Utility	Matrix Stults Road Solar Facility	NJ	57588	STULT	2.6	SUN	PV
2011	6	24210	Riverbay Corp	Commercial	Riverbay	NY	52168	U0007	1.5	DFO	IC
2011	6	57174	SX Landfill Energy LLC	Commercial	SX Landfill Energy LLC	NJ	57846	UNIT1	1.6	LFG	IC
2011	6	57174	SX Landfill Energy LLC	Commercial	SX Landfill Energy LLC	NJ	57846	UNIT2	1.6	LFG	IC
2011	6	57313	SolarCity Corporation	Commercial	Walmart Casa Grande	AZ	57939	1	0.5	SUN	PV
2011	6	57313	SolarCity Corporation	Commercial	Walmart Casa Grande	AZ	57939	2	1.0	SUN	PV
2011	6	17718	Southwestern Public Service Co	Electric Utility	Jones	TX	3482	3	171.0	NG	GT
2011	6	56856	Trexlertown Solar Array North and South	Industrial	Trexlertown Solar Array North and South	PA	57519	GEN1	2.0	SUN	PV
2011	6	57018	Turnbull Hydro LLC	Electric Utility	Turnbull Hydro	MT	57690	2	7.7	WAT	HY
2011	6	57046	University of Minnestoa Morris Campus	Commercial	UMM Wind Turbine	MN	57732	UMM1	0.6	WND	WT
2011	6	54842	WM Renewable Energy LLC	Electric Utility	Waste Management King George LFGTE	VA	57022	GEN4	2.9	LFG	GT
2011	6	56684	White Oak Energy LLC	Electric Utility	White Oak Energy LLC	IL	57342	1	150.0	WND	WT
2011	6	56599	Wind Energy America Inc	Electric Utility	L J Trust	IA	56216	LJT2	2.0	WND	WT
2011	7	56971	500 Virginia Solar, LP	Electric Utility	500 Virginia Solar	PA	57640	1	1.0	SUN	PV
2011	7	463	Ameresco LFG I Inc	Electric Utility	Al Turi	NY	10549	2	0.8	LFG	IC
2011	7	463	Ameresco LFG I Inc	Electric Utility	Al Turi	NY	10549	3	0.8	LFG	IC
2011	7	56991	Astoria Energy II LLC	Electric Utility	Astoria Energy II	NY	57664	CT3	156.0	NG	CT
2011	7	56991	Astoria Energy II LLC	Electric Utility	Astoria Energy II	NY	57664	CT4	156.0	NG	CT
2011	7	56991	Astoria Energy II LLC	Electric Utility	Astoria Energy II	NY	57664	ST2	228.0	NG	CA
2011	7	57345	Butte-Glenn Community College District	Commercial	Butte College Main Campus Solar	CA	57970	SOL1	2.9	SUN	PV
2011	7	12894	City of Moorhead - (MN)	Electric Utility	Moorhead	MN	1995	1	2.2	DFO	IC
2011	7	12894	City of Moorhead - (MN)	Electric Utility	Moorhead	MN	1995	2	2.2	DFO	IC
2011	7	12894	City of Moorhead - (MN)	Electric Utility	Moorhead	MN	1995	3	2.2	DFO	IC
2011	7	12894	City of Moorhead - (MN)	Electric Utility	Moorhead	MN	1995	4	2.2	DFO	IC
2011	7	12894	City of Moorhead - (MN)	Electric Utility	Moorhead	MN	1995	5	2.2	DFO	IC
2011	7	34505	Edison Mission Energy	Electric Utility	Taloga Wind LLC	OK	57261	1	130.0	WND	WT
2011	7	56280	Evergreen Wind Power III LLC	Electric Utility	Rollins Wind Project	ME	56990	1	60.0	WND	WT
2011	7	50158	Innovative Energy Systems Inc	Electric Utility	Chautauqua LFGTE Facility	NY	57186	GEN5	1.6	LFG	IC
2011	7	50158	Innovative Energy Systems Inc	Electric Utility	Chautauqua LFGTE Facility	NY	57186	GEN6	1.6	LFG	IC
2011	7	10376	Kissimmee Utility Authority	Electric Utility	Cane Island	FL	7238	4	160.0	NG	CT
2011	7	10376	Kissimmee Utility Authority	Electric Utility	Cane Island	FL	7238	4A	130.0	NG	CA
2011	7	55993	Kleen Energy Systems, LLC	Electric Utility	Kleen Energy Systems Project	CT	56798	ST	274.0	NG	CA
2011	7	55993	Kleen Energy Systems, LLC	Electric Utility	Kleen Energy Systems Project	CT	56798	U1	177.0	NG	CT
2011	7	55993	Kleen Energy Systems, LLC	Electric Utility	Kleen Energy Systems Project	CT	56798	U2	177.0	NG	CT
2011	7	56952	Lincoln Electric Company	Industrial	LE Wind Turbine 1	OH	57613	WTG1	2.5	WND	WT
2011	7	12745	Modesto Irrigation District	Electric Utility	Woodland	CA	7266	3A	8.2	NG	IC
2011	7	12745	Modesto Irrigation District	Electric Utility	Woodland	CA	7266	3B	8.2	NG	IC
2011	7	12745	Modesto Irrigation District	Electric Utility	Woodland	CA	7266	3C	8.2	NG	IC
2011	7	12745	Modesto Irrigation District	Electric Utility	Woodland	CA	7266	3D	8.2	NG	IC
2011	7	12745	Modesto Irrigation District	Electric Utility	Woodland	CA	7266	3E	8.2	NG	IC
2011	7	12745	Modesto Irrigation District	Electric Utility	Woodland	CA	7266	3F	8.2	NG	IC
2011	7	56936	Paulding Wind Farm II LLC	Electric Utility	Paulding Wind Farm II	OH	57620	GEN1	150.0	WND	WT
2011	7	56790	Ralls Wind Farm LLC	Electric Utility	Ralls Wind Farm	TX	57474	1	10.0	WND	WT
2011	7	18028	State of Wisconsin	Commercial	Capitol Heat and Power	WI	54406	P31	1.0	DFO	IC

Table 4.7. New U.S. Electric Generating Units by Operating Company, Plant, and Month, 2011

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (Megawatts)	Energy Source	Prime Mover
2011	7	18028	State of Wisconsin	Commercial	Capitol Heat and Power	WI	54406	P32	1.0	DFO	IC
2011	7	7209	The Gillette Company	Industrial	Gillette SBMC	MA	54225	CTG3	7.2	NG	GT
2011	7	57018	Turnbull Hydro LLC	Electric Utility	Turnbull Hydro	MT	57690	1	5.3	WAT	HY
2011	7	19391	UGI Development Co	Electric Utility	Hunlock Power Station	PA	3176	5	49.5	NG	CT
2011	7	19391	UGI Development Co	Electric Utility	Hunlock Power Station	PA	3176	6	49.8	NG	CT
2011	7	56757	Valley View Transmission LLC	Electric Utility	Valley View Transmission LLC	MN	57434	VVT	10.0	WND	WT
2011	7	54842	WM Renewable Energy LLC	Electric Utility	EKS Landfill	MN	54939	UNT4	1.5	LFG	IC
2011	7	54842	WM Renewable Energy LLC	Electric Utility	Eagle Valley	MI	57405	GEN1	1.6	LFG	IC
2011	7	54842	WM Renewable Energy LLC	Electric Utility	Eagle Valley	MI	57405	GEN2	1.6	LFG	IC
2011	7	57081	Washington Gas Energy Services, Inc.	Electric Utility	Perdue Bridgeville Photovoltaic	DE	57772	BRID	1.3	SUN	PV
2011	7	56673	White Oak Solar Energy LLC	Electric Utility	Dover Sun Park	DE	57337	1	10.0	SUN	PV
2011	8	19740	AES Wind Generation Inc	Electric Utility	Laurel Mountain	WV	57447	1	97.6	WND	WT
2011	8	56700	Avenal Solar Holdings LLC	Electric Utility	Avenal Park	CA	57359	1	6.0	SUN	PV
2011	8	56700	Avenal Solar Holdings LLC	Electric Utility	Sand Drag LLC	CA	57361	1	19.0	SUN	PV
2011	8	56700	Avenal Solar Holdings LLC	Electric Utility	Sun City Project LLC	CA	57360	1	20.0	SUN	PV
2011	8	57011	CS Murphy Point, LLC	Electric Utility	CS Murphy Point, LLC	NC	57687	1	0.9	SUN	PV
2011	8	590	City of Anaheim - (CA)	Electric Utility	Canyon Power Plant	CA	57027	CPP3	48.5	NG	GT
2011	8	590	City of Anaheim - (CA)	Electric Utility	Canyon Power Plant	CA	57027	CPP4	50.0	NG	GT
2011	8	15783	City of Redding	Electric Utility	Redding Power	CA	7307	6	39.0	NG	CT
2011	8	56769	Consolidated Edison Development Inc.	Electric Utility	Pilesgrove	NJ	57448	PILE	17.7	SUN	PV
2011	8	56615	First Solar Energy LLC	Electric Utility	Deming Solar Energy Center	NM	57575	DSEC	5.0	SUN	PV
2011	8	56615	First Solar Energy LLC	Electric Utility	Roadrunner Solar	NM	57338	1	20.0	SUN	PV
2011	8	8785	Homestretch Geothermal LLC	Electric Utility	Wabuska	NV	55988	4	0.4	GEO	ST
2011	8	8785	Homestretch Geothermal LLC	Electric Utility	Wabuska	NV	55988	6	0.4	GEO	ST
2011	8	8785	Homestretch Geothermal LLC	Electric Utility	Wabuska	NV	55988	7	0.4	GEO	ST
2011	8	12341	MidAmerican Energy Co	Electric Utility	Pomeroy Wind Farm	IA	56501	PWF4	29.9	WND	WT
2011	8	57284	Moorhead Public Service	Electric Utility	Centennial Generating Station	MN	57910	1	2.0	DFO	IC
2011	8	57284	Moorhead Public Service	Electric Utility	Centennial Generating Station	MN	57910	2	2.0	DFO	IC
2011	8	57284	Moorhead Public Service	Electric Utility	Centennial Generating Station	MN	57910	3	2.0	DFO	IC
2011	8	57284	Moorhead Public Service	Electric Utility	Centennial Generating Station	MN	57910	4	2.0	DFO	IC
2011	8	57284	Moorhead Public Service	Electric Utility	Centennial Generating Station	MN	57910	5	2.0	DFO	IC
2011	8	14328	Pacific Gas & Electric Co	Electric Utility	Westside Solar Station	CA	57499	1	15.0	SUN	PV
2011	8	57112	RE Ajo 1 LLC	Electric Utility	RE Ajo 1 LLC	AZ	57795	1	4.5	SUN	PV
2011	8	56603	Roth Rock Wind Farm LLC	Electric Utility	Roth Rock North Wind Farm, LLC	MD	57240	SRRNW	10.0	WND	WT
2011	8	56603	Roth Rock Wind Farm LLC	Electric Utility	Roth Rock Wind Farm LLC	MD	57239	SRRW1	40.0	WND	WT
2011	8	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #06	CA	57220	S006A	0.5	SUN	PV
2011	8	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #06	CA	57220	S006B	0.5	SUN	PV
2011	8	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #06	CA	57220	S006C	0.5	SUN	PV
2011	8	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #06	CA	57220	S006D	0.5	SUN	PV
2011	8	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #08	CA	57222	S008A	0.5	SUN	PV
2011	8	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #08	CA	57222	S008B	0.5	SUN	PV
2011	8	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #08	CA	57222	S008C	0.5	SUN	PV
2011	8	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #08	CA	57222	S008D	0.5	SUN	PV
2011	8	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #09	CA	57223	S009A	0.5	SUN	PV
2011	8	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #09	CA	57223	S009B	0.5	SUN	PV
2011	8	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #12	CA	57226	S012A	0.5	SUN	PV
2011	8	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #22	CA	57237	S022A	0.5	SUN	PV
2011	8	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #22	CA	57237	S022B	0.5	SUN	PV
2011	8	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #22	CA	57237	S022C	0.5	SUN	PV
2011	8	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #22	CA	57237	S022D	0.5	SUN	PV
2011	8	22035	Southwestern Bell Telephone Co	Commercial	Southwestern Bell Telephone	MO	54858	E/G6	2.8	DFO	IC
2011	8	22035	Southwestern Bell Telephone Co	Commercial	Southwestern Bell Telephone	MO	54858	E/G7	2.8	DFO	IC
2011	9	57077	Adams Electric Cooperative	Electric Utility	Brown County Wind Turbine	IL	57767	1	1.5	WND	WT
2011	9	803	Arizona Public Service Co	Electric Utility	Paloma Solar	AZ	57562	PV1	17.0	SUN	PV
2011	9	56148	Aspen Power LLC	Electric Utility	Aspen Biomass Power Plant	TX	56931	GEN7	50.0	WDS	ST
2011	9	56725	Avery Solar LLC	Electric Utility	Avery Solar	NC	57389	1	0.9	SUN	PV
2011	9	56778	Bloom Energy 2009 PPA	Electric Utility	Coca Cola American Canyon	CA	57807	COK01	1.0	NG	FC
2011	9	590	City of Anaheim - (CA)	Electric Utility	Canyon Power Plant	CA	57027	CPP1	50.0	NG	GT
2011	9	590	City of Anaheim - (CA)	Electric Utility	Canyon Power Plant	CA	57027	CPP2	48.5	NG	GT
2011	9	8847	City of Hopkinton	Electric Utility	Hopkinton	IA	8108	CAT	2.2	DFO	IC
2011	9	14840	City of Peru - (IL)	Electric Utility	Peru	IL	955	16	2.7	DFO	IC
2011	9	14840	City of Peru - (IL)	Electric Utility	Peru	IL	955	17	2.7	DFO	IC
2011	9	57017	DOE National Renewable Energy Laboratory	Commercial	DOE Golden NREL Main Campus	CO	57694	PARKL	0.5	SUN	PV
2011	9	57017	DOE National Renewable Energy Laboratory	Commercial	DOE Golden NWTC Turbine Side	CO	57693	ALSTO	3.0	WND	WT
2011	9	5065	Equistar Chemicals LP	Industrial	Lake Charles Polymers	LA	57884	G-900	11.5	NG	GT
2011	9	5065	Equistar Chemicals LP	Industrial	Lake Charles Polymers	LA	57884	G-901	8.0	NG	IC
2011	9	5065	Equistar Chemicals LP	Industrial	Lake Charles Polymers	LA	57884	G-902	8.0	NG	IC
2011	9	7349	Golden Spread Electric Cooperative, Inc	Electric Utility	Golden Spread Panhandle Wnd Rch	TX	57866	PWR	78.2	WND	WT
2011	9	8785	Homestretch Geothermal LLC	Electric Utility	Wabuska	NV	55988	5	0.4	GEO	ST
2011	9	57167	ISH Solar Hospitals LLC	Electric Utility	ISH Solar Hospital Downey	CA	57841	1	1.1	SUN	PV
2011	9	57083	Kingman Energy Corp	Electric Utility	Kingman 1	AZ	57775	PV	0.5	SUN	PV
2011	9	57083	Kingman Energy Corp	Electric Utility	Kingman 1	AZ	57775	WGNS	10.0	WND	WT
2011	9	57049	NFI Solar LLC	Electric Utility	Maple Solar	NJ	57750	P2	0.8	SUN	PV
2011	9	57052	NRG Solar Arrowhead LLC	Electric Utility	FedEx Field Solar Facility	MD	57747	1	2.0	SUN	PV
2011	9	14328	Pacific Gas & Electric Co	Electric Utility	CSU East Bay	CA	57042	1	1.4	NG	FC
2011	9	14328	Pacific Gas & Electric Co	Electric Utility	Five Points Solar Station	CA	57498	1	15.0	SUN	PV
2011	9	14328	Pacific Gas & Electric Co	Electric Utility	SF State University	CA	57043	1	0.2	NG	FC
2011	9	14328	Pacific Gas & Electric Co	Electric Utility	SF State University	CA	57043	2	1.4	NG	FC
2011	9	14328	Pacific Gas & Electric Co	Electric Utility	Stroud Solar Station	CA	57497	1	20.0	SUN	PV
2011	9	16098	Rio Grande Valley Sugar Growers, Inc.	Industrial	Rio Grande Valley Sugar Growers	TX	54338	GENE	1.4	DFO	IC
2011	9	57328	Shore Point Solar LLC	Electric Utility	Shore Point Solar	NJ	57951	1	1.0	SUN	PV
2011	9	57055	SunE SPS1, LLC	Electric Utility	SPS1 Dollarhide	NM	57736	1	10.0	SUN	PV
2011	9	57056	SunE SPS2, LLC	Electric Utility	SPS2 Jal	NM	57737	1	10.0	SUN	PV
2011	9	57081	Washington Gas Energy Services, Inc.	Electric Utility	Perdue Salisbury Photovoltaic	MD	57879	SALI	1.0	SUN	PV
2011	10	19740	AES Wind Generation Inc	Electric Utility	Laurel Mountain	WV	57447	2	32.0	MWH	BA
2011	10	56654	Carleton College	Commercial	Carleton College	MN	57296	WIND2	1.6	WND	WT
2011	10	57044	Constellation Solar New Jersey, LLC	Electric Utility	The City of Vineland at North Vineland	NJ	57746	PV1	2.3	SUN	PV
2011	10	57044	Constellation Solar New Jersey, LLC	Electric Utility	The City of Vineland at West Vineland	NJ	57745	PV1	3.7	SUN	PV

Table 4.7. New U.S. Electric Generating Units by Operating Company, Plant, and Month, 2011

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (Megawatts)	Energy Source	Prime Mover
2011	10	57017	DOE National Renewable Energy Laboratory	Commercial	DOE Golden NWTC Turbine Side	CO	57693	GAMES	2.0	WND	WT
2011	10	56215	E ON Climate Renewables N America Inc	Electric Utility	Settlers Trail Wind Farm LLC	IL	57493	STWF	150.4	WND	WT
2011	10	5906	EDF Renewable Services Inc	Electric Utility	Bellevue Solar Project	OR	57372	INV-1	1.6	SUN	PV
2011	10	5906	EDF Renewable Services Inc	Electric Utility	Lakefield Wind Project LLC	MN	57374	LAKE1	205.5	WND	WT
2011	10	5906	EDF Renewable Services Inc	Electric Utility	Yamhill Solar LLC	OR	57652	1	1.0	SUN	PV
2011	10	56615	First Solar Energy LLC	Electric Utility	Alamogordo Solar Energy Center	NM	57577	AGSEC	5.0	SUN	PV
2011	10	57113	ISH Solar Central, LLC	Electric Utility	ISH Solar Central, LLC	NJ	57799	1	1.4	SUN	PV
2011	10	57041	Idaho Winds LLC	Electric Utility	Sawtooth Wind Project	ID	57749	ST	22.4	WND	WT
2011	10	56663	Mayberry Solar LLC	Electric Utility	Mayberry Solar LLC	NC	57321	1PV	1.2	SUN	PV
2011	10	12981	Motiva Enterprises LLC	Industrial	Motiva Enterprises Port Arthur Refinery	TX	50973	GN44	36.1	NG	CT
2011	10	56990	NJR Clean Energy Ventures Corporation	Electric Utility	Vineland Mays Landing Soalr	NJ	57660	VNLND	5.7	SUN	PV
2011	10	10393	PUD No 1 of Klickitat County	Electric Utility	Roosevelt Biogas 1	WA	7832	7	10.0	LFG	CT
2011	10	10393	PUD No 1 of Klickitat County	Electric Utility	Roosevelt Biogas 1	WA	7832	8	10.0	LFG	CT
2011	10	10393	PUD No 1 of Klickitat County	Electric Utility	Roosevelt Biogas 1	WA	7832	9	6.0	LFG	CA
2011	10	57215	Regents of the University of Minnesota	Electric Utility	Eolos Wind Energy Research Field Station	MN	57880	1	2.5	WND	WT
2011	10	57054	Suzlon Project VIII LLC	Electric Utility	Suzlon Project VIII LLC	TX	57741	SP95	2.1	WND	WT
2011	10	57054	Suzlon Project VIII LLC	Electric Utility	Suzlon Project VIII LLC	TX	57741	SP97	2.1	WND	WT
2011	10	57147	Tioga Solar Dinuba	Commercial	Dinuba Wastewater Treatment Plant	CA	57827	DSPV	1.0	SUN	PV
2011	10	21964	University of New Mexico	Commercial	Ford Utilities Center	NM	50906	4	0.7	NG	ST
2011	10	56337	Vermont Wind LLC	Electric Utility	Sheffield Wind	VT	57080	1	40.0	WND	WT
2011	10	56874	Winona County Wind LLC	Electric Utility	Winona County Wind LLC	MN	57547	WCW	1.5	WND	WT
2011	11	55963	AE Power Services LLC	Electric Utility	Sherbino II	TX	57415	1	150.0	WND	WT
2011	11	56619	Air Force Ctr For Engin and Environ	Electric Utility	MA Military Reservation Wind Project	MA	57253	2	1.5	WND	WT
2011	11	56619	Air Force Ctr For Engin and Environ	Electric Utility	MA Military Reservation Wind Project	MA	57253	3	1.5	WND	WT
2011	11	803	Arizona Public Service Co	Electric Utility	Cotton Center Solar	AZ	57561	PV1	17.0	SUN	PV
2011	11	803	Arizona Public Service Co	Electric Utility	Hyder Solar	AZ	57563	PV1	11.0	SUN	PV
2011	11	1307	Basin Electric Power Coop	Electric Utility	Dry Fork Station	WY	56609	1	405.0	SUB	ST
2011	11	57047	BioFuels Point Loma LLC	Industrial	UCSD Fuel Cell Plant	CA	57735	UCSD	2.8	OBG	FC
2011	11	56543	Black Bear Hydro Partners LLC	Electric Utility	PPL Milford Hydro Station	ME	1475	MF01	0.7	WAT	HY
2011	11	56543	Black Bear Hydro Partners LLC	Electric Utility	PPL Milford Hydro Station	ME	1475	MF02	0.7	WAT	HY
2011	11	57128	Bloom Energy	Electric Utility	Franklin Templeton San Mateo	CA	57809	FRK00	1.0	NG	FC
2011	11	57191	Caney River Wind Project	Electric Utility	Caney River Wind Project	KS	57858	1	200.0	WND	WT
2011	11	7626	City of Greenfield	Electric Utility	North	IA	7856	3	2.2	DFO	IC
2011	11	7626	City of Greenfield	Electric Utility	North	IA	7856	4	2.2	DFO	IC
2011	11	5109	Detroit Edison Co	Electric Utility	Gratiot Wind Park	MI	57421	1	102.0	WND	WT
2011	11	5416	Duke Energy Carolinas, LLC	Electric Utility	Bridgewater	NC	2719	3	1.5	WAT	HY
2011	11	5416	Duke Energy Carolinas, LLC	Electric Utility	Buck	NC	2720	CT11	165.0	NG	CT
2011	11	5416	Duke Energy Carolinas, LLC	Electric Utility	Buck	NC	2720	CT12	165.0	NG	CT
2011	11	5416	Duke Energy Carolinas, LLC	Electric Utility	Buck	NC	2720	ST10	290.0	NG	CA
2011	11	5571	East Bay Municipal Util Dist	Electric Utility	Power Generation Station (PGS) 2	CA	57696	1	3.8	OBG	GT
2011	11	57327	Element US Power LLC	Electric Utility	Macho Springs Power I	NM	57947	GEN	50.4	WND	WT
2011	11	56925	FPLE Wind, LLC	Electric Utility	Minco Wind II, LLC	OK	57956	1	100.8	WND	WT
2011	11	56615	First Solar Energy LLC	Electric Utility	Las Vegas Solar Energy Center	NM	57576	LVSEC	5.0	SUN	PV
2011	11	57110	Foundation AB Owner LLC	Electric Utility	Foundation AB	CA	57791	WTG1	1.5	WND	WT
2011	11	56924	Long Island Solar Farm LLC	Electric Utility	Long Island Solar Farm LLC	NY	57589	9WUBN	31.5	SUN	PV
2011	11	57072	MFP CO III, LLC	Electric Utility	Arizona Western College PV	AZ	57765	GV1	0.5	SUN	PV
2011	11	57072	MFP CO III, LLC	Electric Utility	Arizona Western College PV	AZ	57765	GV2	0.5	SUN	PV
2011	11	57072	MFP CO III, LLC	Electric Utility	Arizona Western College PV	AZ	57765	SFC	1.0	SUN	PV
2011	11	57072	MFP CO III, LLC	Electric Utility	Arizona Western College PV	AZ	57765	SHP	0.9	SUN	PV
2011	11	57072	MFP CO III, LLC	Electric Utility	Arizona Western College PV	AZ	57765	STE	0.9	SUN	PV
2011	11	57072	MFP CO III, LLC	Electric Utility	Arizona Western College PV	AZ	57765	SWD	0.9	SUN	PV
2011	11	57030	Mesquite Solar 1, LLC	Electric Utility	Mesquite Solar 1	AZ	57707	1	16.0	SUN	PV
2011	11	12667	Minnesota Municipal Power Agny	Electric Utility	Oak Glen Wind Farm	MN	57432	1	44.0	WND	WT
2011	11	12981	Motiva Enterprises LLC	Industrial	Motiva Enterprises Port Arthur Refinery	TX	50973	GN42	36.1	NG	CT
2011	11	12981	Motiva Enterprises LLC	Industrial	Motiva Enterprises Port Arthur Refinery	TX	50973	GN43	36.1	NG	CT
2011	11	15477	Public Service Elec & Gas Co	Electric Utility	Mill Creek Solar	NJ	57728	MILLC	3.5	SUN	PV
2011	11	56783	Romark Logistics of PA Inc.	Electric Utility	Romark PA Solar	PA	57465	1	1.8	SUN	PV
2011	11	17470	Snohomish County PUD No 1	Electric Utility	Youngs Creek Hydroelectric Project	WA	57763	1	7.9	WAT	HY
2011	11	57057	SunE SPS3, LLC	Electric Utility	SPS3 Lea	NM	57738	1	10.0	SUN	PV
2011	11	57050	TPW Petersburg LLC	Electric Utility	TPW Petersburg	NE	57755	PETE	40.5	WND	WT
2011	11	56701	The Hankin Group	Electric Utility	Morgantown Solar Park	PA	57362	1	1.6	SUN	PV
2011	11	19728	UNS Electric, Inc	Electric Utility	La Senita	AZ	57556	1	1.0	SUN	PV
2011	11	56187	Verso Paper - Quinnesec	Industrial	Verso Paper Quinnesec Mich Mill	MI	50251	GEN2	31.0	WDS	ST
2011	11	54842	WM Renewable Energy LLC	Electric Utility	Chestnut Ridge Gas Recovery	TN	50570	GEN5	1.6	LFG	IC
2011	12	56753	AgPower Jerome LLC	Electric Utility	Double A Digester	ID	57425	1	1.5	OBG	IC
2011	12	56814	Black Creek Renewable Energy LLC	Electric Utility	Sampson County Landfill	NC	57492	GEN5	1.6	LFG	IC
2011	12	57128	Bloom Energy	Electric Utility	Lockheed Martin Sunnyvale	CA	57808	LOK00	1.0	NG	FC
2011	12	56945	Blue Canyon Windpower VI LLC	Electric Utility	Blue Canyon Windpower VI LLC	OK	57616	GEN1	100.0	WND	WT
2011	12	57029	Blue Water Renewables Inc	Electric Utility	St Clair	MI	57706	1	1.6	LFG	IC
2011	12	57029	Blue Water Renewables Inc	Electric Utility	St Clair	MI	57706	2	1.6	LFG	IC
2011	12	19454	City of Unalaska	Electric Utility	Dutch Harbor	AK	7502	13	3.7	DFO	IC
2011	12	56769	Consolidated Edison Development Inc.	Electric Utility	Flemington Solar	NJ	57485	FSNJ	7.9	SUN	PV
2011	12	56769	Consolidated Edison Development Inc.	Electric Utility	Frenchtown II Solar	NJ	57487	F2NJ	3.0	SUN	PV
2011	12	56769	Consolidated Edison Development Inc.	Electric Utility	Lebanon Solar	NJ	57488	LSNJ	2.0	SUN	PV
2011	12	56976	Constellation Solar New Jersey II, LLC	Electric Utility	Toys R Us- DE, Inc. at Mt. Olive, NJ	NJ	57647	PV1	2.4	SUN	PV
2011	12	56215	E ON Climate Renewables N America Inc	Electric Utility	Pioneer Trail Wind Farm, LLC	IL	57675	PTWF	150.4	WND	WT
2011	12	5906	EDF Renewable Services Inc	Electric Utility	Shiloh III Wind Project LLC	CA	57586	1	102.5	WND	WT
2011	12	56744	Elk Wind Energy LLC	Electric Utility	Elk Wind Farm	IA	57417	NORD	40.8	WND	WT
2011	12	55858	Energy Developments Inc	Electric Utility	Taylor	GA	56870	5	1.0	LFG	IC
2011	12	55858	Energy Developments Inc	Electric Utility	Taylor	GA	56870	6	1.0	LFG	IC
2011	12	55858	Energy Developments Inc	Electric Utility	Taylor	GA	56870	7	1.0	LFG	IC
2011	12	55858	Energy Developments Inc	Electric Utility	Taylor	GA	56870	8	1.0	LFG	IC
2011	12	56780	Enfinity BNB Napoleon Solar LLC	Electric Utility	Napoleon Solar I	OH	57462	1	9.3	SUN	PV
2011	12	49963	FPL Energy Operating Services, Inc.	Electric Utility	San Gorgonio Windplant WPP1993	CA	54454	GEN11	49.5	WND	WT
2011	12	57021	FRV AE Solar LLC	Electric Utility	Webberville Solar Project	TX	57699	AES1	30.0	SUN	PV
2011	12	57111	Foundation IE Owner, LLC	Electric Utility	Foundation IE	CA	57792	WTG1	1.0	WND	WT
2011	12	57127	GL Wind LLC	Electric Utility	GL Wind	MN	57813	TURB1	2.5	WND	WT
2011	12	57127	GL Wind LLC	Electric Utility	GL Wind	MN	57813	TURB2	2.5	WND	WT

Table 4.7. New U.S. Electric Generating Units by Operating Company, Plant, and Month, 2011

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (Megawatts)	Energy Source	Prime Mover
2011	12	55924	GenPower	Electric Utility	Longview Power LLC	WV	56671	MKA01	700.0	BIT	ST
2011	12	7140	Georgia Power Co	Electric Utility	Jack McDonough	GA	710	4	375.0	NG	CA
2011	12	7140	Georgia Power Co	Electric Utility	Jack McDonough	GA	710	CT4A	232.5	NG	CT
2011	12	7140	Georgia Power Co	Electric Utility	Jack McDonough	GA	710	CT4B	232.5	NG	CT
2011	12	57212	Heller Industrial Parks	Electric Utility	Heller Industrial Parks	NJ	57869	UNIT1	3.3	SUN	PV
2011	12	57309	Holyoke Solar LLC	Electric Utility	Holyoke Solar Cooperative at Mueller	MA	57931	PV1	2.7	SUN	PV
2011	12	57204	Howard Wind LLC	Electric Utility	Howard Wind Farm	NY	57867	1	51.3	WND	WT
2011	12	57167	ISH Solar Hospitals LLC	Electric Utility	ISH Solar Hospital SDMC	CA	57840	1	1.1	SUN	PV
2011	12	15399	Iberdrola Renewables Inc	Electric Utility	Copper Crossing Solar LLC	AZ	57318	1	20.0	SUN	PV
2011	12	15399	Iberdrola Renewables Inc	Electric Utility	San Luis Valley Solar Ranch	CO	57317	1	35.0	SUN	PV
2011	12	57210	L'Oreal USA Products Inc	Industrial	L'Oreal Piscataway	NJ	57868	UNIT1	1.0	SUN	PV
2011	12	57122	Lime Wind LLC	Electric Utility	Lime Wind	OR	57803	T1-6	3.0	WND	WT
2011	12	11804	Massachusetts Electric Co	Electric Utility	Dorchester Solar Site	MA	57265	1	1.0	SUN	PV
2011	12	57206	McKee City Solar Phase 2	Electric Utility	McKee City Solar Phase 2	NJ	57863	UNIT1	2.6	SUN	PV
2011	12	56951	Michigan Wind 2 LLC	Electric Utility	Michigan Wind 2	MI	56659	1	90.0	WND	WT
2011	12	12341	MidAmerican Energy Co	Electric Utility	Laurel Wind Farm	IA	57500	LWF	119.6	WND	WT
2011	12	12341	MidAmerican Energy Co	Electric Utility	Rolling Hills Wind Farm	IA	57501	RHWF	443.9	WND	WT
2011	12	12981	Motiva Enterprises LLC	Industrial	Motiva Enterprises Port Arthur Refinery	TX	50973	GN41	36.1	NG	CT
2011	12	57326	NJ Oak Solar LLC	Electric Utility	NJ Oak Solar Plant	NJ	57948	OAK	10.0	SUN	PV
2011	12	56990	NJR Clean Energy Ventures Corporation	Electric Utility	Manalapan Village Solar	NJ	57661	MANVL	4.6	SUN	PV
2011	12	56990	NJR Clean Energy Ventures Corporation	Electric Utility	McGraw Hill Solar	NJ	57662	MCGRH	16.6	SUN	PV
2011	12	13681	North Branch Water & Light Comm	Electric Utility	North Branch	MN	2002	5	2.0	DFO	IC
2011	12	13681	North Branch Water & Light Comm	Electric Utility	North Branch	MN	2002	6	2.0	DFO	IC
2011	12	13681	North Branch Water & Light Comm	Electric Utility	North Branch	MN	2002	7	2.0	DFO	IC
2011	12	57069	Power County Wind Park North LLC	Electric Utility	Power County Wind Park North	ID	57761	PCWPN	22.5	WND	WT
2011	12	57068	Power County Wind Park South LLC	Electric Utility	Power County Wind Park South	ID	57760	PCWPS	22.5	WND	WT
2011	12	15477	Public Service Elec & Gas Co	Electric Utility	NJMC Landfill	NJ	57724	NJMC	2.5	SUN	PV
2011	12	57107	RE Bagdad Solar 1 LLC	Electric Utility	RE Bagdad Solar I LLC	AZ	57790	1	16.6	SUN	PV
2011	12	56904	RP-Orlando, LLC	Electric Utility	RP-Orlando, LLC	FL	57565	1	5.1	SUN	PV
2011	12	57075	Ridgeline Energy LLC	Electric Utility	Rockland Wind Farm	ID	57766	RLWF	79.2	WND	WT
2011	12	57285	Roseburg LFG Energy LLC	Electric Utility	Roseburg LFG	OR	57911	1	1.6	LFG	IC
2011	12	56989	SAF Hydroelectric LLC	Electric Utility	SAF Hydroelectric LLC	MN	57665	1	0.6	WAT	HY
2011	12	56989	SAF Hydroelectric LLC	Electric Utility	SAF Hydroelectric LLC	MN	57665	10	0.6	WAT	HY
2011	12	56989	SAF Hydroelectric LLC	Electric Utility	SAF Hydroelectric LLC	MN	57665	11	0.6	WAT	HY
2011	12	56989	SAF Hydroelectric LLC	Electric Utility	SAF Hydroelectric LLC	MN	57665	12	0.6	WAT	HY
2011	12	56989	SAF Hydroelectric LLC	Electric Utility	SAF Hydroelectric LLC	MN	57665	13	0.6	WAT	HY
2011	12	56989	SAF Hydroelectric LLC	Electric Utility	SAF Hydroelectric LLC	MN	57665	14	0.6	WAT	HY
2011	12	56989	SAF Hydroelectric LLC	Electric Utility	SAF Hydroelectric LLC	MN	57665	15	0.6	WAT	HY
2011	12	56989	SAF Hydroelectric LLC	Electric Utility	SAF Hydroelectric LLC	MN	57665	16	0.6	WAT	HY
2011	12	56989	SAF Hydroelectric LLC	Electric Utility	SAF Hydroelectric LLC	MN	57665	2	0.6	WAT	HY
2011	12	56989	SAF Hydroelectric LLC	Electric Utility	SAF Hydroelectric LLC	MN	57665	3	0.6	WAT	HY
2011	12	56989	SAF Hydroelectric LLC	Electric Utility	SAF Hydroelectric LLC	MN	57665	4	0.6	WAT	HY
2011	12	56989	SAF Hydroelectric LLC	Electric Utility	SAF Hydroelectric LLC	MN	57665	5	0.6	WAT	HY
2011	12	56989	SAF Hydroelectric LLC	Electric Utility	SAF Hydroelectric LLC	MN	57665	6	0.6	WAT	HY
2011	12	56989	SAF Hydroelectric LLC	Electric Utility	SAF Hydroelectric LLC	MN	57665	7	0.6	WAT	HY
2011	12	56989	SAF Hydroelectric LLC	Electric Utility	SAF Hydroelectric LLC	MN	57665	8	0.6	WAT	HY
2011	12	56989	SAF Hydroelectric LLC	Electric Utility	SAF Hydroelectric LLC	MN	57665	9	0.6	WAT	HY
2011	12	56995	Sacramento PV Energy, LLC	Electric Utility	SMUD at Fleshman	CA	57671	PV1	2.9	SUN	PV
2011	12	56995	Sacramento PV Energy, LLC	Electric Utility	SMUD at Grundman	CA	57669	PV1	17.0	SUN	PV
2011	12	56995	Sacramento PV Energy, LLC	Electric Utility	SMUD at Lawrence	CA	57753	PV1	1.0	SUN	PV
2011	12	56995	Sacramento PV Energy, LLC	Electric Utility	SMUD at Van Conett	CA	57670	PV1	2.9	SUN	PV
2011	12	56758	Solar Star North Carolina II LLC	Electric Utility	Solar Star North Carolina II LLC	NC	57435	1	1.0	SUN	PV
2011	12	56758	Solar Star North Carolina II LLC	Electric Utility	Solar Star North Carolina II LLC	NC	57435	2	1.0	SUN	PV
2011	12	56758	Solar Star North Carolina II LLC	Electric Utility	Solar Star North Carolina II LLC	NC	57435	3	1.0	SUN	PV
2011	12	56758	Solar Star North Carolina II LLC	Electric Utility	Solar Star North Carolina II LLC	NC	57435	4	1.0	SUN	PV
2011	12	56758	Solar Star North Carolina II LLC	Electric Utility	Solar Star North Carolina II LLC	NC	57435	5	1.0	SUN	PV
2011	12	17609	Southern California Edison Co	Electric Utility	Pebbly Beach	CA	6704	MT01	0.1	PG	GT
2011	12	17609	Southern California Edison Co	Electric Utility	Pebbly Beach	CA	6704	MT02	0.1	PG	GT
2011	12	17609	Southern California Edison Co	Electric Utility	Pebbly Beach	CA	6704	MT03	0.1	PG	GT
2011	12	17609	Southern California Edison Co	Electric Utility	Pebbly Beach	CA	6704	MT04	0.1	PG	GT
2011	12	17609	Southern California Edison Co	Electric Utility	Pebbly Beach	CA	6704	MT05	0.1	PG	GT
2011	12	17609	Southern California Edison Co	Electric Utility	Pebbly Beach	CA	6704	MT06	0.1	PG	GT
2011	12	17609	Southern California Edison Co	Electric Utility	Pebbly Beach	CA	6704	MT07	0.1	PG	GT
2011	12	17609	Southern California Edison Co	Electric Utility	Pebbly Beach	CA	6704	MT08	0.1	PG	GT
2011	12	17609	Southern California Edison Co	Electric Utility	Pebbly Beach	CA	6704	MT09	0.1	PG	GT
2011	12	17609	Southern California Edison Co	Electric Utility	Pebbly Beach	CA	6704	MT10	0.1	PG	GT
2011	12	17609	Southern California Edison Co	Electric Utility	Pebbly Beach	CA	6704	MT11	0.1	PG	GT
2011	12	17609	Southern California Edison Co	Electric Utility	Pebbly Beach	CA	6704	MT12	0.1	PG	GT
2011	12	17609	Southern California Edison Co	Electric Utility	Pebbly Beach	CA	6704	MT13	0.1	PG	GT
2011	12	17609	Southern California Edison Co	Electric Utility	Pebbly Beach	CA	6704	MT14	0.1	PG	GT
2011	12	17609	Southern California Edison Co	Electric Utility	Pebbly Beach	CA	6704	MT15	0.1	PG	GT
2011	12	17609	Southern California Edison Co	Electric Utility	Pebbly Beach	CA	6704	MT16	0.1	PG	GT
2011	12	17609	Southern California Edison Co	Electric Utility	Pebbly Beach	CA	6704	MT17	0.1	PG	GT
2011	12	17609	Southern California Edison Co	Electric Utility	Pebbly Beach	CA	6704	MT18	0.1	PG	GT
2011	12	17609	Southern California Edison Co	Electric Utility	Pebbly Beach	CA	6704	MT19	0.1	PG	GT
2011	12	17609	Southern California Edison Co	Electric Utility	Pebbly Beach	CA	6704	MT20	0.1	PG	GT
2011	12	17609	Southern California Edison Co	Electric Utility	Pebbly Beach	CA	6704	MT21	0.1	PG	GT
2011	12	17609	Southern California Edison Co	Electric Utility	Pebbly Beach	CA	6704	MT22	0.1	PG	GT
2011	12	17609	Southern California Edison Co	Electric Utility	Pebbly Beach	CA	6704	MT23	0.1	PG	GT
2011	12	17609	Southern California Edison Co	Electric Utility	Pebbly Beach	CA	6704	MT24	0.1	PG	GT
2011	12	17609	Southern California Edison Co	Electric Utility	Pebbly Beach	CA	6704	MT25	0.1	PG	GT
2011	12	17664	Spartanburg Commissioners PW	Commercial	Spartanburg Water System	SC	54675	DI2	2.0	DFO	IC
2011	12	17664	Spartanburg Commissioners PW	Commercial	Spartanburg Water System	SC	54675	DI3	1.3	DFO	IC
2011	12	56069	SunCoke Energy, Inc.	Industrial	Middletown Coke Company, LLC	OH	57822	YNKE	47.0	WH	ST
2011	12	57059	SunE SPS4, LLC	Electric Utility	SPS4 Monument	NM	57739	1	10.1	SUN	PV
2011	12	57058	SunE SPS5, LLC	Electric Utility	SPS5 Hopi	NM	57740	1	10.1	SUN	PV
2011	12	57024	Vasco Winds, LLC	Electric Utility	Vasco Winds	CA	57700	1	78.2	WND	WT
2011	12	54842	WM Renewable Energy LLC	Electric Utility	Prairie View IL	IL	57406	GEN1	1.6	LFG	IC

Table 4.7. New U.S. Electric Generating Units by Operating Company, Plant, and Month, 2011

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (Megawatts)	Energy Source	Prime Mover
2011	12	54842	WM Renewable Energy LLC	Electric Utility	Prairie View IL	IL	57406	GEN2	1.6	LFG	IC
2011	12	54842	WM Renewable Energy LLC	Electric Utility	Prairie View IL	IL	57406	GEN3	1.6	LFG	IC
2011	12	56999	Western Massachusetts Electric Company	Electric Utility	Indian Orchard PV Facility	MA	57674	1	2.3	SUN	PV
2011	12	56785	Westervelt Renewable Energy LLC	Industrial	Westervelt Moundville Cogen	AL	57467	TG1	8.2	WDS	ST
2011	12	56599	Wind Energy America Inc	Electric Utility	NAE Shaokatan Power	MN	56217	SPP2	0.8	WND	WT
2011	12	20847	Wisconsin Electric Power Co	Electric Utility	Glacier Hills	WI	57199	1	162.0	WND	WT
2011	12	57170	enXco Asset Holdings, Inc.	Electric Utility	Chestnut Flats Wind Farm	PA	57268	1	38.0	WND	WT

Notes:
Descriptions for the Energy Source and Prime Mover codes listed in the table can be found in the Technical Notes.
Entity ID and Plant ID are official, unique identification numbers assigned by EIA; Generator IDs are assigned by plant owners and/or operators.
Source: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report' and Form EIA-860M, 'Monthly Update to the Annual Electric Generator Report.'

Table 4.8. Retired U.S. Electric Generating Units by Operating Company, Plant, and Month, 2011

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (Megawatts)	Energy Source	Prime Mover
2011	1	163	AERA Energy LLC-Oxford	Industrial	Oxford Cogeneration Facility	CA	52093	GEN1	2.4	NG	GT
2011	1	163	AERA Energy LLC-Oxford	Industrial	Oxford Cogeneration Facility	CA	52093	GEN2	2.4	NG	GT
2011	1	22999	Aera Energy LLC-Weir	Industrial	Weir Cogen Plant	CA	50848	GT1	3.2	NG	GT
2011	1	9011	City of Hugoton	Electric Utility	Hugoton 1	KS	1289	6	1.2	DFO	IC
2011	1	20380	City of West Liberty	Electric Utility	West Liberty	IA	1200	1	0.7	DFO	IC
2011	1	56151	Dynegy South Bay LLC	Electric Utility	Dynegy South Bay Power Plant	CA	310	2	150.0	NG	ST
2011	1	56151	Dynegy South Bay LLC	Electric Utility	Dynegy South Bay Power Plant	CA	310	5	14.0	JF	GT
2011	1	56151	Dynegy South Bay LLC	Electric Utility	Dynegy South Bay Power Plant	CA	310	ST1	146.0	NG	ST
2011	1	29925	Enterprise Products Optg LP	Industrial	Blanco Compressor Station	NM	54221	1	1.0	NG	ST
2011	1	29925	Enterprise Products Optg LP	Industrial	Blanco Compressor Station	NM	54221	2	1.0	NG	ST
2011	1	5989	Erving Paper Mills Inc	Industrial	Erving Paper Mills	MA	54228	1	0.3	RFO	ST
2011	1	16064	Graphic Packaging International	Industrial	Plant 31 Paper Mill	LA	50028	GEN2	6.0	NG	ST
2011	1	16064	Graphic Packaging International	Industrial	Plant 31 Paper Mill	LA	50028	GEN3	6.0	NG	ST
2011	1	16064	Graphic Packaging International	Industrial	Plant 31 Paper Mill	LA	50028	GEN4	6.0	NG	ST
2011	1	11079	Little Rock Wastewater Utility	Commercial	Fourche Creek Wastewater	AR	10050	3	0.5	OBG	IC
2011	1	17166	Sierra Pacific Power Co	Electric Utility	Battle Mountain	NV	6509	1	1.8	DFO	IC
2011	1	17166	Sierra Pacific Power Co	Electric Utility	Battle Mountain	NV	6509	2	1.8	DFO	IC
2011	1	17166	Sierra Pacific Power Co	Electric Utility	Battle Mountain	NV	6509	3	1.8	DFO	IC
2011	1	17166	Sierra Pacific Power Co	Electric Utility	Battle Mountain	NV	6509	4	1.8	DFO	IC
2011	1	17166	Sierra Pacific Power Co	Electric Utility	Valley Road	NV	6530	1	2.0	DFO	IC
2011	1	17166	Sierra Pacific Power Co	Electric Utility	Valley Road	NV	6530	2	2.0	DFO	IC
2011	1	17166	Sierra Pacific Power Co	Electric Utility	Valley Road	NV	6530	3	2.0	DFO	IC
2011	1	17166	Sierra Pacific Power Co	Electric Utility	Winnemucca	NV	6533	1	15.0	NG	GT
2011	1	29878	Somerset Power LLC	Electric Utility	Somerset Station	MA	1613	6	109.1	BIT	ST
2011	2	44466	BP PLC	Industrial	Whiting Refinery	IN	52130	15TG	5.0	OG	ST
2011	2	6958	City of Garland	Electric Utility	C E Newman	TX	3574	5	37.0	NG	ST
2011	2	6452	Florida Power & Light Co	Electric Utility	Riviera	FL	619	3	277.0	RFO	ST
2011	2	6452	Florida Power & Light Co	Electric Utility	Riviera	FL	619	4	288.0	RFO	ST
2011	2	12622	GenOn Potrero LLC	Electric Utility	Potrero Power	CA	273	3	206.0	NG	ST
2011	2	12622	GenOn Potrero LLC	Electric Utility	Potrero Power	CA	273	4	52.0	DFO	GT
2011	2	12622	GenOn Potrero LLC	Electric Utility	Potrero Power	CA	273	5	52.0	DFO	GT
2011	2	12622	GenOn Potrero LLC	Electric Utility	Potrero Power	CA	273	6	52.0	DFO	GT
2011	2	9130	Hutchinson Utilities Comm	Electric Utility	Hutchinson Plant #1	MN	1980	5	1.7	DFO	IC
2011	2	9130	Hutchinson Utilities Comm	Electric Utility	Hutchinson Plant #1	MN	1980	6	1.7	DFO	IC
2011	2	9130	Hutchinson Utilities Comm	Electric Utility	Hutchinson Plant #1	MN	1980	7	4.5	NG	IC
2011	2	12981	Motiva Enterprises LLC	Industrial	Motiva Enterprises Port Arthur Refinery	TX	50973	GN27	4.3	NG	CA
2011	3	2010	City of Bountiful	Electric Utility	Bountiful City	UT	3665	2	1.2	NG	IC
2011	3	2010	City of Bountiful	Electric Utility	Bountiful City	UT	3665	3	1.2	NG	IC
2011	3	2010	City of Bountiful	Electric Utility	Bountiful City	UT	3665	4	1.0	NG	IC
2011	3	2010	City of Bountiful	Electric Utility	Bountiful City	UT	3665	5	1.0	NG	IC
2011	3	2010	City of Bountiful	Electric Utility	Bountiful City	UT	3665	6	2.5	NG	IC
2011	3	2010	City of Bountiful	Electric Utility	Bountiful City	UT	3665	7	0.1	DFO	IC
2011	3	13971	City of Odessa	Electric Utility	Odessa	MO	2148	2	0.2	DFO	IC
2011	3	16604	City of San Antonio - (TX)	Electric Utility	W B Tuttle	TX	3613	1	60.0	NG	ST
2011	3	16604	City of San Antonio - (TX)	Electric Utility	W B Tuttle	TX	3613	3	100.0	NG	ST
2011	3	16604	City of San Antonio - (TX)	Electric Utility	W B Tuttle	TX	3613	4	154.0	NG	ST
2011	3	15470	Duke Energy Indiana Inc	Electric Utility	Edwardsport	IN	1004	6	40.0	DFO	ST
2011	3	15470	Duke Energy Indiana Inc	Electric Utility	Edwardsport	IN	1004	7	45.0	BIT	ST
2011	3	15470	Duke Energy Indiana Inc	Electric Utility	Edwardsport	IN	1004	8	75.0	BIT	ST
2011	3	814	Entergy Arkansas Inc	Electric Utility	Harvey Couch	AR	169	1	12.0	NG	ST
2011	3	361	Industrial Energy Applications Inc	Electric Utility	Alliant SBD 9402 Climax	IA	54930	5100	1.6	DFO	IC
2011	3	361	Industrial Energy Applications Inc	Electric Utility	Alliant SBD 9402 Climax	IA	54930	5200	1.6	DFO	IC
2011	3	361	Industrial Energy Applications Inc	Electric Utility	Alliant SBD 9402 Climax	IA	54930	5300	1.6	DFO	IC
2011	3	361	Industrial Energy Applications Inc	Electric Utility	Alliant SBD 9402 Climax	IA	54930	5400	1.6	DFO	IC
2011	3	361	Industrial Energy Applications Inc	Electric Utility	Alliant SBD 9402 Climax	IA	54930	5500	1.6	DFO	IC
2011	4	8847	City of Hopkinton	Electric Utility	Hopkinton	IA	8108	IC3	1.2	DFO	IC
2011	4	14840	City of Peru - (IL)	Electric Utility	Peru	IL	955	10	2.0	DFO	IC
2011	4	14840	City of Peru - (IL)	Electric Utility	Peru	IL	955	IC3	1.8	DFO	IC
2011	4	14624	PUD No 2 of Grant County	Electric Utility	Wanapum	WA	3888	5	103.8	WAT	HY
2011	4	15473	Public Service Co of NM	Electric Utility	Las Vegas	NM	2447	1	20.0	DFO	GT
2011	4	30067	Rolls Royce Corp	Industrial	Rolls Royce	IN	54286	63F5	2.1	NG	GT
2011	4	54843	WM Illinois Renewable Energy LLC	Electric Utility	CID Gas Recovery	IL	50573	GEN1	2.9	LFG	GT
2011	5	772	Archer Daniels Midland Co	Industrial	Mansfield	MA	55046	GEN1	1.0	NG	IC
2011	5	772	Archer Daniels Midland Co	Industrial	Mansfield	MA	55046	GEN2	1.0	NG	IC
2011	5	772	Archer Daniels Midland Co	Industrial	Mansfield	MA	55046	GEN3	1.0	NG	IC
2011	5	56327	Ashland Inc	Industrial	Ashland Inc	MO	10207	GEN1	8.6	BIT	ST
2011	5	56327	Ashland Inc	Industrial	Ashland Inc	MO	10207	GEN2	8.6	BIT	ST
2011	5	8847	City of Hopkinton	Electric Utility	Hopkinton	IA	8108	IC2	1.7	DFO	IC
2011	5	5416	Duke Energy Carolinas, LLC	Electric Utility	Buck	NC	2720	3	75.0	BIT	ST
2011	5	5416	Duke Energy Carolinas, LLC	Electric Utility	Buck	NC	2720	4	38.0	BIT	ST
2011	5	6035	Exelon Power	Electric Utility	Cromby Generating Station	PA	3159	1	144.0	BIT	ST
2011	5	6035	Exelon Power	Electric Utility	Eddystone Generating Station	PA	3161	1	279.0	BIT	ST
2011	5	9512	IVEX Packaging Paper LLC	Industrial	IVEX Packaging	IL	52032	1	3.5	NG	GT
2011	5	10766	Lavalley Lumber LLC	Industrial	Lavalley Lumber LLC	ME	50914	1500	1.2	WDS	ST
2011	5	18028	State of Wisconsin	Commercial	Capitol Heat and Power	WI	54406	1	0.9	NG	ST
2011	5	18028	State of Wisconsin	Commercial	Capitol Heat and Power	WI	54406	2	1.0	NG	ST
2011	6	5347	Dow Chemical Co	Industrial	LaO Energy Systems	LA	52006	GEN8	95.0	NG	CT
2011	6	15470	Duke Energy Indiana Inc	Electric Utility	Miami Wabash	IN	1006	4	16.0	DFO	GT
2011	6	12685	Entergy Mississippi Inc	Electric Utility	Natchez	MS	2052	1	73.0	NG	ST
2011	6	12685	Entergy Mississippi Inc	Electric Utility	Rex Brown	MS	2053	1	15.0	NG	ST
2011	6	56411	Grays Harbor Paper LP	Industrial	Grays Harbor Paper LP	WA	57105	1ST	3.0	WDS	ST
2011	6	56411	Grays Harbor Paper LP	Industrial	Grays Harbor Paper LP	WA	57105	2ST	5.0	WDS	ST
2011	6	56411	Grays Harbor Paper LP	Industrial	Grays Harbor Paper LP	WA	57105	3ST	7.5	WDS	ST
2011	6	29878	Somerset Power LLC	Electric Utility	Somerset Station	MA	1613	JET2	18.3	DFO	GT
2011	6	17664	Spartanburg Commissioners PW	Commercial	Spartanburg Water System	SC	54675	DI1	1.6	DFO	IC
2011	6	20860	Wisconsin Public Service Corp	Electric Utility	Oneida Casino	WI	7602	1	1.8	DFO	IC
2011	6	20860	Wisconsin Public Service Corp	Electric Utility	Oneida Casino	WI	7602	2	1.8	DFO	IC
2011	7	11790	City of Mascoutah - (IL)	Electric Utility	Mascoutah	IL	950	IC1	0.5	DFO	IC

Table 4.8. Retired U.S. Electric Generating Units by Operating Company, Plant, and Month, 2011

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (Megawatts)	Energy Source	Prime Mover
2011	7	11790	City of Mascoutah - (IL)	Electric Utility	Mascoutah	IL	950	IC2	0.5	DFO	IC
2011	7	11790	City of Mascoutah - (IL)	Electric Utility	Mascoutah	IL	950	IC3	1.0	DFO	IC
2011	7	11790	City of Mascoutah - (IL)	Electric Utility	Mascoutah	IL	950	IC4	2.0	DFO	IC
2011	7	11790	City of Mascoutah - (IL)	Electric Utility	Mascoutah	IL	950	IC5	2.3	DFO	IC
2011	7	12894	City of Moorhead - (MN)	Electric Utility	Moorhead	MN	1995	6	5.9	DFO	GT
2011	7	19454	City of Unalaska	Electric Utility	Dutch Harbor	AK	7502	1	0.3	DFO	IC
2011	7	19454	City of Unalaska	Electric Utility	Dutch Harbor	AK	7502	2	0.3	DFO	IC
2011	7	19454	City of Unalaska	Electric Utility	Dutch Harbor	AK	7502	3	0.5	DFO	IC
2011	7	19454	City of Unalaska	Electric Utility	Dutch Harbor	AK	7502	4	0.7	DFO	IC
2011	7	19454	City of Unalaska	Electric Utility	Dutch Harbor	AK	7502	5	0.5	DFO	IC
2011	7	19454	City of Unalaska	Electric Utility	Dutch Harbor	AK	7502	6	1.2	DFO	IC
2011	7	50103	Sunoco Inc	Industrial	Sunoco Eagle Point Refinery	NJ	55113	TR1	7.0	OG	ST
2011	7	50103	Sunoco Inc	Industrial	Sunoco Eagle Point Refinery	NJ	55113	TR2	7.0	OG	ST
2011	7	50103	Sunoco Inc	Industrial	Sunoco Eagle Point Refinery	NJ	55113	TR3	7.0	OG	ST
2011	7	19150	Trenton Municipal Utilities - (MO)	Electric Utility	Trenton Diesel	MO	2163	5	1.0	DFO	IC
2011	7	19553	Unisea Inc	Industrial	Unisea G 2	AK	54422	CAT1	0.8	DFO	IC
2011	7	19553	Unisea Inc	Industrial	Unisea G 2	AK	54422	CAT2	0.9	DFO	IC
2011	8	221	Alaska Village Elec Coop, Inc	Electric Utility	Emmonak	AK	6314	2	0.3	DFO	IC
2011	8	1936	Bolivar Energy Authority	Electric Utility	Bolivar	TN	55929	1	1.8	DFO	IC
2011	8	1936	Bolivar Energy Authority	Electric Utility	Bolivar	TN	55929	10	1.8	DFO	IC
2011	8	1936	Bolivar Energy Authority	Electric Utility	Bolivar	TN	55929	2	1.8	DFO	IC
2011	8	1936	Bolivar Energy Authority	Electric Utility	Bolivar	TN	55929	3	1.8	DFO	IC
2011	8	1936	Bolivar Energy Authority	Electric Utility	Bolivar	TN	55929	4	1.8	DFO	IC
2011	8	1936	Bolivar Energy Authority	Electric Utility	Bolivar	TN	55929	5	1.8	DFO	IC
2011	8	1936	Bolivar Energy Authority	Electric Utility	Bolivar	TN	55929	6	1.8	DFO	IC
2011	8	1936	Bolivar Energy Authority	Electric Utility	Bolivar	TN	55929	7	1.8	DFO	IC
2011	8	1936	Bolivar Energy Authority	Electric Utility	Bolivar	TN	55929	8	1.8	DFO	IC
2011	8	1936	Bolivar Energy Authority	Electric Utility	Bolivar	TN	55929	9	1.8	DFO	IC
2011	8	7977	City of Hamilton - (OH)	Electric Utility	Hamilton	OH	2917	GT1	8.0	NG	GT
2011	8	13819	City of Norton	Electric Utility	Norton	KS	1310	1	0.9	NG	IC
2011	8	13819	City of Norton	Electric Utility	Norton	KS	1310	2	1.3	NG	IC
2011	8	13819	City of Norton	Electric Utility	Norton	KS	1310	3	2.4	NG	IC
2011	8	13819	City of Norton	Electric Utility	Norton	KS	1310	4	3.1	NG	IC
2011	8	13819	City of Norton	Electric Utility	Norton	KS	1310	5	2.2	DFO	IC
2011	8	6315	Fellsway Development LLC	Commercial	Fellsway Development LLC	MA	54992	CAT1	0.7	DFO	IC
2011	8	6315	Fellsway Development LLC	Commercial	Fellsway Development LLC	MA	54992	CAT2	0.8	DFO	IC
2011	8	6315	Fellsway Development LLC	Commercial	Fellsway Development LLC	MA	54992	GT	0.6	NG	GT
2011	8	6315	Fellsway Development LLC	Commercial	Fellsway Development LLC	MA	54992	ST	0.2	AB	ST
2011	8	54822	Geneva Energy LLC	Electric Utility	Geneva Energy LLC	IL	55174	LM2	19.9	TDF	ST
2011	9	2287	City of Brooklyn	Electric Utility	Brooklyn	IA	1128	1	0.2	DFO	IC
2011	9	2287	City of Brooklyn	Electric Utility	Brooklyn	IA	1128	2	0.2	DFO	IC
2011	9	2287	City of Brooklyn	Electric Utility	Brooklyn	IA	1128	3	0.2	DFO	IC
2011	9	2287	City of Brooklyn	Electric Utility	Brooklyn	IA	1128	5	1.0	NG	IC
2011	9	17924	City of Stafford - (KS)	Electric Utility	Stafford	KS	1325	1	0.9	DFO	IC
2011	9	11241	Entergy Louisiana Inc	Electric Utility	Nine Mile Point	LA	1403	1	50.0	NG	ST
2011	9	11241	Entergy Louisiana Inc	Electric Utility	Nine Mile Point	LA	1403	2	107.0	NG	ST
2011	9	13478	Entergy New Orleans Inc	Electric Utility	Michoud	LA	1409	1	65.0	NG	ST
2011	9	56492	Estate of Maricopa Solar LLC	Electric Utility	Maricopa Solar	AZ	57140	1	1.5	SUN	ST
2011	9	7140	Georgia Power Co	Electric Utility	Jack McDonough	GA	710	2	251.0	BIT	ST
2011	9	9205	Illinois Electricial Gen Partn	Electric Utility	Morris Genco LLC	IL	55774	MO1	1.3	LFG	IC
2011	9	9205	Illinois Electricial Gen Partn	Electric Utility	Morris Genco LLC	IL	55774	MO2	1.3	LFG	IC
2011	9	9205	Illinois Electricial Gen Partn	Electric Utility	Morris Genco LLC	IL	55774	MO3	1.3	LFG	IC
2011	9	11571	Manitowoc Public Utilities	Electric Utility	Manitowoc	WI	4125	4	9.5	PC	ST
2011	9	3046	Progress Energy Carolinas Inc	Electric Utility	W H Weatherspoon	NC	2716	1	48.0	BIT	ST
2011	9	3046	Progress Energy Carolinas Inc	Electric Utility	W H Weatherspoon	NC	2716	2	48.0	BIT	ST
2011	9	3046	Progress Energy Carolinas Inc	Electric Utility	W H Weatherspoon	NC	2716	3	74.0	BIT	ST
2011	9	19150	Trenton Municipal Utilities - (MO)	Electric Utility	Trenton Diesel	MO	2163	4	0.9	DFO	IC
2011	9	19436	Union Electric Co - (MO)	Electric Utility	Venice	IL	913	GT1	26.0	DFO	GT
2011	9	19436	Union Electric Co - (MO)	Electric Utility	Viaduct	MO	2096	1	25.0	NG	GT
2011	10	14246	City of Owatonna	Electric Utility	Owatonna	MN	2003	6	20.6	NG	ST
2011	10	5416	Duke Energy Carolinas, LLC	Electric Utility	Cliffside	NC	2721	1	38.0	BIT	ST
2011	10	5416	Duke Energy Carolinas, LLC	Electric Utility	Cliffside	NC	2721	2	38.0	BIT	ST
2011	10	5416	Duke Energy Carolinas, LLC	Electric Utility	Cliffside	NC	2721	3	61.0	BIT	ST
2011	10	5416	Duke Energy Carolinas, LLC	Electric Utility	Cliffside	NC	2721	4	61.0	BIT	ST
2011	10	5482	Durgin & Crowell Lumber Co	Industrial	Durgin & Crowell Lumber	NH	54870	3512	1.3	DFO	IC
2011	10	5517	Dynegy Midwest Generation Inc	Electric Utility	Wood River	IL	898	1	38.7	NG	ST
2011	10	5517	Dynegy Midwest Generation Inc	Electric Utility	Wood River	IL	898	2	38.7	NG	ST
2011	10	5517	Dynegy Midwest Generation Inc	Electric Utility	Wood River	IL	898	3	38.7	NG	ST
2011	10	11241	Entergy Louisiana Inc	Electric Utility	Monroe	LA	1448	10	22.0	NG	ST
2011	10	11241	Entergy Louisiana Inc	Electric Utility	Monroe	LA	1448	11	33.0	NG	ST
2011	10	11241	Entergy Louisiana Inc	Electric Utility	Monroe	LA	1448	12	71.0	NG	ST
2011	10	10273	Kimberly-Clark Corp	Electric Utility	Everett Cogen	WA	7627	1	36.0	WDS	ST
2011	10	11217	Los Angeles County Sanitation	Commercial	Palos Verdes Gas to Energy	CA	10473	GEN1	2.5	LFG	ST
2011	10	56505	National Grid Generation LLC	Electric Utility	E F Barrett	NY	2511	7	0.0	NG	GT
2011	10	14354	PacifiCorp	Electric Utility	Condit	WA	3846	1	7.7	WAT	HY
2011	10	14354	PacifiCorp	Electric Utility	Condit	WA	3846	2	7.4	WAT	HY
2011	10	15466	Public Service Co of Colorado	Electric Utility	Cherokee	CO	469	2	106.0	BIT	ST
2011	10	54842	WM Renewable Energy LLC	Electric Utility	Timberline Trail Gas Recovery	WI	56525	GEN6	0.8	LFG	IC
2011	10	54842	WM Renewable Energy LLC	Electric Utility	Timberline Trail Gas Recovery	WI	56525	GEN7	0.8	LFG	IC
2011	10	20860	Wisconsin Public Service Corp	Electric Utility	Eagle River	WI	4062	1	2.1	DFO	IC
2011	10	20860	Wisconsin Public Service Corp	Electric Utility	Eagle River	WI	4062	2	2.1	DFO	IC
2011	11	7096	City of Geneva- (IL)	Electric Utility	Geneva Generation Facility	IL	56462	GEN6	1.4	DFO	IC
2011	11	14132	City of Onawa - (IA)	Electric Utility	Onawa Mun Lt & Power	IA	1170	1	0.3	DFO	IC
2011	11	14132	City of Onawa - (IA)	Electric Utility	Onawa Mun Lt & Power	IA	1170	2	0.3	DFO	IC
2011	11	14132	City of Onawa - (IA)	Electric Utility	Onawa Mun Lt & Power	IA	1170	3	0.3	DFO	IC
2011	11	14132	City of Onawa - (IA)	Electric Utility	Onawa Mun Lt & Power	IA	1170	4	0.4	DFO	IC
2011	11	14132	City of Onawa - (IA)	Electric Utility	Onawa Mun Lt & Power	IA	1170	5	0.8	DFO	IC
2011	11	5517	Dynegy Midwest Generation Inc	Electric Utility	Vermilion	IL	897	2	99.0	SUB	ST

Table 4.8. Retired U.S. Electric Generating Units by Operating Company, Plant, and Month, 2011

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (Megawatts)	Energy Source	Prime Mover
2011	11	5517	Dynegy Midwest Generation Inc	Electric Utility	Vermilion	IL	897	3	10.0	DFO	GT
2011	11	5517	Dynegy Midwest Generation Inc	Electric Utility	Vermilion	IL	897	ST1	62.0	SUB	ST
2011	11	54760	Hawthorne Power Systems	Electric Utility	Kyocera America Project	CA	10720	85	0.7	NG	IC
2011	11	54760	Hawthorne Power Systems	Electric Utility	Kyocera America Project	CA	10720	88	0.7	NG	IC
2011	11	54760	Hawthorne Power Systems	Electric Utility	Kyocera America Project	CA	10720	95	0.8	NG	IC
2011	11	54760	Hawthorne Power Systems	Electric Utility	Kyocera America Project	CA	10720	96	0.7	NG	IC
2011	11	12665	Masco Cabinetry Middlefield LLC	Industrial	Mills Pride	OH	54978	2058	0.5	WDS	ST
2011	11	12665	Masco Cabinetry Middlefield LLC	Industrial	Mills Pride	OH	54978	2076	0.5	WDS	ST
2011	11	50025	Matthew D. Swift WC Bradley Co.	Industrial	Eagle & Phenix	GA	54470	GEN1	4.0	WAT	HY
2011	12	520	Ameren Energy Generating Co	Electric Utility	Hutsonville	IL	863	3	75.0	SUB	ST
2011	12	520	Ameren Energy Generating Co	Electric Utility	Hutsonville	IL	863	4	76.0	SUB	ST
2011	12	520	Ameren Energy Generating Co	Electric Utility	Hutsonville	IL	863	D1	3.0	DFO	IC
2011	12	520	Ameren Energy Generating Co	Electric Utility	Meredosia	IL	864	1	52.0	BIT	ST
2011	12	520	Ameren Energy Generating Co	Electric Utility	Meredosia	IL	864	2	53.0	BIT	ST
2011	12	520	Ameren Energy Generating Co	Electric Utility	Meredosia	IL	864	3	203.0	SUB	ST
2011	12	520	Ameren Energy Generating Co	Electric Utility	Meredosia	IL	864	4	166.0	RFO	ST
2011	12	14840	City of Peru - (IL)	Electric Utility	Peru	IL	955	IC1	6.0	DFO	IC
2011	12	16082	City of River Falls	Electric Utility	Junction	WI	4133	10	3.1	DFO	IC
2011	12	16082	City of River Falls	Electric Utility	Junction	WI	4133	5	2.5	DFO	IC
2011	12	16082	City of River Falls	Electric Utility	Junction	WI	4133	6	1.9	DFO	IC
2011	12	16082	City of River Falls	Electric Utility	Junction	WI	4133	7	5.9	DFO	IC
2011	12	16082	City of River Falls	Electric Utility	Junction	WI	4133	9	6.0	DFO	IC
2011	12	3265	Cleco Power LLC	Electric Utility	Teche	LA	1400	2	33.0	NG	ST
2011	12	5109	Detroit Edison Co	Electric Utility	Marysville	MI	1732	7	83.0	BIT	ST
2011	12	5109	Detroit Edison Co	Electric Utility	Marysville	MI	1732	8	83.0	BIT	ST
2011	12	55858	Energy Developments Inc	Electric Utility	Middle Point Landfill Gas Recovery	TN	56866	1	1.4	LFG	IC
2011	12	55858	Energy Developments Inc	Electric Utility	Middle Point Landfill Gas Recovery	TN	56866	2	1.4	LFG	IC
2011	12	57178	Energy Equipment	Electric Utility	Balefill LFG Project	NJ	55159	UNT1	0.1	LFG	IC
2011	12	57178	Energy Equipment	Electric Utility	Balefill LFG Project	NJ	55159	UNT2	0.1	LFG	IC
2011	12	57178	Energy Equipment	Electric Utility	HMDC Kingsland Landfill	NJ	55604	UNT1	0.1	LFG	IC
2011	12	57178	Energy Equipment	Electric Utility	HMDC Kingsland Landfill	NJ	55604	UNT2	0.1	LFG	IC
2011	12	57178	Energy Equipment	Electric Utility	HMDC Kingsland Landfill	NJ	55604	UNT3	0.1	LFG	IC
2011	12	6035	Exelon Power	Electric Utility	Cromby Generating Station	PA	3159	2	201.0	RFO	ST
2011	12	6035	Exelon Power	Electric Utility	Cromby Generating Station	PA	3159	ICI	2.7	DFO	IC
2011	12	11479	Madison Gas & Electric Co	Electric Utility	Blount Street	WI	3992	3	30.1	BIT	ST
2011	12	11479	Madison Gas & Electric Co	Electric Utility	Blount Street	WI	3992	4	12.0	BIT	ST
2011	12	11479	Madison Gas & Electric Co	Electric Utility	Blount Street	WI	3992	5	22.9	BIT	ST
2011	12	13407	Nevada Power Co	Electric Utility	Sunrise	NV	2326	1	80.0	NG	ST
2011	12	13407	Nevada Power Co	Electric Utility	Sunrise	NV	2326	2	69.0	NG	GT
2011	12	15147	PSEG Fossil LLC	Electric Utility	PSEG Hudson Generating Station	NJ	2403	1	182.8	NG	ST
2011	12	779	Perma Treat Corporation	Industrial	Perma Treat Corporation	ME	10053	1	0.5	WDS	ST
2011	12	779	Perma Treat Corporation	Industrial	Perma Treat Corporation	ME	10053	DG2	0.5	DFO	IC
2011	12	15143	Platte River Power Authority	Electric Utility	Medicine Bow	WY	692	CLIP	2.5	WND	WT
2011	12	40307	Prairie Power, Inc	Electric Utility	Pittsfield	IL	6237	1	1.0	DFO	IC
2011	12	40307	Prairie Power, Inc	Electric Utility	Pittsfield	IL	6237	2	1.0	DFO	IC
2011	12	40307	Prairie Power, Inc	Electric Utility	Pittsfield	IL	6237	3	1.0	DFO	IC
2011	12	40307	Prairie Power, Inc	Electric Utility	Pittsfield	IL	6237	4	2.7	DFO	IC
2011	12	40307	Prairie Power, Inc	Electric Utility	Pittsfield	IL	6237	5	2.7	DFO	IC
2011	12	16183	Rochester Gas & Electric Corp	Electric Utility	Rochester 3	NY	2640	13	14.4	DFO	GT
2011	12	56388	Sconza Candy Company	Industrial	Sconza Candy Company	CA	50602	GEN1	5.0	NG	GT
2011	12	18642	Tennessee Valley Authority	Electric Utility	Watts Bar Fossil	TN	3419	ST1	56.0	BIT	ST
2011	12	18642	Tennessee Valley Authority	Electric Utility	Watts Bar Fossil	TN	3419	ST2	56.0	BIT	ST
2011	12	18642	Tennessee Valley Authority	Electric Utility	Watts Bar Fossil	TN	3419	ST3	56.0	BIT	ST
2011	12	18642	Tennessee Valley Authority	Electric Utility	Watts Bar Fossil	TN	3419	ST4	56.0	BIT	ST
2011	12	56764	USG Nevada LLC	Electric Utility	Empire	NV	50760	OE11	0.6	GEO	ST
2011	12	56764	USG Nevada LLC	Electric Utility	Empire	NV	50760	OE12	0.9	GEO	ST
2011	12	56764	USG Nevada LLC	Electric Utility	Empire	NV	50760	OE13	0.9	GEO	ST
2011	12	56764	USG Nevada LLC	Electric Utility	Empire	NV	50760	OE14	0.9	GEO	ST
2011	12	19876	Virginia Electric & Power Co	Electric Utility	Kitty Hawk	NC	2757	GT1	16.0	DFO	GT
2011	12	19876	Virginia Electric & Power Co	Electric Utility	Kitty Hawk	NC	2757	GT2	15.0	DFO	GT
2011	12	19876	Virginia Electric & Power Co	Electric Utility	Chesapeake	VA	3803	10	16.0	DFO	GT
2011	12	19876	Virginia Electric & Power Co	Electric Utility	Chesapeake	VA	3803	7	16.0	DFO	GT
2011	12	19876	Virginia Electric & Power Co	Electric Utility	Chesapeake	VA	3803	8	16.0	DFO	GT
2011	12	19876	Virginia Electric & Power Co	Electric Utility	Chesapeake	VA	3803	9	16.0	DFO	GT

Notes:
Descriptions for the Energy Source and Prime Mover codes listed in the table can be found in the Technical Notes.
Entity ID and Plant ID are official, unique identification numbers assigned by EIA; Generator IDs are assigned by plant owners and/or operators.
Source: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report' and Form EIA-860M, 'Monthly Update to the Annual Electric Generator Report.'

Table 4.9. Total Capacity of Distributed and Dispersed Generators by Technology Type
2005 through 2011

	Capacity (MW)										
Year	Internal Combustion	Combustion Turbine	Steam Turbine	Hydro	Wind	Photovoltaic	Storage	Other	Wind and Other	Total	Number of Generators
Distributed Generators											
2005	4,025.0	1,917.0	1,830.0	999.0	--	--	--	--	995.0	9,766.0	17,371
2006	3,646.0	1,298.0	2,582.0	806.0	--	--	--	--	1,081.0	9,411.0	5,044
2007	4,624.0	1,990.0	3,596.0	1,051.0	--	--	--	--	1,441.0	12,702.0	7,103
2008	5,112.0	1,949.0	3,060.0	1,154.0	--	--	--	--	1,588.0	12,863.0	9,591
2009	4,339.0	4,147.0	4,621.0	1,166.0	--	--	--	--	1,729.0	16,002.0	13,006
2010	886.8	186.0	109.9	97.4	98.9	236.3	--	372.7	--	1,988.0	15,630
2011	791.1	115.5	64.9	97.9	36.7	314.8	0.2	264.3	--	1,685.4	20,941
Dispersed Generators											
2005	4,290.0	335.0	126.0	2.0	--	--	--	--	13.0	4,766.0	11,373
2006	6,524.0	346.0	157.0	3.0	--	--	--	--	8.0	7,037.0	9,536
2007	7,866.0	268.0	102.0	31.0	--	--	--	--	30.0	8,297.0	11,057
2008	9,335.0	86.0	248.0	34.0	--	--	--	--	70.0	9,773.0	12,262
2009	9,751.0	329.0	204.0	81.0	--	--	--	--	108.0	10,475.0	13,928
2010	2,771.2	64.4	13.8	8.4	6.3	95.2	7.0	17.9	--	2,984.2	16,874
2011	2,916.9	40.3	14.6	6.0	3.2	2.7	8.0	7.9	--	2,999.6	14,123
Distributed and Dispersed Generators											
2005	8,315.0	2,252.0	1,956.0	1,001.0	--	--	--	--	1,008.0	14,532.0	28,744
2006	10,170.0	1,644.0	2,739.0	809.0	--	--	--	--	1,089.0	16,448.0	14,580
2007	12,490.0	2,258.0	3,698.0	1,082.0	--	--	--	--	1,471.0	20,999.0	18,160
2008	14,447.0	2,035.0	3,308.0	1,188.0	--	--	--	--	1,658.0	22,636.0	21,853
2009	14,090.0	4,476.0	4,825.0	1,247.0	--	--	--	--	1,837.0	26,477.0	26,934
2010	3,658.0	250.4	123.7	105.8	105.2	331.5	7.0	390.6	--	4,972.2	32,504
2011	3,708.0	155.8	79.5	103.9	39.9	317.5	8.2	272.2	--	4,685.0	35,064

Distributed and Dispersed generator data in 2005 include a significant number of generators reported by one respondent, which may be for residential applications.
Prior to 2010, data contains generators over and under 1 MW, from 2010 forward, data contains only generators under 1 MW.
Distributed generators are commercial and industrial generators which are connected to the grid. Dispersed generators are commercial and industrial generators which are not connected to the grid. Both types may be installed at or near a customer`s site, or at other locations. They may be owned by either the customers of the distribution utility or by the utility. Other includes generators for which technology is not specified.
Totals may not equal sum of components because of independent rounding.
Source: U.S. Energy Information Administration, Form EIA-861, "Annual Electric Power Industry Report."

Table 4.10. Net Metering Customers and Capacity by Technology Type, by End Use Sector, 2003 through 2011

	Capacity (MW)					Customers				
Year	Residential	Commercial	Industrial	Transportation	Total	Residential	Commercial	Industrial	Transportation	Total
Historical Data										
2003	N/A	N/A	N/A	N/A	N/A	5,870	775	168	--	6,813
2004	N/A	N/A	N/A	N/A	N/A	14,114	1,494	215	3	15,826
2005	N/A	N/A	N/A	N/A	N/A	19,244	1,565	337	--	21,146
2006	N/A	N/A	N/A	N/A	N/A	30,689	2,553	376	--	33,618
2007	N/A	N/A	N/A	N/A	N/A	44,450	3,513	391	--	48,354
2008	N/A	N/A	N/A	N/A	N/A	64,400	5,305	304	--	70,009
2009	N/A	N/A	N/A	N/A	N/A	88,205	7,365	919	--	96,489
Photovoltaic										
2010	698	518	243	--	1,459	137,618	11,897	1,225	--	150,740
2011	1,024	1,089	382	--	2,495	198,255	18,345	2,418	--	219,018
Wind										
2010	84	26	6	--	116	3,467	583	37	--	4,087
2011	28	44	10	--	82	4,456	905	50	--	5,411
Other										
2010	11	35	25	--	71	767	271	56	--	1,094
2011	5	49	57	--	111	807	242	100	--	1,149
All Technologies										
2010	793	579	274	--	1,646	141,852	12,751	1,318	--	155,921
2011	1,057	1,183	448	--	2,688	203,518	19,492	2,568	--	225,578

N/A = Not Available.
Capacity and customer count was not collected by technology type before 2010.
Total customer count for the years 2007, 2009, and 2010 were revised based on requests from respondents.
Source: U.S. Energy Information Administration, Form EIA-861, "Annual Electric Power Industry Report."

Table 4.11. Fuel-Switching Capacity of Operable Generators Reporting Natural Gas as the Primary Fuel, by Producer Type, 2011
(Megawatts, Percent)

		Fuel-Switchable Part of Total			
Producer Type	Total Net Summer Capacity of All Generators Reporting Natural Gas as the Primary Fuel	Net Summer Capacity of Natural Gas-Fired Generators Reporting the Ability to Switch to Petroleum Liquids	Fuel Switchable Capacity as Percent of Total	Maximum Achievable Net Summer Capacity Using Petroleum Liquids	Fuel Switchable Net Summer Capacity Reported to Have No Factors that Limit the Ability to Switch to Petroleum Liquids
Electric Utilities	193,631	76,842	39.7	75,280	25,108
Independent Power Producers, Non-Combined Heat and Power Plants	176,517	41,890	23.7	40,935	11,468
Independent Power Producers, Combined Heat and Power Plants	29,373	6,891	23.5	6,614	1,239
Electric Power Sector Subtotal	399,520	125,623	31.4	122,829	37,814
Commercial Sector	1,283	676	52.7	648	131
Industrial Sector	14,389	1,260	8.8	1,212	253
All Sectors	415,191	127,559	30.7	124,689	38,199

Notes: Petroleum includes distillate fuel oil (all diesel and No. 1, No. 2, and No. 4 fuel oils), residual fuel oil (No. 5 and No. 6 fuel oils and bunker C fuel oil), jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), waste oil, and beginning in 2011, synthetic gas and propane. Prior to 2011, synthetic gas and propane were included in Other Gases.
In 2011, EIA corrected the NAICS codes of several plants which resulted in a net capacity shift from the electric utility sector to the commercial sector.
Source: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report.'

Table 4.12. Fuel-Switching Capacity of Operable Generators Reporting Petroleum Liquids as the Primary Fuel, by Producer Type, 2011 (Megawatts, Percent)

		Fuel-Switchable Part of Total		
Producer Type	Total Net Summer Capacity of All Generators Reporting Petroleum as the Primary Fuel	Net Summer Capacity of Petroleum-Fired Generators Reporting the Ability to Switch to Natural Gas	Fuel Switchable Capacity as Percent of Total	Maximum Achievable Net Summer Capacity Using Natural Gas
Electric Utilities	27,396	8,201	29.9	7,800
Independent Power Producers, Non-Combined Heat and Power Plants	22,399	10,090	45.0	8,211
Independent Power Producers, Combined Heat and Power Plants	317	--	--	--
Electric Power Sector Subtotal	50,112	18,291	36.5	16,010
Commercial Sector	406	21	5.2	21
Industrial Sector	690	44	6.4	35
All Sectors	51,208	18,356	35.8	16,066

Notes: Petroleum includes distillate fuel oil (all diesel and No. 1, No. 2, and No. 4 fuel oils), residual fuel oil (No. 5 and No. 6 fuel oils and bunker C fuel oil), jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), waste oil, and beginning in 2011, synthetic gas and propane. Prior to 2011, synthetic gas and propane were included in Other Gases.
In 2011, EIA corrected the NAICS codes of several plants which resulted in a net capacity shift from the electric utility sector to the commercial sector.
Source: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report.'

Table 4.13. Fuel-Switching Capacity of Operable Generators: From Natural Gas to Petroleum Liquids, by Type of Prime Mover, 2011 (Megawatts, Percent)

Prime Mover Type	Number of Generators	Net Summer Capacity	Fuel Switchable Net Summer Capacity Reported to Have No Factors that Limit the Ability to Switch to Petroleum Liquids
Steam Generator	188	26,497	17,362
Combined Cycle	418	43,965	6,896
Internal Combustion	333	1,065	331
Gas Turbine	940	56,032	13,610
All Fuel Switchable Prime Movers	1,879	127,559	38,199

Notes: Petroleum includes distillate fuel oil (all diesel and No. 1, No. 2, and No. 4 fuel oils), residual fuel oil (No. 5 and No. 6 fuel oils and bunker C fuel oil), jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), waste oil, and beginning in 2011, synthetic gas and propane. Prior to 2011, synthetic gas and propane were included in Other Gases.
In 2011, EIA corrected the NAICS codes of several plants which resulted in a net capacity shift from the electric utility sector to the commercial sector.
Source: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report.'

Table 4.14. Fuel-Switching Capacity of Operable Generators: From Natural Gas to Petroleum Liquids, by Year of Initial Commercial Operation, 2011 (Megawatts, Percent)

Year of Initial Commercial Operation	Number of Generators	Net Summer Capacity	Fuel Switchable Net Summer Capacity Reported to Have No Factors that Limit the Ability to Switch to Petroleum Liquids
Pre-1970	351	13,529	8,755
1970-1974	388	18,826	11,293
1975-1979	104	9,913	6,021
1980-1984	49	978	210
1985-1989	108	3,230	410
1990-1994	210	12,029	1,457
1995-1999	132	9,653	2,163
2000-2004	380	39,538	5,804
2005-2009	105	14,448	2,066
2010-2011	52	5,414	20
Total	1,879	127,559	38,199

Notes: Petroleum includes distillate fuel oil (all diesel and No. 1, No. 2, and No. 4 fuel oils), residual fuel oil (No. 5 and No. 6 fuel oils and bunker C fuel oil), jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), waste oil, and beginning in 2011, synthetic gas and propane. Prior to 2011, synthetic gas and propane were included in Other Gases.
In 2011, EIA corrected the NAICS codes of several plants which resulted in a net capacity shift from the electric utility sector to the commercial sector.
Source: U.S. Energy Information Administration, Form EIA-860, "Annual Electric Generator Report."

Chapter 5

Consumption of Fossil Fuels

Table 5.1.A. Coal: Consumption for Electricity Generation, by Sector, 2001 - 2011 (Thousand Tons)

Period	Total (all sectors)	Electric Power Sector		Commercial Sector	Industrial Sector
		Electric Utilities	Independent Power Producers		
Annual Totals					
2001	972,691	806,269	155,254	532	10,636
2002	987,583	767,803	207,448	477	11,855
2003	1,014,058	757,384	245,652	582	10,440
2004	1,020,523	772,224	240,235	377	7,687
2005	1,041,448	761,349	272,218	377	7,504
2006	1,030,556	753,390	269,412	347	7,408
2007	1,046,795	764,765	276,581	361	5,089
2008	1,042,335	760,326	276,565	369	5,075
2009	934,683	695,615	234,077	317	4,674
2010	979,684	721,431	249,814	314	8,125
2011	934,938	689,316	239,541	347	5,735
2009					
January	90,639	66,535	23,688	32	384
February	74,256	54,408	19,485	28	334
March	71,990	53,064	18,520	25	382
April	67,209	49,581	17,250	22	356
May	70,508	52,633	17,472	22	381
June	79,071	59,827	18,809	24	412
July	84,360	63,066	20,850	28	415
August	86,789	64,759	21,563	30	437
September	73,705	55,923	17,365	26	391
October	74,686	55,597	18,635	24	430
November	73,150	54,755	18,012	26	357
December	88,320	65,468	22,427	30	396
2010					
January	90,767	67,211	22,869	32	654
February	80,209	59,279	20,258	28	643
March	76,544	56,252	19,520	26	746
April	67,037	49,997	16,562	23	456
May	76,061	56,847	18,464	23	727
June	87,395	64,891	21,833	27	643
July	94,993	69,933	24,261	30	769
August	94,786	69,860	24,061	29	835
September	79,573	58,199	20,682	26	666
October	70,918	51,353	18,851	23	690
November	72,756	52,962	19,244	21	529
December	88,645	64,645	23,208	26	765
2011					
January	90,208	66,083	23,598	40	487
February	73,614	54,434	18,733	39	409
March	72,645	54,115	18,034	37	460
April	67,128	49,443	17,200	25	460
May	73,522	54,959	18,051	25	487
June	84,156	62,690	20,931	27	507
July	94,304	69,942	23,782	32	548
August	92,297	68,137	23,570	29	562
September	76,790	55,844	20,442	26	479
October	69,605	50,644	18,520	21	419
November	67,059	48,879	17,762	21	397
December	73,610	54,146	18,917	26	521

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
The new methodology was retroactively applied to 2004-2007 data. See the Technical Notes (Appendix C) for further information. See Glossary for definitions.
Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
See the Technical Notes for fuel conversion factors.
Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report.

Table 5.1.B. Coal: Consumption for Useful Thermal Output, by Sector, 2001 - 2011 (Thousand Tons)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2001	18,944	--	2,910	916	15,119
2002	17,561	--	2,255	929	14,377
2003	17,720	--	2,080	1,234	14,406
2004	24,275	--	3,809	1,540	18,926
2005	23,833	--	3,918	1,544	18,371
2006	23,227	--	3,834	1,539	17,854
2007	22,810	--	3,795	1,566	17,449
2008	22,168	--	3,689	1,652	16,827
2009	20,507	--	3,935	1,481	15,091
2010	21,727	--	3,808	1,406	16,513
2011	21,532	--	3,628	1,321	16,584
2009					
January	2,002	--	416	177	1,410
February	1,782	--	360	151	1,271
March	1,819	--	365	144	1,310
April	1,529	--	293	106	1,131
May	1,584	--	320	95	1,169
June	1,618	--	318	112	1,189
July	1,680	--	326	110	1,244
August	1,683	--	313	113	1,257
September	1,599	--	278	101	1,220
October	1,633	--	288	104	1,240
November	1,686	--	297	125	1,264
December	1,892	--	361	144	1,387
2010					
January	1,972	--	371	160	1,440
February	1,820	--	347	139	1,334
March	1,839	--	338	123	1,378
April	2,142	--	284	95	1,764
May	1,664	--	285	95	1,283
June	1,668	--	306	108	1,255
July	1,790	--	325	112	1,354
August	1,807	--	326	123	1,359
September	1,677	--	296	107	1,275
October	1,653	--	287	98	1,267
November	1,740	--	308	107	1,325
December	1,955	--	336	139	1,481
2011					
January	2,084	--	340	149	1,595
February	1,833	--	307	135	1,391
March	1,869	--	310	127	1,431
April	1,713	--	287	98	1,327
May	1,776	--	328	99	1,349
June	1,726	--	287	103	1,336
July	1,824	--	313	113	1,397
August	1,807	--	305	101	1,400
September	1,689	--	283	96	1,309
October	1,712	--	294	89	1,329
November	1,689	--	277	96	1,315
December	1,812	--	296	113	1,403

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
The new methodology was retroactively applied to 2004-2007 data. See the Technical Notes (Appendix C) for further information. See Glossary for definitions.
Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
See the Technical Notes for fuel conversion factors.
Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report.

Table 5.1.C. Coal: Consumption for Electricity Generation and Useful Thermal Output, by Sector, 2001 - 2011 (Thousand Tons)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2001	991,635	806,269	158,163	1,448	25,755
2002	1,005,144	767,803	209,703	1,405	26,232
2003	1,031,778	757,384	247,732	1,816	24,846
2004	1,044,798	772,224	244,044	1,917	26,613
2005	1,065,281	761,349	276,135	1,922	25,875
2006	1,053,783	753,390	273,246	1,886	25,262
2007	1,069,606	764,765	280,377	1,927	22,537
2008	1,064,503	760,326	280,254	2,021	21,902
2009	955,190	695,615	238,012	1,798	19,766
2010	1,001,411	721,431	253,621	1,720	24,638
2011	956,470	689,316	243,168	1,668	22,319
2009					
January	92,641	66,535	24,105	208	1,793
February	76,038	54,408	19,846	178	1,605
March	73,810	53,064	18,884	170	1,692
April	68,738	49,581	17,543	128	1,487
May	72,092	52,633	17,792	117	1,550
June	80,689	59,827	19,127	135	1,600
July	86,039	63,066	21,177	137	1,659
August	88,471	64,759	21,876	143	1,694
September	75,305	55,923	17,643	127	1,611
October	76,319	55,597	18,923	129	1,671
November	74,836	54,755	18,308	151	1,622
December	90,212	65,468	22,788	174	1,783
2010					
January	92,738	67,211	23,240	193	2,094
February	82,029	59,279	20,605	167	1,978
March	78,383	56,252	19,858	149	2,124
April	69,179	49,997	16,845	117	2,220
May	77,725	56,847	18,750	118	2,010
June	89,063	64,891	22,139	135	1,898
July	96,783	69,933	24,586	142	2,122
August	96,593	69,860	24,387	152	2,194
September	81,250	58,199	20,977	133	1,941
October	72,571	51,353	19,139	121	1,958
November	74,496	52,962	19,552	128	1,854
December	90,600	64,645	23,544	165	2,246
2011					
January	92,292	66,083	23,939	189	2,082
February	75,447	54,434	19,040	173	1,800
March	74,514	54,115	18,343	164	1,891
April	68,841	49,443	17,487	124	1,787
May	75,298	54,959	18,379	124	1,836
June	85,881	62,690	21,218	130	1,843
July	96,128	69,942	24,095	145	1,946
August	94,103	68,137	23,875	129	1,962
September	78,479	55,844	20,724	122	1,788
October	71,317	50,644	18,814	110	1,748
November	68,748	48,879	18,039	117	1,712
December	75,422	54,146	19,213	139	1,923

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
The new methodology was retroactively applied to 2004-2007 data. See the Technical Notes (Appendix C) for further information. See Glossary for definitions.
Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
See the Technical Notes for fuel conversion factors.
Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report.

Table 5.1.D. Coal: Consumption for Electricity Generation, by Sector, 2001 - 2011 (Billion Btus)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2001	19,789,453	16,171,487	3,377,662	12,954	227,350
2002	19,996,890	15,517,857	4,215,043	9,168	254,821
2003	20,366,879	15,391,188	4,745,545	13,080	217,066
2004	20,375,751	15,610,335	4,606,584	8,251	150,581
2005	20,801,716	15,397,688	5,250,824	8,314	144,889
2006	20,527,410	15,211,077	5,166,001	7,526	142,807
2007	20,841,871	15,436,110	5,287,202	7,833	110,727
2008	20,548,610	15,189,050	5,242,194	8,070	109,296
2009	18,240,611	13,744,178	4,390,596	7,007	98,829
2010	19,196,315	14,333,496	4,709,686	6,815	146,318
2011	18,074,298	13,551,416	4,399,144	7,263	116,475
2009					
January	1,777,739	1,317,914	450,974	700	8,152
February	1,450,762	1,073,718	369,320	605	7,119
March	1,403,493	1,045,569	349,131	553	8,241
April	1,309,455	976,589	324,616	485	7,765
May	1,370,994	1,036,656	325,760	492	8,085
June	1,548,142	1,186,858	352,078	545	8,662
July	1,649,435	1,248,757	391,308	621	8,750
August	1,703,828	1,285,531	408,505	667	9,125
September	1,428,231	1,101,948	317,515	573	8,195
October	1,447,246	1,093,341	344,419	528	8,957
November	1,419,153	1,078,610	332,498	579	7,466
December	1,732,132	1,298,688	424,472	660	8,311
2010					
January	1,792,455	1,341,522	438,461	703	11,769
February	1,584,519	1,181,007	391,557	621	11,334
March	1,493,927	1,114,613	365,639	559	13,115
April	1,316,582	995,633	311,079	481	9,389
May	1,489,806	1,129,893	346,590	514	12,809
June	1,722,718	1,294,123	416,294	601	11,699
July	1,876,586	1,401,288	460,903	676	13,719
August	1,865,192	1,393,687	456,226	644	14,636
September	1,550,912	1,153,963	384,143	556	12,251
October	1,371,705	1,012,350	346,400	487	12,467
November	1,401,177	1,036,324	354,510	432	9,911
December	1,730,737	1,279,092	437,884	541	13,218
2011					
January	1,763,170	1,307,741	444,639	836	9,955
February	1,432,157	1,072,748	350,173	798	8,438
March	1,400,484	1,061,807	328,646	756	9,274
April	1,295,986	972,440	313,907	529	9,110
May	1,432,180	1,086,571	335,344	537	9,727
June	1,646,308	1,246,730	388,860	596	10,123
July	1,847,192	1,390,380	445,064	682	11,066
August	1,797,976	1,351,103	434,923	617	11,333
September	1,471,083	1,094,574	366,248	548	9,712
October	1,321,304	978,991	333,369	436	8,509
November	1,271,795	944,086	319,257	415	8,036
December	1,394,662	1,044,244	338,714	513	11,191

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
The new methodology was retroactively applied to 2004-2007 data. See the Technical Notes (Appendix C) for further information. See Glossary for definitions.
Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
See the Technical Notes for fuel conversion factors.
Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report.

Table 5.1.E. Coal: Consumption for Useful Thermal Output, by Sector, 2001 - 2011 (Billion Btus)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2001	442,806	--	64,397	23,105	355,304
2002	421,084	--	50,041	23,099	347,944
2003	416,700	--	47,817	28,479	340,405
2004	564,497	--	87,981	34,538	441,978
2005	548,666	--	88,364	34,616	425,685
2006	532,561	--	84,335	34,086	414,140
2007	521,717	--	83,838	34,690	403,189
2008	503,096	--	81,416	36,163	385,517
2009	462,674	--	90,867	32,651	339,156
2010	490,931	--	90,184	30,725	370,022
2011	479,822	--	84,855	28,056	366,911
2009					
January	45,063	--	9,328	3,889	31,847
February	40,173	--	8,132	3,295	28,745
March	41,029	--	8,332	3,144	29,553
April	34,657	--	6,611	2,311	25,735
May	35,576	--	7,276	2,103	26,197
June	36,470	--	7,314	2,528	26,628
July	37,973	--	7,512	2,488	27,973
August	37,938	--	7,236	2,570	28,132
September	36,366	--	6,766	2,259	27,341
October	36,626	--	6,841	2,268	27,516
November	38,075	--	7,006	2,681	28,387
December	42,729	--	8,512	3,115	31,102
2010					
January	44,514	--	8,627	3,445	32,442
February	40,887	--	8,041	3,024	29,823
March	41,529	--	7,926	2,646	30,957
April	49,876	--	6,822	2,048	41,006
May	37,678	--	6,843	2,099	28,736
June	37,546	--	7,185	2,461	27,900
July	40,421	--	7,799	2,604	30,018
August	40,523	--	7,634	2,767	30,121
September	37,922	--	7,172	2,350	28,401
October	37,289	--	6,993	2,099	28,197
November	38,881	--	7,182	2,263	29,436
December	43,865	--	7,959	2,919	32,987
2011					
January	46,693	--	7,965	3,205	35,523
February	40,900	--	7,129	2,879	30,892
March	42,037	--	7,448	2,680	31,909
April	38,014	--	6,703	2,064	29,247
May	39,478	--	7,680	2,137	29,662
June	38,498	--	6,693	2,258	29,547
July	40,876	--	7,353	2,508	31,015
August	40,319	--	7,136	2,239	30,945
September	37,717	--	6,626	2,077	29,014
October	38,024	--	6,905	1,781	29,339
November	37,180	--	6,248	1,914	29,019
December	40,087	--	6,971	2,317	30,799

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
The new methodology was retroactively applied to 2004-2007 data. See the Technical Notes (Appendix C) for further information. See Glossary for definitions.
Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
See the Technical Notes for fuel conversion factors.
Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report.

Table 5.1.F. Coal: Consumption for Electricity Generation and Useful Thermal Output, by Sector, 2001 - 2011 (Billion Btus)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2001	20,232,259	16,171,487	3,442,059	36,059	582,654
2002	20,417,974	15,517,857	4,265,084	32,267	602,765
2003	20,783,579	15,391,188	4,793,362	41,559	557,471
2004	20,940,247	15,610,335	4,694,565	42,789	592,559
2005	21,350,382	15,397,688	5,339,188	42,931	570,574
2006	21,059,972	15,211,077	5,250,336	41,612	556,948
2007	21,363,588	15,436,110	5,371,039	42,523	513,916
2008	21,051,706	15,189,050	5,323,610	44,233	494,813
2009	18,703,284	13,744,178	4,481,463	39,658	437,985
2010	19,687,246	14,333,496	4,799,870	37,540	516,341
2011	18,554,120	13,551,416	4,483,999	35,319	483,385
2009					
January	1,822,803	1,317,914	460,302	4,589	39,999
February	1,490,934	1,073,718	377,452	3,900	35,865
March	1,444,522	1,045,569	357,463	3,697	37,794
April	1,344,112	976,589	331,227	2,796	33,499
May	1,406,570	1,036,656	333,036	2,596	34,282
June	1,584,611	1,186,858	359,392	3,072	35,290
July	1,687,408	1,248,757	398,820	3,109	36,723
August	1,741,766	1,285,531	415,741	3,237	37,257
September	1,464,597	1,101,948	324,281	2,832	35,536
October	1,483,872	1,093,341	351,261	2,796	36,474
November	1,457,228	1,078,610	339,505	3,259	35,854
December	1,774,861	1,298,688	432,984	3,775	39,413
2010					
January	1,836,969	1,341,522	447,089	4,148	44,210
February	1,625,407	1,181,007	399,597	3,645	41,158
March	1,535,456	1,114,613	373,565	3,205	44,072
April	1,366,458	995,633	317,902	2,528	50,395
May	1,527,484	1,129,893	353,433	2,613	41,544
June	1,760,264	1,294,123	423,479	3,063	39,599
July	1,917,007	1,401,288	468,702	3,280	43,738
August	1,905,714	1,393,687	463,860	3,411	44,757
September	1,588,834	1,153,963	391,314	2,906	40,652
October	1,408,993	1,012,350	353,393	2,585	40,664
November	1,440,058	1,036,324	361,692	2,695	39,346
December	1,774,601	1,279,092	445,843	3,460	46,205
2011					
January	1,809,863	1,307,741	452,604	4,040	45,479
February	1,473,056	1,072,748	357,302	3,677	39,330
March	1,442,520	1,061,807	336,094	3,436	41,183
April	1,334,000	972,440	320,611	2,593	38,357
May	1,471,658	1,086,571	343,024	2,674	39,389
June	1,684,806	1,246,730	395,552	2,854	39,670
July	1,888,069	1,390,380	452,416	3,191	42,082
August	1,838,295	1,351,103	442,059	2,856	42,277
September	1,508,800	1,094,574	372,875	2,625	38,726
October	1,359,328	978,991	340,273	2,216	37,848
November	1,308,974	944,086	325,505	2,329	37,055
December	1,434,749	1,044,244	345,685	2,829	41,990

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
The new methodology was retroactively applied to 2004-2007 data. See the Technical Notes (Appendix C) for further information. See Glossary for definitions.
Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
See the Technical Notes for fuel conversion factors.
Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report.

Table 5.2.A. Petroleum Liquids: Consumption for Electricity Generation, by Sector, 2001 - 2011 (Thousand Barrels)

Period	Total (all sectors)	Electric Power Sector		Commercial Sector	Industrial Sector
		Electric Utilities	Independent Power Producers		
Annual Totals					
2001	197,316	126,367	62,211	991	7,746
2002	134,415	88,595	39,035	826	5,959
2003	175,136	105,319	61,420	882	7,514
2004	165,107	103,793	56,342	760	4,212
2005	165,137	98,223	62,154	580	4,180
2006	73,821	53,529	17,179	327	2,786
2007	82,433	56,910	22,793	250	2,480
2008	53,846	38,995	13,152	160	1,538
2009	43,562	31,847	9,880	184	1,652
2010	40,103	30,806	8,278	164	855
2011	27,326	20,844	5,633	133	716
2009					
January	8,339	4,402	3,648	53	237
February	3,873	2,562	1,069	22	220
March	3,543	2,335	1,022	12	175
April	2,694	2,138	403	12	141
May	3,472	2,868	439	11	154
June	3,464	2,916	411	7	130
July	3,585	2,957	508	9	112
August	4,144	3,153	858	14	119
September	2,745	2,299	331	9	106
October	3,047	2,590	370	10	77
November	2,187	1,749	347	10	81
December	2,467	1,879	473	15	100
2010					
January	5,587	4,381	1,083	17	106
February	2,156	1,599	454	15	88
March	2,178	1,775	325	11	66
April	2,013	1,633	306	10	63
May	3,168	2,593	496	14	65
June	4,485	3,667	750	13	55
July	5,228	3,545	1,589	26	68
August	4,245	3,232	944	15	54
September	2,844	2,154	622	13	56
October	2,029	1,581	369	10	69
November	2,001	1,487	436	5	73
December	4,170	3,161	903	14	91
2011					
January	3,325	2,207	1,005	26	87
February	2,077	1,590	400	16	72
March	2,160	1,737	351	10	63
April	2,450	2,091	296	5	57
May	2,291	1,886	347	5	52
June	2,355	1,745	553	5	53
July	2,926	1,906	958	14	49
August	2,290	1,749	480	12	49
September	1,834	1,427	342	13	52
October	1,835	1,481	280	10	64
November	1,832	1,488	278	10	55
December	1,952	1,539	343	8	62

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
The new methodology was retroactively applied to 2004-2007 data. See the Technical Notes (Appendix C) for further information. See Glossary for definitions.
Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
Petroleum Liquids includes distillate and residual fuel oils, jet fuel, kerosene, waste oil, and beginning in 2011, propane. Prior to 2011 propane was included in Other Gases.
See the Technical Notes for fuel conversion factors.
Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report.

Table 5.2.B. Petroleum Liquids: Consumption for Useful Thermal Output, by Sector, 2001 - 2011 (Thousand Barrels)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2001	14,963	--	576	809	13,577
2002	12,228	--	286	384	11,558
2003	14,124	--	1,197	512	12,414
2004	20,654	--	1,501	1,203	17,951
2005	20,494	--	1,392	1,004	18,097
2006	14,077	--	1,153	559	12,365
2007	13,462	--	1,303	441	11,718
2008	7,533	--	1,311	461	5,762
2009	8,128	--	1,301	293	6,534
2010	4,866	--	1,086	212	3,567
2011	3,826	--	1,004	168	2,654
2009					
January	1,153	--	213	117	823
February	828	--	116	42	669
March	730	--	106	19	605
April	628	--	103	13	512
May	853	--	102	9	742
June	621	--	85	7	529
July	564	--	88	10	466
August	526	--	91	16	419
September	544	--	87	5	452
October	508	--	109	7	392
November	525	--	99	18	408
December	650	--	103	30	517
2010					
January	606	--	105	31	470
February	504	--	78	26	401
March	335	--	46	7	281
April	355	--	86	9	260
May	340	--	93	14	232
June	304	--	89	13	202
July	392	--	90	34	268
August	337	--	91	26	220
September	313	--	88	9	215
October	398	--	95	5	298
November	431	--	128	8	296
December	552	--	97	31	424
2011					
January	538	--	94	69	375
February	370	--	72	26	272
March	333	--	75	9	249
April	287	--	83	3	201
May	287	--	82	7	198
June	286	--	82	4	200
July	272	--	87	8	176
August	284	--	92	8	184
September	280	--	89	11	180
October	311	--	87	5	219
November	293	--	83	14	195
December	286	--	76	3	207

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
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Petroleum Liquids includes distillate and residual fuel oils, jet fuel, kerosene, waste oil, and beginning in 2011, propane. Prior to 2011 propane was included in Other Gases.
See the Technical Notes for fuel conversion factors.
Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report.

Table 5.2.C. Petroleum Liquids: Consumption for Electricity Generation and Useful Thermal Output, by Sector, 2001 - 2011 (Thousand Barrels)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2001	212,279	126,367	62,788	1,801	21,323
2002	146,643	88,595	39,320	1,210	17,517
2003	189,260	105,319	62,617	1,394	19,929
2004	185,761	103,793	57,843	1,963	22,162
2005	185,631	98,223	63,546	1,584	22,278
2006	87,898	53,529	18,332	886	15,150
2007	95,895	56,910	24,097	691	14,198
2008	61,379	38,995	14,463	621	7,300
2009	51,690	31,847	11,181	477	8,185
2010	44,968	30,806	9,364	376	4,422
2011	31,152	20,844	6,637	301	3,370
2009					
January	9,492	4,402	3,861	170	1,060
February	4,700	2,562	1,185	64	889
March	4,273	2,335	1,128	31	779
April	3,322	2,138	506	26	653
May	4,325	2,868	541	19	896
June	4,085	2,916	496	14	659
July	4,150	2,957	595	19	578
August	4,670	3,153	949	31	538
September	3,289	2,299	418	15	558
October	3,555	2,590	478	17	469
November	2,713	1,749	447	29	489
December	3,117	1,879	577	44	617
2010					
January	6,193	4,381	1,188	48	576
February	2,660	1,599	532	41	489
March	2,512	1,775	371	18	348
April	2,367	1,633	392	19	323
May	3,507	2,593	589	28	297
June	4,789	3,667	839	26	257
July	5,620	3,545	1,679	59	336
August	4,582	3,232	1,035	40	274
September	3,157	2,154	711	22	271
October	2,427	1,581	463	15	367
November	2,433	1,487	564	13	369
December	4,722	3,161	1,000	46	515
2011					
January	3,863	2,207	1,099	95	462
February	2,447	1,590	472	42	343
March	2,493	1,737	425	19	312
April	2,736	2,091	380	8	258
May	2,578	1,886	430	12	250
June	2,642	1,745	636	9	253
July	3,198	1,906	1,045	23	225
August	2,573	1,749	572	20	233
September	2,114	1,427	431	23	232
October	2,145	1,481	367	14	283
November	2,124	1,488	361	24	251
December	2,238	1,539	419	11	269

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
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Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
Petroleum Liquids includes distillate and residual fuel oils, jet fuel, kerosene, waste oil, and beginning in 2011, propane. Prior to 2011 propane was included in Other Gases.
See the Technical Notes for fuel conversion factors.
Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report.

Table 5.2.D. Petroleum Liquids: Consumption for Electricity Generation, by Sector, 2001 - 2011 (Billion Btus)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2001	1,236,854	795,969	388,544	5,751	46,588
2002	835,481	553,390	241,892	3,953	36,243
2003	1,089,307	658,868	380,378	5,358	44,702
2004	1,031,954	651,712	350,093	4,544	25,606
2005	1,035,045	618,811	387,355	3,469	25,410
2006	459,392	335,130	105,312	1,963	16,987
2007	512,423	355,999	139,977	1,505	14,942
2008	332,367	242,379	79,816	957	9,215
2009	266,508	196,346	59,277	1,101	9,784
2010	244,114	188,987	49,042	970	5,115
2011	163,954	125,755	33,166	801	4,233
2009					
January	51,523	27,254	22,526	318	1,426
February	23,581	15,769	6,377	130	1,305
March	21,447	14,214	6,152	70	1,010
April	16,384	13,146	2,335	73	829
May	21,199	17,723	2,493	64	920
June	21,268	18,091	2,374	41	762
July	22,063	18,333	3,011	54	664
August	25,558	19,594	5,191	84	689
September	16,816	14,205	1,926	55	629
October	18,707	16,048	2,138	59	461
November	13,175	10,627	1,999	61	487
December	14,787	11,341	2,753	89	604
2010					
January	33,737	26,715	6,282	100	639
February	12,882	9,681	2,578	89	534
March	13,180	10,815	1,900	68	397
April	12,156	9,948	1,773	61	375
May	19,351	15,956	2,926	84	386
June	27,665	22,803	4,455	77	329
July	32,279	22,030	9,689	153	406
August	26,126	20,015	5,703	88	319
September	17,357	13,250	3,699	75	333
October	12,267	9,642	2,154	58	412
November	12,024	8,970	2,587	32	435
December	25,091	19,162	5,295	84	549
2011					
January	20,010	13,314	6,015	160	521
February	12,446	9,595	2,331	95	425
March	12,977	10,490	2,054	57	376
April	14,715	12,631	1,713	32	340
May	13,840	11,454	2,050	29	307
June	14,196	10,558	3,296	28	313
July	17,692	11,583	5,739	86	284
August	13,843	10,674	2,810	72	286
September	10,910	8,569	1,960	76	305
October	10,891	8,840	1,613	57	381
November	10,872	8,879	1,605	61	326
December	11,562	9,169	1,978	47	368

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
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Petroleum Liquids includes distillate and residual fuel oils, jet fuel, kerosene, waste oil, and beginning in 2011, propane. Prior to 2011 propane was included in Other Gases.
See the Technical Notes for fuel conversion factors.
Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report.

Table 5.2.E. Petroleum Liquids: Consumption for Useful Thermal Output, by Sector, 2001 - 2011 (Billion Btus)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2001	93,712	--	4,074	5,016	84,622
2002	76,737	--	1,669	3,276	71,788
2003	85,488	--	6,963	3,176	75,349
2004	124,809	--	8,592	7,219	108,997
2005	125,689	--	8,134	6,145	111,410
2006	87,137	--	6,740	3,481	76,916
2007	82,768	--	7,602	2,754	72,412
2008	45,481	--	7,644	2,786	35,051
2009	48,912	--	7,557	1,802	39,552
2010	29,243	--	6,402	1,297	21,545
2011	22,799	--	5,927	1,039	15,833
2009					
January	6,969	--	1,217	718	5,034
February	4,965	--	650	260	4,054
March	4,371	--	608	115	3,649
April	3,775	--	594	82	3,100
May	5,172	--	576	52	4,544
June	3,741	--	504	41	3,196
July	3,387	--	520	63	2,805
August	3,143	--	536	101	2,506
September	3,261	--	513	32	2,717
October	3,044	--	644	45	2,355
November	3,159	--	587	114	2,459
December	3,923	--	610	179	3,133
2010					
January	3,648	--	614	190	2,843
February	3,027	--	422	157	2,447
March	2,015	--	272	43	1,699
April	2,113	--	506	55	1,552
May	2,043	--	554	85	1,404
June	1,826	--	531	78	1,217
July	2,357	--	534	209	1,613
August	2,022	--	541	159	1,322
September	1,886	--	526	55	1,304
October	2,401	--	565	30	1,806
November	2,589	--	765	46	1,778
December	3,316	--	572	187	2,557
2011					
January	3,261	--	554	434	2,273
February	2,197	--	415	169	1,613
March	1,988	--	443	56	1,490
April	1,702	--	495	16	1,191
May	1,704	--	489	42	1,173
June	1,706	--	489	23	1,193
July	1,614	--	517	53	1,045
August	1,680	--	543	47	1,090
September	1,656	--	527	65	1,063
October	1,849	--	515	29	1,304
November	1,736	--	490	86	1,160
December	1,708	--	452	20	1,236

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
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Petroleum Liquids includes distillate and residual fuel oils, jet fuel, kerosene, waste oil, and beginning in 2011, propane. Prior to 2011 propane was included in Other Gases.
See the Technical Notes for fuel conversion factors.
Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report.

Table 5.2.F. Petroleum Liquids: Consumption for Electricity Generation and Useful Thermal Output, by Sector, 2001 - 2011 (Billion Btus)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2001	1,330,566	795,969	392,618	10,767	131,210
2002	912,218	553,390	243,561	7,229	108,031
2003	1,174,795	658,868	387,341	8,534	120,051
2004	1,156,763	651,712	358,685	11,763	134,603
2005	1,160,733	618,811	395,489	9,614	136,820
2006	546,529	335,130	112,052	5,444	93,903
2007	595,191	355,999	147,579	4,259	87,354
2008	377,848	242,379	87,460	3,743	44,266
2009	315,420	196,346	66,834	2,903	49,336
2010	273,357	188,987	55,444	2,267	26,660
2011	186,753	125,755	39,093	1,840	20,066
2009					
January	58,493	27,254	23,743	1,037	6,460
February	28,546	15,769	7,027	390	5,359
March	25,818	14,214	6,760	185	4,659
April	20,159	13,146	2,929	155	3,929
May	26,371	17,723	3,069	117	5,463
June	25,008	18,091	2,878	83	3,957
July	25,450	18,333	3,531	117	3,468
August	28,701	19,594	5,727	186	3,195
September	20,077	14,205	2,439	87	3,346
October	21,751	16,048	2,782	104	2,817
November	16,335	10,627	2,586	175	2,946
December	18,710	11,341	3,364	268	3,737
2010					
January	37,385	26,715	6,896	291	3,483
February	15,909	9,681	3,000	247	2,981
March	15,196	10,815	2,172	111	2,097
April	14,269	9,948	2,279	116	1,927
May	21,394	15,956	3,480	169	1,790
June	29,491	22,803	4,986	155	1,546
July	34,635	22,030	10,223	363	2,019
August	28,148	20,015	6,244	247	1,641
September	19,243	13,250	4,225	130	1,637
October	14,668	9,642	2,719	88	2,219
November	14,613	8,970	3,352	78	2,213
December	28,407	19,162	5,867	271	3,107
2011					
January	23,271	13,314	6,569	594	2,794
February	14,643	9,595	2,746	264	2,038
March	14,965	10,490	2,497	113	1,866
April	16,417	12,631	2,208	47	1,531
May	15,544	11,454	2,539	71	1,480
June	15,901	10,558	3,785	52	1,507
July	19,306	11,583	6,256	138	1,329
August	15,522	10,674	3,353	119	1,376
September	12,566	8,569	2,487	142	1,369
October	12,740	8,840	2,128	86	1,685
November	12,608	8,879	2,095	148	1,487
December	13,269	9,169	2,429	67	1,605

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
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See the Technical Notes for fuel conversion factors.
Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report.

Table 5.3.A. Petroleum Coke: Consumption for Electricity Generation, by Sector, 2001 - 2011 (Thousand Tons)

Period	Total (all sectors)	Electric Power Sector		Commercial Sector	Industrial Sector
		Electric Utilities	Independent Power Producers		
Annual Totals					
2001	3,871	1,418	1,890	6	557
2002	6,836	2,125	3,580	2	1,130
2003	6,303	2,554	3,166	2	582
2004	7,677	4,150	2,985	1	541
2005	8,330	4,130	3,746	1	452
2006	7,363	3,619	3,286	1	456
2007	6,036	2,808	2,715	2	512
2008	5,417	2,296	2,704	1	416
2009	4,821	2,761	1,724	1	335
2010	4,994	3,325	1,354	2	313
2011	5,012	3,449	1,277	1	286
2009					
January	426	265	132	*	28
February	390	230	133	*	27
March	480	312	143	*	25
April	427	265	139	--	24
May	432	271	136	--	26
June	433	252	154	--	27
July	455	253	170	--	32
August	439	249	160	*	30
September	438	244	163	*	31
October	276	121	126	--	29
November	273	116	127	*	30
December	353	183	143	*	27
2010					
January	433	283	121	*	29
February	404	258	120	*	25
March	438	308	108	*	23
April	382	253	107	*	22
May	415	261	129	--	25
June	493	319	144	--	30
July	524	340	155	--	29
August	423	286	106	*	31
September	394	296	75	*	23
October	362	245	92	*	25
November	317	201	89	*	27
December	408	274	108	*	25
2011					
January	552	400	124	*	28
February	431	295	114	*	22
March	517	344	151	*	22
April	336	218	94	--	24
May	357	232	101	--	24
June	432	302	107	--	22
July	510	359	131	--	19
August	464	330	110	--	24
September	454	333	95	--	26
October	338	229	83	--	25
November	257	155	77	*	25
December	365	252	88	*	25

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
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Petroleum Coke includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
See the Technical Notes for fuel conversion factors.
Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
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Table 5.3.B. Petroleum Coke: Consumption for Useful Thermal Output, by Sector, 2001 - 2011 (Thousand Tons)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2001	661	--	119	--	542
2002	517	--	111	6	399
2003	763	--	80	9	675
2004	1,043	--	237	8	798
2005	783	--	206	8	568
2006	1,259	--	195	9	1,055
2007	1,262	--	162	11	1,090
2008	897	--	119	9	769
2009	1,007	--	126	8	873
2010	1,059	--	98	11	950
2011	1,080	--	112	6	962
2009					
January	83	--	12	1	71
February	84	--	11	1	72
March	79	--	9	1	69
April	68	--	11	--	57
May	68	--	11	--	57
June	81	--	12	--	69
July	91	--	11	--	79
August	92	--	10	1	80
September	93	--	10	1	83
October	88	--	9	--	79
November	93	--	10	1	82
December	87	--	10	2	75
2010					
January	92	--	10	1	81
February	93	--	10	1	82
March	84	--	12	1	71
April	76	--	9	1	66
May	84	--	10	--	75
June	93	--	8	--	86
July	89	--	8	--	80
August	87	--	2	1	84
September	82	--	2	1	79
October	91	--	9	1	81
November	97	--	11	1	84
December	91	--	9	2	81
2011					
January	93	--	5	1	86
February	90	--	9	1	81
March	85	--	11	1	73
April	92	--	9	--	83
May	95	--	11	--	84
June	89	--	9	--	80
July	89	--	11	--	79
August	81	--	11	--	70
September	90	--	10	--	80
October	91	--	7	--	84
November	88	--	9	1	79
December	95	--	10	1	84

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
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Petroleum Coke includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
See the Technical Notes for fuel conversion factors.
Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
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Table 5.3.C. Petroleum Coke: Consumption for Electricity Generation and Useful Thermal Output, by Sector, 2001 - 2011 (Thousand Tons)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2001	4,532	1,418	2,009	6	1,099
2002	7,353	2,125	3,691	8	1,529
2003	7,067	2,554	3,245	11	1,257
2004	8,721	4,150	3,223	9	1,339
2005	9,113	4,130	3,953	9	1,020
2006	8,622	3,619	3,482	10	1,511
2007	7,299	2,808	2,877	12	1,602
2008	6,314	2,296	2,823	10	1,184
2009	5,828	2,761	1,850	9	1,209
2010	6,053	3,325	1,452	12	1,264
2011	6,092	3,449	1,388	6	1,248
2009					
January	509	265	144	1	98
February	474	230	143	1	99
March	559	312	153	1	94
April	494	265	149	--	81
May	501	271	147	--	83
June	514	252	165	--	96
July	545	253	181	--	112
August	530	249	170	1	110
September	531	244	173	1	114
October	364	121	135	--	108
November	366	116	136	1	112
December	441	183	153	2	103
2010					
January	525	283	130	1	110
February	497	258	131	1	106
March	522	308	119	1	94
April	458	253	116	1	88
May	500	261	139	--	100
June	586	319	151	--	116
July	613	340	163	--	109
August	510	286	108	1	115
September	475	296	76	1	102
October	453	245	101	1	106
November	414	201	100	2	111
December	499	274	117	2	106
2011					
January	645	400	129	1	114
February	521	295	122	1	102
March	603	344	162	1	95
April	428	218	103	--	107
May	452	232	112	--	108
June	521	302	117	--	102
July	599	359	142	--	98
August	545	330	121	--	94
September	545	333	105	--	106
October	429	229	90	--	109
November	345	155	86	1	103
December	460	252	98	2	109

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
The new methodology was retroactively applied to 2004-2007 data. See the Technical Notes (Appendix C) for further information. See Glossary for definitions.
Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
Petroleum Coke includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
See the Technical Notes for fuel conversion factors.
Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report.

Table 5.3.D. Petroleum Coke: Consumption for Electricity Generation, by Sector, 2001 - 2011 (Billion Btus)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2001	110,260	40,137	54,859	46	15,218
2002	178,725	57,296	102,224	48	19,158
2003	176,657	69,695	90,102	65	16,796
2004	216,047	116,086	83,979	33	15,949
2005	234,217	115,727	105,163	33	13,295
2006	208,518	102,117	92,643	33	13,726
2007	170,166	77,941	77,135	45	15,045
2008	152,933	64,843	76,416	37	11,638
2009	136,474	77,919	48,776	32	9,747
2010	141,774	94,331	38,235	44	9,165
2011	144,406	99,257	36,923	20	8,206
2009					
January	11,913	7,412	3,722	4	775
February	11,070	6,510	3,783	4	773
March	13,474	8,658	4,082	3	731
April	12,131	7,506	3,929	--	697
May	12,262	7,665	3,848	--	749
June	12,427	7,285	4,345	--	797
July	12,738	6,986	4,805	--	947
August	12,549	7,161	4,516	5	867
September	12,252	6,781	4,560	4	907
October	7,816	3,453	3,523	--	840
November	7,802	3,306	3,622	5	870
December	10,039	5,197	4,041	6	795
2010					
January	12,265	7,995	3,431	5	835
February	11,386	7,244	3,415	4	723
March	12,395	8,660	3,054	6	676
April	10,813	7,146	3,029	4	635
May	11,779	7,415	3,630	--	733
June	13,964	9,060	4,043	--	861
July	14,869	9,661	4,362	--	845
August	12,020	8,153	2,979	4	884
September	11,265	8,455	2,112	4	693
October	10,338	6,953	2,628	5	753
November	9,051	5,728	2,519	6	798
December	11,628	7,861	3,031	7	729
2011					
January	15,806	11,407	3,591	5	802
February	12,355	8,480	3,247	4	624
March	14,855	9,896	4,321	5	633
April	9,679	6,299	2,693	--	686
May	10,278	6,675	2,894	--	709
June	12,476	8,724	3,103	--	649
July	14,730	10,320	3,844	--	565
August	13,397	9,457	3,259	--	681
September	13,161	9,629	2,800	--	732
October	9,750	6,619	2,414	--	717
November	7,377	4,473	2,205	2	697
December	10,543	7,278	2,551	4	710

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
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Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
Petroleum Coke includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
See the Technical Notes for fuel conversion factors.
Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report.

Table 5.3.E. Petroleum Coke: Consumption for Useful Thermal Output, by Sector, 2001 - 2011 (Billion Btus)

Period	Total (all sectors)	Electric Power Sector		Commercial Sector	Industrial Sector
		Electric Utilities	Independent Power Producers		
Annual Totals					
2001	19,242	--	3,556	147	15,539
2002	14,395	--	3,192	179	11,024
2003	21,170	--	2,282	244	18,644
2004	29,342	--	6,768	226	22,347
2005	22,224	--	5,935	228	16,061
2006	38,169	--	5,672	236	32,262
2007	38,033	--	4,710	303	33,019
2008	27,100	--	3,441	243	23,416
2009	29,974	--	3,652	213	26,109
2010	31,303	--	2,855	296	28,152
2011	31,943	--	3,244	153	28,546
2009					
January	2,423	--	339	30	2,053
February	2,458	--	308	26	2,124
March	2,380	--	273	21	2,086
April	2,039	--	308	--	1,731
May	2,066	--	322	--	1,744
June	2,410	--	341	--	2,069
July	2,731	--	324	--	2,407
August	2,717	--	303	37	2,377
September	2,803	--	285	25	2,493
October	2,601	--	265	--	2,336
November	2,751	--	285	32	2,434
December	2,596	--	298	43	2,254
2010					
January	2,683	--	285	33	2,365
February	2,770	--	302	29	2,439
March	2,424	--	338	36	2,050
April	2,257	--	255	22	1,980
May	2,498	--	280	--	2,217
June	2,716	--	222	--	2,493
July	2,620	--	242	--	2,377
August	2,525	--	52	29	2,445
September	2,534	--	54	28	2,452
October	2,721	--	252	32	2,437
November	2,868	--	324	41	2,503
December	2,688	--	250	46	2,393
2011					
January	2,698	--	152	35	2,511
February	2,661	--	250	29	2,383
March	2,502	--	317	34	2,151
April	2,723	--	269	--	2,455
May	2,806	--	308	--	2,499
June	2,660	--	273	--	2,386
July	2,682	--	311	--	2,371
August	2,420	--	307	--	2,113
September	2,690	--	301	--	2,389
October	2,698	--	212	--	2,485
November	2,601	--	254	16	2,331
December	2,802	--	292	38	2,472

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
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Petroleum Coke includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
See the Technical Notes for fuel conversion factors.
Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report.

Table 5.3.F. Petroleum Coke: Consumption for Electricity Generation and Useful Thermal Output, by Sector, 2001 - 2011 (Billion Btus)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2001	129,502	40,137	58,415	193	30,757
2002	193,120	57,296	105,416	227	30,182
2003	197,827	69,695	92,384	309	35,440
2004	245,389	116,086	90,747	259	38,297
2005	256,441	115,727	111,098	260	29,356
2006	246,687	102,117	98,314	269	45,987
2007	208,198	77,941	81,845	348	48,064
2008	180,034	64,843	79,856	280	35,055
2009	166,449	77,919	52,428	245	35,856
2010	173,078	94,331	41,090	340	37,317
2011	176,349	99,257	40,167	173	36,752
2009					
January	14,335	7,412	4,061	35	2,828
February	13,529	6,510	4,090	31	2,898
March	15,854	8,658	4,356	24	2,817
April	14,170	7,506	4,237	--	2,428
May	14,328	7,665	4,170	--	2,493
June	14,837	7,285	4,686	--	2,866
July	15,469	6,986	5,129	--	3,354
August	15,266	7,161	4,819	42	3,244
September	15,055	6,781	4,845	28	3,400
October	10,417	3,453	3,788	--	3,175
November	10,554	3,306	3,907	37	3,304
December	12,634	5,197	4,339	49	3,049
2010					
January	14,949	7,995	3,716	38	3,199
February	14,156	7,244	3,717	33	3,162
March	14,819	8,660	3,392	42	2,726
April	13,070	7,146	3,284	26	2,615
May	14,277	7,415	3,911	--	2,951
June	16,680	9,060	4,266	--	3,354
July	17,489	9,661	4,604	--	3,223
August	14,546	8,153	3,031	33	3,329
September	13,799	8,455	2,166	32	3,145
October	13,059	6,953	2,880	37	3,190
November	11,919	5,728	2,843	47	3,301
December	14,316	7,861	3,281	53	3,122
2011					
January	18,504	11,407	3,743	40	3,313
February	15,016	8,480	3,496	33	3,007
March	17,356	9,896	4,638	39	2,784
April	12,402	6,299	2,962	--	3,141
May	13,085	6,675	3,202	--	3,208
June	15,135	8,724	3,376	--	3,035
July	17,412	10,320	4,156	--	2,936
August	15,816	9,457	3,565	--	2,794
September	15,851	9,629	3,101	--	3,122
October	12,448	6,619	2,626	--	3,203
November	9,978	4,473	2,459	18	3,028
December	13,345	7,278	2,843	42	3,182

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
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Petroleum Coke includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
See the Technical Notes for fuel conversion factors.
Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report.

Table 5.4.A. Natural Gas: Consumption for Electricity Generation, by Sector, 2001 - 2011 (Million Cubic Feet)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2001	5,832,305	2,686,287	2,456,206	36,248	653,565
2002	6,126,062	2,259,684	3,148,595	32,545	685,239
2003	5,616,135	1,763,764	3,145,485	38,480	668,407
2004	5,674,580	1,809,443	3,265,896	32,839	566,401
2005	6,036,370	2,134,859	3,349,921	33,785	517,805
2006	6,461,615	2,478,396	3,412,826	34,623	535,770
2007	7,089,342	2,736,418	3,765,194	34,087	553,643
2008	6,895,843	2,730,134	3,612,197	33,403	520,109
2009	7,121,069	2,911,279	3,655,712	34,279	519,799
2010	7,680,185	3,290,993	3,794,423	39,462	555,307
2011	7,883,865	3,446,087	3,819,107	47,170	571,501
2009					
January	504,728	197,397	262,573	2,895	41,863
February	470,035	188,726	240,488	2,672	38,149
March	518,595	216,765	257,925	2,752	41,153
April	468,256	188,630	239,017	2,575	38,034
May	533,170	221,387	269,991	2,517	39,276
June	664,674	282,521	336,070	2,780	43,303
July	802,024	329,356	421,170	3,188	48,309
August	864,501	346,858	464,687	3,358	49,598
September	713,414	291,103	372,510	3,051	46,749
October	558,901	229,615	282,576	2,852	43,858
November	478,878	197,075	236,559	2,585	42,660
December	543,893	221,847	272,147	3,053	46,846
2010					
January	570,204	244,970	274,050	3,162	48,023
February	501,790	211,934	244,016	2,894	42,945
March	478,851	207,974	223,630	2,972	44,275
April	493,588	210,270	238,616	2,709	41,994
May	582,287	261,882	273,632	2,661	44,111
June	731,357	314,471	366,984	2,931	46,970
July	922,648	387,996	480,611	3,659	50,382
August	971,855	411,663	503,418	3,847	52,927
September	723,230	306,156	365,331	3,447	48,295
October	594,338	260,110	287,180	3,471	43,576
November	519,375	219,357	253,331	3,345	43,341
December	590,663	254,209	283,622	4,364	48,467
2011					
January	563,712	238,731	273,552	3,518	47,910
February	505,126	208,813	250,551	3,069	42,692
March	503,090	217,538	239,429	3,169	42,953
April	545,924	243,866	253,900	3,062	45,096
May	598,689	268,818	279,002	4,043	46,826
June	727,189	330,305	344,944	3,957	47,982
July	967,125	430,187	478,936	5,316	52,686
August	951,425	421,042	471,544	5,001	53,838
September	711,980	306,699	352,213	4,290	48,779
October	599,544	266,740	284,312	3,727	44,764
November	568,007	242,306	275,414	3,709	46,579
December	642,055	271,041	315,311	4,309	51,394

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
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Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
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Table 5.4.B. Natural Gas: Consumption for Useful Thermal Output, by Sector, 2001 - 2011 (Million Cubic Feet)

Period	Total (all sectors)	Electric Power Sector		Commercial Sector	Industrial Sector
		Electric Utilities	Independent Power Producers		
Annual Totals					
2001	898,286	--	199,808	42,407	656,071
2002	860,024	--	263,619	41,435	554,970
2003	721,267	--	225,967	19,973	475,327
2004	1,052,100	--	388,424	39,233	624,443
2005	984,340	--	384,365	34,172	565,803
2006	942,817	--	330,878	33,112	578,828
2007	872,579	--	339,796	35,987	496,796
2008	793,537	--	326,048	32,813	434,676
2009	816,787	--	305,542	41,275	469,970
2010	821,775	--	301,769	46,324	473,683
2011	839,681	--	308,669	39,856	491,155
2009					
January	70,174	--	27,456	3,682	39,036
February	60,561	--	24,258	3,138	33,165
March	65,780	--	24,988	3,347	37,444
April	62,311	--	23,748	2,871	35,692
May	64,310	--	24,098	2,808	37,405
June	66,131	--	24,206	3,081	38,844
July	72,266	--	27,491	3,853	40,922
August	75,388	--	28,773	4,095	42,520
September	71,908	--	26,398	3,954	41,555
October	69,324	--	24,822	3,398	41,103
November	64,806	--	23,451	3,347	38,008
December	73,829	--	25,852	3,701	44,276
2010					
January	72,867	--	26,791	4,086	41,990
February	64,030	--	23,665	3,731	36,634
March	68,097	--	25,259	3,612	39,225
April	62,604	--	22,596	3,279	36,729
May	64,675	--	24,150	3,079	37,446
June	64,855	--	24,210	3,254	37,391
July	74,050	--	28,575	4,452	41,023
August	74,748	--	27,921	4,955	41,872
September	67,954	--	25,235	4,034	38,685
October	67,393	--	23,073	3,960	40,361
November	66,220	--	23,851	3,786	38,583
December	74,282	--	26,442	4,096	43,744
2011					
January	72,765	--	27,509	3,590	41,667
February	65,092	--	24,322	2,962	37,808
March	66,500	--	24,958	2,875	38,666
April	64,265	--	23,687	2,685	37,894
May	67,344	--	24,178	3,047	40,119
June	66,791	--	24,165	2,912	39,714
July	77,883	--	29,452	3,910	44,520
August	78,356	--	28,864	3,877	45,616
September	70,438	--	25,286	3,339	41,812
October	66,780	--	23,880	3,155	39,744
November	67,698	--	24,826	3,422	39,450
December	75,769	--	27,542	4,083	44,145

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
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Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
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Table 5.4.C. Natural Gas: Consumption for Electricity Generation and Useful Thermal Output, by Sector, 2001 - 2011 (Million Cubic Feet)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2001	6,730,591	2,686,287	2,656,014	78,655	1,309,636
2002	6,986,087	2,259,684	3,412,213	73,980	1,240,209
2003	6,337,402	1,763,764	3,371,452	58,453	1,143,734
2004	6,726,679	1,809,443	3,654,320	72,072	1,190,844
2005	7,020,709	2,134,859	3,734,286	67,957	1,083,607
2006	7,404,432	2,478,396	3,743,704	67,735	1,114,597
2007	7,961,922	2,736,418	4,104,991	70,074	1,050,439
2008	7,689,380	2,730,134	3,938,245	66,216	954,785
2009	7,937,856	2,911,279	3,961,254	75,555	989,769
2010	8,501,960	3,290,993	4,096,192	85,786	1,028,990
2011	8,723,546	3,446,087	4,127,777	87,026	1,062,657
2009					
January	574,902	197,397	290,029	6,577	80,899
February	530,596	188,726	264,746	5,809	71,315
March	584,375	216,765	282,913	6,100	78,597
April	530,567	188,630	262,765	5,446	73,726
May	597,481	221,387	294,089	5,325	76,680
June	730,805	282,521	360,276	5,861	82,147
July	874,289	329,356	448,661	7,041	89,231
August	939,889	346,858	493,460	7,453	92,118
September	785,321	291,103	398,908	7,005	88,304
October	628,224	229,615	307,398	6,251	84,961
November	543,685	197,075	260,010	5,932	80,668
December	617,722	221,847	297,999	6,754	91,121
2010					
January	643,072	244,970	300,842	7,248	90,013
February	565,820	211,934	267,681	6,626	79,580
March	546,948	207,974	248,889	6,584	83,501
April	556,192	210,270	261,212	5,988	78,722
May	646,962	261,882	297,782	5,740	81,557
June	796,212	314,471	391,194	6,185	84,362
July	996,697	387,996	509,185	8,111	91,405
August	1,046,602	411,663	531,340	8,801	94,799
September	791,184	306,156	390,566	7,481	86,980
October	661,732	260,110	310,253	7,431	83,937
November	585,595	219,357	277,182	7,131	81,924
December	664,945	254,209	310,065	8,461	92,210
2011					
January	636,477	238,731	301,061	7,108	89,577
February	570,218	208,813	274,873	6,032	80,500
March	569,590	217,538	264,388	6,044	81,620
April	610,190	243,866	277,587	5,747	82,990
May	666,033	268,818	303,180	7,090	86,945
June	793,979	330,305	369,109	6,869	87,696
July	1,045,008	430,187	508,388	9,226	97,207
August	1,029,781	421,042	500,407	8,878	99,454
September	782,418	306,699	377,499	7,629	90,591
October	666,323	266,740	308,192	6,882	84,509
November	635,705	242,306	300,240	7,130	86,029
December	717,824	271,041	342,852	8,392	95,539

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
The new methodology was retroactively applied to 2004-2007 data. See the Technical Notes (Appendix C) for further information. See Glossary for definitions.
Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report.

Table 5.4.D. Natural Gas: Consumption for Electricity Generation, by Sector, 2001 - 2011 (Billion Btus)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2001	6,001,245	2,772,650	2,517,741	36,869	673,985
2002	6,249,585	2,307,358	3,214,286	30,626	697,315
2003	5,735,770	1,809,003	3,200,057	39,424	687,286
2004	5,827,470	1,857,247	3,351,469	33,623	585,132
2005	6,212,116	2,198,098	3,444,875	34,645	534,498
2006	6,643,926	2,546,169	3,508,597	35,473	553,687
2007	7,287,714	2,808,500	3,872,646	34,872	571,697
2008	7,087,191	2,803,283	3,712,872	34,138	536,899
2009	7,301,522	2,981,285	3,750,080	35,046	535,111
2010	7,852,665	3,359,035	3,882,995	40,356	570,279
2011	8,052,309	3,511,732	3,906,484	48,509	585,584
2009					
January	519,091	202,865	270,103	2,965	43,159
February	482,587	193,316	247,198	2,735	39,337
March	531,841	221,784	264,841	2,814	42,401
April	480,774	193,564	245,427	2,629	39,154
May	546,915	226,827	277,120	2,570	40,397
June	681,342	289,279	344,688	2,845	44,530
July	823,121	337,731	432,426	3,259	49,705
August	886,114	355,384	476,256	3,434	51,041
September	730,954	298,018	381,693	3,122	48,121
October	572,305	234,937	289,345	2,911	45,113
November	490,216	201,286	242,390	2,638	43,902
December	556,264	226,293	278,594	3,124	48,253
2010					
January	582,992	249,924	280,499	3,235	49,335
February	513,087	216,353	249,652	2,960	44,121
March	489,636	212,288	228,811	3,036	45,501
April	504,598	214,384	244,312	2,767	43,135
May	595,320	267,066	280,193	2,712	45,348
June	747,778	320,923	375,608	2,994	48,253
July	943,538	396,426	491,656	3,742	51,714
August	993,608	420,430	514,923	3,937	54,318
September	740,053	312,993	373,945	3,526	49,589
October	608,011	265,734	294,030	3,549	44,699
November	530,776	223,630	259,174	3,423	44,549
December	603,269	258,885	290,192	4,476	49,717
2011					
January	575,521	243,212	279,664	3,624	49,021
February	516,427	212,934	256,497	3,160	43,836
March	513,724	221,498	244,797	3,258	44,171
April	557,693	248,459	259,863	3,145	46,225
May	611,133	273,835	285,175	4,157	47,965
June	742,708	336,934	352,589	4,066	49,119
July	987,734	438,636	489,752	5,457	53,889
August	972,096	429,646	482,196	5,139	55,114
September	727,690	312,770	360,489	4,416	50,015
October	612,031	271,503	290,845	3,834	45,849
November	579,856	246,548	281,804	3,817	47,686
December	655,696	275,756	322,811	4,435	52,694

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
The new methodology was retroactively applied to 2004-2007 data. See the Technical Notes (Appendix C) for further information. See Glossary for definitions.
Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report.

Table 5.4.E. Natural Gas: Consumption for Useful Thermal Output, by Sector, 2001 - 2011 (Billion Btus)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2001	926,384	--	205,305	43,682	677,397
2002	885,987	--	267,675	45,359	572,953
2003	762,779	--	250,120	21,238	491,421
2004	1,085,191	--	398,476	40,122	646,593
2005	1,008,404	--	392,842	35,037	580,525
2006	968,574	--	339,047	33,928	595,599
2007	894,272	--	347,181	36,689	510,402
2008	813,794	--	333,197	33,434	447,163
2009	836,863	--	312,553	42,032	482,279
2010	841,521	--	308,246	47,001	486,274
2011	861,006	--	315,411	40,976	504,619
2009					
January	71,921	--	28,046	3,755	40,120
February	62,097	--	24,832	3,204	34,061
March	67,417	--	25,578	3,408	38,430
April	63,820	--	24,275	2,920	36,625
May	65,900	--	24,664	2,857	38,380
June	67,692	--	24,779	3,134	39,779
July	74,075	--	28,154	3,922	41,999
August	77,251	--	29,445	4,166	43,640
September	73,636	--	26,992	4,028	42,616
October	70,986	--	25,385	3,457	42,144
November	66,372	--	23,963	3,408	39,001
December	75,697	--	26,440	3,772	45,484
2010					
January	74,586	--	27,368	4,148	43,070
February	65,539	--	24,180	3,786	37,573
March	69,750	--	25,816	3,663	40,270
April	64,065	--	23,082	3,330	37,653
May	66,246	--	24,669	3,123	38,454
June	66,468	--	24,772	3,299	38,397
July	75,860	--	29,233	4,514	42,113
August	76,582	--	28,502	5,026	43,054
September	69,610	--	25,767	4,098	39,745
October	68,953	--	23,523	4,017	41,413
November	67,772	--	24,329	3,839	39,604
December	76,091	--	27,005	4,158	44,928
2011					
January	74,528	--	28,057	3,686	42,785
February	66,742	--	24,863	3,042	38,837
March	68,226	--	25,457	2,958	39,812
April	65,865	--	24,174	2,759	38,932
May	69,019	--	24,680	3,131	41,208
June	68,611	--	24,792	2,993	40,826
July	79,769	--	30,061	4,015	45,693
August	80,249	--	29,349	3,988	46,912
September	72,408	--	25,930	3,442	43,036
October	68,525	--	24,469	3,248	40,808
November	69,359	--	25,380	3,518	40,461
December	77,705	--	28,198	4,198	45,309

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
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Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report.

Table 5.4.F. Natural Gas: Consumption for Electricity Generation and Useful Thermal Output, by Sector, 2001 - 2011 (Billion Btus)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2001	6,927,629	2,772,650	2,723,046	80,551	1,351,382
2002	7,135,572	2,307,358	3,481,961	75,985	1,270,268
2003	6,498,549	1,809,003	3,450,177	60,662	1,178,707
2004	6,912,661	1,857,247	3,749,945	73,744	1,231,725
2005	7,220,520	2,198,098	3,837,717	69,682	1,115,023
2006	7,612,500	2,546,169	3,847,644	69,401	1,149,286
2007	8,181,986	2,808,500	4,219,827	71,560	1,082,099
2008	7,900,986	2,803,283	4,046,069	67,571	984,062
2009	8,138,385	2,981,285	4,062,633	77,077	1,017,390
2010	8,694,186	3,359,035	4,191,241	87,357	1,056,553
2011	8,913,315	3,511,732	4,221,895	89,485	1,090,203
2009					
January	591,011	202,865	298,149	6,719	83,278
February	544,683	193,316	272,029	5,939	73,398
March	599,258	221,784	290,419	6,222	80,832
April	544,594	193,564	269,702	5,549	75,779
May	612,815	226,827	301,784	5,428	78,776
June	749,033	289,279	369,467	5,979	84,309
July	897,195	337,731	460,580	7,181	91,704
August	963,365	355,384	505,701	7,600	94,681
September	804,590	298,018	408,685	7,150	90,737
October	643,291	234,937	314,730	6,368	87,257
November	556,588	201,286	266,353	6,046	82,903
December	631,960	226,293	305,034	6,896	93,737
2010					
January	657,578	249,924	307,867	7,383	92,404
February	578,625	216,353	273,832	6,746	81,695
March	559,386	212,288	254,627	6,700	85,771
April	568,662	214,384	267,394	6,096	80,788
May	661,566	267,066	304,862	5,835	83,803
June	814,246	320,923	400,380	6,293	86,650
July	1,019,398	396,426	520,890	8,255	93,827
August	1,070,189	420,430	543,425	8,963	97,372
September	809,663	312,993	399,713	7,624	89,334
October	676,965	265,734	317,553	7,566	86,112
November	598,548	223,630	283,503	7,262	84,153
December	679,360	258,885	317,197	8,634	94,645
2011					
January	650,049	243,212	307,721	7,310	91,806
February	583,169	212,934	281,360	6,203	82,672
March	581,951	221,498	270,254	6,216	83,983
April	623,558	248,459	284,037	5,904	85,157
May	680,152	273,835	309,856	7,288	89,173
June	811,319	336,934	377,381	7,059	89,945
July	1,067,503	438,636	519,813	9,472	99,582
August	1,052,345	429,646	511,546	9,127	102,026
September	800,097	312,770	386,419	7,857	93,051
October	680,557	271,503	315,315	7,081	86,658
November	649,215	246,548	307,185	7,336	88,147
December	733,401	275,756	351,009	8,632	98,003

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
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Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report.

Table 5.5. Consumption of Coal for Electricity Generation by State by Sector, 2011 and 2010
(Thousand Tons)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010
New England	2,998	6,036	-50.0%	898	1,247	2,087	4,774	--	--	12	15
Connecticut	317	1,266	-75.0%	--	--	317	1,266	--	--	--	--
Maine	14	20	-33.0%	--	--	7	11	--	--	6	9
Massachusetts	1,769	3,503	-50.0%	--	--	1,763	3,497	--	--	6	6
New Hampshire	898	1,247	-28.0%	898	1,247	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--	--	--	--	--
Middle Atlantic	53,658	60,223	-11.0%	16	35	53,052	59,476	1	1	589	710
New Jersey	1,805	2,922	-38.0%	--	--	1,805	2,922	--	--	--	--
New York	4,528	6,308	-28.0%	16	35	4,432	6,192	1	1	80	80
Pennsylvania	47,325	50,993	-7.2%	--	--	46,815	50,362	1	*	509	631
East North Central	210,082	224,480	-6.4%	145,150	156,380	63,646	66,895	112	106	1,174	1,099
Illinois	54,381	55,933	-2.8%	6,478	6,910	47,204	48,333	14	11	685	679
Indiana	52,590	56,220	-6.5%	47,863	51,365	4,678	4,804	36	39	13	13
Michigan	32,451	35,101	-7.5%	32,132	34,742	193	224	46	51	81	84
Ohio	47,611	53,153	-10.0%	35,865	39,530	11,570	13,535	13	--	162	87
Wisconsin	23,049	24,074	-4.3%	22,812	23,833	--	--	3	4	233	236
West North Central	146,881	148,048	-0.8%	145,208	146,462	--	--	97	83	1,576	1,502
Iowa	23,535	25,595	-8.0%	22,677	24,780	--	--	47	50	811	765
Kansas	20,129	20,965	-4.0%	20,129	20,965	--	--	--	--	--	--
Minnesota	17,003	17,085	-0.5%	16,515	16,582	--	--	24	--	464	504
Missouri	46,408	44,766	3.7%	46,353	44,692	--	--	26	33	29	41
Nebraska	15,908	14,271	11.0%	15,711	14,167	--	--	--	--	197	104
North Dakota	22,130	23,202	-4.6%	22,056	23,113	--	--	--	--	74	89
South Dakota	1,768	2,164	-18.0%	1,768	2,164	--	--	--	--	--	--
South Atlantic	140,060	158,882	-12.0%	118,044	134,170	21,139	24,024	26	28	851	660
Delaware	712	1,223	-42.0%	--	--	712	1,223	--	--	--	--
District of Columbia	--	--	--	--	--	--	--	--	--	--	--
Florida	22,455	25,315	-11.0%	21,529	23,912	860	1,338	--	--	66	65
Georgia	29,092	34,437	-16.0%	28,894	34,269	--	--	--	--	198	168
Maryland	8,949	9,886	-9.5%	--	--	8,898	9,830	--	--	51	56
North Carolina	24,452	29,342	-17.0%	23,569	28,404	811	847	14	17	58	74
South Carolina	13,994	15,393	-9.1%	13,807	15,249	80	75	--	--	107	69
Virginia	8,414	10,593	-21.0%	7,453	9,007	820	1,435	11	11	130	140
West Virginia	31,993	32,693	-2.1%	22,793	23,328	8,959	9,277	--	--	241	88
East South Central	97,157	102,402	-5.1%	94,110	98,374	2,729	3,665	5	6	314	357
Alabama	28,180	31,025	-9.2%	28,098	30,885	27	53	--	--	54	88
Kentucky	42,543	41,891	1.6%	42,543	41,891	--	--	--	--	--	--
Mississippi	6,203	8,589	-28.0%	3,502	4,977	2,701	3,612	--	--	--	--
Tennessee	20,232	20,897	-3.2%	19,967	20,622	--	--	5	6	260	269
West South Central	166,132	155,461	6.9%	84,931	82,203	80,650	70,196	--	--	551	3,062
Arkansas	17,491	16,566	5.6%	15,123	15,581	2,343	956	--	--	26	28
Louisiana	16,717	16,218	3.1%	8,421	8,159	8,292	8,058	--	--	4	--
Oklahoma	21,497	19,559	9.9%	19,993	18,019	1,311	1,343	--	--	193	196
Texas	110,426	103,119	7.1%	41,394	40,443	68,705	59,838	--	--	328	2,838
Mountain	110,554	113,935	-3.0%	98,799	99,953	11,195	13,366	--	--	560	617
Arizona	23,307	23,176	0.6%	23,217	23,084	--	--	--	--	90	92
Colorado	18,541	18,770	-1.2%	18,500	18,727	41	43	--	--	--	--
Idaho	19	21	-6.4%	--	--	--	--	--	--	19	21
Montana	9,772	12,005	-19.0%	298	311	9,460	11,694	--	--	14	--
Nevada	2,863	3,588	-20.0%	2,136	2,803	727	785	--	--	--	--
New Mexico	15,496	14,536	6.6%	15,496	14,536	--	--	--	--	--	--
Utah	15,242	15,694	-2.9%	14,582	14,865	422	368	--	--	237	460
Wyoming	25,313	26,145	-3.2%	24,570	25,626	545	475	--	--	199	44
Pacific Contiguous	6,196	8,986	-31.0%	1,985	2,417	4,124	6,487	--	--	87	82
California	779	832	-6.4%	--	--	699	761	--	--	80	71
Oregon	1,985	2,417	-18.0%	1,985	2,417	--	--	--	--	--	--
Washington	3,432	5,737	-40.0%	--	--	3,425	5,727	--	--	7	11
Pacific Noncontiguous	1,221	1,230	-0.7%	175	189	919	930	106	90	21	21
Alaska	512	497	3.1%	175	189	231	218	106	90	--	--
Hawaii	709	733	-3.3%	--	--	688	712	--	--	21	21
U.S. Total	934,938	979,684	-4.6%	689,316	721,431	239,541	249,814	347	314	5,735	8,125

Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
See the Technical Notes for fuel conversion factors.
* = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 5.6. Consumption of Petroleum Liquids for Electricity Generation by State, by Sector, 2011 and 2010
(Thousand Barrels)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010
New England	1,267	2,062	-39.0%	249	247	860	1,633	81	88	77	95
Connecticut	369	842	-56.0%	10	6	355	835	--	--	4	1
Maine	320	500	-36.0%	1	3	237	396	9	8	73	92
Massachusetts	361	548	-34.0%	73	87	265	400	23	61	NM	1
New Hampshire	143	135	5.9%	126	117	1	1	16	16	*	*
Rhode Island	28	25	14.0%	21	22	2	1	5	2	--	--
Vermont	46	12	283.0%	19	12	--	--	27	--	--	--
Middle Atlantic	2,823	4,257	-34.0%	916	1,598	1,785	2,522	24	34	97	103
New Jersey	233	417	-44.0%	10	18	221	394	1	*	2	4
New York	1,672	2,688	-38.0%	906	1,579	658	989	18	26	90	93
Pennsylvania	918	1,152	-20.0%	*	1	906	1,139	5	7	6	6
East North Central	1,519	1,515	0.2%	1,269	1,184	215	283	7	14	28	35
Illinois	161	205	-21.0%	56	50	105	154	*	*	*	*
Indiana	310	276	12.0%	289	255	*	*	2	2	19	19
Michigan	374	395	-5.3%	365	372	*	*	4	12	5	11
Ohio	589	552	6.6%	486	427	101	122	*	--	2	3
Wisconsin	85	87	-2.3%	74	79	10	7	*	*	1	2
West North Central	639	731	-13.0%	624	715	8	8	3	3	4	5
Iowa	158	183	-13.0%	155	178	3	5	*	*	*	*
Kansas	86	98	-12.0%	86	98	--	--	--	--	--	--
Minnesota	56	68	-19.0%	48	61	4	3	2	3	2	2
Missouri	165	236	-30.0%	164	235	--	--	*	*	1	1
Nebraska	70	57	22.0%	70	57	--	--	--	--	--	--
North Dakota	83	71	16.0%	81	69	--	--	*	*	2	2
South Dakota	21	18	16.0%	20	17	1	1	*	*	--	--
South Atlantic	5,304	15,278	-65.0%	4,140	13,096	985	1,965	7	8	172	209
Delaware	75	103	-27.0%	3	1	72	102	--	--	--	--
District of Columbia	275	434	-37.0%	--	--	275	434	--	--	--	--
Florida	2,441	10,431	-77.0%	2,375	9,983	27	406	--	--	39	42
Georgia	233	267	-13.0%	167	172	7	37	3	4	56	54
Maryland	467	659	-29.0%	17	10	447	640	*	1	3	9
North Carolina	406	566	-28.0%	372	519	8	9	*	*	25	38
South Carolina	213	315	-32.0%	192	295	--	--	1	1	20	19
Virginia	867	2,232	-61.0%	706	1,856	129	325	3	2	30	48
West Virginia	327	272	20.0%	308	260	19	12	--	--	--	--
East South Central	927	1,079	-14.0%	869	945	11	33	--	--	47	100
Alabama	228	306	-25.0%	176	181	11	33	--	--	41	92
Kentucky	256	230	12.0%	256	230	--	--	--	--	--	--
Mississippi	68	141	-52.0%	65	137	--	--	--	--	4	4
Tennessee	374	402	-6.9%	372	397	--	--	--	--	2	5
West South Central	494	548	-9.8%	261	326	211	169	3	2	20	51
Arkansas	96	78	24.0%	58	66	36	9	--	--	3	3
Louisiana	97	213	-55.0%	49	165	33	31	--	--	14	17
Oklahoma	31	25	24.0%	30	24	--	--	*	*	--	*
Texas	271	232	16.0%	124	72	141	128	2	2	3	31
Mountain	488	503	-3.0%	439	465	46	34	*	*	2	3
Arizona	98	121	-19.0%	96	117	--	--	*	*	2	3
Colorado	56	50	11.0%	56	50	--	*	*	*	*	*
Idaho	*	*	-62.0%	*	*	--	--	--	--	--	--
Montana	38	29	31.0%	5	1	34	28	--	--	--	--
Nevada	28	25	11.0%	20	19	8	6	--	--	--	--
New Mexico	72	92	-22.0%	67	92	5	--	--	*	--	*
Utah	88	81	9.2%	88	81	*	--	--	--	--	--
Wyoming	107	104	3.0%	107	104	--	--	--	--	*	*
Pacific Contiguous	163	172	-5.4%	87	95	37	59	2	1	37	17
California	88	115	-24.0%	64	81	18	31	1	1	5	4
Oregon	13	6	116.0%	12	6	--	--	*	--	1	*
Washington	62	51	23.0%	12	8	19	28	*	1	31	13
Pacific Noncontiguous	13,703	13,957	-1.8%	11,989	12,136	1,475	1,571	8	14	232	235
Alaska	1,613	1,622	-0.6%	1,517	1,535	--	--	4	10	92	77
Hawaii	12,090	12,335	-2.0%	10,472	10,601	1,475	1,571	4	4	140	158
U.S. Total	27,326	40,103	-32.0%	20,844	30,806	5,633	8,278	133	164	716	855

Petroleum Liquids includes distillate and residual fuel oils, jet fuel, kerosene, waste oil, and beginning in 2011, propane. Prior to 2011 propane was included in Other Gases.
See the Technical Notes for fuel conversion factors.
* = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 5.7. Consumption of Petroleum Coke for Electricity Generation by State, by Sector, 2011 and 2010
(Thousand Tons)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010
New England	--	--	--	--	--	--	--	--	--	--	--
Connecticut	--	--	--	--	--	--	--	--	--	--	--
Maine	--	--	--	--	--	--	--	--	--	--	--
Massachusetts	--	--	--	--	--	--	--	--	--	--	--
New Hampshire	--	--	--	--	--	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--	--	--	--	--
Middle Atlantic	121	187	-35.0%	--	--	94	183	--	--	27	4
New Jersey	6	--	--	--	--	--	--	--	--	6	--
New York	94	183	-49.0%	--	--	94	183	--	--	--	--
Pennsylvania	21	4	374.0%	--	--	--	--	--	--	21	4
East North Central	933	704	33.0%	438	208	435	420	--	--	60	76
Illinois	--	--	--	--	--	--	--	--	--	--	--
Indiana	286	--	--	286	--	--	--	--	--	--	--
Michigan	47	60	-22.0%	--	9	31	33	--	--	16	18
Ohio	403	398	1.3%	--	--	403	386	--	--	*	12
Wisconsin	196	245	-20.0%	152	199	--	--	--	--	44	46
West North Central	42	72	-42.0%	41	70	--	--	1	2	--	--
Iowa	28	28	0.2%	28	27	--	--	1	2	--	--
Kansas	13	40	-67.0%	13	40	--	--	--	--	--	--
Minnesota	--	--	--	--	--	--	--	--	--	--	--
Missouri	--	4	-100.0%	--	4	--	--	--	--	--	--
Nebraska	--	--	--	--	--	--	--	--	--	--	--
North Dakota	--	--	--	--	--	--	--	--	--	--	--
South Dakota	--	--	--	--	--	--	--	--	--	--	--
South Atlantic	766	1,213	-37.0%	695	1,132	--	--	--	--	71	81
Delaware	--	--	--	--	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--	--	--	--	--
Florida	695	1,123	-38.0%	695	1,123	--	--	--	--	--	--
Georgia	71	81	-13.0%	--	--	--	--	--	--	71	81
Maryland	--	--	--	--	--	--	--	--	--	--	--
North Carolina	--	--	--	--	--	--	--	--	--	--	--
South Carolina	--	9	-100.0%	--	9	--	--	--	--	--	--
Virginia	--	--	--	--	--	--	--	--	--	--	--
West Virginia	--	--	--	--	--	--	--	--	--	--	--
East South Central	608	830	-27.0%	608	830	--	--	--	--	--	--
Alabama	--	--	--	--	--	--	--	--	--	--	--
Kentucky	608	830	-27.0%	608	830	--	--	--	--	--	--
Mississippi	--	--	--	--	--	--	--	--	--	--	--
Tennessee	--	--	--	--	--	--	--	--	--	--	--
West South Central	2,019	1,426	42.0%	1,667	1,085	225	189	--	--	128	152
Arkansas	--	--	--	--	--	--	--	--	--	--	--
Louisiana	1,750	1,186	48.0%	1,667	1,085	--	--	--	--	83	101
Oklahoma	--	1	-100.0%	--	--	--	--	--	--	--	1
Texas	269	238	13.0%	--	--	225	189	--	--	44	50
Mountain	168	150	12.0%	--	--	168	150	--	--	--	--
Arizona	--	--	--	--	--	--	--	--	--	--	--
Colorado	--	--	--	--	--	--	--	--	--	--	--
Idaho	--	--	--	--	--	--	--	--	--	--	--
Montana	168	150	12.0%	--	--	168	150	--	--	--	--
Nevada	--	--	--	--	--	--	--	--	--	--	--
New Mexico	--	--	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--	--	--
Wyoming	--	--	--	--	--	--	--	--	--	--	--
Pacific Contiguous	356	413	-14.0%	--	--	356	413	--	--	--	--
California	356	413	-14.0%	--	--	356	413	--	--	--	--
Oregon	--	--	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--
Pacific Noncontiguous	--	--	--	--	--	--	--	--	--	--	--
Alaska	--	--	--	--	--	--	--	--	--	--	--
Hawaii	--	--	--	--	--	--	--	--	--	--	--
U.S. Total	5,012	4,994	0.4%	3,449	3,325	1,277	1,354	1	2	286	313

Petroleum Coke includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
See the Technical Notes for fuel conversion factors.
* = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 5.8. Consumption of Nautral Gas for Electricity Generation by State, by Sector, 2011 and 2010
(Million Cubic Feet)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010
New England	461,590	431,768	6.9%	4,218	7,843	432,350	397,817	6,287	4,978	18,735	21,131
Connecticut	110,546	86,600	28.0%	730	664	105,965	83,250	2,061	569	1,790	2,118
Maine	49,352	58,295	-15.0%	--	--	33,555	40,392	12	9	15,785	17,894
Massachusetts	190,063	190,103	0.0%	2,393	4,832	182,865	180,408	3,761	3,869	1,045	995
New Hampshire	46,927	39,061	20.0%	1,046	2,292	45,765	36,645	--	--	115	125
Rhode Island	64,652	57,653	12.0%	--	--	64,198	57,122	453	531	--	--
Vermont	49	55	-11.0%	49	55	--	--	--	--	--	--
Middle Atlantic	919,372	854,364	7.6%	128,822	134,274	773,751	703,649	6,385	6,516	10,414	9,925
New Jersey	188,343	190,734	-1.3%	--	--	183,312	185,671	744	626	4,287	4,436
New York	426,610	417,237	2.2%	128,772	134,141	290,943	275,831	5,122	5,358	1,772	1,906
Pennsylvania	304,420	246,394	24.0%	50	134	299,495	242,146	519	531	4,356	3,583
East North Central	371,576	300,071	24.0%	138,800	92,435	216,434	194,549	7,745	4,654	8,597	8,432
Illinois	49,876	48,315	3.2%	10,104	5,698	33,739	36,778	3,580	3,452	2,453	2,388
Indiana	80,758	55,813	45.0%	56,214	31,497	20,711	20,445	277	232	3,556	3,639
Michigan	99,748	96,703	3.1%	25,010	14,289	71,784	80,366	1,415	525	1,539	1,523
Ohio	93,220	56,468	65.0%	23,897	14,775	66,884	41,366	1,979	--	460	327
Wisconsin	47,975	42,772	12.0%	23,575	26,176	23,317	15,595	493	446	590	556
West North Central	113,993	122,571	-7.0%	99,437	106,409	11,622	14,640	2,111	841	823	681
Iowa	9,963	12,666	-21.0%	9,893	12,559	*	NM	35	50	35	56
Kansas	30,508	27,907	9.3%	30,501	27,907	--	--	--	--	7	--
Minnesota	29,484	36,466	-19.0%	22,369	27,962	5,419	7,540	1,345	631	352	333
Missouri	37,796	39,700	-4.8%	30,862	32,431	6,203	7,099	714	158	17	11
Nebraska	4,563	4,157	9.8%	4,223	3,947	--	1	17	1	324	208
North Dakota	89	75	18.0%	*	2	--	--	--	--	88	73
South Dakota	1,589	1,600	-0.7%	1,589	1,600	--	--	--	--	--	--
South Atlantic	1,647,571	1,519,685	8.4%	1,289,259	1,187,662	341,903	318,969	2,315	148	14,093	12,905
Delaware	40,908	24,313	68.0%	172	287	38,620	24,026	--	--	2,115	--
District of Columbia	1,003	--	--	1,003	--	--	--	--	--	--	--
Florida	1,050,028	990,000	6.1%	956,166	894,970	85,329	84,644	181	137	8,352	10,249
Georgia	197,831	176,311	12.0%	96,581	82,096	99,567	92,715	--	--	1,682	1,500
Maryland	23,084	28,630	-19.0%	--	--	20,026	28,311	2,124	*	934	319
North Carolina	90,156	73,376	23.0%	71,379	57,359	18,420	15,713	5	8	352	296
South Carolina	100,013	86,641	15.0%	86,623	71,305	13,227	15,275	5	4	158	58
Virginia	141,946	138,898	2.2%	76,938	81,033	64,532	57,417	--	--	477	448
West Virginia	2,603	1,515	72.0%	398	613	2,181	867	--	--	24	34
East South Central	640,447	569,756	12.0%	349,841	314,832	278,444	243,415	949	656	11,214	10,854
Alabama	349,641	288,727	21.0%	106,303	101,433	236,041	180,123	--	--	7,296	7,170
Kentucky	17,343	20,930	-17.0%	13,927	17,547	1,647	1,737	--	--	1,769	1,646
Mississippi	245,953	237,195	3.7%	203,296	173,695	40,755	61,555	115	109	1,787	1,836
Tennessee	27,510	22,904	20.0%	26,314	22,156	--	--	834	547	362	201
West South Central	2,384,064	2,259,751	5.5%	786,526	747,583	1,162,264	1,094,944	3,851	3,828	431,422	413,396
Arkansas	101,960	92,634	10.0%	29,389	20,120	71,364	71,221	5	NM	1,202	1,284
Louisiana	462,060	436,612	5.8%	225,596	197,299	50,678	55,858	262	263	185,523	183,192
Oklahoma	264,642	289,474	-8.6%	202,132	224,873	61,912	63,882	138	156	460	564
Texas	1,555,402	1,441,031	7.9%	329,409	305,291	978,309	903,984	3,447	3,400	244,237	228,356
Mountain	556,922	627,378	-11.0%	350,199	321,258	198,247	298,503	2,016	2,040	6,460	5,577
Arizona	181,309	224,756	-19.0%	80,898	79,553	99,878	144,599	511	574	23	29
Colorado	84,305	91,311	-7.7%	68,541	31,811	15,571	59,300	28	23	164	177
Idaho	8,376	12,323	-32.0%	1,615	1,782	6,293	10,205	--	--	467	336
Montana	4,681	727	544.0%	4,571	518	110	186	--	--	--	22
Nevada	161,699	174,950	-7.6%	113,552	118,502	46,006	54,103	606	593	1,535	1,752
New Mexico	72,235	71,063	1.6%	45,308	45,537	25,548	24,675	871	848	509	3
Utah	41,389	49,414	-16.0%	35,377	43,000	4,761	5,399	*	1	1,250	1,014
Wyoming	2,929	2,835	3.3%	338	556	80	36	--	--	2,511	2,243
Pacific Contiguous	745,740	954,165	-22.0%	257,246	338,965	404,093	527,937	15,492	15,797	68,909	71,466
California	650,871	771,226	-16.0%	210,336	240,026	357,290	444,805	15,054	15,727	68,190	70,668
Oregon	60,164	108,444	-45.0%	19,864	42,119	39,474	65,750	403	--	423	575
Washington	34,705	74,496	-53.0%	27,046	56,820	7,329	17,382	34	70	297	223
Pacific Noncontiguous	42,591	40,677	4.7%	41,738	39,732	--	--	19	4	834	941
Alaska	42,591	40,677	4.7%	41,738	39,732	--	--	19	4	834	941
Hawaii	--	--	--	--	--	--	--	--	--	--	--
U.S. Total	7,883,865	7,680,185	2.7%	3,446,087	3,290,993	3,819,107	3,794,423	47,170	39,462	571,501	555,307

* = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Chapter 6

Fossil Fuel Stocks for Electricity Generation

Table 6.1. Stocks of Coal, Petroleum Liquids, and Petroleum Coke: Electric Power Sector, 2001 - 2011

	Electric Power Sector			Electric Utilities			Independent Power Producers		
Period	Coal (Thousand Tons)	Petroleum Liquids (Thousand Barrels)	Petroleum Coke (Thousand Tons)	Coal (Thousand Tons)	Petroleum Liquids (Thousand Barrels)	Petroleum Coke (Thousand Tons)	Coal (Thousand Tons)	Petroleum Liquids (Thousand Barrels)	Petroleum Coke (Thousand Tons)
End of Year Stocks									
2001	138,496	55,080	390	117,147	35,807	300	21,349	19,273	90
2002	141,714	43,935	1,711	116,952	29,601	328	24,761	14,334	1,383
2003	121,567	45,752	1,484	97,831	28,062	378	23,736	17,691	1,105
2004	106,669	46,750	937	84,917	29,144	627	21,751	17,607	309
2005	101,137	47,414	530	77,457	29,532	374	23,680	17,882	156
2006	140,964	48,216	674	110,277	29,799	456	30,688	18,416	217
2007	151,221	44,433	554	120,504	28,032	253	30,717	16,401	301
2008	161,589	40,804	739	127,463	26,108	468	34,126	14,696	270
2009	189,467	39,210	1,394	154,815	25,811	1,194	34,652	13,399	201
2010	174,917	35,706	1,019	143,744	24,798	850	31,173	10,908	168
2011	172,387	34,847	508	142,103	25,648	404	30,284	9,198	104
2009, End of Month Stocks									
January	156,075	40,444	746	124,894	26,312	680	31,181	14,132	67
February	160,601	40,980	738	127,496	26,354	679	33,105	14,626	59
March	174,223	40,969	715	137,848	26,209	666	36,375	14,760	49
April	185,790	41,073	705	148,301	26,082	659	37,489	14,991	46
May	195,103	41,175	779	155,777	26,293	747	39,327	14,882	32
June	195,656	41,231	763	156,539	26,354	716	39,117	14,876	48
July	193,563	40,957	729	155,786	26,338	645	37,777	14,619	84
August	191,532	40,399	876	155,085	26,183	751	36,446	14,216	125
September	197,208	39,909	963	159,420	25,712	828	37,789	14,196	135
October	199,477	39,248	1,152	162,582	25,184	953	36,895	14,064	198
November	203,765	39,002	1,258	165,738	25,424	1,060	38,027	13,578	198
December	189,467	39,210	1,394	154,815	25,811	1,194	34,652	13,399	201
2010, End of Month Stocks									
January	178,091	37,426	1,406	146,174	24,732	1,178	31,917	12,693	228
February	171,026	38,163	1,280	140,533	25,561	1,045	30,493	12,602	235
March	177,742	38,137	1,240	145,182	25,578	983	32,559	12,558	258
April	189,260	37,875	1,243	152,253	25,360	1,022	37,007	12,516	221
May	191,669	37,355	1,188	153,295	25,019	986	38,374	12,336	202
June	181,490	36,623	1,117	146,130	24,305	943	35,359	12,318	174
July	169,504	35,627	1,046	138,240	23,858	907	31,265	11,769	139
August	159,987	35,317	1,112	131,072	23,887	976	28,915	11,430	136
September	163,776	36,208	1,158	133,943	24,857	1,017	29,833	11,350	141
October	175,686	36,857	1,197	143,363	25,309	1,006	32,323	11,548	191
November	183,389	36,926	1,098	149,066	25,660	894	34,323	11,266	204
December	174,917	35,706	1,019	143,744	24,798	850	31,173	10,908	168
2011, End of Month Stocks									
January	164,575	35,116	799	134,983	24,759	657	29,591	10,357	142
February	161,064	34,662	707	131,893	24,552	594	29,171	10,110	113
March	166,255	34,318	495	135,359	24,448	437	30,896	9,870	59
April	173,427	33,895	526	141,094	24,222	463	32,334	9,672	63
May	174,093	33,745	563	140,536	24,187	490	33,557	9,557	73
June	165,149	35,339	496	133,988	25,847	433	31,161	9,492	64
July	147,296	34,903	463	120,226	25,535	411	27,070	9,368	52
August	138,527	34,637	437	113,210	25,297	379	25,317	9,339	58
September	143,711	34,666	385	118,038	25,313	332	25,673	9,353	53
October	156,196	35,293	440	128,170	25,756	346	28,026	9,536	94
November	167,754	35,437	494	137,122	25,967	391	30,632	9,470	102
December	172,387	34,847	508	142,103	25,648	404	30,284	9,198	104

Notes: See Glossary for definitions. Values are final.
See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms. Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report; Form EIA-423, Monthly Cost and Quality of Fuels for Electric Plants Report; and Federal Energy Regulatory Commission, FERC Form 423, Monthly Report of Cost and Quality of Fuels for Electric Plants.

Table 6.2 Stocks of Coal, Petroleum Liquids, and Petroleum Coke: Electric Power Sector, by State, 2011 and 2010

Census Division and State	Coal (Thousand Tons)			Petroleum Liquids (Thousand Barrels)			Petroleum Coke (Thousand Tons)		
	December 2011	December 2010	Percentage Change	December 2011	December 2010	Percentage Change	December 2011	December 2010	Percentage Change
New England	1,389	873	59.0%	2,680	3,491	-23.0%	--	--	--
Connecticut	W	86	W	954	1,182	-19.0%	--	--	--
Maine	--	--	--	W	222	W	--	--	--
Massachusetts	675	425	59.0%	990	1,543	-36.0%	--	--	--
New Hampshire	W	363	W	W	467	W	--	--	--
Rhode Island	--	--	--	W	24	W	--	--	--
Vermont	--	--	--	49	NM	NM	--	--	--
Middle Atlantic	7,800	6,833	14.0%	6,591	7,560	-13.0%	W	67	W
New Jersey	871	460	89.0%	1,113	1,421	-22.0%	--	--	--
New York	898	473	90.0%	4,276	4,790	-11.0%	--	W	W
Pennsylvania	6,031	5,900	2.2%	1,201	1,350	-11.0%	W	W	W
East North Central	37,262	41,068	-9.3%	1,581	2,013	-21.0%	W	61	W
Illinois	8,905	7,865	13.0%	139	160	-13.0%	--	--	--
Indiana	9,094	10,535	-14.0%	128	122	5.3%	--	--	--
Michigan	6,512	6,852	-5.0%	666	1,016	-34.0%	W	W	W
Ohio	7,331	9,127	-20.0%	364	407	-11.0%	W	--	W
Wisconsin	5,420	6,690	-19.0%	285	308	-7.6%	W	W	W
West North Central	28,544	28,034	1.8%	1,297	1,469	-12.0%	W	35	W
Iowa	7,199	6,150	17.0%	161	178	-9.1%	W	W	W
Kansas	3,669	3,639	0.8%	272	372	-27.0%	--	W	W
Minnesota	3,247	2,659	22.0%	195	239	-18.0%	--	--	--
Missouri	8,210	9,342	-12.0%	327	320	2.1%	--	--	--
Nebraska	3,607	4,114	-12.0%	210	221	-5.2%	--	--	--
North Dakota	W	1,816	W	37	39	-3.1%	--	--	--
South Dakota	W	315	W	95	100	-5.7%	--	--	--
South Atlantic	36,920	32,123	15.0%	14,316	11,549	24.0%	W	190	W
Delaware	W	284	W	402	361	11.0%	--	--	--
District of Columbia	--	--	--	93	111	-16.0%	--	--	--
Florida	6,374	6,126	4.1%	7,789	5,494	42.0%	W	W	W
Georgia	7,885	5,959	32.0%	895	854	4.8%	--	--	--
Maryland	1,860	1,640	13.0%	833	968	-14.0%	--	--	--
North Carolina	6,642	3,882	71.0%	1,033	966	7.0%	--	--	--
South Carolina	6,527	6,401	2.0%	597	611	-2.4%	W	W	W
Virginia	2,480	1,564	59.0%	2,530	2,041	24.0%	--	--	--
West Virginia	W	6,266	W	145	144	0.6%	W	W	W
East South Central	17,185	19,233	-11.0%	2,064	2,319	-11.0%	W	205	W
Alabama	4,499	5,574	-19.0%	318	315	0.7%	--	--	--
Kentucky	7,357	8,546	-14.0%	264	273	-3.3%	W	W	W
Mississippi	1,450	1,376	5.4%	562	775	-27.0%	--	--	--
Tennessee	3,879	3,737	3.8%	921	956	-3.7%	--	--	--
West South Central	22,910	28,070	-18.0%	2,560	3,427	-25.0%	W	439	W
Arkansas	3,590	3,445	4.2%	157	184	-14.0%	--	--	--
Louisiana	2,331	1,909	22.0%	605	1,212	-50.0%	W	W	W
Oklahoma	3,872	5,707	-32.0%	196	224	-12.0%	--	--	--
Texas	13,117	17,009	-23.0%	1,602	1,808	-11.0%	--	W	W
Mountain	18,543	17,620	5.2%	677	694	-2.5%	W	17	W
Arizona	2,750	3,047	-9.7%	229	235	-2.9%	--	--	--
Colorado	4,342	3,419	27.0%	139	130	6.9%	--	--	--
Idaho	--	--	--	W	W	W	--	--	--
Montana	W	717	W	W	15	W	W	W	W
Nevada	W	1,137	W	180	181	-0.2%	--	--	--
New Mexico	W	947	W	34	50	-32.0%	--	--	--
Utah	4,947	4,866	1.7%	39	W	W	--	--	--
Wyoming	3,275	3,487	-6.1%	38	42	-9.6%	--	--	--
Pacific Contiguous	W	808	W	424	547	-22.0%	5	5	-7.7%
California	W	W	W	199	348	-43.0%	5	5	-7.7%
Oregon	W	W	W	W	70	W	--	--	--
Washington	W	W	W	W	130	W	--	--	--
Pacific Noncontiguous	W	254	W	2,656	2,635	0.8%	--	--	--
Alaska	W	W	W	283	306	-7.5%	--	--	--
Hawaii	W	W	W	2,373	2,329	1.9%	--	--	--
U.S. Total	172,387	174,917	-1.4%	34,847	35,706	-2.4%	508	1,019	-50.0%

* = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 6.3 Stocks of Coal, Petroleum Liquids, and Petroleum Coke: Electric Power Sector by Census Divison, 2011 and 2010

	Electric Power Sector			Electric Utilities		Independent Power Producers	
Census Division	December 2011	December 2010	Percentage Change	December 2011	December 2010	December 2011	December 2010
Coal (Thousand Tons)							
New England	1,389	873	59.1%	W	363	W	510
Middle Atlantic	7,800	6,833	14.1%	W	1,221	W	5,613
East North Central	37,262	41,068	-9.3%	27,316	32,160	9,946	8,908
West North Central	28,544	28,034	1.8%	28,544	28,034	--	--
South Atlantic	36,920	32,123	14.9%	33,163	28,489	3,757	3,634
East South Central	17,185	19,233	-10.6%	17,185	19,233	--	--
West South Central	22,910	28,070	-18.4%	15,125	16,856	7,785	11,215
Mountain	18,543	17,620	5.2%	W	16,842	W	778
Pacific Contiguous	W	808	W	W	361	W	447
Pacific Noncontiguous	W	254	W	W	187	W	68
U.S. Total	**172,387**	**174,917**	**-1.4%**	**142,103**	**143,744**	**30,284**	**31,173**
Petroleum Liquids (Thousand Barrels)							
New England	2,680	3,491	-23.2%	703	870	1,978	2,622
Middle Atlantic	6,591	7,560	-12.8%	2,931	3,217	3,660	4,344
East North Central	1,581	2,013	-21.4%	1,313	1,691	268	322
West North Central	1,297	1,469	-11.7%	1,260	1,429	37	40
South Atlantic	14,316	11,549	24.0%	11,933	8,996	2,383	2,553
East South Central	2,064	2,319	-11.0%	W	2,287	W	32
West South Central	2,560	3,427	-25.3%	1,901	2,772	659	655
Mountain	677	694	-2.5%	W	628	W	66
Pacific Contiguous	424	547	-22.4%	331	311	93	236
Pacific Noncontiguous	2,656	2,635	0.8%	W	2,597	W	38
U.S. Total	**34,847**	**35,706**	**-2.4%**	**25,648**	**24,798**	**9,198**	**10,908**
Petroleum Coke (Thousand Tons)							
New England	--	--	--	--	--	--	--
Middle Atlantic	W	67	W	--	--	W	67
East North Central	W	61	W	W	45	W	16
West North Central	W	35	W	W	35	--	--
South Atlantic	W	190	W	W	189	W	1
East South Central	W	205	W	W	205	--	--
West South Central	W	439	W	W	377	--	62
Mountain	W	17	W	--	--	W	17
Pacific Contiguous	5	5	-7.7%	--	--	5	5
Pacific Noncontiguous	--	--	--	--	--	--	--
U.S. Total	**508**	**1,019**	**-50.1%**	**404**	**850**	**104**	**168**

W = Withheld to avoid disclosure of individual company data.
Notes: See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form-923.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form-923, 'Power Plant Operations Report.'

Table 6.4. Stocks of Coal by Coal Rank: Electric Power Sector, 2002 - 2011

	Electric Power Sector			
Period	Bituminous Coal	Subbituminous Coal	Lignite Coal	Total
End of Year Stocks				
2002	70,704	66,593	4,417	141,714
2003	57,716	59,884	3,967	121,567
2004	49,022	53,618	4,029	106,669
2005	52,923	44,377	3,836	101,137
2006	67,760	68,408	4,797	140,964
2007	63,964	82,692	4,565	151,221
2008	65,818	91,214	4,556	161,589
2009	91,922	92,448	5,097	189,467
2010	81,108	86,915	6,894	174,917
2011	82,056	85,151	5,179	172,387
2009, End of Month Stocks				
January	62,096	89,016	4,963	156,075
February	65,290	90,218	5,092	160,601
March	76,214	92,447	5,562	174,223
April	83,917	96,067	5,806	185,790
May	89,418	99,637	6,048	195,103
June	90,862	98,761	6,033	195,656
July	89,578	97,889	6,096	193,563
August	89,181	96,568	5,783	191,532
September	93,208	98,206	5,794	197,208
October	95,788	98,254	5,434	199,477
November	98,281	100,194	5,290	203,765
December	91,922	92,448	5,097	189,467
2010, End of Month Stocks				
January	86,354	86,893	4,845	178,091
February	82,469	83,721	4,836	171,026
March	86,698	86,014	5,030	177,742
April	92,621	89,545	7,095	189,260
May	93,069	91,514	7,085	191,669
June	87,123	87,299	7,068	181,490
July	80,465	81,933	7,107	169,504
August	76,303	77,081	6,604	159,987
September	78,201	78,906	6,669	163,776
October	84,103	84,992	6,592	175,686
November	87,548	88,880	6,961	183,389
December	81,108	86,915	6,894	174,917
2011, End of Month Stocks				
January	76,100	82,111	6,364	164,575
February	75,549	79,101	6,414	161,064
March	77,414	82,337	6,504	166,255
April	79,734	86,900	6,793	173,427
May	79,250	88,099	6,744	174,093
June	75,011	83,599	6,539	165,149
July	66,549	74,518	6,229	147,296
August	64,584	67,775	6,168	138,527
September	66,763	70,804	6,144	143,711
October	74,236	75,766	6,193	156,196
November	79,726	81,302	6,726	167,754
December	82,056	85,151	5,179	172,387

Notes: See Glossary for definitions.
Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
and predecessor forms. Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms. Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following:
Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report; Form EIA-423, Monthly Cost and Quality of Fuels for Electric Plants Report;
and Federal Energy Regulatory Commission, FERC Form 423, Monthly Report of Cost and Quality of Fuels for Electric Plants.

Chapter 7

Receipts, Cost, and Quality of Fossil Fuels

Table 7.1. Receipts, Average Cost, and Quality of Fossil Fuels for the Electric Power Industry, 2002 through 2011

	Coal				Petroleum				Natural Gas		All Fossil Fuels
			Average Cost				Average Cost			Average Cost	Average Cost
Period	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	(Dollars per MMBtu)	(Dollars per Ton)	Receipts (Thousand Barrels)	Average Sulfur Percent by Weight	(Dollars per MMBtu)	(Dollars per Barrel)	Receipts (Thousand Mcf)	(Dollars per MMBtu)	(Dollars per MMBtu)
2002	884,287	0.94	1.25	25.52	120,851	1.64	3.34	20.77	5,607,737	3.56	1.86
2003	986,026	0.97	1.28	26.00	185,567	1.53	4.33	26.78	5,500,704	5.39	2.28
2004	1,002,032	0.97	1.36	27.42	186,655	1.66	4.29	26.56	5,734,054	5.96	2.48
2005	1,021,437	0.98	1.54	31.20	194,733	1.61	6.44	39.65	6,181,717	8.21	3.25
2006	1,079,943	0.97	1.69	34.09	100,965	2.31	6.23	37.66	6,675,246	6.94	3.02
2007	1,054,664	0.96	1.77	35.48	88,347	2.10	7.17	43.50	7,200,316	7.11	3.23
2008	1,069,709	0.97	2.07	41.14	96,341	2.21	10.87	64.89	7,879,046	9.02	4.11
2009	981,477	1.01	2.21	43.74	88,951	2.14	7.02	41.64	8,118,550	4.74	3.04
2010	979,918	1.16	2.27	44.64	75,285	2.14	9.54	56.35	8,673,070	5.09	3.26
2011	948,668	1.19	2.39	46.70	66,058	2.43	12.48	73.29	9,056,164	4.72	3.30

* = Value is less than half of the smallest unit of measure. (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
W = Withheld to avoid disclosure of individual company data.

Notes:
Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
Petroleum includes Petroleum Liquids and Petroleum Coke.
Petroleum Liquids includes distillate and residual fuel oils, jet fuel, kerosene, waste oil, and beginning in 2011, propane. Prior to 2011 propane was included in Other Gases.
Petroleum Coke includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
See the Technical Notes for fuel conversion factors.
See Glossary for definitions.
Values are final.
See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
Totals may not equal sum of components because of independent rounding.

Sources: U.S. Energy Information Administration (EIA), Form EIA-923, "Power Plant Operations Report" and predecessor form(s) including Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report" and Federal Energy Regulatory Commission (FERC), FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants"

Table 7.2. Receipts and Quality of Coal Delivered for the Electric Power Industry, 2002 through 2011

	Bituminous			Subbituminous			Lignite		
Period	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight
2002	423,128	1.47	10.1	391,785	0.36	6.2	65,555	0.93	13.3
2003	467,286	1.50	10.0	432,513	0.38	6.4	79,869	1.03	14.4
2004	470,619	1.52	10.4	445,603	0.36	6.0	78,268	1.05	14.2
2005	480,179	1.56	10.5	456,856	0.36	6.2	77,677	1.02	14.0
2006	489,550	1.59	10.5	504,947	0.35	6.1	75,742	0.95	14.4
2007	467,817	1.62	10.3	505,155	0.34	6.0	71,930	0.90	14.0
2008	464,362	1.68	10.6	522,228	0.34	5.8	68,945	0.86	13.8
2009	418,688	1.77	10.5	484,007	0.34	5.8	64,966	0.95	14.0
2010	403,619	1.90	10.4	491,425	0.33	5.8	71,416	0.90	14.1
2011	380,184	2.01	10.5	480,496	0.33	5.8	75,675	0.90	14.4

* = Value is less than half of the smallest unit of measure. (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
W = Withheld to avoid disclosure of individual company data.

Notes:
Bituminous coal includes anthracite, synthetic, and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
See the Technical Notes for fuel conversion factors.
See Glossary for definitions.
Values are final.
See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
Totals may not equal sum of components because of independent rounding.

Sources: U.S. Energy Information Administration (EIA), Form EIA-923, "Power Plant Operations Report" and predecessor form(s) including Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report" and Federal Energy Regulatory Commission (FERC), FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants"

Table 7.3. Average Quality of Fossil Fuel Receipts for the Electric Power Industry, 2002 through 2011

	Coal			Petroleum			Natural Gas
Period	Average Btu per Pound	Average Sulfur Percent by Weight	Average Ash Percent by Weight	Average Btu per Gallon	Average Sulfur Percent by Weight	Average Ash Percent by Weight	Average Btu per Cubic Foot
2002	10,168	0.94	8.7	147,903	1.64	0.2	1,025
2003	10,137	0.97	9.0	147,086	1.53	0.1	1,030
2004	10,074	0.97	9.0	147,286	1.66	0.2	1,027
2005	10,107	0.98	9.0	146,481	1.61	0.2	1,028
2006	10,063	0.97	9.0	143,883	2.31	0.2	1,027
2007	10,028	0.96	8.8	144,546	2.10	0.1	1,027
2008	9,947	0.97	9.0	142,205	2.21	0.3	1,027
2009	9,902	1.01	8.9	141,321	2.14	0.2	1,025
2010	9,842	1.16	8.8	140,598	2.14	0.2	1,022
2011	9,765	1.19	8.9	139,795	2.43	0.2	1,021

* = Value is less than half of the smallest unit of measure. (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
W = Withheld to avoid disclosure of individual company data.

Notes:
Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
Petroleum includes Petroleum Liquids and Petroleum Coke.
Petroleum Liquids includes distillate and residual fuel oils, jet fuel, kerosene, waste oil, and beginning in 2011, propane. Prior to 2011 propane was included in Other Gases.
Petroleum Coke includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
See the Technical Notes for fuel conversion factors.
See Glossary for definitions.
Values are final.
See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
Totals may not equal sum of components because of independent rounding.

Sources: U.S. Energy Information Administration (EIA), Form EIA-923, "Power Plant Operations Report" and predecessor form(s) including Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report" and Federal Energy Regulatory Commission (FERC), FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants"

Table 7.4. Weighted Average Cost of Fossil Fuels for the Electric Power Industry, 2002 through 2011

	Coal								Petroleum		Natural Gas		Total Fossil	
	Bituminous		Subbituminous		Lignite		All Coal Ranks							
Period	Receipts (Trillion Btu)	Average Cost (Dollars per MMBtu)	Receipts (Trillion Btu)	Average Cost (Dollars per MMBtu)	Receipts (Trillion Btu)	Average Cost (Dollars per MMBtu)	Receipts (Trillion Btu)	Average Cost (Dollars per MMBtu)	Receipts (Trillion Btu)	Average Cost (Dollars per MMBtu)	Receipts (Trillion Btu)	Average Cost (Dollars per MMBtu)	Receipts (Trillion Btu)	Average Cost (Dollars per MMBtu)
2002	10,198	1.41	6,878	1.05	851	1.04	17,982	1.25	751	3.34	5,750	3.56	24,483	1.86
2003	11,284	1.43	7,598	1.10	1,026	1.03	19,990	1.28	1,146	4.33	5,663	5.39	26,799	2.28
2004	11,260	1.55	7,817	1.12	1,012	1.06	20,189	1.36	1,155	4.29	5,891	5.96	27,234	2.48
2005	11,546	1.83	8,004	1.19	1,008	1.07	20,647	1.54	1,198	6.44	6,357	8.21	28,202	3.25
2006	11,789	2.03	8,842	1.31	982	1.15	21,735	1.69	610	6.23	6,856	6.94	29,201	3.02
2007	11,279	2.07	8,826	1.45	925	1.28	21,152	1.77	536	7.17	7,396	7.11	29,085	3.23
2008	11,119	2.50	9,087	1.62	896	1.41	21,280	2.07	575	10.87	8,089	9.02	29,945	4.11
2009	10,010	2.75	8,421	1.64	835	1.58	19,438	2.21	528	7.02	8,319	4.74	28,285	3.04
2010	9,652	2.81	8,545	1.73	925	1.62	19,290	2.27	445	9.54	8,867	5.09	28,602	3.26
2011	9,040	2.94	8,350	1.90	986	1.62	18,528	2.39	388	12.48	9,251	4.72	28,166	3.30

NM = Not meaningful due to large relative standard error or excessive percentage change.
W = Withheld to avoid disclosure of individual company data.

Notes:
Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
Bituminous coal includes anthracite coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
Petroleum includes Petroleum Liquids and Petroleum Coke.
Petroleum Liquids includes distillate and residual fuel oils, jet fuel, kerosene, waste oil, and beginning in 2011, propane. Prior to 2011 propane was included in Other Gases.
Petroleum Coke includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
See the Technical Notes for fuel conversion factors.
See Glossary for definitions.
Values are final.
See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
Totals may not equal sum of components because of independent rounding.

Sources: U.S. Energy Information Administration (EIA), Form EIA-923, "Power Plant Operations Report" and predecessor form(s) including Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report" and Federal Energy Regulatory Commission (FERC), FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants"

Table 7.5. Receipts, Average Cost, and Quality of Fossil Fuels: Electric Utilities, 2002 - 2011

	Coal						Petroleum Liquids					
	Receipts		Average Cost				Receipts		Average Cost			
Period	(Billion Btu)	(Thousand Tons)	(Dollars per MMBtu)	(Dollars per Ton)	Average Sulfur Percent by Weight	Percentage of Consumption	(Billion Btu)	(Thousand Barrels)	(Dollars per MMBtu)	(Dollars per Barrel)	Average Sulfur Percent by Weight	Percentage of Consumption
Annual Totals												
2002	13,967,326	687,747	1.22	24.74	0.87	89.6	407,442	63,809	3.74	23.88	0.99	72.0
2003	15,292,394	746,594	1.26	25.82	0.91	98.6	605,651	95,534	4.68	29.66	0.95	90.7
2004	15,440,681	758,557	1.34	27.30	0.91	98.2	592,478	93,034	4.80	30.57	1.01	89.6
2005	15,836,924	775,890	1.53	31.22	0.94	101.9	566,320	89,303	7.17	45.46	0.89	90.9
2006	16,197,852	797,361	1.69	34.26	0.92	105.8	269,033	42,415	8.33	52.80	0.82	79.2
2007	15,561,395	767,377	1.78	36.06	0.92	100.3	216,349	34,026	9.24	58.73	0.77	59.8
2008	15,347,396	764,399	2.06	41.32	0.93	100.5	240,937	38,891	15.83	98.09	0.60	99.7
2009	14,402,019	719,253	2.22	44.47	0.99	103.4	202,598	32,959	10.44	64.18	0.51	103.5
2010	14,226,995	713,094	2.27	45.33	1.14	98.8	189,790	31,099	13.94	85.07	0.48	101.0
2011	13,723,817	691,484	2.41	47.75	1.17	100.3	144,255	23,859	20.30	122.72	0.53	114.5
2009												
January	1,233,059	62,045	2.24	44.50	0.96	93.3	29,873	4,823	8.00	49.53	0.56	109.6
February	1,166,501	58,135	2.29	45.89	1.00	106.9	16,831	2,735	8.22	50.60	0.53	106.8
March	1,262,590	62,252	2.30	46.57	1.05	117.3	13,499	2,206	8.41	51.46	0.48	94.5
April	1,214,078	60,233	2.24	45.13	0.99	121.5	13,236	2,163	8.91	54.54	0.59	101.2
May	1,189,059	59,231	2.24	45.02	0.99	112.5	19,852	3,208	9.27	57.36	0.59	111.9
June	1,216,354	60,505	2.23	44.93	1.00	101.1	19,564	3,162	10.43	64.56	0.58	108.4
July	1,245,525	62,486	2.20	43.88	0.96	99.1	18,610	3,025	11.24	69.15	0.51	102.3
August	1,295,386	64,546	2.23	44.77	0.98	99.7	19,224	3,117	12.09	74.55	0.55	98.9
September	1,189,015	59,392	2.19	43.88	0.99	106.2	10,050	1,659	13.17	79.80	0.35	72.2
October	1,172,832	58,614	2.19	43.72	0.99	105.4	13,372	2,181	12.78	78.32	0.50	84.2
November	1,141,864	57,441	2.14	42.51	0.96	104.9	12,932	2,118	12.87	78.57	0.37	121.1
December	1,075,756	54,372	2.15	42.48	0.97	83.1	15,554	2,561	13.33	80.95	0.37	136.3
2010												
January	1,101,993	55,521	2.21	43.89	1.09	82.6	23,632	3,860	13.16	80.54	0.54	88.1
February	1,073,034	53,695	2.26	45.26	1.16	90.6	13,223	2,179	13.59	82.50	0.40	136.3
March	1,231,470	61,038	2.32	46.85	1.16	108.5	11,782	1,943	14.11	85.52	0.28	109.5
April	1,168,587	57,821	2.30	46.45	1.17	115.7	8,388	1,398	14.96	89.76	0.24	85.6
May	1,168,195	58,565	2.27	45.27	1.12	103.0	16,261	2,649	13.61	83.58	0.62	102.2
June	1,169,040	58,803	2.24	44.62	1.13	90.6	18,097	2,937	13.16	81.08	0.62	80.1
July	1,209,770	60,990	2.27	44.95	1.07	87.2	21,588	3,497	13.29	82.07	0.47	98.6
August	1,294,681	64,603	2.30	46.16	1.13	92.5	20,667	3,331	13.08	81.14	0.60	103.1
September	1,208,559	60,693	2.28	45.47	1.11	104.3	18,501	2,988	13.35	82.68	0.62	138.8
October	1,235,011	61,883	2.29	45.68	1.15	120.5	11,210	1,858	14.98	90.39	0.35	117.5
November	1,172,469	58,841	2.27	45.29	1.19	111.1	12,889	2,191	15.82	93.06	0.35	147.4
December	1,194,186	60,641	2.23	43.90	1.14	93.8	13,552	2,267	16.79	100.36	0.25	71.7
2011												
January	1,181,833	59,577	2.34	46.34	1.15	90.2	14,279	2,372	16.98	102.20	0.53	107.5
February	1,078,032	54,003	2.36	47.10	1.20	99.2	9,943	1,659	18.27	109.47	0.47	104.4
March	1,160,136	58,691	2.35	46.38	1.12	108.5	13,842	2,284	19.55	118.45	0.52	131.5
April	1,081,336	54,492	2.39	47.40	1.15	110.2	11,543	1,898	20.30	123.47	0.40	90.8
May	1,089,570	54,652	2.45	48.80	1.17	99.4	16,158	2,618	19.03	117.46	0.75	138.8
June	1,109,431	55,560	2.40	47.87	1.21	88.6	15,427	2,528	21.88	133.55	0.66	144.9
July	1,119,264	56,067	2.46	49.04	1.19	80.2	9,455	1,569	21.86	131.77	0.47	82.3
August	1,238,455	61,790	2.49	49.93	1.19	90.7	9,575	1,579	20.63	125.10	0.43	90.3
September	1,200,682	60,402	2.46	48.91	1.18	108.2	10,186	1,683	20.94	126.69	0.49	118.0
October	1,186,062	59,898	2.42	47.86	1.15	118.3	13,068	2,171	21.63	130.21	0.48	146.6
November	1,120,387	56,990	2.39	47.03	1.17	116.6	11,052	1,853	21.75	129.72	0.48	124.5
December	1,158,628	59,362	2.37	46.27	1.15	109.6	9,729	1,645	21.94	129.73	0.48	106.9

* = Value is less than half of the smallest unit of measure. (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
W = Withheld to avoid disclosure of individual company data.

Notes:
See Glossary for definitions.
Values are final.
See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
Totals may not equal sum of components because of independent rounding.
Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
Petroleum Liquids includes distillate and residual fuel oils, jet fuel, kerosene, waste oil, and beginning in 2011, propane. Prior to 2011 propane was included in Other Gases.
See the Technical Notes for fuel conversion factors.

Sources: U.S. Energy Information Administration (EIA), Form EIA-923, "Power Plant Operations Report" and predecessor form(s) including Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report" and Federal Energy Regulatory Commission (FERC), FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants"

Table 7.6. Receipts, Average Cost, and Quality of Fossil Fuels: Electric Utilities, 2002 - 2011 (continued)

	Petroleum Coke						Natural Gas					All Fossil Fuels
	Receipts		Average Cost				Receipts		Average Cost			Average Cost
Period	(Billion Btu)	(Thousand Tons)	(Dollars per MMbtu)	(Dollars per Ton)	Average Sulfur Percent by Weight	Percentage of Consumption	(Billion Btu)	(Thousand Mcf)	(Dollars per MMBtu)	(Dollars per Mcf)	Percentage of Consumption	(Dollars per MMBtu)
Annual Totals												
2002	75,711	2,677	0.63	17.68	4.98	126.0	1,680,518	1,634,734	3.68	3.78	72.3	1.53
2003	89,618	3,165	0.74	20.94	5.51	124.0	1,486,088	1,439,513	5.59	5.77	81.6	1.74
2004	107,985	3,817	0.89	25.15	5.10	92.0	1,542,746	1,499,933	6.15	6.33	82.9	1.87
2005	102,450	3,632	1.29	36.31	5.16	87.9	1,835,221	1,780,721	8.32	8.57	83.4	2.38
2006	99,471	3,516	1.49	42.21	5.11	97.2	2,222,289	2,163,113	7.36	7.56	87.3	2.45
2007	84,812	2,964	1.73	49.57	5.09	105.6	2,378,104	2,315,637	7.47	7.67	84.6	2.61
2008	80,987	2,843	2.13	60.51	5.36	123.8	2,856,354	2,784,642	9.15	9.39	102.0	3.33
2009	109,126	3,833	1.68	47.84	5.02	138.8	3,033,133	2,962,640	5.50	5.63	101.8	2.87
2010	103,152	3,628	2.38	67.65	5.03	109.1	3,395,962	3,327,919	5.43	5.54	101.1	2.99
2011	99,208	3,445	3.08	88.73	4.72	99.9	3,571,348	3,507,613	5.00	5.09	101.8	3.09
2009												
January	10,608	371	2.06	58.77	4.98	139.8	208,081	202,538	7.05	7.24	102.6	3.03
February	7,746	272	1.92	54.69	5.55	118.1	197,128	192,399	6.24	6.40	102.0	2.92
March	8,784	309	1.72	48.78	5.07	99.2	227,853	222,311	5.59	5.72	102.6	2.84
April	8,205	289	1.15	32.78	5.20	109.2	199,495	194,561	5.47	5.61	103.1	2.74
May	11,038	388	1.86	52.96	4.67	143.1	232,241	226,655	5.35	5.48	102.4	2.83
June	7,574	263	1.78	51.22	4.74	104.2	293,235	286,460	5.14	5.26	101.4	2.89
July	7,553	263	1.73	49.77	4.53	104.1	343,209	334,815	5.03	5.15	101.7	2.90
August	10,909	386	1.94	54.90	5.00	155.1	360,777	352,110	4.91	5.03	101.5	2.91
September	10,248	361	1.39	39.40	5.29	148.0	299,818	293,133	4.66	4.77	100.7	2.75
October	9,024	320	1.58	44.49	4.89	264.0	237,676	232,677	5.63	5.75	101.3	2.85
November	7,688	269	1.21	34.68	5.33	232.1	205,042	201,085	5.70	5.82	102.0	2.77
December	9,747	341	1.64	46.90	5.07	186.5	228,578	223,896	6.46	6.59	100.9	3.01
2010												
January	9,040	317	1.76	50.18	5.38	112.1	254,841	249,848	6.93	7.07	102.0	3.26
February	5,337	188	1.96	55.49	5.09	72.9	217,554	213,267	6.39	6.52	100.6	3.06
March	8,021	284	2.24	63.36	4.99	92.2	214,554	210,587	5.72	5.83	101.3	2.91
April	9,899	347	2.30	65.45	5.03	137.3	218,064	213,690	5.20	5.30	101.6	2.82
May	7,673	269	2.32	66.03	4.99	103.1	270,661	265,218	5.20	5.30	101.3	2.94
June	8,998	317	2.22	63.05	5.32	99.2	324,142	317,528	5.42	5.54	101.0	3.05
July	9,979	354	2.50	70.63	4.71	103.9	399,566	391,191	5.47	5.58	100.8	3.19
August	11,742	410	2.69	76.96	4.91	143.5	421,843	413,154	5.24	5.35	100.4	3.14
September	10,150	355	2.71	77.34	4.93	120.0	315,571	308,882	4.81	4.92	100.9	2.93
October	8,639	301	2.51	72.03	4.90	123.2	269,281	263,756	4.77	4.87	101.4	2.82
November	5,740	208	2.28	62.94	5.22	103.3	226,257	222,019	4.73	4.83	101.2	2.79
December	7,933	277	2.75	78.60	5.05	101.0	263,628	258,780	5.64	5.75	101.8	2.97
2011												
January	8,049	282	3.35	95.62	5.14	70.5	250,362	245,767	5.49	5.59	103.0	3.03
February	7,252	252	3.02	87.15	4.61	85.3	219,131	214,884	5.34	5.45	102.9	2.98
March	7,009	241	3.32	96.60	4.72	70.2	224,855	220,793	4.95	5.04	101.5	2.94
April	7,274	252	3.52	101.68	4.69	115.4	255,479	251,362	5.19	5.27	103.1	3.07
May	7,519	261	3.57	102.83	4.33	112.7	278,209	273,629	5.17	5.25	101.8	3.19
June	8,072	278	2.85	82.53	4.51	92.2	341,274	335,202	5.28	5.37	101.5	3.27
July	10,742	374	3.41	98.06	4.54	104.0	443,001	434,122	5.11	5.22	100.9	3.32
August	10,040	349	3.18	91.43	4.77	105.9	434,451	425,557	4.97	5.07	101.1	3.23
September	9,822	341	2.94	84.64	4.54	102.3	316,215	311,382	4.89	4.97	101.5	3.09
October	8,352	289	3.23	93.48	4.94	126.2	275,463	270,541	4.71	4.80	101.4	3.02
November	7,303	253	2.11	60.87	5.15	163.4	250,718	246,675	4.50	4.57	101.8	2.92
December	7,774	273	2.34	66.68	4.74	108.4	282,188	277,700	4.40	4.47	102.5	2.89

* = Value is less than half of the smallest unit of measure. (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
W = Withheld to avoid disclosure of individual company data.

Notes:
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Totals may not equal sum of components because of independent rounding.
Petroleum Coke includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
See the Technical Notes for fuel conversion factors.

Sources: U.S. Energy Information Administration (EIA), Form EIA-923, "Power Plant Operations Report" and predecessor form(s) including Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report" and Federal Energy Regulatory Commission (FERC), FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants"

Table 7.7 Receipts, Average Cost, and Quality of Fossil Fuels: Independent Power Producers, 2002 - 2011

	Coal						Petroleum Liquids					
	Receipts		Average Cost				Receipts		Average Cost			
Period	(Billion Btu)	(Thousand Tons)	(Dollars per MMBtu)	(Dollars per Ton)	Average Sulfur Percent by Weight	Percentage of Consumption	(Billion Btu)	(Thousand Barrels)	(Dollars per MMBtu)	(Dollars per Barrel)	Average Sulfur Percent by Weight	Percentage of Consumption
Annual Totals												
2002	3,710,847	182,482	1.37	27.96	1.15	87.0	186,271	30,043	4.19	25.98	0.61	76.4
2003	4,365,996	223,984	1.34	26.20	1.15	90.4	347,546	56,138	5.41	33.50	0.58	89.7
2004	4,410,775	227,700	1.41	27.27	1.13	93.3	337,011	54,152	5.35	33.31	0.61	93.6
2005	4,459,333	229,071	1.56	30.39	1.10	83.0	381,871	61,753	8.30	51.34	0.54	97.2
2006	5,204,402	266,856	1.69	33.04	1.09	97.7	117,524	19,236	9.65	58.98	0.45	104.9
2007	5,275,454	273,216	1.71	33.11	1.06	97.5	125,025	20,486	10.49	64.01	0.45	85.0
2008	5,395,142	281,258	2.03	38.98	1.04	100.4	82,124	13,657	16.30	98.03	0.41	94.4
2009	4,563,080	240,687	2.11	39.94	1.06	101.1	68,030	11,408	10.02	59.76	0.37	102.0
2010	4,555,898	243,585	2.20	41.15	1.21	96.0	49,598	8,420	14.80	87.19	0.35	89.9
2011	4,292,284	233,295	2.28	41.95	1.25	95.9	41,599	7,096	20.30	119.01	0.50	106.9
2009												
January	446,449	23,567	2.12	40.16	1.00	97.8	19,583	3,223	8.25	50.12	0.40	83.5
February	417,710	21,834	2.15	41.04	1.02	110.0	11,257	1,851	7.77	47.23	0.43	156.2
March	427,194	22,100	2.21	42.73	1.09	117.0	8,872	1,474	8.25	49.68	0.44	130.7
April	358,734	18,683	2.09	40.17	1.10	106.5	2,928	505	10.48	60.72	0.28	99.9
May	377,550	19,715	2.14	41.01	1.10	110.8	2,295	402	10.19	58.15	0.30	74.4
June	355,973	18,831	2.09	39.47	1.10	98.5	3,082	527	11.54	67.43	0.28	106.3
July	368,865	19,773	2.10	39.11	1.00	93.4	2,438	421	12.65	73.25	0.29	70.7
August	393,511	20,796	2.08	39.31	1.07	95.1	3,716	629	13.25	78.32	0.30	66.3
September	352,252	18,832	2.09	39.09	1.03	106.7	2,444	422	15.18	87.88	0.33	101.0
October	341,134	18,223	2.06	38.52	1.04	96.3	2,450	423	13.94	80.80	0.32	88.4
November	352,701	18,574	2.06	39.03	1.10	101.5	3,768	665	12.98	73.50	0.25	149.0
December	371,008	19,758	2.07	38.92	1.05	86.7	5,196	866	13.41	80.51	0.38	150.1
2010												
January	376,680	19,830	2.21	42.01	1.20	85.3	5,186	895	14.92	86.41	0.30	75.4
February	343,015	18,198	2.21	41.75	1.18	88.3	2,397	416	14.78	85.23	0.30	78.2
March	401,656	21,348	2.23	41.96	1.20	107.5	4,487	747	13.69	82.23	0.55	201.3
April	359,489	19,062	2.23	41.96	1.25	113.2	2,017	354	15.12	86.17	0.30	90.2
May	374,626	19,964	2.19	41.15	1.28	106.5	2,963	508	15.27	89.08	0.36	86.2
June	342,601	18,471	2.19	40.68	1.22	83.4	4,357	738	14.22	83.97	0.33	87.9
July	370,780	20,113	2.23	41.09	1.12	81.8	6,753	1,125	13.66	81.95	0.41	67.0
August	414,300	21,970	2.23	42.11	1.25	90.1	4,622	777	14.55	86.52	0.27	75.1
September	404,409	21,646	2.20	41.04	1.23	103.2	4,031	678	13.97	83.02	0.31	95.5
October	412,301	22,106	2.15	40.10	1.23	115.5	3,720	626	15.45	91.85	0.35	135.1
November	387,870	20,899	2.15	39.94	1.19	106.9	3,898	679	16.19	92.92	0.36	120.4
December	368,173	19,977	2.18	40.13	1.18	84.9	5,167	876	16.62	97.98	0.31	87.6
2011												
January	381,239	20,717	2.23	40.96	1.20	86.5	4,653	783	17.44	103.58	0.56	71.2
February	336,384	18,030	2.26	42.18	1.29	94.7	3,276	560	18.64	108.99	0.77	118.7
March	363,257	19,787	2.26	41.58	1.19	107.9	2,270	392	21.18	122.73	0.55	92.1
April	330,831	17,944	2.28	42.03	1.21	102.6	3,235	550	21.43	126.18	0.27	144.8
May	348,283	18,569	2.32	43.58	1.33	101.0	2,752	466	21.66	127.89	0.59	108.5
June	330,390	17,898	2.34	43.25	1.23	84.4	3,232	553	20.81	121.69	0.48	87.0
July	351,423	19,120	2.35	43.14	1.24	79.4	5,604	955	21.18	124.33	0.40	91.4
August	386,958	20,994	2.34	43.11	1.26	87.9	2,883	497	16.66	96.71	0.49	86.7
September	377,183	20,755	2.31	42.04	1.25	100.2	2,674	462	22.29	129.10	0.53	107.1
October	379,229	20,611	2.25	41.35	1.27	109.6	3,946	655	20.28	122.12	0.52	178.5
November	357,960	19,649	2.24	40.77	1.24	108.9	3,617	635	20.57	117.22	0.44	175.8
December	349,148	19,221	2.18	39.64	1.23	100.0	3,457	589	22.35	131.11	0.47	140.6

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Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
Petroleum Liquids includes distillate and residual fuel oils, jet fuel, kerosene, waste oil, and beginning in 2011, propane. Prior to 2011 propane was included in Other Gases.
See the Technical Notes for fuel conversion factors.

Sources: U.S. Energy Information Administration (EIA), Form EIA-923, "Power Plant Operations Report" and predecessor form(s) including Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report" and Federal Energy Regulatory Commission (FERC), FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants"

Table 7.8. Receipts, Average Cost, and Quality of Fossil Fuels: Independent Power Producers, 2002 - 2011 (continued)

	Petroleum Coke						Natural Gas					All Fossil Fuels
	Receipts		Average Cost				Receipts		Average Cost			Average Cost
Period	(Billion Btu)	(Thousand Tons)	(Dollars per MMbtu)	(Dollars per Ton)	Average Sulfur Percent by Weight	Percentage of Consumption	(Billion Btu)	(Thousand Mcf)	(Dollars per MMBtu)	(Dollars per Mcf)	Percentage of Consumption	(Dollars per MMBtu)
Annual Totals												
2002	47,805	1,639	1.03	29.98	4.85	44.4	3,198,108	3,126,308	3.55	3.63	91.6	2.42
2003	59,377	2,086	0.60	17.16	4.88	64.3	3,335,086	3,244,368	5.33	5.48	96.2	3.15
2004	73,745	2,609	0.72	20.30	4.95	81.0	3,491,942	3,403,474	5.86	6.01	93.1	3.43
2005	92,706	3,277	0.90	25.42	5.09	82.9	3,675,165	3,578,722	8.20	8.42	95.8	4.69
2006	85,924	3,031	1.07	30.34	5.13	87.1	3,742,865	3,647,102	6.66	6.84	97.4	3.82
2007	56,580	1,994	1.02	28.95	4.88	69.3	4,097,825	3,990,546	6.92	7.11	97.2	4.06
2008	79,122	2,788	1.47	41.85	4.63	98.8	4,061,830	3,956,155	8.93	9.17	100.5	5.07
2009	49,619	1,732	1.31	37.63	3.87	93.6	4,087,573	3,987,721	4.30	4.41	100.7	3.18
2010	30,079	1,050	1.74	49.80	3.84	72.3	4,212,611	4,119,103	4.94	5.05	100.6	3.57
2011	33,643	1,175	2.54	72.85	4.55	84.6	4,252,040	4,158,617	4.62	4.72	100.8	3.52
2009												
January	3,025	105	1.57	45.18	3.93	73.0	297,293	289,321	6.01	6.18	99.8	3.78
February	3,999	140	1.39	39.94	4.23	97.2	273,521	266,236	4.93	5.07	100.6	3.31
March	4,037	141	1.18	33.71	4.26	92.3	294,042	286,461	4.19	4.30	101.3	3.07
April	3,311	114	1.05	30.45	3.80	76.5	270,846	263,955	3.92	4.02	100.5	2.90
May	3,671	128	1.13	32.50	4.05	87.2	304,347	296,712	4.00	4.10	100.9	2.98
June	4,314	150	1.15	33.16	3.46	90.7	371,888	362,969	4.02	4.11	100.8	3.10
July	5,369	188	1.39	39.58	3.91	103.9	461,124	449,506	3.86	3.96	100.2	3.09
August	5,154	181	1.55	44.13	4.14	106.2	506,176	494,315	3.69	3.78	100.2	3.02
September	4,221	148	1.17	33.45	3.75	85.5	410,838	401,063	3.39	3.47	100.5	2.82
October	4,873	172	1.43	40.59	4.04	127.2	324,805	317,184	4.42	4.53	103.2	3.24
November	3,050	106	1.20	34.73	3.29	77.5	266,906	260,688	4.37	4.48	100.3	3.10
December	4,596	160	1.41	40.51	3.38	104.7	305,787	299,310	5.84	5.97	100.4	3.83
2010												
January	3,804	133	1.44	41.35	3.37	101.7	308,109	301,125	6.75	6.90	100.1	4.32
February	2,918	101	1.48	42.64	3.46	77.2	274,889	268,803	5.95	6.08	100.4	3.91
March	3,499	121	1.63	47.30	3.33	101.4	256,384	250,712	5.06	5.17	100.7	3.39
April	1,376	47	1.08	31.18	4.33	40.8	267,989	261,844	4.48	4.58	100.2	3.22
May	2,468	86	1.78	50.77	3.83	62.4	306,425	299,565	4.55	4.65	100.6	3.30
June	2,619	91	1.75	50.31	4.00	60.0	401,342	392,478	5.01	5.12	100.3	3.77
July	2,705	95	1.94	55.02	4.47	58.5	522,419	510,999	5.04	5.15	100.4	3.94
August	1,779	64	2.26	63.33	3.98	59.1	546,215	534,075	4.72	4.82	100.5	3.70
September	1,349	47	2.36	67.67	3.01	61.5	401,881	393,000	4.27	4.36	100.6	3.28
October	3,342	117	2.01	57.26	3.88	116.1	321,547	314,248	4.00	4.09	101.3	3.02
November	2,286	80	1.76	50.12	4.24	80.2	285,549	279,359	4.23	4.33	100.8	3.10
December	1,933	67	1.63	46.81	4.67	57.6	319,863	312,895	5.49	5.62	100.9	3.81
2011												
January	1,730	60	W	W	4.24	46.8	309,865	303,301	5.59	5.71	100.7	W
February	1,809	64	W	W	4.21	52.2	283,811	277,469	5.06	5.17	100.9	W
March	2,563	89	W	W	3.37	54.8	271,713	265,931	4.57	4.67	100.6	W
April	3,046	106	2.36	67.43	3.57	103.0	284,857	278,599	4.71	4.82	100.4	3.49
May	3,339	116	2.44	70.04	4.01	103.9	312,436	305,861	4.75	4.85	100.9	3.54
June	2,623	92	1.99	56.95	4.81	78.6	379,462	371,553	4.95	5.05	100.7	3.80
July	3,119	107	2.39	69.60	4.60	75.3	520,203	508,834	4.94	5.05	100.1	4.00
August	3,166	110	W	W	4.84	90.6	515,581	504,743	4.57	4.67	100.9	W
September	2,511	88	W	W	4.87	83.4	391,415	382,298	4.39	4.49	101.3	W
October	3,603	126	W	W	5.08	139.5	320,549	313,229	4.12	4.22	101.6	W
November	2,652	94	W	W	5.52	108.9	308,988	301,865	3.92	4.01	100.5	W
December	3,483	123	W	W	5.08	125.6	353,160	344,934	3.86	3.95	100.6	W

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Totals may not equal sum of components because of independent rounding.
Petroleum Coke includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
See the Technical Notes for fuel conversion factors.

Sources: U.S. Energy Information Administration (EIA), Form EIA-923, "Power Plant Operations Report" and predecessor form(s) including Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report" and Federal Energy Regulatory Commission (FERC), FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants"

Table 7.9. Receipts, Average Cost, and Quality of Fossil Fuels: Commercial Sector, 2002 - 2011

	Coal						Petroleum Liquids					
	Receipts		Average Cost				Receipts		Average Cost			
Period	(Billion Btu)	(Thousand Tons)	(Dollars per MMBtu)	(Dollars per Ton)	Average Sulfur Percent by Weight	Percentage of Consumption	(Billion Btu)	(Thousand Barrels)	(Dollars per MMBtu)	(Dollars per Barrel)	Average Sulfur Percent by Weight	Percentage of Consumption
Annual Totals												
2002	9,580	399	2.10	50.44	2.59	28.4	503	91	5.38	29.73	0.02	7.5
2003	8,835	372	1.99	47.24	2.43	20.5	248	43	7.00	40.82	0.04	3.1
2004	10,682	451	2.08	49.32	2.48	23.5	3,066	527	6.19	35.96	0.20	26.9
2005	11,081	464	2.57	61.21	2.43	24.2	1,684	289	8.28	48.22	0.17	18.3
2006	12,207	518	2.63	61.95	2.51	27.5	798	137	13.50	78.70	0.17	15.5
2007	12,419	531	2.67	62.46	2.58	27.6	249	43	14.04	81.93	0.17	6.2
2008	43,997	2,009	2.65	58.12	1.73	99.4	3,800	633	17.84	107.10	0.37	102.0
2009	41,182	1,876	2.90	63.68	1.67	104.3	3,517	583	10.82	65.26	0.45	122.1
2010	37,778	1,747	2.82	61.06	1.77	101.6	2,395	400	15.24	91.25	0.38	106.3
2011	35,892	1,686	2.92	62.24	1.78	101.1	1,959	325	19.67	118.66	0.55	108.0
2009												
January	4,051	188	2.88	62.20	1.70	90.0	1,089	177	9.18	56.39	0.57	104.4
February	3,768	174	2.94	63.75	1.86	97.3	796	128	7.89	48.95	0.66	200.5
March	3,839	176	2.85	62.34	1.74	103.4	205	35	10.11	60.17	0.35	113.1
April	3,177	145	2.83	61.89	1.66	113.5	147	25	11.29	66.12	0.27	98.5
May	2,841	130	2.90	63.09	1.59	111.8	NM	NM	NM	NM	0.25	128.7
June	3,275	146	2.90	64.90	1.74	108.2	174	30	13.14	77.04	0.22	218.9
July	3,245	146	2.91	64.59	1.77	106.5	120	20	13.69	80.17	0.25	106.0
August	3,453	155	2.96	65.73	1.54	108.7	NM	NM	14.43	84.56	0.29	89.0
September	3,282	147	3.06	68.33	1.68	115.4	138	24	14.56	85.01	0.17	162.9
October	3,075	140	2.95	65.07	1.57	108.6	175	30	14.65	86.15	0.25	173.8
November	3,466	160	2.86	62.19	1.57	105.4	139	24	15.32	89.88	0.23	82.5
December	3,711	170	2.80	61.15	1.61	97.7	227	38	15.04	89.12	0.31	86.1
2010												
January	3,452	162	2.79	59.44	1.73	83.9	NM	NM	NM	NM	0.43	77.6
February	3,364	156	2.87	61.93	1.78	93.2	NM	NM	NM	NM	0.38	73.4
March	3,478	161	2.90	62.65	1.64	107.7	NM	NM	NM	NM	0.45	330.9
April	2,983	137	2.80	61.12	1.47	116.7	NM	NM	NM	NM	0.23	81.8
May	2,820	132	2.71	58.00	1.41	111.4	NM	NM	NM	NM	0.48	106.2
June	2,874	132	2.99	65.29	1.97	97.6	NM	NM	NM	NM	0.42	116.2
July	2,933	132	2.83	62.64	2.07	93.4	NM	NM	NM	NM	0.35	72.4
August	3,381	157	2.79	60.14	1.87	103.2	NM	NM	NM	NM	0.41	58.4
September	3,045	141	2.85	61.82	1.84	105.8	NM	NM	NM	NM	0.35	122.5
October	2,864	133	2.82	60.52	1.71	109.9	NM	NM	NM	NM	0.31	283.6
November	3,365	155	2.86	62.19	1.75	121.1	NM	NM	NM	NM	0.35	145.5
December	3,217	151	2.69	57.30	1.96	91.5	NM	NM	NM	NM	0.31	89.2
2011												
January	3,297	155	2.80	59.41	1.84	82.3	NM	NM	NM	NM	0.62	49.1
February	3,289	154	2.88	61.47	1.79	88.9	NM	NM	NM	NM	0.63	104.3
March	3,388	161	2.79	58.87	1.74	97.7	NM	NM	NM	NM	0.55	165.7
April	2,649	126	2.79	58.65	1.92	101.9	NM	NM	NM	NM	0.30	160.4
May	2,730	127	3.08	66.22	1.75	102.4	NM	NM	NM	NM	0.72	127.4
June	3,222	147	3.16	68.99	1.79	113.1	NM	NM	NM	NM	0.65	215.3
July	2,954	137	3.04	65.63	1.90	94.3	NM	NM	NM	NM	0.43	171.7
August	2,881	132	3.12	68.18	1.88	101.9	NM	NM	NM	NM	0.51	126.1
September	2,710	126	3.01	64.84	1.80	102.8	NM	NM	NM	NM	0.53	71.7
October	2,789	136	2.74	56.21	1.56	123.7	NM	NM	NM	NM	0.52	225.0
November	2,922	140	2.82	58.95	1.72	119.0	NM	NM	NM	NM	0.52	101.0
December	3,061	145	2.87	60.55	1.71	104.4	NM	NM	NM	NM	0.51	163.2

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Petroleum Liquids includes distillate and residual fuel oils, jet fuel, kerosene, waste oil, and beginning in 2011, propane. Prior to 2011 propane was included in Other Gases.
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Table 7.10. Receipts, Average Cost, and Quality of Fossil Fuels: Commerical Sector, 2002 - 2011 (continued)

	Petroleum Coke						Natural Gas					All Fossil Fuels
	Receipts		Average Cost				Receipts		Average Cost			Average Cost
Period	(Billion Btu)	(Thousand Tons)	(Dollars per MMbtu)	(Dollars per Ton)	Average Sulfur Percent by Weight	Percentage of Consumption	(Billion Btu)	(Thousand Mcf)	(Dollars per MMBtu)	(Dollars per Mcf)	Percentage of Consumption	(Dollars per MMBtu)
Annual Totals												
2002	--	--	--	--	--	--	18,671	18,256	3.44	3.52	24.7	3.03
2003	--	--	--	--	--	--	18,169	17,827	4.96	5.06	30.5	4.02
2004	--	--	--	--	--	--	16,176	15,804	5.93	6.07	21.9	4.58
2005	--	--	--	--	--	--	17,600	17,142	8.38	8.60	25.2	6.25
2006	--	--	--	--	--	--	21,369	20,819	8.33	8.55	30.7	6.42
2007	--	--	--	--	--	--	23,502	22,955	7.99	8.18	32.8	6.20
2008	370	14	2.14	58.36	5.53	135.3	71,670	69,877	9.01	9.24	105.5	6.94
2009	252	9	1.65	46.54	5.11	102.8	81,134	79,308	5.18	5.30	105.0	4.58
2010	410	15	2.19	60.59	5.67	122.5	92,055	90,130	5.39	5.51	105.1	4.83
2011	268	9	W	W	5.46	147.4	95,287	93,306	5.20	5.31	107.2	W
2009												
January	NM	NM	NM	NM	5.41	116.1	7,139	6,961	6.92	7.09	105.8	5.77
February	NM	NM	NM	NM	5.37	99.0	6,392	6,231	6.20	6.36	107.3	5.19
March	NM	NM	NM	NM	4.94	100.0	6,601	6,442	5.61	5.74	105.6	4.69
April	--	--	--	--	--	--	5,830	5,701	4.87	4.98	104.7	4.26
May	--	--	--	--	--	--	5,637	5,511	4.69	4.80	103.5	4.21
June	--	--	--	--	--	--	6,252	6,113	4.62	4.72	104.3	4.19
July	NM	NM	NM	NM	4.55	--	7,449	7,278	4.58	4.69	103.4	4.18
August	NM	NM	NM	NM	4.93	100.3	7,990	7,821	4.37	4.46	104.9	4.08
September	27	1	NM	NM	5.10	91.3	7,450	7,285	4.05	4.14	104.0	3.88
October	--	--	--	--	--	--	6,757	6,615	5.00	5.11	105.8	4.54
November	35	1	NM	NM	5.09	100.3	6,344	6,214	5.26	5.37	104.8	4.55
December	53	2	NM	NM	4.94	106.3	7,293	7,135	6.03	6.17	105.6	5.13
2010												
January	38	1	NM	NM	5.45	100.4	7,928	7,757	6.92	7.07	107.0	5.82
February	NM	NM	NM	NM	5.45	99.4	7,189	7,040	6.55	6.69	106.3	5.51
March	41	2	NM	NM	5.45	104.6	7,062	6,916	5.83	5.96	105.1	5.19
April	20	1	NM	NM	5.45	81.3	6,394	6,258	5.09	5.20	104.5	4.48
May	NM	NM	NM	NM	5.45	--	6,102	5,980	5.10	5.21	104.2	4.55
June	NM	NM	NM	NM	5.45	--	6,583	6,449	5.25	5.36	104.3	4.74
July	NM	NM	NM	NM	5.83	--	8,579	8,397	5.24	5.36	103.5	4.83
August	NM	NM	NM	NM	5.83	98.0	9,335	9,139	5.09	5.20	103.8	4.58
September	NM	NM	NM	NM	5.83	83.1	7,936	7,765	4.65	4.75	103.8	4.30
October	42	2	NM	NM	5.83	120.6	7,954	7,785	4.69	4.80	104.8	4.47
November	NM	NM	NM	NM	5.83	93.1	7,758	7,601	4.67	4.76	106.6	4.24
December	58	2	NM	NM	5.83	110.3	9,235	9,043	5.63	5.75	106.9	5.09
2011												
January	42	1	W	W	5.16	98.3	NM	NM	6.00	6.13	107.7	W
February	36	1	W	W	5.29	105.1	NM	NM	5.76	5.88	108.6	W
March	34	1	W	W	5.54	81.8	NM	NM	5.46	5.58	107.0	W
April	NM	NM	W	W	5.45	--	NM	NM	5.40	5.52	106.3	W
May	NM	NM	W	W	5.83	--	NM	NM	5.28	5.39	105.7	W
June	NM	NM	W	W	5.83	--	NM	NM	5.40	5.51	106.3	W
July	NM	NM	W	W	5.83	--	NM	NM	5.24	5.35	104.5	W
August	NM	NM	W	W	5.83	--	NM	NM	5.09	5.20	106.4	W
September	NM	NM	W	W	5.83	--	NM	NM	4.92	5.04	108.2	W
October	NM	NM	W	W	5.27	--	NM	NM	4.87	4.98	107.5	W
November	NM	NM	W	W	5.34	62.8	NM	NM	4.68	4.77	110.3	W
December	44	2	W	W	5.29	98.8	NM	NM	4.61	4.70	109.0	W

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NM = Not meaningful due to large relative standard error or excessive percentage change.
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Totals may not equal sum of components because of independent rounding.
Petroleum Coke includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
See the Technical Notes for fuel conversion factors.

Sources: U.S. Energy Information Administration (EIA), Form EIA-923, "Power Plant Operations Report" and predecessor form(s) including Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report" and Federal Energy Regulatory Commission (FERC), FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants"

Table 7.11. Receipts, Average Cost, and Quality of Fossil Fuels: Industrial Sector, 2002 - 2011

	Coal						Petroleum Liquids					
	Receipts		Average Cost				Receipts		Average Cost			
Period	(Billion Btu)	(Thousand Tons)	(Dollars per MMBtu)	(Dollars per Ton)	Average Sulfur Percent by Weight	Percentage of Consumption	(Billion Btu)	(Thousand Barrels)	(Dollars per MMBtu)	(Dollars per Barrel)	Average Sulfur Percent by Weight	Percentage of Consumption
Annual Totals												
2002	294,234	13,659	1.45	31.29	1.56	52.1	29,137	4,638	3.55	22.33	1.24	26.5
2003	322,547	15,076	1.45	31.01	1.37	60.7	27,538	4,624	4.85	28.86	1.25	23.2
2004	326,495	15,324	1.63	34.79	1.43	57.6	25,491	4,107	4.98	30.93	1.38	18.5
2005	339,968	16,011	1.94	41.17	1.42	61.9	36,383	5,876	6.64	41.13	1.36	26.4
2006	320,640	15,208	2.03	42.76	1.47	60.2	19,514	3,214	7.57	45.95	1.30	21.2
2007	303,091	13,540	2.20	49.16	1.36	60.1	33,637	5,514	8.53	52.06	1.33	38.8
2008	493,724	22,044	2.72	60.96	1.28	100.7	48,822	7,958	12.50	76.69	1.01	109.0
2009	431,686	19,661	2.81	61.68	1.22	99.5	55,899	9,232	9.83	59.52	0.83	112.8
2010	468,991	21,492	2.75	60.08	1.26	87.2	33,276	5,554	13.21	79.15	0.93	125.6
2011	476,108	22,204	2.93	62.86	1.33	99.5	28,939	4,878	17.67	104.83	1.08	144.8
2009												
January	36,562	1,654	3.09	68.35	1.25	92.3	9,767	1,601	8.12	49.57	0.85	151.1
February	37,973	1,726	2.95	65.01	1.30	107.5	7,327	1,211	8.24	49.88	0.72	136.1
March	37,194	1,714	2.83	61.39	1.24	101.3	5,137	865	7.87	46.78	0.77	111.0
April	35,600	1,612	2.76	60.96	1.21	108.4	3,957	673	8.75	51.40	0.86	103.2
May	32,431	1,482	2.90	63.53	1.20	95.6	4,091	671	9.26	56.49	0.80	74.8
June	35,103	1,594	2.76	60.80	1.23	99.6	4,920	813	10.45	63.24	0.79	123.4
July	36,776	1,680	2.74	59.98	1.15	101.3	3,774	620	11.02	67.06	0.78	107.3
August	37,929	1,739	2.75	59.95	1.12	102.7	4,406	723	11.55	70.39	0.88	134.4
September	36,169	1,645	2.73	60.01	1.17	102.1	2,615	431	12.05	73.10	0.89	77.3
October	34,755	1,579	2.72	59.97	1.29	94.5	2,959	485	12.25	74.72	1.00	103.4
November	36,274	1,646	2.72	59.84	1.23	101.5	3,129	517	12.05	72.96	0.82	105.8
December	34,920	1,590	2.75	60.33	1.21	89.2	3,816	622	12.43	76.24	0.90	100.9
2010												
January	34,732	1,580	2.79	61.38	1.32	75.5	4,869	811	12.80	76.83	0.94	140.8
February	35,539	1,606	2.83	62.50	1.28	81.2	2,888	477	12.58	76.17	1.19	97.5
March	41,435	1,865	2.80	62.26	1.30	87.8	2,546	422	12.80	77.21	1.06	121.4
April	37,998	1,713	2.76	61.15	1.25	77.2	1,616	271	13.57	80.84	1.03	84.1
May	38,477	1,743	2.72	59.95	1.20	86.7	2,427	406	12.92	77.32	0.86	136.6
June	42,012	2,008	2.71	56.76	1.14	105.8	2,655	444	12.67	75.80	0.83	172.6
July	39,484	1,797	2.75	60.33	1.24	84.7	2,876	482	12.77	76.20	0.77	143.4
August	45,083	2,150	2.68	56.26	1.25	98.0	2,922	487	12.69	76.05	0.93	177.9
September	39,511	1,795	2.80	61.55	1.23	92.5	2,454	412	12.85	76.49	0.84	152.2
October	39,628	1,808	2.74	60.11	1.27	92.4	NM	NM	NM	NM	0.92	99.6
November	38,003	1,732	2.74	60.17	1.31	93.4	2,347	396	14.71	87.06	0.90	107.5
December	37,089	1,694	2.74	60.05	1.36	75.4	3,487	579	14.82	89.26	0.91	112.4
2011												
January	41,774	1,929	2.88	62.38	1.31	92.7	3,443	575	15.11	90.47	1.33	124.6
February	36,699	1,689	2.89	62.91	1.34	93.8	2,346	394	15.91	94.86	1.27	114.7
March	38,893	1,813	2.86	61.26	1.36	95.8	2,408	404	17.46	104.16	1.16	129.5
April	38,978	1,827	2.93	62.47	1.28	102.3	2,648	446	17.97	106.58	0.86	173.1
May	36,984	1,731	2.97	63.47	1.27	94.3	NM	NM	NM	NM	1.16	225.1
June	39,329	1,826	2.93	63.01	1.34	99.1	2,628	447	19.51	114.66	0.93	176.7
July	39,487	1,850	2.96	63.18	1.32	95.1	1,869	318	19.19	112.81	0.99	141.5
August	44,259	2,057	3.01	64.88	1.36	104.8	1,840	308	16.33	97.49	1.08	132.6
September	40,384	1,886	2.91	62.21	1.35	105.5	1,785	301	18.39	109.02	1.02	129.7
October	38,861	1,824	2.94	62.68	1.30	104.4	2,410	407	18.70	110.71	0.87	143.6
November	38,803	1,816	2.94	62.81	1.39	106.1	NM	NM	18.91	110.85	0.99	154.1
December	41,657	1,957	2.96	62.90	1.33	101.7	1,957	329	19.58	116.55	1.15	122.4

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Notes:
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Totals may not equal sum of components because of independent rounding.
Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
Petroleum Liquids includes distillate and residual fuel oils, jet fuel, kerosene, waste oil, and beginning in 2011, propane. Prior to 2011 propane was included in Other Gases.
See the Technical Notes for fuel conversion factors.

Sources: U.S. Energy Information Administration (EIA), Form EIA-923, "Power Plant Operations Report" and predecessor form(s) including Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report" and Federal Energy Regulatory Commission (FERC), FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants"

Table 7.12. Receipts, Average Cost, and Quality of Fossil Fuels: Industrial Sector, 2002 - 2011 (continued)

	Petroleum Coke						Natural Gas					All Fossil Fuels
	Receipts		Average Cost				Receipts		Average Cost			Average Cost
Period	(Billion Btu)	(Thousand Tons)	(Dollars per MMbtu)	(Dollars per Ton)	Average Sulfur Percent by Weight	Percentage of Consumption	(Billion Btu)	(Thousand Mcf)	(Dollars per MMBtu)	(Dollars per Mcf)	Percentage of Consumption	(Dollars per MMBtu)
Annual Totals												
2002	3,846	138	0.76	21.20	5.91	9.1	852,547	828,439	3.36	3.46	66.8	2.88
2003	16,383	594	1.04	28.74	5.73	47.3	823,681	798,996	5.32	5.48	69.9	4.20
2004	14,876	540	0.98	27.01	5.59	40.4	839,886	814,843	6.04	6.22	68.4	4.76
2005	16,620	594	1.21	33.75	5.44	58.2	828,882	805,132	8.00	8.24	74.3	6.18
2006	17,875	646	1.63	45.05	5.43	42.7	869,157	844,211	7.02	7.22	75.7	5.64
2007	19,700	698	1.96	55.42	5.52	43.6	896,803	871,178	6.97	7.18	82.9	5.78
2008	39,246	1,396	3.34	93.84	4.92	117.9	1,099,613	1,068,372	8.95	9.22	111.9	7.10
2009	38,924	1,381	1.80	50.82	4.51	114.2	1,117,489	1,088,880	4.27	4.38	110.0	4.02
2010	35,866	1,269	2.46	69.38	4.90	100.5	1,166,768	1,135,917	4.64	4.77	110.4	4.24
2011	37,981	1,351	W	W	5.03	108.3	1,331,977	1,296,628	4.28	4.40	122.0	W
2009												
January	3,723	132	2.47	69.67	4.37	134.8	92,422	90,002	5.97	6.14	111.3	5.29
February	2,851	101	2.13	60.08	4.49	102.2	81,052	78,882	4.75	4.88	110.6	4.37
March	3,249	115	1.94	54.76	4.34	122.9	90,847	88,448	4.25	4.36	112.5	3.94
April	2,974	105	1.47	41.48	4.53	130.5	86,303	84,086	3.95	4.06	114.1	3.71
May	2,748	98	1.68	47.32	4.67	117.7	86,177	83,988	3.79	3.89	109.5	3.69
June	3,016	106	1.71	48.63	4.77	110.8	91,419	89,197	3.91	4.01	108.6	3.80
July	2,861	101	1.79	50.71	4.53	90.5	99,172	96,629	4.01	4.11	108.3	3.82
August	3,753	133	1.80	50.73	4.51	121.4	102,238	99,672	3.71	3.80	108.2	3.65
September	3,688	130	1.50	42.30	4.50	114.5	99,342	96,840	3.22	3.30	109.7	3.21
October	3,187	113	1.68	47.23	4.49	104.8	95,996	93,558	4.13	4.24	110.1	3.89
November	3,438	122	1.59	44.65	4.55	109.1	91,432	89,106	4.42	4.54	110.5	4.07
December	3,436	122	1.80	50.60	4.50	119.2	101,090	98,473	5.19	5.33	108.1	4.71
2010												
January	NM	NM	1.98	55.72	4.49	85.0	103,441	100,700	6.06	6.23	111.9	5.43
February	NM	NM	1.89	53.71	4.80	53.5	92,052	89,617	5.62	5.77	112.6	4.97
March	NM	NM	2.28	64.61	4.83	80.7	96,305	93,754	4.89	5.02	112.3	4.38
April	3,134	110	2.31	65.60	5.05	125.6	89,012	86,651	4.19	4.31	110.1	3.85
May	2,812	99	2.36	67.00	4.99	99.2	93,846	91,314	4.37	4.49	112.0	4.02
June	NM	NM	2.29	64.41	4.96	84.4	95,210	92,629	4.58	4.71	109.8	4.14
July	3,445	123	2.54	71.36	4.65	112.3	103,153	100,425	4.82	4.95	109.9	4.37
August	4,313	153	2.71	76.26	4.73	133.3	106,486	103,638	4.69	4.82	109.3	4.22
September	3,742	133	2.68	75.58	5.01	130.2	96,833	94,214	4.02	4.13	108.3	3.79
October	NM	NM	2.66	75.62	4.87	99.7	95,174	92,702	3.92	4.03	110.4	3.71
November	2,862	101	2.47	69.84	5.18	91.0	93,589	91,184	3.74	3.84	111.3	3.62
December	3,383	120	2.71	76.42	5.17	113.3	101,666	99,087	4.65	4.77	107.5	4.36
2011												
January	3,075	110	3.16	88.56	4.70	96.3	112,015	109,254	4.54	4.65	122.0	4.31
February	2,430	86	2.99	83.98	4.66	84.3	99,431	96,876	4.55	4.67	120.3	4.28
March	2,687	95	3.24	91.51	4.75	100.0	102,958	100,259	4.08	4.19	122.8	3.96
April	2,336	83	W	W	4.46	78.3	103,922	101,255	4.43	4.55	122.0	W
May	2,259	81	W	W	4.97	74.5	108,328	105,579	4.53	4.65	121.4	W
June	2,558	91	W	W	5.03	88.9	109,529	106,731	4.61	4.74	121.7	W
July	4,019	141	W	W	5.13	144.0	120,609	117,663	4.62	4.73	121.0	W
August	3,728	132	W	W	5.17	140.7	126,012	122,745	4.48	4.60	123.4	W
September	3,738	132	W	W	5.27	125.0	117,462	112,976	4.19	4.36	124.7	W
October	3,512	126	W	W	5.17	114.9	106,879	104,110	3.96	4.06	123.2	W
November	3,267	117	W	W	5.29	113.3	109,257	106,529	3.69	3.78	123.8	W
December	4,372	156	W	W	5.25	143.8	115,575	112,652	3.67	3.76	117.9	W

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Table 7.13. Receipts of Coal Delivered for Electricity Generation by State, 2011 and 2010
(Thousand Tons)

Census Division and State	All Sectors			Electric Power Sector							
				Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010
New England	3,628	5,725	-37.0%	1,070	1,063	2,477	4,561	--	--	81	101
Connecticut	349	1,183	-70.0%	--	--	349	1,183	--	--	--	--
Maine	61	88	-31.0%	--	--	38	55	--	--	23	34
Massachusetts	2,147	3,390	-37.0%	--	--	2,089	3,323	--	--	58	67
New Hampshire	1,070	1,063	0.6%	1,070	1,063	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--	--	--	--	--
Middle Atlantic	55,880	62,518	-11.0%	8,884	8,498	45,453	52,417	28	24	1,515	1,580
New Jersey	2,050	2,526	-19.0%	--	--	2,050	2,526	--	--	--	--
New York	5,367	6,065	-12.0%	17	34	4,939	5,662	NM	NM	404	365
Pennsylvania	48,463	53,928	-10.0%	8,867	8,464	38,464	44,229	21	21	1,111	1,215
East North Central	205,794	225,132	-8.6%	135,431	153,895	64,427	65,500	527	613	5,409	5,125
Illinois	66,839	58,595	14.0%	15,736	7,724	47,824	47,879	94	66	3,186	2,926
Indiana	43,919	54,471	-19.0%	38,728	49,090	4,888	4,997	193	284	112	100
Michigan	25,909	36,234	-28.0%	25,152	35,386	194	242	162	193	402	413
Ohio	45,038	51,301	-12.0%	32,975	38,432	11,521	12,382	NM	--	529	487
Wisconsin	24,087	24,531	-1.8%	22,841	23,263	--	--	65	70	1,181	1,199
West North Central	151,975	150,810	0.8%	146,666	146,190	--	--	368	404	4,941	4,216
Iowa	26,839	26,626	0.8%	23,826	24,140	--	--	242	265	2,771	2,221
Kansas	20,216	20,503	-1.4%	20,216	20,503	--	--	--	--	--	--
Minnesota	18,304	17,480	4.7%	17,159	16,336	--	--	NM	--	1,121	1,144
Missouri	45,756	44,832	2.1%	45,502	44,492	--	--	101	138	153	201
Nebraska	15,620	15,192	2.8%	14,994	14,827	--	--	--	--	626	365
North Dakota	23,445	23,973	-2.2%	23,174	23,688	--	--	--	--	271	285
South Dakota	1,795	2,203	-19.0%	1,795	2,203	--	--	--	--	--	--
South Atlantic	148,091	156,059	-5.1%	120,867	126,095	22,922	25,135	147	136	4,156	4,693
Delaware	562	832	-32.0%	--	--	562	832	--	--	--	--
District of Columbia	--	--	--	--	--	--	--	--	--	--	--
Florida	22,722	26,343	-14.0%	21,041	24,062	1,368	1,898	--	--	313	383
Georgia	31,251	31,710	-1.4%	30,411	30,854	--	--	--	--	840	856
Maryland	9,683	10,543	-8.2%	--	--	9,257	10,089	--	--	426	454
North Carolina	26,540	26,768	-0.9%	24,894	25,086	1,054	1,041	94	98	498	543
South Carolina	14,574	16,268	-10.0%	14,035	15,842	156	146	--	--	382	281
Virginia	11,020	12,025	-8.4%	8,194	8,235	1,564	1,946	53	38	1,207	1,806
West Virginia	31,740	31,568	0.5%	22,292	22,015	8,960	9,183	--	--	488	370
East South Central	97,759	101,719	-3.9%	92,719	95,685	2,752	3,708	51	57	2,236	2,270
Alabama	27,411	30,146	-9.1%	26,947	29,595	51	96	--	--	413	455
Kentucky	41,473	40,771	1.7%	41,473	40,771	--	--	--	--	--	--
Mississippi	6,643	8,611	-23.0%	3,942	4,999	2,701	3,612	--	--	--	--
Tennessee	22,231	22,192	0.2%	20,358	20,320	--	--	51	57	1,822	1,815
West South Central	162,157	154,849	4.7%	82,949	81,557	78,256	72,121	--	--	952	1,172
Arkansas	17,631	17,473	0.9%	15,220	16,402	2,278	919	--	--	133	153
Louisiana	15,775	14,310	10.0%	8,571	7,960	7,180	6,347	--	--	24	NM
Oklahoma	19,836	20,148	-1.5%	17,970	18,153	1,341	1,462	--	--	525	532
Texas	108,916	102,919	5.8%	41,188	39,041	67,458	63,393	--	--	269	484
Mountain	113,801	112,772	0.9%	100,235	97,695	11,581	13,476	--	--	1,986	1,600
Arizona	23,218	22,357	3.9%	22,848	21,970	--	--	--	--	370	387
Colorado	19,754	18,583	6.3%	19,510	18,331	244	252	--	--	--	--
Idaho	134	221	-39.0%	--	--	--	--	--	--	134	221
Montana	9,984	11,876	-16.0%	297	310	9,641	11,566	--	--	NM	--
Nevada	3,105	3,734	-17.0%	2,376	2,918	729	815	--	--	--	--
New Mexico	16,318	14,441	13.0%	16,318	14,441	--	--	--	--	--	--
Utah	15,214	14,671	3.7%	14,527	13,830	422	368	--	--	264	474
Wyoming	26,075	26,890	-3.0%	24,357	25,896	545	475	--	--	1,173	518
Pacific Contiguous	7,542	8,442	-11.0%	2,352	2,092	4,361	5,697	--	--	829	654
California	1,573	1,396	13.0%	--	--	838	858	--	--	736	538
Oregon	2,352	2,092	12.0%	2,352	2,092	--	--	--	--	--	--
Washington	3,617	4,955	-27.0%	--	--	3,523	4,839	--	--	94	116
Pacific Noncontiguous	2,040	1,890	7.9%	310	325	1,065	971	564	513	100	81
Alaska	1,111	1,059	4.9%	310	325	236	221	564	513	--	--
Hawaii	929	832	12.0%	--	--	829	750	--	--	100	81
U.S. Total	948,668	979,918	-3.2%	691,484	713,094	233,295	243,585	1,686	1,747	22,204	21,492

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NM = Not meaningful due to large relative standard error or excessive percentage change.
W = Withheld to avoid disclosure of individual company data.

Notes:
See Glossary for definitions. Values for are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
See the Technical Notes for fuel conversion factors.

Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 7.14. Receipts of Petroleum Liquids Delivered for Electricity Generation by State, 2011 and 2010
(Thousand Barrels)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010
New England	2,334	2,936	-20.0%	NM	178	1,182	1,731	219	235	822	792
Connecticut	264	610	-57.0%	NM	NM	216	600	--	--	NM	NM
Maine	1,334	1,267	5.3%	NM	NM	543	526	NM	NM	780	729
Massachusetts	476	831	-43.0%	NM	NM	421	602	NM	NM	NM	NM
New Hampshire	160	157	1.8%	NM	35	NM	NM	119	120	NM	NM
Rhode Island	NM	NM	NM	NM	NM	1	2	NM	NM	--	--
Vermont	NM	NM	NM	NM	NM	--	--	NM	--	--	--
Middle Atlantic	3,418	4,160	-18.0%	1,071	1,909	2,042	1,936	NM	47	NM	268
New Jersey	516	629	-18.0%	NM	NM	269	352	NM	NM	NM	NM
New York	1,988	2,665	-25.0%	840	1,657	908	766	NM	NM	NM	NM
Pennsylvania	914	867	5.4%	NM	NM	865	818	NM	NM	NM	NM
East North Central	1,557	1,508	3.3%	1,267	1,065	197	276	NM	59	67	108
Illinois	174	215	-19.0%	64	54	110	161	NM	NM	NM	NM
Indiana	350	333	5.0%	306	262	NM	NM	NM	NM	39	60
Michigan	366	344	6.4%	335	273	*	NM	NM	49	10	21
Ohio	570	527	8.2%	479	407	83	105	NM	--	8	15
Wisconsin	97	89	8.9%	83	68	NM	9	NM	NM	NM	NM
West North Central	726	920	-21.0%	664	833	NM	10	NM	6	NM	71
Iowa	160	204	-21.0%	156	198	NM	NM	NM	NM	NM	NM
Kansas	96	94	3.0%	96	94	--	--	--	--	--	--
Minnesota	70	108	-35.0%	43	66	7	NM	NM	NM	NM	NM
Missouri	209	333	-37.0%	206	325	NM	--	NM	NM	NM	NM
Nebraska	63	55	16.0%	63	55	--	--	--	--	--	--
North Dakota	109	104	4.3%	82	72	--	--	NM	NM	NM	NM
South Dakota	19	NM	NM	18	NM	NM	NM	NM	NM	--	--
South Atlantic	9,843	16,052	-39.0%	6,979	12,034	925	1,702	NM	16	1,923	2,300
Delaware	106	64	65.0%	NM	NM	102	64	--	--	--	--
District of Columbia	215	443	-51.0%	--	--	215	443	--	--	--	--
Florida	5,266	10,609	-50.0%	4,684	9,693	NM	386	--	--	515	530
Georgia	737	672	9.6%	301	190	NM	35	NM	NM	424	444
Maryland	400	444	-9.8%	NM	NM	349	409	NM	NM	28	23
North Carolina	684	828	-17.0%	315	393	NM	NM	NM	NM	NM	426
South Carolina	539	753	-28.0%	225	241	--	2	NM	NM	313	508
Virginia	1,566	1,981	-21.0%	1,132	1,276	143	327	8	8	NM	370
West Virginia	330	258	28.0%	295	231	35	27	--	--	--	--
East South Central	1,311	2,062	-36.0%	942	1,136	17	38	--	--	352	888
Alabama	499	1,002	-50.0%	187	187	17	38	--	--	295	777
Kentucky	244	326	-25.0%	244	326	--	--	--	--	--	--
Mississippi	111	158	-30.0%	NM	135	--	--	--	--	15	24
Tennessee	456	576	-21.0%	414	488	--	--	--	--	NM	NM
West South Central	452	545	-17.0%	172	290	177	121	NM	5	NM	129
Arkansas	91	81	12.0%	28	47	38	9	--	--	NM	NM
Louisiana	116	240	-52.0%	35	170	34	31	--	--	NM	NM
Oklahoma	NM	21	NM	NM	16	--	--	NM	NM	--	NM
Texas	229	203	13.0%	92	56	106	82	NM	NM	NM	62
Mountain	509	622	-18.0%	439	567	61	42	NM	*	NM	12
Arizona	120	112	7.3%	114	102	--	--	NM	NM	6	10
Colorado	66	173	-62.0%	65	173	--	*	NM	NM	NM	NM
Idaho	NM	NM	NM	NM	NM	--	--	--	--	--	--
Montana	50	35	46.0%	8	NM	42	34	--	--	--	--
Nevada	29	24	19.0%	21	18	8	6	--	--	--	--
New Mexico	56	93	-40.0%	46	93	10	--	--	NM	NM	NM
Utah	88	74	19.0%	87	71	NM	3	--	--	--	--
Wyoming	100	111	-10.0%	98	109	--	--	--	--	NM	NM
Pacific Contiguous	550	379	45.0%	81	109	NM	46	NM	2	435	222
California	NM	97	NM	59	77	NM	16	NM	NM	NM	NM
Oregon	NM	NM	NM	12	5	--	--	NM	--	NM	NM
Washington	446	273	64.0%	9	27	17	30	NM	NM	418	215
Pacific Noncontiguous	15,456	16,288	-5.1%	12,133	12,977	2,457	2,518	NM	31	850	762
Alaska	1,658	1,659	0.0%	1,543	1,550	--	--	NM	NM	103	82
Hawaii	13,798	14,629	-5.7%	10,590	11,427	2,457	2,518	NM	4	747	680
U.S. Total	36,158	45,472	-20.0%	23,859	31,099	7,096	8,420	325	400	4,878	5,554

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Notes:
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Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Petroleum Liquids includes distillate and residual fuel oils, jet fuel, kerosene, waste oil, and beginning in 2011, propane. Prior to 2011 propane was included in Other Gases.
See the Technical Notes for fuel conversion factors.

Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 7.15. Receipts of Petroleum Coke Delivered for Electricity Generation by State, 2011 and 2010
(Thousand Tons)

Census Division and State	All Sectors			Electric Power Sector							
				Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010
New England	--	--	--	--	--	--	--	--	--	--	--
Connecticut	--	--	--	--	--	--	--	--	--	--	--
Maine	--	--	--	--	--	--	--	--	--	--	--
Massachusetts	--	--	--	--	--	--	--	--	--	--	--
New Hampshire	--	--	--	--	--	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--	--	--	--	--
Middle Atlantic	79	132	-40.0%	--	--	23	122	--	--	56	10
New Jersey	NM	--	--	--	--	--	--	--	--	NM	--
New York	23	122	-81.0%	--	--	23	122	--	--	--	--
Pennsylvania	50	10	421.0%	--	--	--	--	--	--	50	10
East North Central	1,416	748	89.0%	401	194	485	34	--	--	530	520
Illinois	--	--	--	--	--	--	--	--	--	--	--
Indiana	287	--	--	287	--	--	--	--	--	--	--
Michigan	188	203	-7.6%	--	9	32	34	--	--	156	160
Ohio	662	198	234.0%	--	--	453	--	--	--	209	198
Wisconsin	279	346	-19.0%	114	185	--	--	--	--	165	162
West North Central	27	95	-71.0%	18	80	--	--	9	15	--	--
Iowa	25	49	-50.0%	15	34	--	--	9	15	--	--
Kansas	3	44	-94.0%	3	44	--	--	--	--	--	--
Minnesota	--	--	--	--	--	--	--	--	--	--	--
Missouri	--	1	-100.0%	--	1	--	--	--	--	--	--
Nebraska	--	--	--	--	--	--	--	--	--	--	--
North Dakota	--	--	--	--	--	--	--	--	--	--	--
South Dakota	--	--	--	--	--	--	--	--	--	--	--
South Atlantic	1,448	1,889	-23.0%	1,119	1,630	--	--	--	--	329	259
Delaware	--	--	--	--	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--	--	--	--	--
Florida	1,119	1,621	-31.0%	1,119	1,621	--	--	--	--	--	--
Georgia	329	259	27.0%	--	--	--	--	--	--	329	259
Maryland	--	--	--	--	--	--	--	--	--	--	--
North Carolina	--	--	--	--	--	--	--	--	--	--	--
South Carolina	--	9	-100.0%	--	9	--	--	--	--	--	--
Virginia	--	--	--	--	--	--	--	--	--	--	--
West Virginia	--	--	--	--	--	--	--	--	--	--	--
East South Central	463	703	-34.0%	463	703	--	--	--	--	--	--
Alabama	--	--	--	--	--	--	--	--	--	--	--
Kentucky	463	703	-34.0%	463	703	--	--	--	--	--	--
Mississippi	--	--	--	--	--	--	--	--	--	--	--
Tennessee	--	--	--	--	--	--	--	--	--	--	--
West South Central	1,772	1,589	12.0%	1,445	1,022	NM	225	--	--	315	342
Arkansas	--	--	--	--	--	--	--	--	--	--	--
Louisiana	1,728	1,340	29.0%	1,445	1,022	--	--	--	--	284	319
Oklahoma	5	7	-22.0%	--	--	--	--	--	--	5	7
Texas	38	242	-84.0%	--	--	NM	225	--	--	26	NM
Mountain	274	233	18.0%	--	--	274	233	--	--	--	--
Arizona	--	--	--	--	--	--	--	--	--	--	--
Colorado	--	--	--	--	--	--	--	--	--	--	--
Idaho	--	--	--	--	--	--	--	--	--	--	--
Montana	274	233	18.0%	--	--	274	233	--	--	--	--
Nevada	--	--	--	--	--	--	--	--	--	--	--
New Mexico	--	--	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--	--	--
Wyoming	--	--	--	--	--	--	--	--	--	--	--
Pacific Contiguous	503	575	-13.0%	--	--	381	436	--	--	121	139
California	503	575	-13.0%	--	--	381	436	--	--	121	NM
Oregon	--	--	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--
Pacific Noncontiguous	--	--	--	--	--	--	--	--	--	--	--
Alaska	--	--	--	--	--	--	--	--	--	--	--
Hawaii	--	--	--	--	--	--	--	--	--	--	--
U.S. Total	5,980	5,963	0.3%	3,445	3,628	1,175	1,050	9	15	1,351	1,269

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Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Petroleum Coke includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
See the Technical Notes for fuel conversion factors.

Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 7.16. Receipts of Natural Gas Delivered for Electricity Generation by State, 2011 and 2010
(Million Cubic Feet)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010	Year 2011	Year 2010
New England	484,260	452,965	6.9%	4,226	7,833	434,504	399,984	13,156	11,557	32,373	33,591
Connecticut	116,563	91,054	28.0%	738	655	107,121	84,496	3,210	1,474	5,494	4,430
Maine	56,230	64,912	-13.0%	--	--	33,578	40,449	NM	NM	22,639	24,454
Massachusetts	198,295	198,154	0.1%	2,393	4,831	184,156	181,331	7,872	7,642	3,875	4,350
New Hampshire	47,137	39,294	20.0%	1,046	2,292	45,725	36,645	--	--	NM	357
Rhode Island	65,984	59,496	11.0%	--	--	63,925	57,063	2,060	2,433	--	--
Vermont	49	56	-11.0%	49	56	--	--	--	--	--	--
Middle Atlantic	983,951	912,445	7.8%	128,984	134,390	809,805	734,777	10,433	10,028	34,729	33,251
New Jersey	218,548	217,809	0.3%	--	--	199,866	200,038	2,139	1,742	16,542	16,029
New York	446,583	440,370	1.4%	128,934	134,259	304,592	292,957	7,616	7,580	5,440	5,575
Pennsylvania	318,821	254,266	25.0%	NM	132	305,346	241,782	NM	706	12,746	11,646
East North Central	459,563	369,999	24.0%	139,051	92,517	249,959	228,762	19,654	12,429	50,900	36,290
Illinois	67,266	63,458	6.0%	10,051	5,698	38,614	40,265	6,553	6,440	12,047	11,055
Indiana	101,358	76,940	32.0%	56,417	31,617	29,554	29,764	1,890	1,342	13,497	14,217
Michigan	124,100	119,549	3.8%	24,739	14,006	87,627	98,521	6,434	1,945	5,299	5,077
Ohio	111,716	60,624	84.0%	24,129	14,899	69,403	43,479	2,278	--	15,907	2,246
Wisconsin	55,124	49,428	12.0%	23,714	26,297	24,761	16,732	2,499	2,703	4,150	3,696
West North Central	125,986	133,719	-5.8%	100,589	106,615	14,392	17,510	4,113	3,095	6,891	6,498
Iowa	10,751	13,899	-23.0%	10,351	13,262	NM	NM	313	436	86	200
Kansas	30,590	27,872	9.8%	30,562	27,872	--	--	--	--	NM	NM
Minnesota	37,920	44,678	-15.0%	22,560	28,090	7,760	9,727	3,033	2,481	4,568	4,380
Missouri	38,707	39,809	-2.8%	31,275	31,810	6,631	7,781	730	176	NM	NM
Nebraska	5,311	4,873	9.0%	4,251	3,979	--	NM	37	NM	1,023	890
North Dakota	1,117	988	13.0%	*	NM	--	--	--	--	1,116	986
South Dakota	1,590	1,600	-0.7%	1,590	1,600	--	--	--	--	--	--
South Atlantic	1,706,965	1,565,538	9.0%	1,293,449	1,188,835	347,656	325,825	2,883	3,027	62,977	47,850
Delaware	49,063	24,377	101.0%	174	281	38,818	24,095	--	--	10,071	--
District of Columbia	1,012	--	--	1,012	--	--	--	--	--	--	--
Florida	1,069,608	1,008,943	6.0%	956,933	894,178	87,907	87,098	NM	2,968	24,309	24,699
Georgia	208,798	187,494	11.0%	96,573	82,607	100,159	93,362	--	--	12,067	11,525
Maryland	28,079	33,206	-15.0%	--	--	21,397	30,840	2,376	NM	4,306	2,366
North Carolina	93,618	75,495	24.0%	71,816	57,351	18,420	15,714	NM	NM	3,342	2,376
South Carolina	101,302	87,881	15.0%	86,739	71,450	13,143	15,434	NM	NM	1,413	992
Virginia	151,657	145,536	4.2%	79,749	82,296	65,571	58,428	--	--	6,337	4,812
West Virginia	3,827	2,607	47.0%	454	672	2,241	855	--	--	1,133	1,080
East South Central	682,990	607,804	12.0%	364,544	328,212	278,074	243,658	2,235	1,899	38,137	34,035
Alabama	368,618	307,854	20.0%	107,537	105,027	236,931	180,525	--	--	24,150	22,301
Kentucky	20,789	23,592	-12.0%	14,023	17,532	1,578	1,737	--	--	5,188	4,323
Mississippi	261,588	255,651	2.3%	215,684	188,037	39,565	61,396	NM	383	5,913	5,835
Tennessee	31,994	20,708	55.0%	27,299	17,616	--	--	1,810	1,516	2,885	1,576
West South Central	3,043,534	2,793,250	9.0%	798,424	752,403	1,342,974	1,266,369	8,485	7,983	893,651	766,495
Arkansas	111,262	106,283	4.7%	23,302	20,214	78,049	76,416	NM	NM	9,906	9,641
Louisiana	567,240	541,709	4.7%	226,417	197,570	67,644	73,229	NM	608	272,533	270,303
Oklahoma	284,687	297,538	-4.3%	215,637	227,597	62,761	63,855	1,844	1,702	4,444	4,384
Texas	2,080,345	1,847,719	13.0%	333,069	307,022	1,134,520	1,052,869	5,989	5,662	606,768	482,167
Mountain	578,209	645,586	-10.0%	353,800	325,020	206,526	304,784	NM	2,490	15,439	13,292
Arizona	184,970	227,195	-19.0%	83,036	81,038	101,035	145,163	NM	878	95	117
Colorado	85,134	94,173	-9.6%	68,364	32,976	16,465	60,891	NM	NM	NM	NM
Idaho	10,177	13,648	-25.0%	1,615	1,795	6,701	10,596	--	--	1,860	1,257
Montana	4,681	1,131	314.0%	4,569	518	112	186	--	--	--	426
Nevada	165,896	178,549	-7.1%	114,443	118,784	49,286	57,391	NM	622	1,535	1,752
New Mexico	75,416	72,385	4.2%	45,904	46,306	28,083	25,169	NM	907	509	3
Utah	42,436	50,459	-16.0%	35,545	43,250	4,762	5,352	NM	NM	NM	1,842
Wyoming	9,501	8,046	18.0%	323	352	81	37	--	--	9,096	7,658
Pacific Contiguous	946,362	1,152,627	-18.0%	281,116	353,914	474,727	597,434	NM	37,607	160,680	163,672
California	838,613	958,095	-12.0%	234,353	255,810	421,165	507,977	NM	36,152	155,535	158,155
Oregon	64,290	111,878	-43.0%	20,090	41,942	41,490	66,695	726	--	1,985	3,241
Washington	43,459	82,654	-47.0%	26,674	56,162	12,072	22,761	1,553	1,454	3,160	2,276
Pacific Noncontiguous	44,344	39,137	13.0%	43,429	38,178	--	--	65	15	850	944
Alaska	44,344	39,137	13.0%	43,429	38,178	--	--	65	NM	850	944
Hawaii	--	--	--	--	--	--	--	--	--	--	--
U.S. Total	9,056,164	8,673,070	4.4%	3,507,613	3,327,919	4,158,617	4,119,103	93,306	90,130	1,296,628	1,135,917

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Notes:
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Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 7.17. Average Cost of Coal Delivered for Electricity Generation by State, 2011 and 2010

(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010
New England	3.68	3.44	7.0%	3.55	3.80	3.74	3.35
Connecticut	W	W	W	--	--	W	W
Maine	W	W	W	--	--	W	W
Massachusetts	W	3.18	W	--	--	W	3.18
New Hampshire	3.55	3.80	-6.6%	3.55	3.80	--	--
Rhode Island	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--
Middle Atlantic	2.68	2.53	5.9%	2.92	2.66	2.63	2.51
New Jersey	4.18	4.16	0.5%	--	--	4.18	4.16
New York	3.27	3.02	8.3%	3.88	3.77	3.27	3.01
Pennsylvania	2.55	2.40	6.3%	2.91	2.66	2.45	2.34
East North Central	2.30	2.05	12.0%	2.41	2.11	2.04	1.92
Illinois	1.72	1.69	1.8%	1.77	1.95	1.70	1.64
Indiana	W	W	W	2.47	2.13	W	W
Michigan	W	W	W	2.81	2.09	W	W
Ohio	2.47	2.24	10.0%	2.29	2.12	3.01	2.63
Wisconsin	2.50	2.11	18.0%	2.50	2.11	--	--
West North Central	1.64	1.49	10.0%	1.64	1.49	--	--
Iowa	1.43	1.33	7.5%	1.43	1.33	--	--
Kansas	1.75	1.51	16.0%	1.75	1.51	--	--
Minnesota	1.93	1.75	10.0%	1.93	1.75	--	--
Missouri	1.72	1.57	9.6%	1.72	1.57	--	--
Nebraska	1.51	1.42	6.3%	1.51	1.42	--	--
North Dakota	1.34	1.25	7.2%	1.34	1.25	--	--
South Dakota	2.09	1.95	7.2%	2.09	1.95	--	--
South Atlantic	3.41	3.35	1.8%	3.46	3.42	3.15	2.98
Delaware	W	W	W	--	--	W	W
District of Columbia	--	--	--	--	--	--	--
Florida	W	3.47	W	3.53	3.46	W	3.62
Georgia	3.75	3.91	-4.1%	3.75	3.91	--	--
Maryland	3.72	3.47	7.2%	--	--	3.72	3.47
North Carolina	3.63	3.52	3.1%	3.66	3.54	2.89	3.01
South Carolina	W	W	W	3.84	3.71	W	W
Virginia	3.55	3.31	7.3%	3.53	3.29	3.66	3.40
West Virginia	2.46	W	W	2.56	2.48	2.20	W
East South Central	W	W	W	2.65	2.55	W	W
Alabama	W	W	W	2.87	2.81	W	W
Kentucky	2.34	2.26	3.5%	2.34	2.26	--	--
Mississippi	W	W	W	3.87	3.20	W	W
Tennessee	2.82	2.64	6.8%	2.82	2.64	--	--
West South Central	1.92	1.84	4.3%	1.96	1.84	1.87	1.84
Arkansas	W	W	W	1.91	1.71	W	W
Louisiana	W	W	W	2.66	2.40	W	W
Oklahoma	W	W	W	1.76	1.71	W	W
Texas	1.87	1.84	1.6%	1.93	1.85	1.84	1.84
Mountain	1.78	W	W	1.81	1.67	1.44	W
Arizona	1.98	1.79	11.0%	1.98	1.79	--	--
Colorado	W	W	W	1.72	1.57	W	W
Idaho	--	--	--	--	--	--	--
Montana	W	W	W	1.48	1.41	W	W
Nevada	W	W	W	2.60	2.43	W	W
New Mexico	2.05	2.06	-0.5%	2.05	2.06	--	--
Utah	W	W	W	1.77	1.69	W	W
Wyoming	W	W	W	1.50	1.29	W	W
Pacific Contiguous	2.21	W	W	1.79	1.67	2.42	W
California	W	W	W	--	--	W	W
Oregon	1.79	1.67	7.2%	1.79	1.67	--	--
Washington	W	W	W	--	--	W	W
Pacific Noncontiguous	W	W	W	1.66	1.46	W	W
Alaska	W	W	W	1.66	1.46	W	W
Hawaii	W	W	W	--	--	W	W
U.S. Total	2.38	2.25	5.8%	2.41	2.27	2.28	2.20

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Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
See the Technical Notes for fuel conversion factors.

Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 7.18. Average Cost of Petroleum Liquids Delivered for Electricity Generation by State, 2011 and 2010

(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010
New England	W	13.50	W	21.12	15.37	W	13.32
Connecticut	21.91	14.54	51.0%	NM	NM	21.93	14.53
Maine	W	W	W	NM	NM	W	W
Massachusetts	19.76	W	W	NM	NM	19.66	W
New Hampshire	W	W	W	19.90	16.40	W	W
Rhode Island	W	W	W	NM	NM	W	W
Vermont	NM	NM	NM	NM	NM	--	--
Middle Atlantic	20.15	14.04	44.0%	19.21	13.11	20.66	15.00
New Jersey	18.36	14.86	24.0%	NM	NM	20.28	15.82
New York	19.66	13.38	47.0%	20.00	13.03	19.36	14.15
Pennsylvania	22.19	15.49	43.0%	NM	NM	22.19	15.49
East North Central	22.33	16.84	33.0%	22.20	16.72	23.18	17.31
Illinois	23.72	17.66	34.0%	23.09	17.27	24.09	17.79
Indiana	W	W	W	21.83	16.61	W	W
Michigan	W	W	W	22.13	16.73	W	W
Ohio	22.26	16.72	33.0%	22.32	16.75	21.95	16.63
Wisconsin	W	W	W	22.49	16.53	W	W
West North Central	22.53	16.66	35.0%	22.51	16.66	NM	17.07
Iowa	W	16.58	W	22.91	16.56	W	NM
Kansas	22.20	16.27	36.0%	22.20	16.27	--	--
Minnesota	W	W	W	23.48	16.91	W	W
Missouri	W	16.39	W	21.61	16.39	W	--
Nebraska	22.77	17.11	33.0%	22.77	17.11	--	--
North Dakota	23.44	17.58	33.0%	23.44	17.58	--	--
South Dakota	W	W	W	23.29	NM	W	W
South Atlantic	19.11	12.95	48.0%	18.88	12.62	20.94	15.51
Delaware	W	16.24	W	NM	NM	W	16.24
District of Columbia	W	W	W	--	--	W	W
Florida	18.52	12.38	50.0%	18.49	12.25	NM	16.04
Georgia	22.72	W	W	22.74	16.94	NM	W
Maryland	21.30	15.98	33.0%	NM	NM	21.31	15.98
North Carolina	21.95	16.49	33.0%	22.01	16.49	NM	NM
South Carolina	21.34	W	W	21.34	14.66	--	W
Virginia	17.69	13.23	34.0%	17.17	12.57	22.15	16.10
West Virginia	W	W	W	23.12	17.09	W	W
East South Central	W	W	W	21.39	15.84	W	W
Alabama	W	W	W	22.05	16.29	W	W
Kentucky	22.93	16.55	39.0%	22.93	16.55	--	--
Mississippi	NM	9.94	NM	NM	9.94	--	--
Tennessee	21.55	17.04	26.0%	21.55	17.04	--	--
West South Central	21.18	W	W	19.96	12.38	22.39	W
Arkansas	W	W	W	21.73	16.12	W	W
Louisiana	W	W	W	14.49	9.57	W	W
Oklahoma	NM	17.89	NM	NM	17.89	--	--
Texas	W	W	W	22.00	16.90	W	W
Mountain	23.30	W	W	23.50	17.81	21.74	W
Arizona	23.18	18.23	27.0%	23.18	18.23	--	--
Colorado	22.96	W	W	22.96	16.69	--	W
Idaho	NM	NM	NM	NM	NM	--	--
Montana	20.92	W	W	20.48	NM	21.02	W
Nevada	W	W	W	23.94	17.92	W	W
New Mexico	W	19.43	W	25.16	19.43	W	--
Utah	W	W	W	23.47	17.81	W	W
Wyoming	23.65	17.36	36.0%	23.65	17.36	--	--
Pacific Contiguous	23.52	W	W	24.10	18.68	NM	W
California	W	18.12	W	23.74	18.44	W	16.47
Oregon	23.73	16.27	46.0%	23.73	16.27	--	--
Washington	W	W	W	27.02	19.87	W	W
Pacific Noncontiguous	W	W	W	20.70	14.61	W	W
Alaska	22.95	17.18	34.0%	22.95	17.18	--	--
Hawaii	W	W	W	20.42	14.31	W	W
U.S. Total	20.30	14.12	44.0%	20.30	13.94	20.30	14.80

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Petroleum Liquids includes distillate and residual fuel oils, jet fuel, kerosene, waste oil, and beginning in 2011, propane. Prior to 2011 propane was included in Other Gases.
See the Technical Notes for fuel conversion factors.

Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 7.19. Average Cost of Petroleum Coke Delivered for Electricity Generation by State, 2011 and 2010

(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010
New England	--	--	--	--	--	--	--
Connecticut	--	--	--	--	--	--	--
Maine	--	--	--	--	--	--	--
Massachusetts	--	--	--	--	--	--	--
New Hampshire	--	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--
Middle Atlantic	W	W	W	--	--	W	W
New Jersey	--	--	--	--	--	--	--
New York	W	W	W	--	--	W	W
Pennsylvania	--	--	--	--	--	--	--
East North Central	W	W	W	4.01	1.54	W	W
Illinois	--	--	--	--	--	--	--
Indiana	4.87	--	--	4.87	--	--	--
Michigan	W	W	W	--	1.70	W	W
Ohio	W	--	W	--	--	W	--
Wisconsin	1.64	1.54	6.5%	1.64	1.54	--	--
West North Central	1.63	1.49	9.4%	1.63	1.49	--	--
Iowa	1.60	1.85	-14.0%	1.60	1.85	--	--
Kansas	1.76	1.24	42.0%	1.76	1.24	--	--
Minnesota	--	--	--	--	--	--	--
Missouri	--	1.21	--	--	1.21	--	--
Nebraska	--	--	--	--	--	--	--
North Dakota	--	--	--	--	--	--	--
South Dakota	--	--	--	--	--	--	--
South Atlantic	3.82	3.06	25.0%	3.82	3.06	--	--
Delaware	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--
Florida	3.82	3.07	24.0%	3.82	3.07	--	--
Georgia	--	--	--	--	--	--	--
Maryland	--	--	--	--	--	--	--
North Carolina	--	--	--	--	--	--	--
South Carolina	--	0.90	--	--	0.90	--	--
Virginia	--	--	--	--	--	--	--
West Virginia	--	--	--	--	--	--	--
East South Central	0.53	0.79	-33.0%	0.53	0.79	--	--
Alabama	--	--	--	--	--	--	--
Kentucky	0.53	0.79	-33.0%	0.53	0.79	--	--
Mississippi	--	--	--	--	--	--	--
Tennessee	--	--	--	--	--	--	--
West South Central	W	W	W	3.08	2.59	W	W
Arkansas	--	--	--	--	--	--	--
Louisiana	3.08	2.59	19.0%	3.08	2.59	--	--
Oklahoma	--	--	--	--	--	--	--
Texas	W	W	W	--	--	W	W
Mountain	W	W	W	--	--	W	W
Arizona	--	--	--	--	--	--	--
Colorado	--	--	--	--	--	--	--
Idaho	--	--	--	--	--	--	--
Montana	W	W	W	--	--	W	W
Nevada	--	--	--	--	--	--	--
New Mexico	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--
Wyoming	--	--	--	--	--	--	--
Pacific Contiguous	2.88	W	W	--	--	2.88	W
California	2.88	2.10	37.0%	--	--	2.88	2.10
Oregon	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--
Pacific Noncontiguous	--	--	--	--	--	--	--
Alaska	--	--	--	--	--	--	--
Hawaii	--	--	--	--	--	--	--
U.S. Total	2.95	2.23	32.0%	3.08	2.38	2.54	1.74

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Petroleum Coke includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
See the Technical Notes for fuel conversion factors.

Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 7.20. Average Cost of Natural Gas Delivered for Electricity Generation by State, 2011 and 2010

(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	Year 2011	Year 2010	Percentage Change	Year 2011	Year 2010	Year 2011	Year 2010
New England	4.94	5.37	-8.0%	5.70	5.37	4.93	5.37
Connecticut	4.97	5.60	-11.0%	NM	5.48	4.96	5.60
Maine	W	W	W	--	--	W	W
Massachusetts	4.88	5.25	-7.0%	5.75	5.21	4.87	5.26
New Hampshire	W	W	W	6.01	5.66	W	W
Rhode Island	5.01	5.38	-6.9%	--	--	5.01	5.38
Vermont	5.22	5.69	-8.3%	5.22	5.69	--	--
Middle Atlantic	5.14	5.47	-6.0%	5.32	5.50	5.11	5.46
New Jersey	5.11	5.52	-7.4%	--	--	5.11	5.52
New York	5.45	5.62	-3.0%	5.32	5.50	5.50	5.68
Pennsylvania	4.73	5.14	-8.0%	NM	5.16	4.73	5.14
East North Central	4.62	4.98	-7.2%	4.69	5.26	4.58	4.87
Illinois	4.86	5.09	-4.5%	5.15	5.66	4.78	5.01
Indiana	4.48	4.87	-8.0%	4.42	4.90	4.59	4.83
Michigan	4.69	4.90	-4.3%	4.85	5.78	4.64	4.78
Ohio	4.44	4.87	-8.8%	4.49	4.84	4.42	4.88
Wisconsin	4.85	5.37	-9.7%	5.20	5.55	4.51	5.08
West North Central	5.18	5.44	-4.8%	5.17	5.47	5.22	5.24
Iowa	W	W	W	5.44	5.64	W	W
Kansas	4.70	4.97	-5.4%	4.70	4.97	--	--
Minnesota	W	W	W	5.88	5.96	W	W
Missouri	W	W	W	4.97	5.20	W	W
Nebraska	5.70	W	W	5.70	7.12	--	W
North Dakota	7.80	NM	NM	7.80	NM	--	--
South Dakota	5.00	5.45	-8.3%	5.00	5.45	--	--
South Atlantic	5.45	6.04	-9.8%	5.57	6.23	5.00	5.34
Delaware	W	W	W	NM	5.15	W	W
District of Columbia	NM	--	--	NM	--	--	--
Florida	5.79	6.43	-10.0%	5.84	6.51	5.32	5.62
Georgia	4.64	5.09	-8.8%	4.51	4.98	4.76	5.19
Maryland	W	5.58	W	--	--	W	5.58
North Carolina	W	W	W	5.86	6.49	W	W
South Carolina	4.33	W	W	4.26	4.77	4.78	W
Virginia	4.94	5.55	-11.0%	4.89	5.56	5.00	5.55
West Virginia	4.74	4.96	-4.4%	4.79	4.87	4.73	5.02
East South Central	4.34	4.82	-10.0%	4.40	4.86	4.26	4.76
Alabama	4.28	4.75	-9.9%	4.37	4.75	4.24	4.75
Kentucky	5.86	W	W	6.00	5.82	4.63	W
Mississippi	4.29	W	W	4.28	4.83	4.36	W
Tennessee	4.61	4.95	-6.9%	4.61	4.95	--	--
West South Central	4.31	4.62	-6.7%	4.39	4.69	4.27	4.58
Arkansas	4.64	5.00	-7.2%	5.61	6.19	4.34	4.69
Louisiana	4.31	4.67	-7.7%	4.35	4.68	4.16	4.65
Oklahoma	4.42	4.68	-5.6%	4.45	4.73	4.32	4.53
Texas	4.27	4.57	-6.6%	4.30	4.57	4.27	4.57
Mountain	4.82	5.02	-4.0%	4.97	5.33	4.56	4.70
Arizona	4.94	4.77	3.6%	5.52	5.33	4.46	4.46
Colorado	4.82	5.03	-4.2%	4.82	5.00	4.84	5.05
Idaho	W	W	W	6.74	6.25	W	W
Montana	W	W	W	4.15	5.24	W	W
Nevada	4.87	5.57	-13.0%	4.96	5.94	4.65	4.81
New Mexico	W	W	W	4.84	4.86	W	W
Utah	W	W	W	4.19	4.34	W	W
Wyoming	W	W	W	6.91	5.67	W	W
Pacific Contiguous	4.61	W	W	4.87	5.07	4.46	W
California	4.61	4.87	-5.3%	4.86	5.01	4.48	4.80
Oregon	W	4.46	W	4.04	4.50	W	4.44
Washington	W	5.36	W	5.52	5.79	W	4.31
Pacific Noncontiguous	5.00	W	W	5.00	4.32	--	--
Alaska	5.00	4.32	16.0%	5.00	4.32	--	--
Hawaii	--	--	--	--	--	--	--
U.S. Total	4.79	5.16	-7.2%	5.00	5.43	4.62	4.94

* = Value is less than half of the smallest unit of measure. (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
W = Withheld to avoid disclosure of individual company data.

Notes:
See Glossary for definitions. Values for are final.
See Technical Notes for a discussion of the sample design for the Form EIA-923.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.

Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 7.21. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Total (All Sectors) by State, 2011

Census Division and State	Bituminous			Subbituminous			Lignite		
	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight
New England	3,303	1.05	9.0	325	0.09	2.0	--	--	--
Connecticut	24	1.33	15.5	325	0.09	2.0	--	--	--
Maine	61	0.82	7.3	--	--	--	--	--	--
Massachusetts	2,147	0.76	10.1	--	--	--	--	--	--
New Hampshire	1,070	1.57	7.1	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--	--	--
Middle Atlantic	42,775	2.71	10.1	2,495	0.26	5.0	--	--	--
New Jersey	2,036	1.62	10.1	14	0.19	4.7	--	--	--
New York	3,346	2.53	9.3	2,021	0.25	4.9	--	--	--
Pennsylvania	37,393	2.78	10.1	460	0.26	5.1	--	--	--
East North Central	88,818	2.64	9.6	116,976	0.26	4.8	--	--	--
Illinois	4,994	3.06	10.4	61,846	0.24	4.7	--	--	--
Indiana	34,065	2.63	9.1	9,855	0.28	5.0	--	--	--
Michigan	6,624	1.36	9.4	19,285	0.27	4.9	--	--	--
Ohio	39,655	2.91	10.1	5,383	0.27	5.0	--	--	--
Wisconsin	3,480	1.69	8.2	20,607	0.28	5.0	--	--	--
West North Central	2,471	3.09	9.2	127,383	0.30	5.1	22,120	0.78	9.9
Iowa	818	3.43	8.0	26,021	0.29	5.0	--	--	--
Kansas	253	3.58	14.6	19,963	0.32	5.1	--	--	--
Minnesota	116	1.55	9.5	18,188	0.38	6.1	--	--	--
Missouri	1,285	2.93	8.9	44,471	0.26	4.9	--	--	--
Nebraska	--	--	--	15,620	0.29	5.0	--	--	--
North Dakota	--	--	--	1,325	0.33	4.8	22,120	0.78	9.9
South Dakota	--	--	--	1,795	0.34	5.5	--	--	--
South Atlantic	132,519	1.67	10.6	14,690	0.28	4.8	--	--	--
Delaware	562	0.88	10.1	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--	--	--
Florida	22,722	1.99	9.4	--	--	--	--	--	--
Georgia	17,631	1.24	10.5	13,619	0.27	4.8	--	--	--
Maryland	9,093	1.65	10.5	583	0.21	4.5	--	--	--
North Carolina	26,540	1.07	11.3	--	--	--	--	--	--
South Carolina	14,574	1.53	9.9	--	--	--	--	--	--
Virginia	11,020	1.03	9.9	--	--	--	--	--	--
West Virginia	30,378	2.53	11.6	488	0.38	6.6	--	--	--
East South Central	69,708	2.19	10.3	25,350	0.27	5.1	2,701	0.48	13.9
Alabama	15,096	1.54	10.6	12,316	0.26	5.0	--	--	--
Kentucky	38,835	2.69	10.5	2,638	0.26	5.0	--	--	--
Mississippi	2,955	1.45	10.2	987	0.25	5.1	2,701	0.48	13.9
Tennessee	12,822	1.67	9.5	9,409	0.29	5.1	--	--	--
West South Central	1,010	2.09	18.0	110,636	0.29	5.0	50,511	0.97	16.5
Arkansas	133	2.02	10.6	17,497	0.26	4.9	--	--	--
Louisiana	465	2.90	8.9	11,453	0.28	4.9	3,858	0.61	15.0
Oklahoma	413	0.88	35.4	19,424	0.28	5.0	--	--	--
Texas	--	--	--	62,262	0.30	5.1	46,653	1.00	16.6
Mountain	37,078	0.62	12.9	75,740	0.55	9.6	343	0.55	10.4
Arizona	8,390	0.65	10.7	14,829	0.74	10.5	--	--	--
Colorado	4,844	0.48	10.3	14,910	0.32	5.7	--	--	--
Idaho	78	2.02	10.6	56	0.32	5.8	--	--	--
Montana	--	--	--	9,422	0.65	8.9	343	0.55	10.4
Nevada	1,743	0.52	10.3	1,362	0.33	6.2	--	--	--
New Mexico	7,138	0.68	22.5	9,181	0.75	22.2	--	--	--
Utah	14,347	0.58	11.4	444	1.06	9.2	--	--	--
Wyoming	539	2.02	10.6	25,536	0.47	7.3	--	--	--
Pacific Contiguous	1,573	0.62	10.0	5,969	0.35	7.7	--	--	--
California	1,573	0.62	10.0	--	--	--	--	--	--
Oregon	--	--	--	2,352	0.38	5.0	--	--	--
Washington	--	--	--	3,617	0.34	9.4	--	--	--
Pacific Noncontiguous	929	0.54	7.5	932	0.32	5.8	--	--	--
Alaska	--	--	--	932	0.32	5.8	--	--	--
Hawaii	929	0.54	7.5	--	--	--	--	--	--
U.S. Total	380,184	2.01	10.5	480,496	0.33	5.8	75,675	0.90	14.4

* = Value is less than half of the smallest unit of measure. (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
W = Withheld to avoid disclosure of individual company data.

Notes:
See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.

Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 7.22. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Electric Utilties by State, 2011

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Census Division and State	Bituminous			Subbituminous			Lignite		
	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight
New England	1,070	1.57	7.1	--	--	--	--	--	--
Connecticut	--	--	--	--	--	--	--	--	--
Maine	--	--	--	--	--	--	--	--	--
Massachusetts	--	--	--	--	--	--	--	--	--
New Hampshire	1,070	1.57	7.1	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--	--	--
Middle Atlantic	8,874	2.55	9.5	--	--	--	--	--	--
New Jersey	--	--	--	--	--	--	--	--	--
New York	17	1.91	9.8	--	--	--	--	--	--
Pennsylvania	8,857	2.55	9.5	--	--	--	--	--	--
East North Central	75,034	2.68	9.7	60,397	0.27	4.9	--	--	--
Illinois	2,618	2.96	11.6	13,118	0.24	4.7	--	--	--
Indiana	30,730	2.60	8.9	7,998	0.28	5.1	--	--	--
Michigan	6,136	1.36	9.3	19,015	0.27	4.9	--	--	--
Ohio	32,975	3.08	10.4	--	--	--	--	--	--
Wisconsin	2,576	1.65	8.2	20,266	0.28	5.0	--	--	--
West North Central	1,387	2.97	9.9	123,158	0.30	5.1	22,120	0.78	9.9
Iowa	60	2.89	8.8	23,766	0.29	5.0	--	--	--
Kansas	253	3.58	14.6	19,963	0.32	5.1	--	--	--
Minnesota	43	0.63	7.3	17,116	0.39	6.1	--	--	--
Missouri	1,031	2.92	8.9	44,471	0.26	4.9	--	--	--
Nebraska	--	--	--	14,994	0.29	5.0	--	--	--
North Dakota	--	--	--	1,054	0.34	4.6	22,120	0.78	9.9
South Dakota	--	--	--	1,795	0.34	5.5	--	--	--
South Atlantic	106,760	1.59	10.6	14,107	0.28	4.9	--	--	--
Delaware	--	--	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--	--	--
Florida	21,041	2.07	9.3	--	--	--	--	--	--
Georgia	16,791	1.25	10.5	13,619	0.27	4.8	--	--	--
Maryland	--	--	--	--	--	--	--	--	--
North Carolina	24,894	1.08	11.5	--	--	--	--	--	--
South Carolina	14,035	1.54	9.9	--	--	--	--	--	--
Virginia	8,194	1.05	9.9	--	--	--	--	--	--
West Virginia	21,805	2.24	11.6	488	0.38	6.6	--	--	--
East South Central	67,370	2.24	10.4	25,350	0.27	5.1	--	--	--
Alabama	14,631	1.55	10.7	12,316	0.26	5.0	--	--	--
Kentucky	38,835	2.69	10.5	2,638	0.26	5.0	--	--	--
Mississippi	2,955	1.45	10.2	987	0.25	5.1	--	--	--
Tennessee	10,949	1.80	9.6	9,409	0.29	5.1	--	--	--
West South Central	467	2.77	8.9	71,513	0.28	5.0	10,969	1.11	18.3
Arkansas	--	--	--	15,220	0.26	4.9	--	--	--
Louisiana	444	2.89	8.9	4,273	0.27	5.1	3,855	0.61	15.0
Oklahoma	23	0.49	9.7	17,947	0.28	5.0	--	--	--
Texas	--	--	--	34,073	0.28	5.1	7,115	1.42	20.3
Mountain	35,954	0.60	13.0	63,984	0.54	9.8	297	0.50	9.8
Arizona	8,390	0.65	10.7	14,459	0.74	10.4	--	--	--
Colorado	4,600	0.48	10.3	14,910	0.32	5.7	--	--	--
Idaho	--	--	--	--	--	--	--	--	--
Montana	--	--	--	--	--	--	297	0.50	9.8
Nevada	1,743	0.52	10.3	633	0.35	7.2	--	--	--
New Mexico	7,138	0.68	22.5	9,181	0.75	22.2	--	--	--
Utah	14,084	0.58	11.4	444	1.06	9.2	--	--	--
Wyoming	--	--	--	24,357	0.47	7.3	--	--	--
Pacific Contiguous	--	--	--	2,352	0.38	5.0	--	--	--
California	--	--	--	--	--	--	--	--	--
Oregon	--	--	--	2,352	0.38	5.0	--	--	--
Washington	--	--	--	--	--	--	--	--	--
Pacific Noncontiguous	--	--	--	131	0.32	5.8	--	--	--
Alaska	--	--	--	131	0.32	5.8	--	--	--
Hawaii	--	--	--	--	--	--	--	--	--
U.S. Total	296,915	1.94	10.5	360,992	0.33	5.9	33,387	0.88	12.6

* = Value is less than half of the smallest unit of measure. (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
W = Withheld to avoid disclosure of individual company data.

Notes:
See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.

Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 7.23. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Independent Power Producers by State, 2011

Census Division and State	Bituminous			Subbituminous			Lignite		
	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight
New England	2,152	0.77	10.1	325	0.09	2.0	--	--	--
Connecticut	24	1.33	15.5	325	0.09	2.0	--	--	--
Maine	38	0.83	7.2	--	--	--	--	--	--
Massachusetts	2,089	0.77	10.1	--	--	--	--	--	--
New Hampshire	--	--	--	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--	--	--
Middle Atlantic	32,879	2.77	10.2	2,191	0.25	4.9	--	--	--
New Jersey	2,036	1.62	10.1	14	0.19	4.7	--	--	--
New York	2,918	2.66	9.1	2,021	0.25	4.9	--	--	--
Pennsylvania	27,925	2.87	10.3	156	0.23	4.8	--	--	--
East North Central	9,414	2.29	9.0	55,013	0.24	4.7	--	--	--
Illinois	131	3.34	11.3	47,693	0.23	4.7	--	--	--
Indiana	3,031	2.87	10.5	1,857	0.29	4.8	--	--	--
Michigan	114	1.41	9.8	80	0.23	4.8	--	--	--
Ohio	6,138	2.05	8.3	5,383	0.27	5.0	--	--	--
Wisconsin	--	--	--	--	--	--	--	--	--
West North Central	--	--	--	--	--	--	--	--	--
Iowa	--	--	--	--	--	--	--	--	--
Kansas	--	--	--	--	--	--	--	--	--
Minnesota	--	--	--	--	--	--	--	--	--
Missouri	--	--	--	--	--	--	--	--	--
Nebraska	--	--	--	--	--	--	--	--	--
North Dakota	--	--	--	--	--	--	--	--	--
South Dakota	--	--	--	--	--	--	--	--	--
South Atlantic	21,457	2.11	10.7	583	0.21	4.5	--	--	--
Delaware	562	0.88	10.1	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--	--	--
Florida	1,368	0.96	11.9	--	--	--	--	--	--
Georgia	--	--	--	--	--	--	--	--	--
Maryland	8,667	1.61	10.1	583	0.21	4.5	--	--	--
North Carolina	1,054	1.07	9.4	--	--	--	--	--	--
South Carolina	156	1.72	9.6	--	--	--	--	--	--
Virginia	1,564	0.85	9.4	--	--	--	--	--	--
West Virginia	8,085	3.37	11.8	--	--	--	--	--	--
East South Central	51	1.55	10.6	--	--	--	2,701	0.48	13.9
Alabama	51	1.55	10.6	--	--	--	--	--	--
Kentucky	--	--	--	--	--	--	--	--	--
Mississippi	--	--	--	--	--	--	2,701	0.48	13.9
Tennessee	--	--	--	--	--	--	--	--	--
West South Central	389	0.91	37.5	38,598	0.31	5.1	39,269	0.94	16.0
Arkansas	--	--	--	2,278	0.27	5.2	--	--	--
Louisiana	--	--	--	7,180	0.28	4.9	--	--	--
Oklahoma	389	0.91	37.5	951	0.25	4.7	--	--	--
Texas	--	--	--	28,189	0.33	5.2	39,269	0.94	16.0
Mountain	244	0.49	10.5	10,696	0.62	8.6	--	--	--
Arizona	--	--	--	--	--	--	--	--	--
Colorado	244	0.49	10.5	--	--	--	--	--	--
Idaho	--	--	--	--	--	--	--	--	--
Montana	--	--	--	9,422	0.65	8.9	--	--	--
Nevada	--	--	--	729	0.32	5.2	--	--	--
New Mexico	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--
Wyoming	--	--	--	545	0.51	7.8	--	--	--
Pacific Contiguous	838	0.81	9.9	3,523	0.34	9.5	--	--	--
California	838	0.81	9.9	--	--	--	--	--	--
Oregon	--	--	--	--	--	--	--	--	--
Washington	--	--	--	3,523	0.34	9.5	--	--	--
Pacific Noncontiguous	829	0.53	7.5	236	0.32	5.8	--	--	--
Alaska	--	--	--	236	0.32	5.8	--	--	--
Hawaii	829	0.53	7.5	--	--	--	--	--	--
U.S. Total	68,252	2.38	10.3	111,166	0.30	5.4	41,970	0.91	15.9

* = Value is less than half of the smallest unit of measure. (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
W = Withheld to avoid disclosure of individual company data.

Notes:
See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.

Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 7.24. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Commercial Sector by State, 2011

Census Division and State	Bituminous			Subbituminous			Lignite		
	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight
New England	--	--	--	--	--	--	--	--	--
Connecticut	--	--	--	--	--	--	--	--	--
Maine	--	--	--	--	--	--	--	--	--
Massachusetts	--	--	--	--	--	--	--	--	--
New Hampshire	--	--	--	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--	--	--
Middle Atlantic	28	2.73	10.2	--	--	--	--	--	--
New Jersey	--	--	--	--	--	--	--	--	--
New York	7	2.55	9.8	--	--	--	--	--	--
Pennsylvania	21	2.79	10.3	--	--	--	--	--	--
East North Central	527	2.19	9.9	--	--	--	--	--	--
Illinois	94	3.09	10.1	--	--	--	--	--	--
Indiana	193	2.62	9.1	--	--	--	--	--	--
Michigan	162	1.38	11.2	--	--	--	--	--	--
Ohio	13	2.95	10.2	--	--	--	--	--	--
Wisconsin	65	1.68	8.2	--	--	--	--	--	--
West North Central	343	3.34	8.0	25	0.39	6.2	--	--	--
Iowa	242	3.52	7.7	--	--	--	--	--	--
Kansas	--	--	--	--	--	--	--	--	--
Minnesota	--	--	--	25	0.39	6.2	--	--	--
Missouri	101	2.93	8.7	--	--	--	--	--	--
Nebraska	--	--	--	--	--	--	--	--	--
North Dakota	--	--	--	--	--	--	--	--	--
South Dakota	--	--	--	--	--	--	--	--	--
South Atlantic	147	1.06	10.9	--	--	--	--	--	--
Delaware	--	--	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--	--	--
Florida	--	--	--	--	--	--	--	--	--
Georgia	--	--	--	--	--	--	--	--	--
Maryland	--	--	--	--	--	--	--	--	--
North Carolina	94	1.08	11.5	--	--	--	--	--	--
South Carolina	--	--	--	--	--	--	--	--	--
Virginia	53	1.03	9.9	--	--	--	--	--	--
West Virginia	--	--	--	--	--	--	--	--	--
East South Central	51	1.69	9.5	--	--	--	--	--	--
Alabama	--	--	--	--	--	--	--	--	--
Kentucky	--	--	--	--	--	--	--	--	--
Mississippi	--	--	--	--	--	--	--	--	--
Tennessee	51	1.69	9.5	--	--	--	--	--	--
West South Central	--	--	--	--	--	--	--	--	--
Arkansas	--	--	--	--	--	--	--	--	--
Louisiana	--	--	--	--	--	--	--	--	--
Oklahoma	--	--	--	--	--	--	--	--	--
Texas	--	--	--	--	--	--	--	--	--
Mountain	--	--	--	--	--	--	--	--	--
Arizona	--	--	--	--	--	--	--	--	--
Colorado	--	--	--	--	--	--	--	--	--
Idaho	--	--	--	--	--	--	--	--	--
Montana	--	--	--	--	--	--	--	--	--
Nevada	--	--	--	--	--	--	--	--	--
New Mexico	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--
Wyoming	--	--	--	--	--	--	--	--	--
Pacific Contiguous	--	--	--	--	--	--	--	--	--
California	--	--	--	--	--	--	--	--	--
Oregon	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--
Pacific Noncontiguous	--	--	--	564	0.32	5.8	--	--	--
Alaska	--	--	--	564	0.32	5.8	--	--	--
Hawaii	--	--	--	--	--	--	--	--	--
U.S. Total	1,096	2.36	9.4	589	0.33	5.8	--	--	--

* = Value is less than half of the smallest unit of measure. (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
W = Withheld to avoid disclosure of individual company data.

Notes:
See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.

Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 7.25. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Industrial Sector by State, 2011

	Bituminous			Subbituminous			Lignite		
Census Division and State	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight
New England	81	0.77	9.2	--	--	--	--	--	--
Connecticut	--	--	--	--	--	--	--	--	--
Maine	23	0.80	7.4	--	--	--	--	--	--
Massachusetts	58	0.76	10.0	--	--	--	--	--	--
New Hampshire	--	--	--	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--	--	--
Middle Atlantic	994	1.99	9.9	304	0.27	5.2	--	--	--
New Jersey	--	--	--	--	--	--	--	--	--
New York	404	1.64	10.2	--	--	--	--	--	--
Pennsylvania	590	2.23	9.6	304	0.27	5.2	--	--	--
East North Central	3,843	2.68	9.0	1,566	0.52	5.8	--	--	--
Illinois	2,151	3.16	9.1	1,035	0.62	6.1	--	--	--
Indiana	112	2.63	9.1	--	--	--	--	--	--
Michigan	212	1.08	9.7	190	0.27	4.9	--	--	--
Ohio	529	3.04	9.9	--	--	--	--	--	--
Wisconsin	840	1.79	8.2	341	0.35	5.3	--	--	--
West North Central	741	3.21	8.5	4,200	0.26	5.0	--	--	--
Iowa	516	3.45	8.0	2,255	0.23	4.6	--	--	--
Kansas	--	--	--	--	--	--	--	--	--
Minnesota	73	2.02	10.6	1,048	0.33	5.8	--	--	--
Missouri	153	3.02	9.1	--	--	--	--	--	--
Nebraska	--	--	--	626	0.22	4.5	--	--	--
North Dakota	--	--	--	271	0.32	5.5	--	--	--
South Dakota	--	--	--	--	--	--	--	--	--
South Atlantic	4,156	1.28	10.9	--	--	--	--	--	--
Delaware	--	--	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--	--	--
Florida	313	1.04	9.7	--	--	--	--	--	--
Georgia	840	1.08	10.4	--	--	--	--	--	--
Maryland	426	2.69	21.4	--	--	--	--	--	--
North Carolina	498	0.95	7.7	--	--	--	--	--	--
South Carolina	382	1.06	9.1	--	--	--	--	--	--
Virginia	1,207	1.14	10.0	--	--	--	--	--	--
West Virginia	488	1.55	11.5	--	--	--	--	--	--
East South Central	2,236	1.03	8.8	--	--	--	--	--	--
Alabama	413	1.32	9.2	--	--	--	--	--	--
Kentucky	--	--	--	--	--	--	--	--	--
Mississippi	--	--	--	--	--	--	--	--	--
Tennessee	1,822	0.97	8.7	--	--	--	--	--	--
West South Central	154	2.16	10.4	525	0.26	5.0	272	1.03	16.8
Arkansas	133	2.02	10.6	--	--	--	--	--	--
Louisiana	21	3.16	9.4	--	--	--	3	0.61	14.8
Oklahoma	--	--	--	525	0.26	5.0	--	--	--
Texas	--	--	--	--	--	--	269	1.03	16.8
Mountain	880	1.54	10.1	1,060	0.64	9.9	45	0.91	14.6
Arizona	--	--	--	370	0.96	14.8	--	--	--
Colorado	--	--	--	--	--	--	--	--	--
Idaho	78	2.02	10.6	56	0.32	5.8	--	--	--
Montana	--	--	--	--	--	--	45	0.91	14.6
Nevada	--	--	--	--	--	--	--	--	--
New Mexico	--	--	--	--	--	--	--	--	--
Utah	264	0.37	9.1	--	--	--	--	--	--
Wyoming	539	2.02	10.6	634	0.46	7.2	--	--	--
Pacific Contiguous	736	0.39	10.2	94	0.34	4.2	--	--	--
California	736	0.39	10.2	--	--	--	--	--	--
Oregon	--	--	--	--	--	--	--	--	--
Washington	--	--	--	94	0.34	4.2	--	--	--
Pacific Noncontiguous	100	0.66	8.0	--	--	--	--	--	--
Alaska	--	--	--	--	--	--	--	--	--
Hawaii	100	0.66	8.0	--	--	--	--	--	--
U.S. Total	13,920	1.73	9.7	7,749	0.37	5.8	318	1.01	16.5

* = Value is less than half of the smallest unit of measure. (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
NM = Not meaningful due to large relative standard error or excessive percentage change.
W = Withheld to avoid disclosure of individual company data.

Notes:
See Glossary for definitions. Values are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.

Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Chapter 8

Electric Power System Characteristics and Performance

Table 8.1. Average Operating Heat Rate for Selected Energy Sources, 2001 through 2011 (Btu per Kilowatthour)

Year	Coal	Petroleum	Natural Gas	Nuclear
2001	10,378	10,742	10,051	10,443
2002	10,314	10,641	9,533	10,442
2003	10,297	10,610	9,207	10,422
2004	10,331	10,571	8,647	10,428
2005	10,373	10,631	8,551	10,436
2006	10,351	10,809	8,471	10,435
2007	10,375	10,794	8,403	10,489
2008	10,378	11,015	8,305	10,452
2009	10,414	10,923	8,159	10,459
2010	10,415	10,984	8,185	10,452
2011	10,444	10,829	8,152	10,464

Coal includes anthracite, bituminous, subbituminous and lignite coal. Waste coal and synthetic coal are included starting in 2002.
Petroleum includes distillate fuel oil (all diesel and No. 1 and No. 2 fuel oils), residual fuel oil (No. 5 and No. 6 fuel oils and bunker C fuel oil, jet fuel, kerosene, petroleum coke, and waste oil.

Notes:
Included in the calculation for coal, petroleum, and natural gas average operating heat rate are electric power plants in the utility and independent power producer sectors.
Combined heat and power plants, and all plants in the commercial and industrial sectors are excluded from the calculations.
The nuclear average heat rate is the weighted average tested heat rate for nuclear units as reported on the Form EIA-860.

Sources: U.S. Energy Information Administration, Form EIA-923, "Power Plant Operations Report," and predecessor form(s) including U.S. Energy Information Administration, Form EIA-906, "Power Plant Report;" and Form EIA-920, "Combined Heat and Power Plant Report;" Form EIA-860, "Annual Electric Generator Report."

Table 8.2. Average Tested Heat Rates by Prime Mover and Energy Source, 2007 - 2011

(Btu per Kilowatthour)

Prime Mover	Coal	Petroluem	Natural Gas	Nuclear
2007				
Steam Generator	10,158	10,398	10,440	10,489
Gas Turbine	--	13,217	11,632	--
Internal Combustion	--	10,447	10,175	--
Combined Cycle	W	10,970	7,577	--
2008				
Steam Generator	10,138	10,356	10,377	10,452
Gas Turbine	--	13,311	11,576	--
Internal Combustion	--	10,427	9,975	--
Combined Cycle	W	10,985	7,642	--
2009				
Steam Generator	10,150	10,349	10,427	10,459
Gas Turbine	--	13,326	11,560	--
Internal Combustion	--	10,428	9,958	--
Combined Cycle	W	10,715	7,605	--
2010				
Steam Generator	10,142	10,249	10,416	10,452
Gas Turbine	--	13,386	11,590	--
Internal Combustion	--	10,429	9,917	--
Combined Cycle	W	10,474	7,619	--
2011				
Steam Generator	10,128	10,414	10,414	10,464
Gas Turbine	--	13,637	11,569	--
Internal Combustion	--	10,428	9,923	--
Combined Cycle	W	10,650	7,603	--

Notes: W = Withheld to avoid disclosure of individual company data.

Heat rate is reported at full load conditions for electric utilities and independent power producers.
The average heat rates above are weighted by Net Summer Capacity.
Coal Combined Cycle represents integrated gasification units.

Source: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report.'

Table 8.3. Revenue and Expense Statistics for Major U.S. Investor-Owned Electric Utilities, 2001 through 2011 (Million Dollars)

Description	2001	2002	2003	2004	2005	2006
Utility Operating Revenues	**267,276**	**219,609**	**230,151**	**238,759**	**265,652**	**275,501**
......Electric Utility	243,982	200,360	206,268	213,012	234,909	246,736
......Other Utility	23,294	19,250	23,883	25,747	30,743	28,765
Utility Operating Expenses	**234,910**	**189,062**	**201,057**	**206,960**	**236,786**	**245,589**
......Electric Utility	213,458	171,604	179,044	183,121	207,830	218,445
.....Operation	161,233	116,660	125,436	131,560	150,645	158,893
.....Production	135,791	90,715	98,305	103,871	120,586	127,494
.....Cost of Fuel	29,434	24,149	26,871	28,544	36,106	37,945
.....Purchased Power	98,020	58,810	63,749	67,126	77,902	79,205
.....Other	8,359	7,776	7,709	8,226	6,599	10,371
.....Transmission	3,385	3,560	3,653	4,531	5,664	6,179
.....Distribution	3,208	3,117	3,214	3,287	3,502	3,640
.....Customer Accounts	4,432	4,168	4,262	4,077	4,229	4,409
.....Customer Service	1,855	1,820	1,902	2,013	2,291	2,536
.....Sales	282	264	238	237	219	240
.....Administrative and General	12,292	13,018	13,863	13,537	14,130	14,580
.....Maintenance	11,154	10,861	11,340	11,743	12,033	12,838
.....Depreciation	17,476	16,199	15,981	16,322	17,123	17,373
.....Taxes and Other	21,765	26,716	25,027	22,190	26,805	28,149
......Other Utility	21,452	17,457	22,013	23,839	28,956	27,143
Net Utility Operating Income	**32,366**	**30,548**	**29,094**	**31,799**	**28,866**	**29,912**

Description	2007	2008	2009	2010	2011
Utility Operating Revenues	**270,964**	**298,962**	**276,124**	**285,512**	**280,520**
......Electric Utility	240,864	266,124	249,303	260,119	255,573
......Other Utility	30,100	32,838	26,822	25,393	24,946
Utility Operating Expenses	**241,198**	**267,263**	**244,243**	**253,022**	**247,118**
......Electric Utility	213,076	236,572	219,544	234,173	228,873
.....Operation	153,885	175,887	154,925	166,922	161,460
.....Production	121,700	140,974	118,816	128,831	122,520
.....Cost of Fuel	39,548	47,337	40,242	44,138	42,779
.....Purchased Power	74,112	84,724	67,630	67,284	61,447
.....Other	8,058	8,937	10,970	17,409	18,294
.....Transmission	6,051	6,950	6,742	6,948	6,876
.....Distribution	3,765	3,997	3,947	4,007	4,044
.....Customer Accounts	4,652	5,286	5,203	5,091	5,180
.....Customer Service	2,939	3,567	3,857	4,741	5,311
.....Sales	239	225	178	185	185
.....Administrative and General	14,346	14,718	15,991	17,120	17,343
.....Maintenance	13,181	14,192	14,092	14,957	15,772
.....Depreciation	17,936	19,049	20,095	20,951	22,555
.....Taxes and Other	27,000	26,202	29,081	31,343	29,086
......Other Utility	28,122	30,692	24,698	18,849	18,245
Net Utility Operating Income	**29,766**	**31,699**	**31,881**	**32,490**	**33,402**

Notes: 2007 financial data does not include information on Entergy Gulf State Louisiana LLC and Entergy Texas Inc. as both were not reported on the FERC Form for that year.
Missing or erroneous respondent data may result in slight imbalances in some of the expense account subtotals.
Total may not equal sum of components due to independent rounding.

Sources: Federal Energy Regulatory Commission, FERC Form 1, "Annual Report of Major Electric Utilities, Licensees and Others via Ventyx Global Energy Velocity Suite.

Table 8.4. Average Power Plant Operating Expenses for Major U.S. Investor-Owned Electric Utilities, 2001 through 2011 (Mills per Kilowatthour)

	Operation				Maintenance			
Year	Nuclear	Fossil Steam	Hydro-electric	Gas Turbine and Small Scale	Nuclear	Fossil Steam	Hydro-electric	Gas Turbine and Small Scale
2001	8.44	2.47	4.27	3.65	5.02	2.61	2.89	3.33
2002	9.00	2.59	3.71	3.26	5.04	2.67	2.62	2.38
2003	9.12	2.74	3.47	3.50	5.23	2.72	2.32	2.26
2004	8.97	3.13	3.83	4.27	5.38	2.96	2.76	2.14
2005	8.26	3.21	3.95	3.69	5.27	2.98	2.73	1.89
2006	9.03	3.57	3.76	3.51	5.69	3.19	2.70	2.16
2007	9.54	3.63	5.44	3.26	5.79	3.37	3.87	2.42
2008	9.89	3.72	5.78	3.77	6.20	3.59	3.89	2.72
2009	10.00	4.23	4.88	3.05	6.34	3.96	3.50	2.58
2010	10.50	4.04	5.33	2.79	6.80	3.99	3.81	2.73
2011	10.89	4.02	5.13	2.81	6.80	3.99	3.74	2.93

	Fuel				Total			
Year	Nuclear	Fossil Steam	Hydro-electric	Gas Turbine and Small Scale	Nuclear	Fossil Steam	Hydro-electric	Gas Turbine and Small Scale
2001	4.67	18.15	--	43.55	18.13	23.23	7.16	50.53
2002	4.60	16.09	--	31.84	18.65	21.36	6.33	37.47
2003	4.60	17.29	--	43.89	18.95	22.75	5.79	49.66
2004	4.58	18.21	--	45.18	18.93	24.31	6.60	51.59
2005	4.63	21.69	--	55.52	18.15	27.88	6.68	61.10
2006	4.85	23.09	--	53.89	19.57	29.85	6.46	59.56
2007	4.99	23.88	--	58.75	20.32	30.88	9.32	64.43
2008	5.29	28.43	--	64.23	21.37	35.75	9.67	70.72
2009	5.35	32.30	--	51.93	21.69	40.48	8.38	57.55
2010	6.68	27.73	--	43.21	23.98	35.76	9.15	48.74
2011	7.01	27.08	--	38.80	24.70	35.09	8.88	44.54

Hydroelectric category consists of both conventional hydroelectric and pumped storage.
Gas Turbine and Small Scale category consists of gas turbine, internal combustion, photovoltaic, and wind plants.
Notes: Expenses are average expenses weighted by net generation. A mill is a monetary cost and billing unit equal to 1/1000 of the U.S. dollar (equivalent to 1/10 of one cent).
Total may not equal sum of components due to independent rounding.
Sources: Federal Energy Regulatory Commission, FERC Form 1, "Annual Report of Major Electric Utilities, Licensees and Others via Ventyx Global Energy Velocity Suite.

Table 8.5. Revenue and Expense Statistics for U.S. Cooperative Borrower-Owned Electric Utilities, 2001 through 2011 (Million Dollars)

Description	2001	2002	2003	2004	2005	2006
Operating Revenue - Electric	**26,458**	**27,458**	**29,228**	**30,650**	**34,088**	**36,723**
Operation and Maintenance Expenses	**23,763**	**24,561**	**26,361**	**27,828**	**31,209**	**33,550**
Operation Including Fuel	**21,703**	**22,383**	**24,076**	**25,420**	**28,723**	**30,920**
.....Production	17,714	18,143	19,559	20,752	23,921	25,799
.....Transmission	524	579	637	665	679	748
.....Distribution	1,589	1,681	1,787	1,860	1,895	2,037
.....Customer Accounts	532	545	579	595	612	655
.....Customer Service	119	136	140	141	147	158
.....Sales	88	79	79	80	76	80
.....Administrative and General	1,137	1,219	1,295	1,327	1,393	1,444
Depreciation and Amortization	**1,895**	**1,992**	**2,076**	**2,182**	**2,253**	**2,367**
Taxes and Tax Equivalents	**164**	**186**	**209**	**226**	**234**	**262**
Net Electric Operating Income	**2,696**	**2,897**	**2,867**	**2,822**	**2,879**	**3,173**

Description	2007	2008	2009	2010	2011
Operating Revenue - Electric	**38,208**	**42,087**	**42,189**	**45,264**	**46,146**
Operation and Maintenance Expenses	**34,843**	**38,511**	**38,337**	**41,138**	**42,099**
Operation Including Fuel	**32,229**	**35,782**	**35,412**	**38,045**	**38,878**
.....Production	26,929	30,107	29,462	31,792	32,354
.....Transmission	754	799	862	994	1,044
.....Distribution	2,161	2,327	2,395	2,506	2,632
.....Customer Accounts	677	714	741	744	749
.....Customer Service	163	176	186	195	210
.....Sales	78	81	81	79	81
.....Administrative and General	1,468	1,577	1,686	1,736	1,809
Depreciation and Amortization	**2,350**	**2,462**	**2,656**	**2,822**	**2,969**
Taxes and Tax Equivalents	**264**	**267**	**269**	**272**	**252**
Net Electric Operating Income	**3,365**	**3,576**	**3,852**	**4,126**	**4,047**

Notes: Total may not equal sum of components due to independent rounding.
Sources: U.S. Department of Agriculture, Rural Utilities Service (prior Rural Electrification Administration), Statistical Report, Rural Electric Borrowers publications, as compiled from RUS Form 7 and RUS Form 12

Table 8.6.A. Noncoincident Peak Load by North American Electric Reliability Corporation Assessment Area, 2001 - 2011, Actual

Summer Peak Load (Megawatts)																
	Eastern Interconnection													ERCOT	Western Interconnection	All Interconnections
Period	FRCC	NPCC	Balance of Eastern Region	ECAR	MAAC	MAIN	MAPP	MISO	MRO	PJM	RFC	SERC	SPP	TRE	WECC	Contiguous U.S.
2001	**39,062**	**55,949**	**428,481**	100,235	54,015	56,344	N/A	N/A	28,321	N/A	N/A	149,293	40,273	**55,201**	**109,119**	**687,812**
2002	**40,696**	**56,012**	**442,535**	102,996	55,569	56,396	N/A	N/A	29,119	N/A	N/A	158,767	39,688	**56,248**	**119,074**	**714,565**
2003	**40,475**	**55,018**	**431,349**	98,487	53,566	56,988	N/A	N/A	28,831	N/A	N/A	153,110	40,367	**59,996**	**122,537**	**709,375**
2004	**42,383**	**52,549**	**427,860**	95,300	52,049	53,439	N/A	N/A	29,351	N/A	N/A	157,615	40,106	**58,531**	**123,136**	**704,459**
2005	**46,396**	**58,960**	**462,550**	N/A	N/A	N/A	N/A	N/A	39,918	N/A	190,200	190,705	41,727	**60,210**	**130,760**	**758,876**
2006	**45,751**	**63,241**	**476,048**	N/A	N/A	N/A	N/A	N/A	42,194	N/A	191,920	199,052	42,882	**62,339**	**142,096**	**789,475**
2007	**46,676**	**58,314**	**475,660**	N/A	N/A	N/A	N/A	N/A	41,684	N/A	181,700	209,109	43,167	**62,188**	**139,389**	**782,227**
2008	**44,836**	**58,543**	**452,087**	N/A	N/A	N/A	N/A	N/A	39,677	N/A	169,155	199,779	43,476	**62,174**	**134,829**	**752,470**
2009	**46,550**	**55,944**	**431,701**	N/A	N/A	N/A	N/A	N/A	37,963	N/A	161,241	191,032	41,465	**63,518**	**128,245**	**725,958**
2010	**45,722**	**60,554**	**466,543**	N/A	N/A	N/A	4,598	108,346	N/A	136,465	N/A	164,058	53,077	**65,776**	**129,352**	**767,948**
2011	**44,968**	**63,390**	**486,131**	N/A	N/A	N/A	4,726	102,819	N/A	158,043	N/A	164,726	55,817	**68,416**	**119,565**	**782,469**

Winter Peak Load (Megawatts)																
	Eastern Interconnection													ERCOT	Western Interconnection	All Interconnections
Period	FRCC	NPCC	Balance of Eastern Region	ECAR	MAAC	MAIN	MAPP	MISO	MRO	PJM	RFC	SERC	SPP	TRE	WECC	Contiguous U.S.
2001 / 2002	**40,922**	**42,670**	**352,083**	85,485	39,458	40,529	N/A	N/A	21,815	N/A	N/A	135,182	29,614	**44,015**	**96,622**	**576,312**
2002 / 2003	**45,635**	**46,009**	**371,977**	87,300	46,551	42,412	N/A	N/A	23,645	N/A	N/A	141,882	30,187	**45,414**	**95,951**	**604,986**
2003 / 2004	**36,841**	**48,079**	**364,232**	86,332	45,625	41,719	N/A	N/A	24,134	N/A	N/A	137,972	28,450	**42,702**	**102,020**	**593,874**
2004 / 2005	**44,839**	**48,176**	**378,987**	91,800	45,905	42,929	N/A	N/A	24,526	N/A	N/A	144,337	29,490	**44,010**	**102,689**	**618,701**
2005 / 2006	**42,657**	**46,828**	**381,246**	N/A	N/A	N/A	N/A	N/A	33,748	N/A	151,600	164,638	31,260	**48,141**	**107,493**	**626,365**
2006 / 2007	**42,526**	**46,697**	**390,263**	N/A	N/A	N/A	N/A	N/A	34,677	N/A	149,631	175,163	30,792	**50,402**	**111,093**	**640,981**
2007 / 2008	**41,701**	**46,795**	**386,301**	N/A	N/A	N/A	N/A	N/A	33,191	N/A	141,900	179,888	31,322	**50,408**	**112,700**	**637,905**
2008 / 2009	**45,275**	**46,043**	**390,829**	N/A	N/A	N/A	N/A	N/A	36,029	N/A	142,395	179,596	32,809	**47,806**	**113,605**	**643,557**
2009 / 2010	**53,022**	**44,864**	**405,176**	N/A	N/A	N/A	N/A	N/A	35,351	N/A	143,827	193,135	32,863	**56,191**	**109,565**	**668,818**
2010 / 2011	**46,135**	**45,712**	**400,589**	N/A	N/A	N/A	5,069	86,728	N/A	115,535	N/A	152,030	41,226	**57,315**	**101,668**	**651,418**
2011 / 2012	**40,117**	**45,234**	**404,280**	N/A	N/A	N/A	4,803	86,844	N/A	122,563	N/A	150,850	39,220	**50,100**	**108,459**	**648,190**

Notes:
NERC region and reliability assessment area maps are provided on EIA's Electricity Reliability web page: http://www.eia.gov/cneaf/electricity/page/eia411/eia411.html
Peak load represents an hour of a day during the associated peak period.
The Summer peak period begins on June 1 and extends through September 30.
The Winter peak period begins October 1 and extends through May 31.
Historically the MRO, RFC, SERC, and SPP regional boundaries were altered as utilities changed reliability organizations. The historical data series for these regions have not been adjusted. Instead, the Balance of Eastern Region category was introduced to provide a consistent trend of the Eastern interconnection.
ECAR, MAAC, and MAIN dissolved at the end of 2005. Many of the former utility members joined RFC. Reliability First Corporation (RFC) came into existence on January 1, 2006. RFC submitted a consolidated filing covering the historical NERC regions of ECAR, MAAC, and MAIN.
N/A - Not Available
Source: U.S. Energy Information Administration, Form EIA-411, "Coordinated Bulk Power Supply and Demand Program Report."

Table 8.6.B. Noncoincident Peak Load by North American Electric Reliability Corporation Assessment Area, 2011 Actual, 2012-2016 Projected.

Summer Peak Load (Megawatts)											
	Eastern Interconnection								ERCOT	Western Interconnection	All Interconnections
Period	FRCC	NPCC	Balance of Eastern Region	MAPP	MISO	PJM	SERC	SPP	TRE	WECC	Contiguous U.S.
Actual 2011	**44,968**	**63,390**	**486,131**	4,726	102,819	158,043	164,726	55,817	**68,416**	**119,565**	**782,469**
Projected 2012	**45,613**	**60,735**	**469,943**	4,790	94,279	153,782	162,655	54,436	**66,076**	**140,739**	**783,106**
Projected 2013	**46,270**	**61,461**	**475,911**	4,995	94,279	156,254	165,203	55,180	**66,928**	**130,223**	**780,793**
Projected 2014	**46,857**	**62,189**	**484,823**	5,117	96,129	159,842	168,003	55,732	**69,721**	**131,129**	**794,719**
Projected 2015	**47,758**	**62,991**	**491,292**	5,230	96,929	163,168	170,199	55,766	**73,054**	**132,917**	**808,012**
Projected 2016	**48,594**	**63,745**	**497,704**	5,503	97,811	165,691	172,336	56,364	**75,366**	**137,984**	**823,393**

Winter Peak Load (Megawatts)											
	Eastern Interconnection								ERCOT	Western Interconnection	All Interconnections
Period	FRCC	NPCC	Balance of Eastern Region	MAPP	MISO	PJM	SERC	SPP	TRE	WECC	Contiguous U.S.
Actual 2011 / 2012	**40,117**	**45,234**	**404,280**	4,803	86,844	122,563	150,850	39,220	**50,100**	**108,459**	**648,190**
Projected 2012 / 2013	**46,864**	**47,187**	**404,781**	5,133	75,085	130,222	154,027	40,315	**52,909**	**111,889**	**663,630**
Projected 2013 / 2014	**46,367**	**47,439**	**408,000**	5,228	72,572	132,160	156,326	41,714	**51,734**	**110,047**	**663,587**
Projected 2014 / 2015	**47,568**	**47,669**	**418,739**	5,374	78,143	134,771	158,442	42,010	**52,063**	**111,994**	**678,034**
Projected 2015 / 2016	**48,172**	**47,878**	**423,670**	5,454	78,773	136,911	160,492	42,040	**54,972**	**113,622**	**688,313**
Projected 2016 / 2017	**48,797**	**48,109**	**429,389**	5,720	79,521	138,567	162,937	42,644	**56,028**	**114,492**	**696,815**

Notes:
NERC region and reliability assessment area maps are provided on EIA's Electricity Reliability web page: http://www.eia.gov/cneaf/electricity/page/eia411/eia411.html
Projected data are updated annually.
Peak load represents an hour of a day during the associated peak period.
The Summer peak period begins on June 1 and extends through September 30.
The Winter peak period begins October 1 and extends through May 31.
Historically the MRO, RFC, SERC, and SPP regional boundaries were altered as utilities changed reliability organizations. The historical data series for these regions have not been adjusted. Instead, the Balance of Eastern Region category was introduced to provide a consistent trend of the Eastern interconnection.
ECAR, MAAC, and MAIN dissolved at the end of 2005. Many of the former utility members joined RFC. Reliability First Corporation (RFC) came into existence on January 1, 2006. RFC submitted a consolidated filing covering the historical NERC regions of ECAR, MAAC, and MAIN.
Source: U.S. Energy Information Administration, Form EIA-411, "Coordinated Bulk Power Supply and Demand Program Report."

Table 8.7.A. Net Energy for Load by North American Electric Reliability Corporation Assessment Area, 2001 - 2011, Actual

Net Energy (Thousands of Megawatthours)																
	Eastern Interconnection													ERCOT	Western Interconnection	All Interconnections
Period	FRCC	NPCC	Balance of Eastern Region	ECAR	MAAC	MAIN	MAPP	MISO	MRO	PJM	RFC	SERC	SPP	TRE	WECC	Contiguous U.S.
2001	**200,134**	**282,670**	**2,203,509**	546,167	263,841	271,053	N/A	N/A	144,893	N/A	N/A	787,139	190,416	**278,226**	**638,746**	**3,603,285**
2002	**211,116**	**286,199**	**2,301,321**	567,897	273,907	279,264	N/A	N/A	150,058	N/A	N/A	835,319	194,876	**280,269**	**666,696**	**3,745,601**
2003	**219,021**	**288,791**	**2,255,233**	545,109	276,600	267,068	N/A	N/A	153,918	N/A	N/A	826,964	185,574	**283,868**	**664,754**	**3,711,667**
2004	**220,335**	**292,725**	**2,313,180**	553,236	283,646	274,760	N/A	N/A	152,975	N/A	N/A	856,734	191,829	**289,146**	**682,053**	**3,797,439**
2005	**226,544**	**303,607**	**2,385,461**	N/A	N/A	N/A	N/A	N/A	216,633	N/A	1,005,226	962,054	201,548	**299,225**	**685,624**	**3,900,461**
2006	**230,115**	**294,319**	**2,361,721**	N/A	N/A	N/A	N/A	N/A	222,748	N/A	926,279	1,011,173	201,521	**305,672**	**720,087**	**3,911,914**
2007	**232,405**	**301,766**	**2,432,475**	N/A	N/A	N/A	N/A	N/A	217,602	N/A	954,700	1,049,298	210,875	**307,064**	**739,018**	**4,012,728**
2008	**226,874**	**297,362**	**2,406,730**	N/A	N/A	N/A	N/A	N/A	227,536	N/A	936,201	1,035,390	207,603	**312,401**	**745,691**	**3,989,058**
2009	**225,966**	**285,625**	**2,293,617**	N/A	N/A	N/A	N/A	N/A	213,797	N/A	880,377	997,142	202,301	**308,278**	**718,694**	**3,832,180**
2010	**233,034**	**294,276**	**2,456,553**	N/A	N/A	N/A	30,691	585,274	N/A	712,731	N/A	870,367	257,491	**319,097**	**713,177**	**4,016,137**
2011	**224,064**	**292,482**	**2,401,810**	N/A	N/A	N/A	29,233	521,692	N/A	739,754	N/A	852,843	258,288	**335,000**	**727,793**	**3,981,149**

Notes:
NERC region and reliability assessment area maps are provided on EIA's Electricity Reliability web page: http://www.eia.gov/cneaf/electricity/page/eia411/eia411.html
Net Energy for Load represents net Balancing Authority Area generation, plus energy received from other Balancing Authority Areas, less energy delivered to other Balancing Authority Areas through interchange.
Historically the MRO, RFC, SERC, and SPP regional boundaries were altered as utilities changed reliability organizations. The historical data series for these regions have not been adjusted. Instead, the Balance of Eastern Region category was introduced to provide a consistent trend of the Eastern interconnection.
ECAR, MAAC, and MAIN dissolved at the end of 2005. Many of the former utility members joined RFC. Reliability First Corporation (RFC) came into existence on January 1, 2006. RFC submitted a consolidated filing covering the historical NERC regions of ECAR, MAAC, and MAIN.
N/A - Not Available
Source: U.S. Energy Information Administration, Form EIA-411, "Coordinated Bulk Power Supply and Demand Program Report."

Table 8.7.B. Net Energy for Load by North American Electric Reliability Corporation Assessment Area, 2011 Actual, 2012-2016 Projected.

Net Energy (Thousands of Megawatthours)											
	Eastern Interconnection								ERCOT	Western Interconnection	All Interconnections
Period	FRCC	NPCC	Balance of Eastern Region	MAPP	MISO	PJM	SERC	SPP	TRE	WECC	Contiguous U.S.
Actual 2011	**224,064**	**292,482**	**2,401,810**	29,233	521,692	739,754	852,843	258,288	**335,000**	**727,793**	**3,981,149**
Projected 2012	**224,337**	**299,770**	**2,437,050**	30,677	473,467	821,786	848,918	262,201	**328,367**	**729,167**	**4,018,691**
Projected 2013	**227,095**	**303,502**	**2,472,380**	32,343	484,994	831,898	856,123	267,022	**335,401**	**738,883**	**4,077,261**
Projected 2014	**230,481**	**305,860**	**2,481,450**	33,213	462,645	851,726	864,431	269,434	**349,131**	**750,432**	**4,117,354**
Projected 2015	**235,490**	**308,245**	**2,503,523**	33,805	455,469	870,636	874,983	268,631	**363,112**	**760,884**	**4,171,254**
Projected 2016	**239,191**	**310,730**	**2,538,651**	34,762	458,284	888,097	886,165	271,343	**376,102**	**772,063**	**4,236,737**

Notes:
NERC region and reliability assessment area maps are provided on EIA's Electricity Reliability web page: http://www.eia.gov/cneaf/electricity/page/eia411/eia411.html
Projected data are updated annually.
Net Energy for Load represents net Balancing Authority Area generation, plus energy received from other Balancing Authority Areas, less energy delivered to other Balancing Authority Areas through interchange.
Historically the MRO, RFC, SERC, and SPP regional boundaries were altered as utilities changed reliability organizations. The historical data series for these regions have not been adjusted. Instead, the Balance of Eastern Region category was introduced to provide a consistent trend of the Eastern interconnection.
ECAR, MAAC, and MAIN dissolved at the end of 2005. Many of the former utility members joined RFC. Reliability First Corporation (RFC) came into existence on January 1, 2006. RFC submitted a consolidated filing covering the historical NERC regions of ECAR, MAAC, and MAIN.
Source: U.S. Energy Information Administration, Form EIA-411, "Coordinated Bulk Power Supply and Demand Program Report."

Table 8.8.A. Summer Net Internal Demand, Capacity Resources, and Capacity Margins by North American Electric Reliability Assessment Area, 2001 - 2011, Actual

Net Internal Demand (Megawatts) -- Summer																
	Eastern Interconnection													ERCOT	Western Interconnection	All Interconnections
Period	FRCC	NPCC	Balance of Eastern Region	ECAR	MAAC	MAIN	MAPP	MISO	MRO	PJM	RFC	SERC	SPP	TRE	WECC	Contiguous U.S.
2001	**38,932**	**55,888**	**417,613**	100,235	54,015	53,032	N/A	N/A	27,125	N/A	N/A	144,399	38,807	**55,106**	**107,294**	**674,833**
2002	**37,951**	**55,164**	**430,396**	101,251	54,296	53,267	N/A	N/A	28,825	N/A	N/A	154,459	38,298	**55,833**	**117,032**	**696,376**
2003	**40,387**	**53,936**	**422,253**	98,487	53,566	53,617	N/A	N/A	28,775	N/A	N/A	148,380	39,428	**59,282**	**120,894**	**696,752**
2004	**42,243**	**51,580**	**419,349**	95,300	52,049	50,499	N/A	N/A	29,094	N/A	N/A	153,024	39,383	**58,531**	**121,205**	**692,908**
2005	**45,950**	**57,402**	**455,594**	N/A	N/A	N/A	N/A	N/A	38,266	N/A	190,200	186,049	41,079	**59,060**	**128,464**	**746,470**
2006	**45,345**	**60,879**	**469,639**	N/A	N/A	N/A	N/A	N/A	40,661	N/A	190,800	196,196	41,982	**61,214**	**139,402**	**776,479**
2007	**46,434**	**58,221**	**465,229**	N/A	N/A	N/A	N/A	N/A	40,249	N/A	177,200	205,321	42,459	**61,063**	**135,839**	**766,786**
2008	**44,660**	**59,896**	**447,629**	N/A	N/A	N/A	N/A	N/A	38,857	N/A	169,155	196,711	42,906	**61,049**	**130,916**	**744,151**
2009	**46,263**	**55,730**	**424,714**	N/A	N/A	N/A	N/A	N/A	35,849	N/A	161,241	186,507	41,117	**63,518**	**122,881**	**713,106**
2010	**45,522**	**56,232**	**453,436**	N/A	N/A	N/A	4,493	100,963	N/A	135,142	N/A	160,896	51,942	**64,378**	**126,944**	**746,513**
2011	**44,798**	**62,313**	**466,360**	N/A	N/A	N/A	4,641	98,290	N/A	146,443	N/A	161,995	54,991	**68,416**	**117,755**	**759,642**

Capacity Resources (Megawatts) -- Summer																
	Eastern Interconnection													ERCOT	Western Interconnection	All Interconnections
Period	FRCC	NPCC	Balance of Eastern Region	ECAR	MAAC	MAIN	MAPP	MISO	MRO	PJM	RFC	SERC	SPP	TRE	WECC	Contiguous U.S.
2001	**42,290**	**63,760**	**487,950**	113,136	59,533	65,950	N/A	N/A	32,271	N/A	N/A	171,530	45,530	**70,797**	**124,193**	**788,990**
2002	**43,342**	**66,208**	**504,357**	119,736	63,619	67,025	N/A	N/A	34,259	N/A	N/A	172,485	47,233	**76,849**	**142,624**	**833,380**
2003	**46,806**	**70,902**	**513,382**	123,755	65,897	67,410	N/A	N/A	33,287	N/A	N/A	177,231	45,802	**74,764**	**150,277**	**856,131**
2004	**48,579**	**71,532**	**526,454**	127,919	66,167	65,677	N/A	N/A	35,830	N/A	N/A	182,861	48,000	**73,850**	**155,455**	**875,870**
2005	**50,200**	**72,258**	**532,917**	N/A	N/A	N/A	N/A	N/A	46,792	N/A	220,000	219,749	46,376	**66,724**	**160,026**	**882,125**
2006	**50,909**	**73,095**	**534,270**	N/A	N/A	N/A	N/A	N/A	50,116	N/A	214,693	223,630	45,831	**70,664**	**162,288**	**891,226**
2007	**53,027**	**73,771**	**543,608**	N/A	N/A	N/A	N/A	N/A	47,259	N/A	213,544	234,232	48,573	**75,912**	**168,080**	**914,397**
2008	**51,541**	**75,894**	**539,936**	N/A	N/A	N/A	N/A	N/A	48,180	N/A	215,477	228,169	48,110	**74,274**	**167,860**	**909,504**
2009	**49,239**	**78,639**	**559,823**	N/A	N/A	N/A	N/A	N/A	47,529	N/A	215,700	247,400	49,194	**76,280**	**152,467**	**916,449**
2010	**53,370**	**67,569**	**570,396**	N/A	N/A	N/A	7,210	131,691	N/A	167,647	N/A	200,511	63,337	**73,857**	**158,407**	**923,599**
2011	**54,340**	**72,277**	**549,067**	N/A	N/A	N/A	5,244	110,611	N/A	170,066	N/A	201,103	62,044	**69,595**	**147,147**	**892,426**

Capacity Margin (Percent) -- Summer																
	Eastern Interconnection													ERCOT	Western Interconnection	All Interconnections
Period	FRCC	NPCC	Balance of Eastern Region	ECAR	MAAC	MAIN	MAPP	MISO	MRO	PJM	RFC	SERC	SPP	TRE	WECC	Contiguous U.S.
2001	**7.9%**	**12.3%**	**14.4%**	11.4%	9.3%	19.6%	N/A	N/A	15.9%	N/A	N/A	15.8%	14.8%	**22.2%**	**13.6%**	**14.5%**
2002	**12.4%**	**16.7%**	**14.7%**	15.4%	14.7%	20.5%	N/A	N/A	15.9%	N/A	N/A	10.5%	18.9%	**27.3%**	**17.9%**	**16.4%**
2003	**13.7%**	**23.9%**	**17.8%**	20.4%	18.7%	20.5%	N/A	N/A	13.6%	N/A	N/A	16.3%	13.9%	**20.7%**	**19.6%**	**18.6%**
2004	**13.0%**	**27.9%**	**20.3%**	25.5%	21.3%	23.1%	N/A	N/A	18.8%	N/A	N/A	16.3%	18.0%	**20.7%**	**22.0%**	**20.9%**
2005	**8.5%**	**20.6%**	**14.5%**	N/A	N/A	N/A	N/A	N/A	18.2%	N/A	13.5%	15.3%	11.4%	**11.5%**	**19.7%**	**15.4%**
2006	**10.9%**	**16.7%**	**12.1%**	N/A	N/A	N/A	N/A	N/A	18.9%	N/A	11.1%	12.3%	8.4%	**13.4%**	**14.1%**	**12.9%**
2007	**12.4%**	**21.1%**	**14.4%**	N/A	N/A	N/A	N/A	N/A	14.8%	N/A	17.0%	12.3%	12.6%	**19.6%**	**19.2%**	**16.1%**
2008	**13.4%**	**21.1%**	**17.1%**	N/A	N/A	N/A	N/A	N/A	19.3%	N/A	21.5%	13.8%	10.8%	**17.8%**	**22.0%**	**18.2%**
2009	**6.0%**	**29.1%**	**24.1%**	N/A	N/A	N/A	N/A	N/A	24.6%	N/A	25.2%	24.6%	16.4%	**16.7%**	**19.4%**	**22.2%**
2010	**14.7%**	**16.8%**	**20.5%**	N/A	N/A	N/A	37.7%	23.3%	N/A	19.4%	N/A	19.8%	18.0%	**12.8%**	**19.9%**	**19.2%**
2011	**17.6%**	**13.8%**	**15.1%**	N/A	N/A	N/A	11.5%	11.1%	N/A	13.9%	N/A	19.4%	11.4%	**1.7%**	**20.0%**	**14.9%**

Notes:
NERC region and reliability assessment area maps are provided on EIA's Electricity Reliability web page: http://www.eia.gov/cneaf/electricity/page/eia411/eia411.html
Net Internal Demand represent the system demand that is planned for by the electric power industry`s reliability authority and is equal to Internal Demand less Direct Control Load Management and Interruptible Demand.
Capacity Resources: Utility and nonutility-owned generating capacity that is existing or in various stages of planning or construction, less inoperable capacity, plus planned capacity purchases from other resources, less planned capacity sales.
Capacity Margin is the amount of unused available capability of an electric power system at peak load as a percentage of capacity resources.
The Summer peak period begins on June 1 and extends through September 30.
Historically the MRO, RFC, SERC, and SPP regional boundaries were altered as utilities changed reliability organizations. The historical data series for these regions have not been adjusted. Instead, the Balance of Eastern Region category was introduced to provide a consistent trend of the Eastern interconnection.
ECAR, MAAC, and MAIN dissolved at the end of 2005. Many of the former utility members joined RFC. Reliability First Corporation (RFC) came into existence on January 1, 2006. RFC submitted a consolidated filing covering the historical NERC regions of ECAR, MAAC, and MAIN.
N/A - Not Available
Source: U.S. Energy Information Administration, Form EIA-411, "Coordinated Bulk Power Supply and Demand Program Report."

Table 8.8.B. Summer Net Internal Demand, Capacity Resources, and Capacity Margins by North American Electric Reliability Corporation Assessment Area, 2011 Actual, 2012-2016 Projected.

Net Internal Demand (Megawatts) -- Summer											
	Eastern Interconnection								ERCOT	Western Interconnection	All Interconnections
Period	FRCC	NPCC	Balance of Eastern Region	MAPP	MISO	PJM	SERC	SPP	TRE	WECC	Contiguous U.S.
Actual 2011	**44,798**	**62,313**	**466,360**	4,641	98,290	146,443	161,995	54,991	**68,416**	**117,755**	**759,642**
Projected 2012	**42,430**	**59,757**	**447,282**	4,693	89,673	142,782	156,671	53,462	**64,605**	**125,050**	**739,123**
Projected 2013	**43,041**	**60,325**	**452,250**	4,904	89,318	145,254	158,528	54,247	**65,649**	**125,220**	**746,485**
Projected 2014	**43,618**	**60,791**	**457,961**	5,024	90,707	146,642	160,794	54,794	**68,403**	**126,030**	**756,802**
Projected 2015	**44,459**	**61,344**	**463,539**	5,135	91,096	149,968	162,551	54,788	**71,692**	**127,731**	**768,766**
Projected 2016	**45,242**	**61,865**	**469,353**	5,406	91,556	152,491	164,532	55,368	**73,957**	**132,695**	**783,111**

Capacity Resources (Megawatts) -- Summer											
	Eastern Interconnection								ERCOT	Western Interconnection	All Interconnections
Period	FRCC	NPCC	Balance of Eastern Region	MAPP	MISO	PJM	SERC	SPP	TRE	WECC	Contiguous U.S.
Actual 2011	**54,340**	**72,277**	**549,067**	5,244	110,611	170,066	201,103	62,044	**69,595**	**147,147**	**892,426**
Projected 2012	**51,050**	**74,783**	**534,295**	5,603	103,376	174,641	187,506	63,170	**71,748**	**142,655**	**874,531**
Projected 2013	**51,594**	**76,256**	**543,204**	6,253	103,045	173,882	195,621	64,402	**73,169**	**148,255**	**892,477**
Projected 2014	**52,104**	**75,839**	**544,820**	6,277	102,717	172,679	197,999	65,148	**73,180**	**151,500**	**897,443**
Projected 2015	**53,882**	**75,427**	**539,078**	6,335	102,610	167,273	197,599	65,260	**74,644**	**152,314**	**895,345**
Projected 2016	**53,239**	**73,546**	**542,507**	6,415	102,309	167,621	201,074	65,088	**76,757**	**153,720**	**899,768**

Capacity Margin (Percent) -- Summer											
	Eastern Interconnection								ERCOT	Western Interconnection	All Interconnections
Period	FRCC	NPCC	Balance of Eastern Region	MAPP	MISO	PJM	SERC	SPP	TRE	WECC	Contiguous U.S.
Actual 2011	**17.6%**	**13.8%**	**15.1%**	11.5%	11.1%	13.9%	19.4%	11.4%	**1.7%**	**20.0%**	**14.9%**
Projected 2012	**16.9%**	**20.1%**	**16.3%**	16.2%	13.3%	18.2%	16.4%	15.4%	**10.0%**	**12.3%**	**15.5%**
Projected 2013	**16.6%**	**20.9%**	**16.7%**	21.6%	13.3%	16.5%	19.0%	15.8%	**10.3%**	**15.5%**	**16.4%**
Projected 2014	**16.3%**	**19.8%**	**15.9%**	20.0%	11.7%	15.1%	18.8%	15.9%	**6.5%**	**16.8%**	**15.7%**
Projected 2015	**17.5%**	**18.7%**	**14.0%**	18.9%	11.2%	10.3%	17.7%	16.0%	**4.0%**	**16.1%**	**14.1%**
Projected 2016	**15.0%**	**15.9%**	**13.5%**	15.7%	10.5%	9.0%	18.2%	14.9%	**3.6%**	**13.7%**	**13.0%**

Notes:
NERC region and reliability assessment area maps are provided on EIA's Electricity Reliability web page: http://www.eia.gov/cneaf/electricity/page/eia411/eia411.html
Net Internal Demand represent the system demand that is planned for by the electric power industry`s reliability authority and is equal to Internal Demand less Direct Control Load Management and Interruptible Demand.
Capacity Resources: Utility and nonutility-owned generating capacity that is existing or in various stages of planning or construction, less inoperable capacity, plus planned capacity purchases from other resources, less planned capacity sales.
Capacity Margin is the amount of unused available capability of an electric power system at peak load as a percentage of capacity resources.
The Summer peak period begins on June 1 and extends through September 30.
Historically the MRO, RFC, SERC, and SPP regional boundaries were altered as utilities changed reliability organizations. The historical data series for these regions have not been adjusted. Instead, the Balance of Eastern Region category was introduced to provide a consistent trend of the Eastern interconnection.
ECAR, MAAC, and MAIN dissolved at the end of 2005. Many of the former utility members joined RFC. Reliability First Corporation (RFC) came into existence on January 1, 2006. RFC submitted a consolidated filing covering the historical NERC regions of ECAR, MAAC, and MAIN.
Source: U.S. Energy Information Administration, Form EIA-411, "Coordinated Bulk Power Supply and Demand Program Report."

Table 8.9.A. Winter Net Internal Demand, Capacity Resources, and Capacity Margins by North American Electric Reliability Assessment Area, 2001 - 2011, Actual

Net Internal Demand (Megawatts) -- Winter																
	Eastern Interconnection													ERCOT	Western Interconnection	All Interconnections
Period	FRCC	NPCC	Balance of Eastern Region	ECAR	MAAC	MAIN	MAPP	MISO	MRO	PJM	RFC	SERC	SPP	TRE	WECC	Contiguous U.S.
2001 / 2002	**39,699**	**42,551**	**341,158**	82,831	39,458	38,412	N/A	N/A	21,575	N/A	N/A	130,311	28,571	**43,908**	**95,395**	**562,711**
2002 / 2003	**42,001**	**45,980**	**360,748**	84,844	46,159	39,974	N/A	N/A	23,090	N/A	N/A	137,541	29,140	**44,719**	**94,554**	**588,002**
2003 / 2004	**36,229**	**47,850**	**357,026**	86,332	45,625	39,955	N/A	N/A	24,042	N/A	N/A	133,244	27,828	**41,988**	**100,337**	**583,430**
2004 / 2005	**41,449**	**47,859**	**371,011**	91,800	45,565	40,618	N/A	N/A	24,446	N/A	N/A	139,486	29,096	**44,010**	**101,002**	**605,331**
2005 / 2006	**42,493**	**46,328**	**375,365**	N/A	N/A	N/A	N/A	N/A	32,854	N/A	151,600	160,054	30,857	**46,991**	**105,670**	**616,847**
2006 / 2007	**45,993**	**48,394**	**385,887**	N/A	N/A	N/A	N/A	N/A	34,582	N/A	147,800	173,036	30,469	**46,038**	**107,586**	**633,898**
2007 / 2008	**46,093**	**46,185**	**383,779**	N/A	N/A	N/A	N/A	N/A	34,358	N/A	141,200	176,766	31,455	**46,068**	**113,504**	**635,629**
2008 / 2009	**45,042**	**47,151**	**384,495**	N/A	N/A	N/A	N/A	N/A	34,539	N/A	142,395	175,199	32,362	**46,747**	**110,977**	**634,412**
2009 / 2010	**51,703**	**44,864**	**399,204**	N/A	N/A	N/A	N/A	N/A	33,983	N/A	143,827	188,653	32,741	**56,191**	**106,256**	**658,219**
2010 / 2011	**45,954**	**44,172**	**389,351**	N/A	N/A	N/A	4,877	80,311	N/A	115,535	N/A	148,062	40,566	**55,917**	**99,515**	**634,909**
2011 / 2012	**39,924**	**43,806**	**385,428**	N/A	N/A	N/A	4,443	83,946	N/A	110,963	N/A	147,454	38,622	**50,100**	**107,568**	**626,826**

Capacity Resources (Megawatts) -- Winter																
	Eastern Interconnection													ERCOT	Western Interconnection	All Interconnections
Period	FRCC	NPCC	Balance of Eastern Region	ECAR	MAAC	MAIN	MAPP	MISO	MRO	PJM	RFC	SERC	SPP	TRE	WECC	Contiguous U.S.
2001 / 2002	**44,336**	**66,314**	**488,418**	115,926	63,604	63,209	N/A	N/A	30,809	N/A	N/A	169,580	45,290	**72,644**	**119,254**	**790,966**
2002 / 2003	**46,219**	**68,884**	**511,642**	123,823	66,143	66,694	N/A	N/A	33,224	N/A	N/A	174,925	46,833	**73,335**	**132,278**	**832,358**
2003 / 2004	**50,010**	**73,123**	**524,995**	129,351	68,134	68,942	N/A	N/A	32,769	N/A	N/A	179,810	45,989	**77,111**	**152,158**	**877,397**
2004 / 2005	**51,196**	**74,277**	**538,041**	131,187	69,604	66,414	N/A	N/A	34,371	N/A	N/A	186,784	49,681	**71,902**	**149,360**	**884,776**
2005 / 2006	**49,066**	**76,076**	**545,850**	N/A	N/A	N/A	N/A	N/A	44,620	N/A	229,000	224,652	47,578	**61,003**	**152,211**	**884,206**
2006 / 2007	**56,896**	**76,110**	**547,005**	N/A	N/A	N/A	N/A	N/A	46,959	N/A	220,930	231,917	47,199	**71,451**	**166,362**	**917,824**
2007 / 2008	**57,510**	**75,772**	**537,094**	N/A	N/A	N/A	N/A	N/A	44,987	N/A	212,257	229,627	50,223	**75,504**	**167,770**	**913,650**
2008 / 2009	**53,278**	**79,394**	**545,843**	N/A	N/A	N/A	N/A	N/A	47,343	N/A	215,477	234,797	48,226	**73,910**	**167,312**	**919,736**
2009 / 2010	**52,751**	**78,992**	**567,746**	N/A	N/A	N/A	N/A	N/A	46,422	N/A	215,700	255,527	50,097	**69,490**	**151,022**	**920,002**
2010 / 2011	**57,358**	**70,557**	**573,274**	N/A	N/A	N/A	6,941	129,241	N/A	167,647	N/A	207,558	61,888	**77,660**	**156,413**	**935,262**
2011 / 2012	**56,466**	**72,741**	**544,706**	N/A	N/A	N/A	4,960	98,329	N/A	170,077	N/A	212,063	59,276	**69,202**	**150,091**	**893,206**

Capacity Margin (Percent) -- Winter																
	Eastern Interconnection													ERCOT	Western Interconnection	All Interconnections
Period	FRCC	NPCC	Balance of Eastern Region	ECAR	MAAC	MAIN	MAPP	MISO	MRO	PJM	RFC	SERC	SPP	TRE	WECC	Contiguous U.S.
2001 / 2002	**10.5%**	**35.8%**	**30.2%**	28.5%	38.0%	39.2%	N/A	N/A	30.0%	N/A	N/A	23.2%	36.9%	**39.6%**	**20.0%**	**28.9%**
2002 / 2003	**9.1%**	**33.3%**	**29.5%**	31.5%	30.2%	40.1%	N/A	N/A	30.5%	N/A	N/A	21.4%	37.8%	**39.0%**	**28.5%**	**29.4%**
2003 / 2004	**27.6%**	**34.6%**	**32.0%**	33.3%	33.0%	42.0%	N/A	N/A	26.6%	N/A	N/A	25.9%	39.5%	**45.5%**	**34.1%**	**33.5%**
2004 / 2005	**19.0%**	**35.6%**	**31.0%**	30.0%	34.5%	38.8%	N/A	N/A	28.9%	N/A	N/A	25.3%	41.4%	**38.8%**	**32.4%**	**31.6%**
2005 / 2006	**13.4%**	**39.1%**	**31.2%**	N/A	N/A	N/A	N/A	N/A	26.4%	N/A	33.8%	28.8%	35.1%	**23.0%**	**30.6%**	**30.2%**
2006 / 2007	**19.2%**	**36.4%**	**29.5%**	N/A	N/A	N/A	N/A	N/A	26.4%	N/A	33.1%	25.4%	35.4%	**35.6%**	**35.3%**	**30.9%**
2007 / 2008	**19.9%**	**39.0%**	**28.5%**	N/A	N/A	N/A	N/A	N/A	23.6%	N/A	33.5%	23.0%	37.4%	**39.0%**	**32.3%**	**30.4%**
2008 / 2009	**15.5%**	**40.6%**	**29.6%**	N/A	N/A	N/A	N/A	N/A	27.0%	N/A	33.9%	25.4%	32.9%	**36.8%**	**33.7%**	**31.0%**
2009 / 2010	**2.0%**	**43.2%**	**29.7%**	N/A	N/A	N/A	N/A	N/A	26.8%	N/A	33.3%	26.2%	34.6%	**19.1%**	**29.6%**	**28.5%**
2010 / 2011	**19.9%**	**37.4%**	**32.1%**	N/A	N/A	N/A	29.7%	37.9%	N/A	31.1%	N/A	28.7%	34.5%	**28.0%**	**36.4%**	**32.1%**
2011 / 2012	**29.3%**	**39.8%**	**29.2%**	N/A	N/A	N/A	10.4%	14.6%	N/A	34.8%	N/A	30.5%	34.8%	**27.6%**	**28.3%**	**29.8%**

Notes:
NERC region and reliability assessment area maps are provided on EIA's Electricity Reliability web page: http://www.eia.gov/cneaf/electricity/page/eia411/eia411.html
Net Internal Demand represent the system demand that is planned for by the electric power industry`s reliability authority and is equal to Internal Demand less Direct Control Load Management and Interruptible Demand.
Capacity Resources: Utility and nonutility-owned generating capacity that is existing or in various stages of planning or construction, less inoperable capacity, plus planned capacity purchases from other resources, less planned capacity sales.
Capacity Margin is the amount of unused available capability of an electric power system at peak load as a percentage of capacity resources.
The Winter peak period begins October 1 and extends through May 31.
Historically the MRO, RFC, SERC, and SPP regional boundaries were altered as utilities changed reliability organizations. The historical data series for these regions have not been adjusted. Instead, the Balance of Eastern Region category was introduced to provide a consistent trend of the Eastern interconnection.
ECAR, MAAC, and MAIN dissolved at the end of 2005. Many of the former utility members joined RFC. Reliability First Corporation (RFC) came into existence on January 1, 2006. RFC submitted a consolidated filing covering the historical NERC regions of ECAR, MAAC, and MAIN.
N/A - Not Available
Source: U.S. Energy Information Administration, Form EIA-411, "Coordinated Bulk Power Supply and Demand Program Report."

Table 8.9.B. Winter Net Internal Demand, Capacity Resources, and Capacity Margins by North American Electric Reliability Corporation Assessment Area, 2011 Actual, 2012-2016 Projected.

Net Internal Demand (Megawatts) -- Winter											
	Eastern Interconnection								ERCOT	Western Interconnection	All Interconnections
Period	FRCC	NPCC	Balance of Eastern Region	MAPP	MISO	PJM	SERC	SPP	TRE	WECC	Contiguous U.S.
Actual 2011 / 2012	**39,924**	**43,806**	**385,428**	4,443	83,946	110,963	147,454	38,622	**50,100**	**107,568**	**626,826**
Projected 2012 / 2013	**43,558**	**46,224**	**384,172**	4,756	72,187	119,222	148,404	39,602	**51,319**	**105,833**	**631,106**
Projected 2013 / 2014	**43,049**	**46,312**	**386,823**	4,858	69,663	121,160	150,160	40,983	**50,263**	**108,029**	**634,476**
Projected 2014 / 2015	**44,228**	**46,284**	**394,645**	4,999	74,965	121,571	151,765	41,345	**50,533**	**109,938**	**645,628**
Projected 2015 / 2016	**44,790**	**46,246**	**398,806**	5,074	75,354	123,711	153,443	41,225	**53,378**	**111,530**	**654,750**
Projected 2016 / 2017	**45,297**	**46,246**	**403,949**	5,335	75,854	125,367	155,580	41,812	**54,363**	**112,361**	**662,216**

Capacity Resources (Megawatts) -- Winter											
	Eastern Interconnection								ERCOT	Western Interconnection	All Interconnections
Period	FRCC	NPCC	Balance of Eastern Region	MAPP	MISO	PJM	SERC	SPP	TRE	WECC	Contiguous U.S.
Actual 2011 / 2012	**56,466**	**72,741**	**544,706**	4,960	98,329	170,077	212,063	59,276	**69,202**	**150,091**	**893,206**
Projected 2012 / 2013	**54,299**	**77,919**	**560,445**	5,656	106,643	174,641	214,479	59,028	**74,215**	**147,378**	**914,257**
Projected 2013 / 2014	**54,911**	**79,604**	**571,643**	6,303	106,553	173,925	224,397	60,465	**75,444**	**153,118**	**934,721**
Projected 2014 / 2015	**58,001**	**77,342**	**572,501**	6,338	106,514	172,681	225,810	61,159	**75,446**	**154,411**	**937,702**
Projected 2015 / 2016	**56,784**	**77,379**	**567,120**	6,460	106,577	167,544	225,383	61,156	**76,879**	**157,185**	**935,347**
Projected 2016 / 2017	**57,667**	**75,486**	**570,417**	6,497	106,450	167,623	228,787	61,059	**78,968**	**155,875**	**938,414**

Capacity Margin (Percent) -- Winter											
	Eastern Interconnection								ERCOT	Western Interconnection	All Interconnections
Period	FRCC	NPCC	Balance of Eastern Region	MAPP	MISO	PJM	SERC	SPP	TRE	WECC	Contiguous U.S.
Actual 2011 / 2012	**29.3%**	**39.8%**	**29.2%**	10.4%	14.6%	34.8%	30.5%	34.8%	**27.6%**	**28.3%**	**29.8%**
Projected 2012 / 2013	**19.8%**	**40.7%**	**31.5%**	15.9%	32.3%	31.7%	30.8%	32.9%	**30.9%**	**28.2%**	**31.0%**
Projected 2013 / 2014	**21.6%**	**41.8%**	**32.3%**	22.9%	34.6%	30.3%	33.1%	32.2%	**33.4%**	**29.4%**	**32.1%**
Projected 2014 / 2015	**23.7%**	**40.2%**	**31.1%**	21.1%	29.6%	29.6%	32.8%	32.4%	**33.0%**	**28.8%**	**31.1%**
Projected 2015 / 2016	**21.1%**	**40.2%**	**29.7%**	21.5%	29.3%	26.2%	31.9%	32.6%	**30.6%**	**29.0%**	**30.0%**
Projected 2016 / 2017	**21.5%**	**38.7%**	**29.2%**	17.9%	28.7%	25.2%	32.0%	31.5%	**31.2%**	**27.9%**	**29.4%**

Notes:
NERC region and reliability assessment area maps are provided on EIA's Electricity Reliability web page: http://www.eia.gov/cneaf/electricity/page/eia411/eia411.html
Net Internal Demand represent the system demand that is planned for by the electric power industry`s reliability authority and is equal to Internal Demand less Direct Control Load Management and Interruptible Demand.
Capacity Resources: Utility and nonutility-owned generating capacity that is existing or in various stages of planning or construction, less inoperable capacity, plus planned capacity purchases from other resources, less planned capacity sales.
Capacity Margin is the amount of unused available capability of an electric power system at peak load as a percentage of capacity resources.
The Winter peak period begins October 1 and extends through May 31.
Historically the MRO, RFC, SERC, and SPP regional boundaries were altered as utilities changed reliability organizations. The historical data series for these regions have not been adjusted. Instead, the Balance of Eastern Region category was introduced to provide a consistent trend of the Eastern interconnection.
ECAR, MAAC, and MAIN dissolved at the end of 2005. Many of the former utility members joined RFC. Reliability First Corporation (RFC) came into existence on January 1, 2006. RFC submitted a consolidated filing covering the historical NERC regions of ECAR, MAAC, and MAIN.
Source: U.S. Energy Information Administration, Form EIA-411, "Coordinated Bulk Power Supply and Demand Program Report."

Table 8.10.A. U.S. Existing Transmission Capacity by High-Voltage Size, 2011

Voltage		Circuit Miles								
Type	Operating (kV)	FRCC	MRO	NPCC	RFC	SERC	SPP	TRE	WECC	Contiguous U.S.
AC	100-199	--	--	--	--	--	--	--	--	--
AC	200-299	5,964	7,765	1,548	6,954	21,433	2,872	--	37,488	84,023
AC	300-399	--	11,592	4,981	13,637	3,640	5,093	9,645	10,437	59,025
AC	400-599	1,201	473	--	2,637	8,894	94	--	12,905	26,204
AC	600_799	--	--	190	2,226	--	--	--	--	2,416
AC Multi-Circuit Structure	200-299	1,154	60	36	2,001	4,102	9	--	5,315	12,677
AC Multi-Circuit Structure	300-399	--	773	274	3,296	155	153	2,708	233	7,591
AC Multi-Circuit Structure	400-599	--	--	--	90	631	--	--	592	1,312
AC Multi-Circuit Structure	Mixed Voltages	--	57	28	9	27	--	--	194	315
AC Total	**US Total**	**8,319**	**20,721**	**7,057**	**30,849**	**38,881**	**8,220**	**12,353**	**67,165**	**193,564**
DC	100-199	--	--	--	--	--	--	--	--	--
DC	200-299	--	930	--	--	--	--	--	53	983
DC	300-399	--	--	--	--	--	--	--	--	--
DC	400_499	--	872	--	--	--	--	--	--	872
DC	500_599	--	--	--	--	--	--	--	2,137	2,137
DC	600_799	--	--	--	--	--	--	--	--	--
DC Total	**US Total**	**--**	**1,802**	**--**	**--**	**--**	**--**	**--**	**2,190**	**3,991**
Grand Total	**Grand Total**	**8,319**	**22,522**	**7,057**	**30,849**	**38,881**	**8,220**	**12,353**	**69,354**	**197,555**

Voltage		Circuit Counts								
Type	Operating (kV)	FRCC	MRO	NPCC	RFC	SERC	SPP	TRE	WECC	Contiguous U.S.
AC	100-199	--	--	--	--	--	--	--	--	--
AC	200-299	402	187	65	572	1,278	130	--	1,432	4,065
AC	300-399	--	189	232	485	116	112	295	143	1,572
AC	400-599	19	2	--	78	226	1	--	218	544
AC	600_799	--	--	2	32	--	--	--	--	34
AC Multi-Circuit Structure	200-299	--	--	--	--	--	--	--	--	--
AC Multi-Circuit Structure	300-399	--	--	--	--	--	--	--	--	--
AC Multi-Circuit Structure	400-599	--	--	--	--	--	--	--	--	--
AC Multi-Circuit Structure	Mixed Voltages	--	--	--	--	--	--	--	--	--
AC Total	**US Total**	**421**	**378**	**299**	**1,168**	**1,620**	**243**	**295**	**1,792**	**6,216**
DC	100-199	--	--	--	--	--	--	--	--	--
DC	200-299	--	2	--	--	--	--	--	1	3
DC	300-399	--	--	--	--	--	--	--	--	--
DC	400_499	--	2	--	--	--	--	--	--	2
DC	500_599	--	--	--	--	--	--	--	4	4
DC	600_799	--	--	--	--	--	--	--	--	--
DC Total	**US Total**	**--**	**4**	**--**	**--**	**--**	**--**	**--**	**5**	**9**
Grand Total	**Grand Total**	**421**	**382**	**299**	**1,168**	**1,620**	**243**	**295**	**1,797**	**6,225**

Notes:
NERC region and reliability assessment area maps are provided on EIA's Electricity Reliability web page: http://www.eia.gov/cneaf/electricity/page/eia411/eia411.html
Circuit miles do not equal physical miles on the ground; the reference terminology for that concept is structural mile.
Source: U.S. Energy Information Administration, Form EIA-411, "Coordinated Bulk Power Supply and Demand Program Report."

Table 8.10.B. Proposed Transmission Capacity Additions by High-Voltage Size, 2012 - 2018
(Circuit Miles of Transmission)

Voltage		Circuit Miles							
Type	Operating (kV)	Year 2012	Year 2013	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018	All Years
AC	100-199	1,470	1,412	1,370	504	530	261	421	5,967
AC	200-299	1,038	658	641	1,027	237	596	487	4,685
AC	300-399	1,208	5,058	1,459	650	1,157	390	1,487	11,407
AC	400-599	226	450	861	677	3,400	980	709	7,303
AC	600+	--	--	--	--	--	--	258	258
AC Total		**3,941**	**7,578**	**4,331**	**2,858**	**5,324**	**2,226**	**3,362**	**29,620**
DC	100-199	--	--	--	--	--	--	--	--
DC	200-299	--	--	--	--	--	--	--	--
DC	300-399	--	--	--	--	140	--	--	140
DC	400-599	--	--	--	--	--	--	--	--
DC	600+	--	--	--	--	--	--	--	--
DC Total		**--**	**--**	**--**	**--**	**140**	**--**	**--**	**140**
Grand Total		**3,941**	**7,578**	**4,331**	**2,858**	**5,464**	**2,226**	**3,362**	**29,760**
Lines Taken Out of Service		**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**

Notes:
NERC region and reliability assessment area maps are provided on EIA's Electricity Reliability web page: http://www.eia.gov/cneaf/electricity/page/eia411/eia411.html
Circuit miles do not equal physical miles on the ground; the reference terminology for that concept is structural mile.
Some structures were designed and then built to carry future transmission circuits in order to handle expected growth in new capability requirements.
Lines are taken out of service for a variety of reasons including intentional changes to the right-of-way to better useavailable land for different levels of voltage and types of poles and towers.
Source: U.S. Energy Information Administration, Form EIA-411, "Coordinated Bulk Power Supply and Demand Program Report."

Table 8.11.A. U.S. Transmission Circuit Outages by Type and NERC region, 2011

Outage Type	FRCC	MRO	NPCC	RFC	SERC	SPP	TRE	WECC	Contiguous U.S.
Circuit Outage Counts									
Automatic Outages (Sustained)	121	161	87	292	462	119	132	850	2,224
Non-Automatic Outages (Operational)	117	30	102	189	224	16	66	490	1,234
Non-Automatic Outages (Planned)	2,545	403	545	1,537	2,216	304	722	2,815	11,087
Circuit Outage Hours									
Automatic Outages (Sustained)	1,675	10,784	10,579	27,264	29,543	1,106	1,909	9,175	92,034
Non-Automatic Outages (Operational)	479	39	53	120	95	1	24	98	911
Non-Automatic Outages (Planned)	451	986	1,254	2,094	575	164	139	895	6,558
Circuit Outage Counts per 1,000 Circuit Miles									
Automatic Outages (Sustained)	14.55	7.15	12.33	9.47	11.88	14.48	10.69	12.26	11.26
Non-Automatic Outages (Operational)	14.06	1.33	14.45	6.13	5.76	1.95	5.34	7.07	6.25
Non-Automatic Outages (Planned)	305.94	17.89	77.22	49.82	56.99	36.98	58.45	40.59	56.12
Circuit Outage Hours per Outage Incident									
Automatic Outages (Sustained)	13.84	66.98	121.59	93.37	63.95	9.29	14.46	10.79	41.38
Non-Automatic Outages (Operational)	4.10	1.31	0.52	0.64	0.43	0.08	0.36	0.20	0.74
Non-Automatic Outages (Planned)	0.18	2.45	2.30	1.36	0.26	0.54	0.19	0.32	0.59

Notes:
Circuit Miles for each region is displayed in Table 8.10.A.
An Automatic Outage is an outage which results from the automatic operation of a switching device, causing an Element to change from an In-Service State to a not In-Service State.
A Sustained Outage is an automatic outage with an outage duration of a minute or greater.
A Non-Automatic Outage is an outage which results from the manual operation (including supervisory control) of a switching device, causing an element to change from an In-Service State to a not In-Service State.
An Operational Outage is a Non-Automatic Outage for the purpose of avoiding an emergency (i.e., risk to human life, damage to equipment, damage to property) or to maintain the system within operational limits and that cannot be deferred.
A Planned Outage is a Non-Automatic Outage with advance notice for the purpose of maintenance, construction, inspection, testing, or planned activities by third parties that may be deferred.
Detailed information on the Transmission Availability Data System outage definitions is available at:
http://www.nerc.com/docs/pc/tadswg/Appendix%207%2020101202a%20clean.pdf

Source: U.S. Energy Information Administration, Form EIA-411, "Coordinated Bulk Power Supply Program Report."

Table 8.11.B. U.S. Transformer Outages by Type and NERC region, 2011

Outage Type	Eastern Interconnection	TRE	WECC	Contiguous U.S.
Circuit Outage Counts				
Automatic Outages (Sustained)	31	--	4	35
Non-Automatic Outages (Operational)	56	--	50	106
Non-Automatic Outages (Planned)	346	--	303	649
Circuit Outage Hours				
Automatic Outages (Sustained)	25,177	--	83	25,260
Non-Automatic Outages (Operational)	372	--	11	383
Non-Automatic Outages (Planned)	2,273	--	425	2,697
Circuit Outage Hours per Outage Incident				
Automatic Outages (Sustained)	812.15	--	20.81	721.71
Non-Automatic Outages (Operational)	6.64	--	0.23	3.61
Non-Automatic Outages (Planned)	6.57	--	1.40	4.16

Notes:
An Automatic Outage is an outage which results from the automatic operation of a switching device, causing an Element to change from an In-Service State to a not In-Service State.
A Sustained Outage is an automatic outage with an outage duration of a minute or greater.
A Non-Automatic Outage is an outage which results from the manual operation (including supervisory control) of a switching device, causing an element to change from an In-Service State to a not In-Service State.
An Operational Outage is a Non-Automatic Outage for the purpose of avoiding an emergency (i.e., risk to human life, damage to equipment, damage to property) or to maintain the system within operational limits and that cannot be deferred.
A Planned Outage is a Non-Automatic Outage with advance notice for the purpose of maintenance, construction, inspection, testing, or planned activities by third parties that may be deferred.
Detailed information on the Transmission Availability Data System outage definitions is available at:
http://www.nerc.com/docs/pc/tadswg/Appendix%207%2020101202a%20clean.pdf

Source: U.S. Energy Information Administration, Form EIA-411, "Coordinated Bulk Power Supply Program Report."

Table 8.12.A. U.S. Transmission Circuit Sustained Automatic Outage Counts and Hours by High-Voltage Size and NERC Region, 2011

Sustained Automatic Outage Counts										
Voltage		Region								
Type	Operating (kV)	FRCC	MRO	NPCC	RFC	SERC	SPP	TRE	WECC	Contiguous U.S.
AC	200-299	116	65	12	153	276	58	--	488	1,168
AC	300-399	--	64	73	105	69	60	132	228	731
AC	400-599	5	5	--	16	117	1	--	123	267
AC	600+	--	--	2	12	--	--	--	--	14
AC Total		**121**	**134**	**87**	**286**	**462**	**119**	**132**	**839**	**2,180**
DC	100-199	--	--	--	--	--	--	--	--	--
DC	200-299	--	20	--	--	--	--	--	2	22
DC	300-399	--	--	--	--	--	--	--	--	--
DC	400-499	--	7	--	--	--	--	--	--	7
DC	500-599	--	--	--	6	--	--	--	9	15
DC	600+	--	--	--	--	--	--	--	--	--
DC Total		**--**	**27**	**--**	**6**	**--**	**--**	**--**	**11**	**44**
Grand Total		**121**	**161**	**87**	**292**	**462**	**119**	**132**	**850**	**2,224**

Total Outages per 1,000 Circuit Miles										
		Region								
		FRCC	MRO	NPCC	RFC	SERC	SPP	TRE	WECC	Contiguous U.S.
Rate		**16.99**	**7.67**	**12.75**	**11.49**	**13.89**	**15.34**	**13.89**	**13.71**	**12.87**

Sustained Automatic Outage Hours										
Voltage		Region								
Type	Operating (kV)	FRCC	MRO	NPCC	RFC	SERC	SPP	TRE	WECC	Contiguous U.S.
AC	200-299	1,651	7,043	91	9,220	11,860	421	--	6,686	36,972
AC	300-399	--	3,206	10,484	5,626	2,774	685	1,909	1,114	25,797
AC	400-599	24	11	--	11,874	14,909	*	--	1,071	27,889
AC	600+	--	--	4	185	--	--	--	--	189
AC Total		**1,675**	**10,260**	**10,579**	**26,906**	**29,543**	**1,106**	**1,909**	**8,870**	**90,847**
DC	100-199	--	--	--	--	--	--	--	--	--
DC	200-299	--	252	--	--	--	--	--	6	258
DC	300-399	--	--	--	--	--	--	--	--	--
DC	400-499	--	272	--	--	--	--	--	--	272
DC	500-599	--	--	--	358	--	--	--	299	657
DC	600+	--	--	--	--	--	--	--	--	--
DC Total		**--**	**524**	**--**	**358**	**--**	**--**	**--**	**305**	**1,187**
Grand Total		**1,675**	**10,784**	**10,579**	**27,264**	**29,543**	**1,106**	**1,909**	**9,175**	**92,034**

Outage Hours per Outage Incident										
		Region								
		FRCC	MRO	NPCC	RFC	SERC	SPP	TRE	WECC	Contiguous U.S.
Rate		**13.84**	**66.98**	**121.59**	**93.37**	**63.95**	**9.29**	**14.46**	**10.79**	**41.38**

Notes:
* = Value is less than half of the smallest unit of measure. (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
Circuit Miles for each region is displayed in Table 8.10.A.
An Automatic Outage is an outage which results from the automatic operation of a switching device, causing an Element to change from an In-Service State to a not In-Service State.
A Sustained Outage is an automatic outage with an outage duration of a minute or greater.
Source: U.S. Energy Information Administration, Form EIA-411, "Coordinated Bulk Power Supply Program Report."

Table 8.12.B. U.S. Transformer Sustained Automatic Outage Counts and Hours by High-Voltage Size and NERC Region, 2011

Sustained Automatic Outage Counts				
High-Side Voltage (kV)	**Eastern Interconnection**	**TRE**	**WECC**	**Contiguous U.S.**
100-199	--	--	--	--
200-299	--	--	--	--
300-399	10	--	1	11
400-599	19	--	3	22
600+	2	--	--	2
Grand Total	**31**	**--**	**4**	**35**

Sustained Automatic Outage Hours				
High-Side Voltage (kV)	**Eastern Interconnection**	**TRE**	**WECC**	**Contiguous U.S.**
100-199	--	--	--	--
200-299	--	--	--	--
300-399	506	--	14	520
400-599	24,653	--	69	24,722
600+	18	--	--	18
Grand Total	**25,177**	**--**	**83**	**25,260**

Outage Hours per Outage Incident				
	Eastern Interconnection	**TRE**	**WECC**	**Contiguous U.S.**
Rate	**812.15**	**--**	**20.81**	**721.71**

Notes:
* = Value is less than half of the smallest unit of measure. (e.g., for values with no decimals, the smallest unit is 1 then values under 0.5 are shown as *.)
Eastern NERC Regions are aggregated to preserve confidentiality.
An Automatic Outage is an outage which results from the automatic operation of a switching device, causing an Element to change from an In-Service State to a not In-Service State.
A Sustained Outage is an automatic outage with an outage duration of a minute or greater.
Source: U.S. Energy Information Administration, Form EIA-411, "Coordinated Bulk Power Supply Program Report."

Table 8.13.A. U.S. Transmission Circuit Sustained Automatic Outage Counts and Hours by Cause Code and by NERC Region, 2011 (Page 1)

	AC & DC Circuit Outage Counts								
Sustained Outage Causes	**FRCC**	**MRO**	**NPCC**	**RFC**	**SERC**	**SPP**	**TRE**	**WECC**	**Contiguous U.S.**
Weather, excluding lightning	9	42	7	27	135	23	10	76	**329**
Lightning	9	17	7	23	39	19	18	87	**219**
Environmental	--	--	--	3	--	1	--	1	**5**
Contamination	1	--	--	2	29	1	17	4	**54**
Foreign Interference	27	2	4	9	19	2	1	31	**95**
Fire	4	--	--	2	6	4	14	18	**48**
Vandalism, Terrorism, or Malicious Acts	--	--	--	--	1	--	--	2	**3**
Failed AC Substation Equipment	5	13	8	67	53	14	26	75	**261**
Failed AC/DC Terminal Equipment	--	12	--	4	--	--	--	5	**21**
Failed Protection System Equipment	9	22	13	45	34	3	8	42	**176**
Failed AC Circuit Equipment	28	4	22	35	54	22	11	58	**234**
Failed DC Circuit Equipment	--	--	--	--	--	--	--	--	**--**
Vegetation	--	--	6	4	13	1	--	7	**31**
Power System Condition	1	3	--	8	13	1	--	77	**103**
Human Error	9	27	8	36	29	8	19	92	**228**
Unknown	17	15	11	17	21	17	5	222	**325**
Other	2	4	1	10	16	3	3	53	**92**
TOTAL	**121**	**161**	**87**	**292**	**462**	**119**	**132**	**850**	**2,224**

	Percentage of Total AC & DC Circuit Outage Counts								
Sustained Outage Causes	**FRCC**	**MRO**	**NPCC**	**RFC**	**SERC**	**SPP**	**TRE**	**WECC**	**Contiguous U.S.**
Weather, excluding lightning	7.4%	26.1%	8.1%	9.3%	29.2%	19.3%	7.6%	8.9%	**14.8%**
Lightning	7.4%	10.6%	8.1%	7.9%	8.4%	16.0%	13.6%	10.2%	**9.9%**
Environmental	0.0%	0.0%	0.0%	1.0%	0.0%	0.8%	0.0%	0.1%	**0.2%**
Contamination	0.8%	0.0%	0.0%	0.7%	6.3%	0.8%	12.9%	0.5%	**2.4%**
Foreign Interference	22.3%	1.2%	4.6%	3.1%	4.1%	1.7%	0.8%	3.7%	**4.3%**
Fire	3.3%	0.0%	0.0%	0.7%	1.3%	3.4%	10.6%	2.1%	**2.2%**
Vandalism, Terrorism, or Malicious Acts	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.2%	**0.1%**
Failed AC Substation Equipment	4.1%	8.1%	9.2%	23.0%	11.5%	11.8%	19.7%	8.8%	**11.7%**
Failed AC/DC Terminal Equipment	0.0%	7.5%	0.0%	1.4%	0.0%	0.0%	0.0%	0.6%	**0.9%**
Failed Protection System Equipment	7.4%	13.7%	14.9%	15.4%	7.4%	2.5%	6.1%	4.9%	**7.9%**
Failed AC Circuit Equipment	23.1%	2.5%	25.3%	12.0%	11.7%	18.5%	8.3%	6.8%	**10.5%**
Failed DC Circuit Equipment	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**
Vegetation	0.0%	0.0%	6.9%	1.4%	2.8%	0.8%	0.0%	0.8%	**1.4%**
Power System Condition	0.8%	1.9%	0.0%	2.7%	2.8%	0.8%	0.0%	9.1%	**4.6%**
Human Error	7.4%	16.8%	9.2%	12.3%	6.3%	6.7%	14.4%	10.8%	**10.3%**
Unknown	14.1%	9.3%	12.6%	5.8%	4.6%	14.3%	3.8%	26.1%	**14.6%**
Other	1.7%	2.5%	1.2%	3.4%	3.5%	2.5%	2.3%	6.2%	**4.1%**
TOTAL	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Notes:
Detailed information on the Transmission Availability Data System outage causes is available at:
http://www.nerc.com/docs/pc/tadswg/Appendix%207%2020101202a%20clean.pdf
Source: U.S. Energy Information Administration, Form EIA-411, "Coordinated Bulk Power Supply Program Report."

Table 8.13.A. U.S. Transmission Circuit Sustained Automatic Outage Counts and Hours by Cause Code and by NERC Region, 2011 (Page 2)

	AC & DC Circuit Outage Hours								
Sustained Outage Causes	**FRCC**	**MRO**	**NPCC**	**RFC**	**SERC**	**SPP**	**TRE**	**WECC**	**Contiguous U.S.**
Weather, excluding lightning	4	837	314	3,023	16,921	193	3	221	**21,516**
Lightning	69	5	7	70	61	45	29	197	**481**
Environmental	--	--	--	2,074	--	--	--	24	**2,098**
Contamination	5	--	--	3	481	0	59	31	**581**
Foreign Interference	44	1	6	72	391	0	2	6	**521**
Fire	0	--	--	23	181	94	691	115	**1,105**
Vandalism, Terrorism, or Malicious Acts	--	--	--	--	0	--	--	42	**42**
Failed AC Substation Equipment	1,186	1,870	962	11,018	7,982	251	226	1,967	**25,463**
Failed AC/DC Terminal Equipment	--	101	--	356	--	--	--	297	**754**
Failed Protection System Equipment	21	234	190	544	237	4	26	346	**1,601**
Failed AC Circuit Equipment	323	7,276	7,546	5,946	2,400	425	446	2,614	**26,976**
Failed DC Circuit Equipment	--	214	--	--	--	--	--	--	**214**
Vegetation	--	--	58	25	581	10	--	179	**853**
Power System Condition	0	8	0	224	92	0	234	313	**871**
Human Error	2	20	1,478	44	143	9	156	129	**1,980**
Unknown	20	54	18	25	60	49	2	2,460	**2,688**
Other	2	163	--	3,816	13	26	35	235	**4,290**
TOTAL	**1,675**	**10,784**	**10,579**	**27,264**	**29,543**	**1,106**	**1,909**	**9,175**	**92,034**

	Percentage of Total AC & DC Circuit Outage Hours								
Sustained Outage Causes	**FRCC**	**MRO**	**NPCC**	**RFC**	**SERC**	**SPP**	**TRE**	**WECC**	**Contiguous U.S.**
Weather, excluding lightning	0.2%	7.8%	3.0%	11.1%	57.3%	17.4%	0.2%	2.4%	**23.4%**
Lightning	4.1%	0.1%	0.1%	0.3%	0.2%	4.0%	1.5%	2.2%	**0.5%**
Environmental	0.0%	0.0%	0.0%	7.6%	0.0%	0.0%	0.0%	0.3%	**2.3%**
Contamination	0.3%	0.0%	0.0%	0.0%	1.6%	0.0%	3.1%	0.3%	**0.6%**
Foreign Interference	2.6%	0.0%	0.1%	0.3%	1.3%	0.0%	0.1%	0.1%	**0.6%**
Fire	0.0%	0.0%	0.0%	0.1%	0.6%	8.5%	36.2%	1.3%	**1.2%**
Vandalism, Terrorism, or Malicious Acts	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	**0.1%**
Failed AC Substation Equipment	70.8%	17.3%	9.1%	40.4%	27.0%	22.7%	11.8%	21.4%	**27.7%**
Failed AC/DC Terminal Equipment	0.0%	0.9%	0.0%	1.3%	0.0%	0.0%	0.0%	3.2%	**0.8%**
Failed Protection System Equipment	1.2%	2.2%	1.8%	2.0%	0.8%	0.3%	1.4%	3.8%	**1.7%**
Failed AC Circuit Equipment	19.3%	67.5%	71.3%	21.8%	8.1%	38.5%	23.4%	28.5%	**29.3%**
Failed DC Circuit Equipment	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.2%**
Vegetation	0.0%	0.0%	0.6%	0.1%	2.0%	0.9%	0.0%	2.0%	**0.9%**
Power System Condition	0.0%	0.1%	0.0%	0.8%	0.3%	0.0%	12.3%	3.4%	**1.0%**
Human Error	0.1%	0.2%	14.0%	0.2%	0.5%	0.8%	8.2%	1.4%	**2.2%**
Unknown	1.2%	0.5%	0.2%	0.1%	0.2%	4.4%	0.1%	26.8%	**2.9%**
Other	0.1%	1.5%	0.0%	14.0%	0.0%	2.3%	1.9%	2.6%	**4.7%**
TOTAL	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Notes:
Detailed information on the Transmission Availability Data System outage causes is available at:
http://www.nerc.com/docs/pc/tadswg/Appendix%207%2020101202a%20clean.pdf
Source: U.S. Energy Information Administration, Form EIA-411, "Coordinated Bulk Power Supply Program Report."

Table 8.13.B. U.S. Transformer Sustained Automatic Outage Counts and Hours by Cause Code and by NERC Region, 2011 (Page 1)

	Transformer Outage Counts								
Sustained Outage Causes	**FRCC**	**MRO**	**NPCC**	**RFC**	**SERC**	**SPP**	**TRE**	**WECC**	**Contiguous U.S.**
Weather, excluding lightning	--	--	--	--	--	--	--	--	**--**
Lightning	--	--	--	--	--	--	--	--	**--**
Environmental	--	1	--	--	--	--	--	--	**1**
Contamination	--	--	--	--	--	--	--	--	**--**
Foreign Interference	--	--	--	--	--	--	--	--	**--**
Fire	--	--	--	--	--	--	--	--	**--**
Vandalism, Terrorism, or Malicious Acts	--	--	--	--	--	--	--	--	**--**
Failed AC Substation Equipment	2	--	--	5	4	1	--	3	**15**
Failed AC/DC Terminal Equipment	--	--	--	--	--	--	--	--	**--**
Failed Protection System Equipment	--	--	--	1	1	--	--	--	**2**
Failed AC Circuit Equipment	--	--	4	2	--	--	--	--	**6**
Failed DC Circuit Equipment	--	--	--	--	--	--	--	--	**--**
Vegetation	--	--	--	--	1	--	--	--	**1**
Power System Condition	--	1	--	--	2	--	--	--	**3**
Human Error	--	1	--	2	--	--	--	1	**4**
Unknown	--	--	--	1	1	--	--	--	**2**
Other	--	--	--	1	--	--	--	--	**1**
TOTAL	**2**	**3**	**4**	**12**	**9**	**1**	**--**	**4**	**35**

	Percentage of Total Transformer Outage Counts								
Sustained Outage Causes	**FRCC**	**MRO**	**NPCC**	**RFC**	**SERC**	**SPP**	**TRE**	**WECC**	**Contiguous U.S.**
Weather, excluding lightning	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	--	0.0%	**0.0%**
Lightning	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	--	0.0%	**0.0%**
Environmental	0.0%	33.3%	0.0%	0.0%	0.0%	0.0%	--	0.0%	**2.9%**
Contamination	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	--	0.0%	**0.0%**
Foreign Interference	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	--	0.0%	**0.0%**
Fire	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	--	0.0%	**0.0%**
Vandalism, Terrorism, or Malicious Acts	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	--	0.0%	**0.0%**
Failed AC Substation Equipment	100.0%	0.0%	0.0%	41.7%	44.4%	100.0%	--	75.0%	**42.9%**
Failed AC/DC Terminal Equipment	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	--	0.0%	**0.0%**
Failed Protection System Equipment	0.0%	0.0%	0.0%	8.3%	11.1%	0.0%	--	0.0%	**5.7%**
Failed AC Circuit Equipment	0.0%	0.0%	100.0%	16.7%	0.0%	0.0%	--	0.0%	**17.1%**
Failed DC Circuit Equipment	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	--	0.0%	**0.0%**
Vegetation	0.0%	0.0%	0.0%	0.0%	11.1%	0.0%	--	0.0%	**2.9%**
Power System Condition	0.0%	33.3%	0.0%	0.0%	22.2%	0.0%	--	0.0%	**8.6%**
Human Error	0.0%	33.3%	0.0%	16.7%	0.0%	0.0%	--	25.0%	**11.4%**
Unknown	0.0%	0.0%	0.0%	8.3%	11.1%	0.0%	--	0.0%	**5.7%**
Other	0.0%	0.0%	0.0%	8.3%	0.0%	0.0%	--	0.0%	**2.9%**
TOTAL	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**--**	**100.0%**	**100.0%**

Notes:
Detailed information on the Transmission Availability Data System outage causes is available at:
http://www.nerc.com/docs/pc/tadswg/Appendix%207%2020101202a%20clean.pdf
Source: U.S. Energy Information Administration, Form EIA-411, "Coordinated Bulk Power Supply Program Report."

Table 8.13.B. U.S. Transformer Sustained Automatic Outage Counts and Hours by Cause Code and by NERC Region, 2011 (Page 2)

	Transformer Outage Hours								
Sustained Outage Causes	**FRCC**	**MRO**	**NPCC**	**RFC**	**SERC**	**SPP**	**TRE**	**WECC**	**Contiguous U.S.**
Weather, excluding lightning	--	--	--	--	--	--	--	--	**--**
Lightning	--	--	--	--	--	--	--	--	**--**
Environmental	--	--	--	--	--	--	--	--	**--**
Contamination	--	--	--	--	--	--	--	--	**--**
Foreign Interference	--	--	--	--	--	--	--	--	**--**
Fire	--	--	--	--	--	--	--	--	**--**
Vandalism, Terrorism, or Malicious Acts	--	--	--	--	--	--	--	--	**--**
Failed AC Substation Equipment	7,460	13	--	7,369	9,703	2	--	82	**24,628**
Failed AC/DC Terminal Equipment	--	--	--	--	--	--	--	--	**--**
Failed Protection System Equipment	--	--	--	28	--	--	--	--	**28**
Failed AC Circuit Equipment	--	--	454	19	--	--	--	--	**473**
Failed DC Circuit Equipment	--	--	--	--	--	--	--	--	**--**
Vegetation	--	--	--	--	4	--	--	--	**4**
Power System Condition	--	--	--	--	92	--	--	--	**92**
Human Error	--	11	--	8	--	--	--	1	**21**
Unknown	--	--	--	--	13	--	--	--	**13**
Other	--	0	--	--	--	--	--	--	**0**
TOTAL	**7,460**	**24**	**454**	**7,424**	**9,812**	**2**	**--**	**83**	**25,260**

	Percentage of Total Transformer Outage Hours								
outage_cause	**FRCC**	**MRO**	**NPCC**	**RFC**	**SERC**	**SPP**	**TRE**	**WECC**	**Contiguous U.S.**
Weather, excluding lightning	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	--	0.0%	**0.0%**
Lightning	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	--	0.0%	**0.0%**
Environmental	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	--	0.0%	**0.0%**
Contamination	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	--	0.0%	**0.0%**
Foreign Interference	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	--	0.0%	**0.0%**
Fire	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	--	0.0%	**0.0%**
Vandalism, Terrorism, or Malicious Acts	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	--	0.0%	**0.0%**
Failed AC Substation Equipment	100.0%	51.4%	0.0%	99.3%	98.9%	100.0%	--	98.4%	**97.5%**
Failed AC/DC Terminal Equipment	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	--	0.0%	**0.0%**
Failed Protection System Equipment	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	--	0.0%	**0.1%**
Failed AC Circuit Equipment	0.0%	0.0%	100.0%	0.3%	0.0%	0.0%	--	0.0%	**1.9%**
Failed DC Circuit Equipment	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	--	0.0%	**0.0%**
Vegetation	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	--	0.0%	**0.0%**
Power System Condition	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	--	0.0%	**0.4%**
Human Error	0.0%	46.9%	0.0%	0.1%	0.0%	0.0%	--	1.6%	**0.1%**
Unknown	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	--	0.0%	**0.1%**
Other	0.0%	1.8%	0.0%	0.0%	0.0%	0.0%	--	0.0%	**0.0%**
TOTAL	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**--**	**100.0%**	**100.0%**

Notes:
Detailed information on the Transmission Availability Data System outage causes is available at:
http://www.nerc.com/docs/pc/tadswg/Appendix%207%2020101202a%20clean.pdf
Source: U.S. Energy Information Administration, Form EIA-411, "Coordinated Bulk Power Supply Program Report."

Chapter 9

Environmental Data

Table 9.1. Emissions from Energy Consumption at Conventional Power Plants and Combined-Heat-and-Power Plants, 2001 through 2011 (Thousand Metric Tons)

Year	Carbon Dioxide (CO2)	Sulfur Dioxide (SO2)	Nitrogen Oxides (NOx)
2001	2,418,607	11,174	5,290
2002	2,423,963	10,881	5,194
2003	2,445,094	10,646	4,532
2004	2,486,982	10,309	4,143
2005	2,543,838	10,340	3,961
2006	2,488,918	9,524	3,799
2007	2,547,032	9,042	3,650
2008	2,484,012	7,830	3,330
2009	2,269,508	5,970	2,395
2010	2,388,596	5,400	2,491
2011	2,287,071	4,845	2,406

Notes:
The emissions data presented include total emissions from both electricity generation and the production of useful thermal output.
See Appendix A, Technical Notes, for a description of the sources and methodology used to develop the emissions estimates.
Source: Calculations made by the Office of Electricity, Renewables, and Uranium Statistics, U.S. Energy Information Administration.

Table 9.2. Quantity and Net Summer Capacity of Operable Environmental Equipment, 2001 - 2011

	Flue Gas Desulfurization Systems		Electrostatic Precipitators		Baghouses		Select Catalytic and Non-Catalytic Reduction Systems		Activated Carbon Injection Systems		Direct Sorbent Injection Systems	
Year	Quantity	Associated Net Summer Capacity (MW)	Quantity	Associated Net Summer Capacity (MW)	Quantity	Associated Net Summer Capacity (MW)	Quantity	Associated Net Summer Capacity (MW)	Quantity	Associated Net Summer Capacity (MW)	Quantity	Associated Net Summer Capacity (MW)
2001	514	96,863	1,419	281,899	479	36,361	601	157,360	101	37,539	6	115
2002	522	98,833	1,401	279,550	487	37,903	710	166,872	101	37,539	6	115
2003	511	98,909	1,398	280,525	487	38,528	824	180,585	101	37,539	6	115
2004	518	100,218	1,404	278,740	484	39,715	880	185,790	162	38,250	6	115
2005	523	100,782	1,400	278,422	485	39,980	946	191,582	184	38,556	6	115
2006	504	98,337	1,226	260,578	481	40,650	796	187,557	102	37,646	14	617
2007	558	119,660	1,384	275,638	517	46,456	1,052	202,608	217	39,805	15	693
2008	601	138,500	1,357	274,452	534	48,581	1,113	205,246	226	40,692	16	769
2009	639	161,067	1,341	272,369	552	53,122	1,132	205,263	243	42,502	17	809
2010	674	180,597	1,293	269,028	557	59,377	1,143	210,173	251	46,577	19	1,089
2011	685	191,847	1,250	265,895	560	62,262	1,162	213,778	258	47,861	19	1,089

Note:
'Associated Net Summer Capacity' is defined as the net summer capacity of the generators that are associated with the operation of this environmental equipment.
Data for 2005 and earlier are based primarily on Form EIA-767 data. In 2006, the Form EIA-767 was suspended. Data for 2007 and later are based primarily on Form EIA-860 data. Historic data may be backfilled when necessary. Since generator capacity may change over time, where environmental units are backfilled after the initial year of operation, the more recent capacity value of the associated generator is used. All data for 2006 are inferred based on commercial operating year. The capacity for a small number of generators associated with systems that were reported in different years may be double-counted.

Source: U.S. Energy Information Administration, Forms EIA-767, "Steam-Electric Plant Operation and Design Report" and Form EIA-860, "Annual Electric Generator Report."

Table 9.3. Quantity and Net Summer Capacity of Operable Cooling Systems, by Energy Source and Cooling System Type, 2007 - 2011

	Once-Through Cooling Systems		Recirculating Cooling Systems		Cooling Ponds		Dry Cooling Systems		Hybrid Wet and Dry Cooling Systems		Other Cooling System Types	
Energy Source	Quantity	Associated Net Summer Capacity (MW)	Quantity	Associated Net Summer Capacity (MW)	Quantity	Associated Net Summer Capacity (MW)	Quantity	Associated Net Summer Capacity (MW)	Quantity	Associated Net Summer Capacity (MW)	Quantity	Associated Net Summer Capacity (MW)
2007												
Coal	455	124,778	339	148,792	98	46,401	--	--	--	--	12	5,764
Natural Gas	171	46,159	324	55,838	64	27,016	--	--	--	--	7	1,824
Nuclear	--	--	--	--	--	--	--	--	--	--	--	--
Petroleum	78	20,996	22	5,784	3	2,513	--	--	--	--	1	1,006
Other	13	913	21	1,293	--	--	--	--	--	--	3	263
2008												
Coal	450	124,851	347	149,807	97	45,567	--	--	--	--	7	3,848
Natural Gas	169	45,516	339	58,717	57	24,670	--	--	--	--	8	2,113
Nuclear	--	--	--	--	--	--	--	--	--	--	--	--
Petroleum	78	21,123	19	5,603	3	4,104	--	--	--	--	1	1,011
Other	13	913	18	1,059	--	--	--	--	--	--	3	263
2009												
Coal	445	123,341	357	153,687	97	45,862	1	335	--	--	5	2,518
Natural Gas	165	44,125	346	60,308	55	22,467	9	2,120	1	209	1	331
Nuclear	--	--	--	--	--	--	--	--	--	--	--	--
Petroleum	75	20,660	17	5,564	3	4,104	--	--	--	--	1	1,011
Other	14	1,056	19	1,124	--	--	2	128	--	--	--	--
2010												
Coal	399	115,536	351	149,047	84	41,393	2	435	1	766	5	1,364
Natural Gas	152	46,468	386	68,308	52	21,272	33	6,902	1	270	3	2,411
Nuclear	38	38,380	34	36,540	10	11,043	--	--	--	--	7	7,901
Petroleum	71	18,693	17	5,513	3	4,064	--	--	--	--	2	1,011
Other	16	928	26	1,998	2	172	4	228	--	--	1	30
2011												
Coal	413	120,074	359	157,262	103	48,986	3	840	1	766	6	2,572
Natural Gas	172	50,357	412	75,568	58	21,684	48	10,095	3	542	2	870
Nuclear	48	48,942	36	39,485	12	12,792	--	--	--	--	8	8,890
Petroleum	65	16,003	17	5,443	4	4,692	--	--	--	--	2	1,011
Other	18	1,112	20	1,254	--	--	1	26	--	--	1	30

Notes:
'Associated Net Summer Capacity' is defined as the net summer capacity of the generators that are associated with the operation of this environmental equipment.
Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; coal synfuel and refined coal; and beginning in 2011, coal-derived synthesis gas. Prior to 2011 coal-derived synthesis gas was included in Other Gases.
Petroleum Liquids includes distillate and residual fuel oils, jet fuel, kerosene, waste oil, and beginning in 2011, propane. Prior to 2011 propane was included in Other Gases.
Petroleum Coke includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
EIA did not collect cooling system data for nuclear units or before 2010. In addition, EIA did not collect separate data for dry cooling systems or hybrid systems before 2010. Any dry systems that existed prior to 2010 were included in Other Cooling System Types.
Other Energy Sources consists of wood and wood waste products, biomass, blast furnace gas and other gases.
In cases where a cooling system supports multiple generators fueled by different energy sources, the cooling system and related capacity are included with all applicable energy sources.

Source: U.S. Energy Information Administration, Form EIA-860, "Annual Electric Generator Report."

Table 9.4. Average Costs of Existing Flue Gas Desulfurization Units, 2007 - 2011

Year	Average Operation and Maintenance Costs (Mills per Kilowatthour)	Average Installed Capital Costs (Dollars per Kilowatt)
2007	1.51	135.41
2008	1.55	150.77
2009	1.61	186.73
2010	1.61	206.27
2011	1.94	240.34

Note: Data for 2010 have been revised.
Source: U.S. Energy Information Administration, Form EIA-860, "Annual Electric Generator Report"

Chapter 10

Demand-Side Management and Advanced Metering

Table 10.1. Demand-Side Management Program Annual Effects by Program Category, 2002 through 2011

	Energy Efficiency		Load Management			Total	
Year	Energy Savings (Thousand MWh)	Actual Peak Load Reduction (MW)	Energy Savings (Thousand MWh)	Potential Peak Load Reduction (MW)	Actual Peak Load Reduction (MW)	Energy Savings (Thousand MWh)	Actual Peak Load Reduction (MW)
2002	50,328	13,457	1,700	26,471	9,256	52,029	22,713
2003	48,254	13,585	1,935	25,261	9,298	50,189	22,883
2004	52,663	14,272	1,966	20,997	9,263	54,629	23,535
2005	59,000	15,394	930	21,259	10,341	59,930	25,735
2006	63,076	16,006	790	21,254	11,268	63,866	27,274
2007	67,278	17,773	1,859	23,091	12,545	69,137	30,318
2008	74,871	19,708	1,822	26,318	12,064	76,693	31,772
2009	76,912	19,761	1,027	26,310	11,972	77,939	31,732
2010	86,914	20,828	447	26,100	12,536	87,361	33,364
2011	120,659	26,314	556	26,596	12,126	121,214	38,439

Previously, annual effects were reported for large respondents only. Now the annual effects include large and small respondents, combined.
Non-Utility DSM Administrators are included in the 2011 data. See technical notes for list.
Totals may not equal sum of components because of independent rounding.
Source: U.S. Energy Information Administration, Form EIA-861, "Annual Electric Power Industry Report."

Table 10.2. Demand-Side Management Program Annual Effects by Program Category, by Sector, 2002 through 2011

Year	Residential	Commercial	Industrial	Transportation	Total
Energy Efficiency - Energy Savings (Thousand MWh)					
2002	15,284	24,803	10,242	--	50,328
2003	12,914	24,758	10,031	551	48,254
2004	17,185	24,290	11,137	50	52,663
2005	18,894	28,073	11,986	47	59,000
2006	21,150	28,720	13,155	50	63,076
2007	22,772	30,359	14,038	108	67,278
2008	25,396	34,634	14,766	75	74,871
2009	27,395	34,831	14,610	76	76,912
2010	32,150	37,416	17,259	89	86,914
2011	46,790	50,732	23,061	76	120,659
Energy Efficiency - Actual Peak Load Reduction (MW)					
2002	5,300	5,389	2,768	--	13,457
2003	5,909	4,911	2,671	94	13,585
2004	5,868	5,541	2,858	5	14,272
2005	6,057	6,395	2,935	7	15,394
2006	6,900	6,067	3,032	7	16,006
2007	8,275	6,241	3,250	7	17,773
2008	8,764	7,838	2,991	114	19,708
2009	8,724	7,954	3,074	9	19,761
2010	9,404	8,046	3,368	10	20,828
2011	11,391	10,422	4,490	11	26,314
Load Management - Energy Savings (Thousand MWh)					
2002	531	153	1,016	--	1,700
2003	559	335	1,041	--	1,935
2004	578	334	1,055	--	1,966
2005	408	383	138	--	930
2006	321	331	138	1	790
2007	953	463	442	--	1,859
2008	1,151	239	431	--	1,822
2009	436	197	394	--	1,027
2010	215	113	118	--	447
2011	237	194	125	--	556
Load Management - Potential Peak Load Reduction (MW)					
2002	6,877	4,065	15,529	--	26,471
2003	6,618	4,033	14,599	11	25,261
2004	6,112	4,082	10,794	9	20,997
2005	6,075	3,832	11,297	55	21,259
2006	6,176	3,957	11,064	57	21,254
2007	7,022	3,984	12,030	55	23,091
2008	8,097	6,029	12,137	55	26,318
2009	7,308	6,460	12,462	81	26,310
2010	7,998	6,080	11,750	272	26,100
2011	7,882	6,023	12,380	311	26,596
Load Management - Actual Peak Load Reduction (MW)					
2002	3,942	1,606	3,708	--	9,256
2003	3,524	1,864	3,899	11	9,298
2004	3,014	1,652	4,588	9	9,263
2005	3,407	1,544	5,388	2	10,341
2006	3,863	1,730	5,643	32	11,268
2007	4,949	1,837	5,749	10	12,545
2008	4,158	3,270	4,625	12	12,064
2009	3,899	3,464	4,606	3	11,972
2010	4,726	2,854	4,819	137	12,536
2011	4,105	2,808	5,108	105	12,126

Transportation data is not available before 2003.
Previously, annual data included only large respondents. Now it includes large and small respondents, combined.
Non-Utility DSM Administrators are included in the 2011 data. See technical notes for list.
Totals may not equal sum of components because of independent rounding.
Source: U.S. Energy Information Administration, Form EIA-861, "Annual Electric Power Industry Report."

Table 10.3. Demand-Side Management Program Incremental Effects by Program Category, 2002 through 2011

	Energy Efficiency		Load Management			Total	
Year	Energy Savings (Thousand MWh)	Actual Peak Load Reduction (MW)	Energy Savings (Thousand MWh)	Potential Peak Load Reduction (MW)	Actual Peak Load Reduction (MW)	Energy Savings (Thousand MWh)	Actual Peak Load Reduction (MW)
2002	3,625	1,103	66	2,730	1,213	3,690	2,316
2003	2,948	1,035	33	2,112	1,165	2,981	2,200
2004	4,532	1,727	36	3,064	1,163	4,569	2,890
2005	5,879	1,705	137	2,223	1,162	6,016	2,867
2006	5,394	1,268	99	2,817	1,690	5,492	2,958
2007	7,680	1,998	137	4,765	2,392	7,817	4,390
2008	10,428	6,327	168	7,253	3,292	10,596	9,619
2009	12,907	3,721	65	6,042	2,224	12,972	5,945
2010	13,592	3,215	46	5,234	2,709	13,639	5,923
2011	21,421	3,974	135	4,043	2,062	21,556	6,036

Previously, large and small respondents were published separately, now they are combined.
Non-Utility DSM Administrators are included in the 2011 data. See technical notes for list.
Totals may not equal sum of components because of independent rounding.
Source: U.S. Energy Information Administration, Form EIA-861, "Annual Electric Power Industry Report."

Table 10.4. Demand-Side Management Program Incremental Effects by Program Category, by Sector, 2002 through 2011

Year	Residential	Commercial	Industrial	Transportation	Total
Energy Efficiency - Energy Savings (Thousand MWh)					
2002	1,205	1,720	700	--	3,625
2003	855	1,352	729	12	2,948
2004	1,827	1,812	894	--	4,532
2005	2,249	2,559	1,071	--	5,879
2006	2,127	2,281	986	--	5,394
2007	3,659	2,830	1,178	13	7,680
2008	4,568	4,383	1,477	1	10,428
2009	5,030	4,959	2,918	1	12,907
2010	6,492	5,325	1,771	5	13,592
2011	9,989	8,166	3,261	6	21,421
Energy Efficiency - Actual Peak Load Reduction (MW)					
2002	576	395	118	14	1,103
2003	511	351	171	2	1,035
2004	1,138	393	196	--	1,727
2005	913	562	230	--	1,705
2006	665	433	170	--	1,268
2007	994	763	240	1	1,998
2008	4,543	1,168	614	1	6,327
2009	1,849	1,044	827	1	3,721
2010	1,378	1,053	783	1	3,215
2011	1,628	1,545	800	1	3,974
Load Management - Energy Savings (Thousand MWh)					
2002	43	10	6	6	66
2003	19	10	3	--	33
2004	21	10	5	--	36
2005	34	84	19	--	137
2006	23	62	14	--	99
2007	13	98	26	--	137
2008	32	62	74	--	168
2009	34	21	10	--	65
2010	13	21	12	--	46
2011	29	86	21	--	135
Load Management - Potential Peak Load Reduction (MW)					
2002	799	399	1,402	130	2,730
2003	357	324	1,412	19	2,112
2004	945	664	1,455	--	3,064
2005	765	636	822	--	2,223
2006	905	776	1,136	--	2,817
2007	2,342	1,324	1,045	54	4,765
2008	3,013	2,156	2,083	1	7,253
2009	1,922	1,971	2,127	22	6,042
2010	1,976	1,171	2,087	--	5,234
2011	1,324	1,327	1,392	--	4,043
Load Management - Actual Peak Load Reduction (MW)					
2002	367	173	573	100	1,213
2003	217	235	703	10	1,165
2004	509	300	354	--	1,163
2005	378	224	560	--	1,162
2006	478	389	823	--	1,690
2007	1,221	562	567	42	2,392
2008	1,179	1,445	667	1	3,292
2009	793	781	648	3	2,224
2010	666	948	1,095	--	2,709
2011	817	619	625	--	2,062

Transportation data is not available before 2003.
Previously, large and small respondents were published separately, now they are combined.
Non-Utility DSM Administrators are included in the 2011 data. See technical notes for list.
Totals may not equal sum of components because of independent rounding.
Source: U.S. Energy Information Administration, Form EIA-861, "Annual Electric Power Industry Report."

Table 10.5. Demand-Side Management Program Direct and Indirect Costs, 2002 through 2011 (Thousand Dollars)

Year	Energy Efficiency	Load Management	Direct Cost	Indirect Cost	Total Cost
2002	1,032,911	410,323	1,443,234	206,169	1,649,403
2003	807,403	352,137	1,159,540	137,670	1,340,686
2004	910,816	510,281	1,421,097	132,295	1,560,578
2005	1,180,576	622,287	1,802,863	127,925	1,939,115
2006	1,270,602	663,980	1,934,582	128,886	2,072,962
2007	1,677,969	700,362	2,378,331	160,326	2,604,711
2008	2,137,452	836,359	2,973,811	181,843	3,186,742
2009	2,221,480	944,261	3,165,741	394,193	3,607,076
2010	2,906,906	1,048,356	3,955,262	275,158	4,230,420
2011	4,002,672	1,213,102	5,215,774	328,622	5,544,396

Direct Costs reflect electric utility costs incurred during the year that are identified with Energy Efficiency and Load Management. Total Costs are the sum of Direct and Indirect Costs.

Previously, this table included only large respondents. Now it includes large and small respondents, combined.

For the total cost data, prior to 2010, both large and small respondents reported total costs, however small respondents did not break out the costs into direct and indirect. The direct and indirect costs were reported for large respondents only. Therefore, prior to 2010 the total cost does not equal the sum of the direct and indirect costs.

Totals may not equal sum of components because of independent rounding.

Non-Utility DSM Administrators are included in the 2011 data. See technical notes for list.

Source: U.S. Energy Information Administration, Form EIA-861, "Annual Electric Power Industry Report."

Table 10.6. Advanced Metering Count by Technology Type, 2007 through 2011

Year	Residential	Commercial	Industrial	Transportation	Total
Automated Meter Reading (AMR)					
2007	25,785,782	2,322,329	44,015	109	28,152,235
2008	36,425,943	3,529,985	77,122	13	40,033,063
2009	41,462,111	4,239,531	107,033	11	45,808,686
2010	43,913,225	4,611,877	159,315	626	48,685,043
2011	41,451,888	4,341,105	172,692	77	45,965,762
Advanced Metering Infrastructure (AMI)					
2007	2,202,222	262,159	9,106	2	2,473,489
2008	4,190,244	444,003	12,757	12	4,647,016
2009	8,712,297	876,419	22,675	10	9,611,401
2010	18,369,908	1,904,983	59,567	67	20,334,525
2011	33,453,548	3,682,159	154,659	7	37,290,373

Prior to 2010, the count was the number of customers, not number of meters.

Source: U.S. Energy Information Administration, Form EIA-861, "Annual Electric Power Industry Report."

Appendix

Technical Notes

This appendix describes how the U.S. Energy Information Administration collects, estimates, and reports electric power data in the Electric Power Annual.

Data Quality and Submission

The Electric Power Annual (EPA) is prepared by the Office of Electricity, Renewables, and Uranium Statistics (ERUS), U.S. Energy Information Administration (EIA), U.S. Department of Energy (DOE). ERUS performs routine reviews of the data collection respondent frames, survey forms, and reviews the quality of the data received.

Data are entered directly by respondents into the ERUS Internet Data Collection (IDC) system. A small number of hard copy forms are keyed into the system by ERUS personnel. All data are subject to review via interactive edits built into the IDC system, internal quality assurance reports, and review by ERUS subject matter experts. Questionable data values are verified through contacts with respondents, and survey non-respondents are identified and contacted.

IDC edits include both deterministic checks, in which records are checked for the presence of data in required fields, and statistical checks, in which the data are checked against a range of values based on historical data values and for logical or mathematical consistency with data elements reported in the survey. Discrepancies found in the data, as a result of these checks, must either be corrected by the respondent or the respondent must enter an explanation as to why the data are correct. If these explanations are unsatisfactory the respondent is contacted by EIA for clarification or corrected data.

Those respondents unable to use the electronic reporting method provide the data in hard copy, typically via fax and email. These data are manually entered into the computerized database and are subjected to the same data edits as those performed during e-filing by the respondent.

Reliability of Data

Annual survey data have non-sampling errors. Non-sampling errors can be attributed to many sources: (1) inability to obtain complete information about all cases (i.e., non-response); (2) response errors; (3) definitional difficulties; (4) differences in the interpretation of questions; (5) mistakes in recording or coding the data; and (6) other errors of collection, response, coverage, and estimation for missing data.

Although no direct measurement of the biases due to non-sampling errors can be obtained, precautionary steps were taken in all phases of the frame development and data collection, processing, and tabulation processes to minimize their influence.

Imputation: If the reported values appear to be in error and the data issue cannot be resolved with the respondent, or if the facility is a non-respondent, a regression methodology is used to impute for the facility. The regression methodology relies on other data to make estimates for erroneous or missing responses. The basis for the current methodology involves a 'borrowing of strength' technique for small domains.[1]

Data Revision Procedure

The EPA presents the most current and complete data available to the EIA. The statistics may differ from those published previously in EIA publications due to corrections, revisions, or other adjustments to the data subsequent to its original release.

After data are disseminated as final, revisions will be considered if a correction would make a difference of 1 percent or greater at the national level. Revisions for differences that do not meet the 1 percent or greater threshold will be determined by the Office Director. In either case, the proposed revision will be subject to the EIA revision policy concerning how it affects other EIA products.

Sensitive Data (Formerly Identified as Data Confidentiality): Most of the data collected on the electric power surveys are not considered business sensitive. However, the data that are classified as sensitive are handled by ERUS consistent with EIA's "Policy on the Disclosure of Individually Identifiable Energy Information in the Possession of the EIA" (45 Federal Register 59812 (1980)).

Rounding and Percent Change Calculations

Rounding Rules for Data: To round a number to n digits (decimal places), add one unit to the nth digit if the (n+1) digit is 5 or larger and keep the nth digit unchanged if the (n+1) digit is less than 5. The symbol for a number rounded to zero is (*).

Percent Change: The following formula is used to calculate percent changes:

$$\text{Percent Change} = \left(\frac{x\,(t_2) - x\,(t_1)}{x\,(t_1)} \right) x\,100,$$

where $x\,(t_1)$ and $x\,(t_2)$ denote the quantity at period t_1 and subsequent period t_2.

Data Sources for Electric Power Annual

Data published in the EPA are compiled from forms filed annually or aggregated to an annual basis from monthly forms (see figure on EIA Electric Industry Data Collection in Appendix A). The respondents to these forms include electric utilities, other generators and sellers of electricity, and North American Electric Reliability Corporation (NERC) reliability entities. The EIA forms used are:

- Form EIA-411, "Coordinated Bulk Power Supply Program Report;"
- Form EIA-826, " Monthly Electric Utility Sales and Revenues with State Distributions Report;"
- Form EIA-860, "Annual Electric Generator Report;"
- Form EIA-861, "Annual Electric Power Industry Report;"
- Form EIA-923, "Power Plant Operations Report."

These forms can be found on the EIA Internet website at:
http://www.eia.gov/cneaf/electricity/page/forms.html.

Survey data from other Federal sources are also utilized for this publication. They include:

- FERC Form 1, “Annual Report of Major Electric Utilities, Licensees, and Others;”
- U. S. Department of Agriculture (USDA) Rural Utility Service Form 7, “Financial and Statistical Report;” and
- USDA Rural Utility Service Form 12, “Operating Report – Financial.”

In addition to the above-named forms, the historical data published in the EPA are compiled from the following inactive forms:

- Form EIA-412, “Annual Electric Industry Financial Report,” FERC Form 423, “Cost and Quality of Fuels for Electric Plants,”
- Form EIA-423, “Monthly Cost and Quality of Fuels for Electric Plants Report;”
- Form EIA-759, “Monthly Power Plant Report,”
- Form EIA-767, “Steam-Electric Plant Operation and Design Report;”
- Form EIA-860A, “Annual Electric Generator Report–Utility,”
- Form EIA-860B, “Annual Electric Generator Report–Nonutility,”
- Form EIA-867, “Annual Nonutility Power Producer Report,”
- Form EIA-900, “Monthly Nonutility Power Report,”
- Form EIA-906, “Power Plant Report;” and
- Form EIA-920, “Combined Heat and Power Plant Report.”

Additionally, some data reported in this publication were acquired from public reports of the National Energy Board of Canada on electricity imports and exports.

Meanings of Symbols Appearing in Tables: The following symbols have the meaning described below:

*	The value reported is less than half of the smallest unit of measure, but is greater than zero.
P	Indicates a preliminary value.
W	Withheld to avoid disclosure of individual company data.
NM	Data value is not meaningful, either (1) when compared to the same value for the previous time period, or (2) when a data value is not meaningful due to having a high Relative Standard Error (RSE).
(*)	Usage of this symbol indicates a number rounded to zero.

Form EIA-411

The information reported on the mandatory Form EIA-411 includes: (1) actual energy and peak demand for the preceding year and five additional years; (2) existing and future generating capacity and capacity reserve margins; (3) scheduled capacity transfers; (4) projections of capacity, demand, purchases, sales, and scheduled maintenance; (5) power flow cases; and (6) bulk power system maps. The data is collected for EIA by NERC from NERC regional reliability entities, which in turn aggregate reports from regional members. Non-member data is also included. The compiled data is reviewed and edited by NERC and submitted to EIA annually on July 15. The data undergoes additional review by EIA. EIA resolves any quality issues with NERC.

Instrument and Design History: The Form EIA-411 program was initiated under the Federal Power Commission (FPC) Docket R-362, Reliability and Adequacy of Electric Service, and Orders 383-2, 383-3, and 383-4. The DOE, established in October 1977, assumed the responsibility for this activity. The responsibility for collecting these data was delegated to the Office of Emergency Planning and Operations within the DOE and was transferred to EIA for the reporting year 1996. Until 2008, this form was voluntary. The data are collected under the authority of the Federal Power Act (Public Law 88-280), the Federal Energy Administration Act of 1974 (Public Law 93-275), and the DOE Organization Act (Public Law 95-91).

Issues within Historical Data Series: The Florida Reliability Coordinating Council (FRCC) separated itself from the Southeastern Electric Reliability Council (SERC) in the mid-1990s and all time series data have been adjusted. In 1998, several utilities realigned from Southwest Power Pool (SPP) to SERC. Adjustments were made to the information to account for the separation and to address the tracking of shared reserve capacity that was under long-term contracts with multiple members. Name changes altered the Mid-Continent Area Power Pool (MAPP) to the Midwest Reliability Organization (MRO) and the Western Systems Coordinating Council (WSCC) to the Western Electricity Coordinating Council (WECC). The MRO membership boundaries have altered over time, but WECC membership boundaries have not. The utilities in the associated regional entity identified as the Alaska System Coordination Council (ASCC) dropped their formal participation in NERC. (Alaska and, obviously, Hawaii are not electrically interconnected with the coterminous 48 States).

At the close of calendar year 2005, the following reliability regional councils were dissolved: East Central Area Reliability Coordination Agreement (ECAR), Mid-Atlantic Area Council (MAAC), and Mid-America Interconnected Network (MAIN). On January 1, 2006, the ReliabilityFirst Corporation (RFC) came into existence as a new regional reliability council. Individual utility membership in the former ECAR, MAAC, and MAIN councils mostly shifted to RFC. However, adjustments in membership, as utilities joined or left various reliability councils, impacted MRO, SERC, and SPP. The Texas Regional Entity (TRE) was formed to handle the regional reliability responsibilities of the Electric Reliability Council of Texas (ERCOT). The revised delegation agreements covering all the regions were approved by the FERC on March 21, 2008. Reliability Councils that are unchanged include: Florida Reliability Coordinating Council (FRCC), Northeast Power Coordinating Council (NPCC), and the Western Electricity Coordinating Council (WECC). The historical time series have not been adjusted to account for individual membership shifts.

The current NERC regional entity names are as follows:

- Florida Reliability Coordinating Council (FRCC),
- Midwest Reliability Organization (MRO),
- Northeast Power Coordinating Council (NPCC),
- ReliabilityFirst Corporation (RFC),
- Southeastern Electric Reliability Council (SERC),
- Southwest Power Pool (SPP),
- Texas Regional Entity (TRE), and
- Western Energy Coordinating Council (WECC).

Changes Introduced in 2011: Starting in 2011, NERC modified the bulk power system reporting regions (in contrast to regional reliability entity organizational boundaries) to align them with electric market operations. Consequently, reliability data will be reported for the PJM and MISO regional transmission organization areas and the MAPP area rather than for the MRO and RFC regional areas. This new framework, along with the other NERC regions, now forms the bulk power system reliability assessment areas.

Historically the MRO, RFC, SERC, and SPP regional boundaries were altered as utilities changed reliability organizations. In published EIA reports the historical data series for these regions have not been adjusted. Instead, starting in 2011, EIA has introduced the Balance of Eastern Region category to provide a consistent trend for the Eastern interconnection.

Concept of Demand within the EIA-411: The EIA-411 uses the following categorization of electricity demand:

- **Net Internal Demand:** Internal Demand less Direct Control Load Management and Interruptible Demand.
- **Internal Demand:** To collect these data, NERC develops a Total Internal Demand that is the sum of the metered (net) outputs of all generators within the system and the metered line flows into the system, less the metered line flows out of the system. The demand of station service or auxiliary needs (such as fan motors, pump motors, and other equipment essential to the operation of the generating units) is not included nor are any requirement customer (utility) load or capacity found behind the line meters on the system.
- **Direct Control Load Management:** Demand-Side Management that is under the direct control of the system operator. DCLM may control the electric supply to individual appliances or equipment on customer premises; it does not included Interruptible Demand.
- **Interruptible Demand:** The magnitude of customer demand that, in accordance with contractual arrangements, can be interrupted at the time of the Regional Council's seasonal peak by direct control of the System Operator or by action of the customer at the direct request of the System Operator.

For additional information on demand, refer to the NERC's Long-Term Reliability Assessments at http://www.nerc.com/page.php?cid=4|61.

Sensitive Data: Power flow cases and maps are considered business sensitive.

Form EIA-412 (Terminated)

The Form EIA-412 was used annually to collect accounting, financial, and operating data from publicly owned electric utilities engaged in the generation, transmission, or distribution of electricity which had 150,000 megawatthours of sales to ultimate consumers and/or 150,000 megawatthours of sales for resale for the two previous years. Data was collected annually.

Beginning with the 2001 data collection, the plant statistics reported on Schedule 9 were also collected from unregulated entities that own plants with a nameplate capacity of 10 megawatts or greater. Beginning with the 2003 collection, the transmission data reported in Schedules 10 and 11 were collected from each generation and transmission cooperative owning transmission lines having a nominal voltage of 132 kilovolts or greater.

Instrument and Design History: The FPC created the FPC Form 1M in 1961 as a mandatory survey. It became the responsibility of the EIA in October 1977 when the FPC was merged with DOE and renamed the Federal Energy Regulatory Commission (FERC). In 1979, the FPC Form 1M was superseded by the Economic Regulatory Administration (ERA) Form ERA-412 and in January 1980 by the Form EIA-412.

The criteria used to select the respondents for this survey fit approximately 500 publicly owned electric utilities. Federal electric utilities were required to file the Form EIA-412. The financial data for the U.S. Army Corps of Engineers (except for Saint Mary's Falls at Sault Ste. Marie, Michigan); the U.S. Department of Interior, Bureau of Reclamation; and the U.S. International Boundary and Water Commission were collected on the Form EIA-412 from the Federal power marketing administrations. The form was terminated after the 2003 data year.

Issues within Historical Data Series: For 2001 - 2003, the California Department of Water Resources (CDWR) Electric Energy Fund data were included in the EIA-412 data tables. In response to the energy shortfall in California, in 2001 the California State legislature authorized the CDWR, using its undamaged borrowing capability, to enter the wholesale markets on behalf of the California retail customers effective on January 17, 2001 and for the period ending December 31, 2002. Their 2001 revenue collected was $5,501,000,000 with purchased power costs of $12,055,000,000. Their 2002 revenue collected was $4,210,000,000 with purchased power costs of $3,827,749,811. Their 2003 revenue collected was $4,627,000,000 with purchased power costs of $4,732,000,000. The California Public Utility Commission was required by statute to establish the procedures for retail revenue recovery mechanisms for their purchase power costs in the future.

Sensitive Data: The nonutility data collected on Schedule 9 “Electric Generating Plant Statistics” for “Cost of Plant” and “Production Expenses,” are considered business sensitive. .

Form EIA-423 (Replaced in 2008 by the Form EIA-923)

The Form EIA-423, “Monthly Cost and Quality of Fuels for Electric Plants Report,” collected the cost and quality of fossil fuels delivered to nonutility plants to produce electricity. These plants included independent power producers (including those facilities that formerly reported on the FERC Form 423) and commercial and industrial combined heat and power (CHP) producers whose total fossil-fueled nameplate generating capacity was 50 or more megawatts (MW). (CHP plants are sometimes referred to as co-generators. They produce heat, such as steam for use in a manufacturing process, along with electricity).

Instrument and Design History: The Form EIA-423[2] was implemented in January 2002 to collect monthly cost and quality data for fossil fuel receipts from owners or operators of nonutility electricity

generating plants. It was terminated on January 1, 2008, and replaced by the Form EIA-923, "Power Plant Operations Report."

Issues within Historical Data Series: Natural gas values do not include blast furnace gas or other gas.

Sensitive Data: Plant fuel cost data collected on the survey are considered business sensitive. State- and national-level aggregations are published if sufficient data are available to avoid disclosure of individual company and plant level costs.

FERC Form 423 (Replaced in 2008 by Form EIA-923)

The FERC Form 423, “Monthly Report of Cost and Quality of Fuels for Electric Plants,” was administered by FERC. The data were downloaded from the Commission’s website into an EIA database. The Form was filed by approximately 600 regulated plants. To meet the criteria for filing, a plant must have had a total steam turbine electric generating capacity and/or combined-cycle (gas turbine with associated steam turbine) generating capacity of 50 or more megawatts. Only fuel delivered for use in steam-turbine and combined-cycle units was reported. Fuel received for use in gas-turbine or internal-combustion units that was not associated with a combined-cycle operation was not reported. The FERC Form 423 was replaced after 2007 by the Form EIA-923.

Instrument and Design History: On July 7, 1972, the FPC issued Order Number 453 enacting the New Code of Federal Regulations, Section 141.61, creating the FPC Form 423. Originally, the form was used to collect data only on fossil steam plants, but was amended in 1974 to include data on internal-combustion and combustion-turbine units. When DOE was formed in 1977, most of FPC became FERC. The FERC Form 423 replaced the FPC Form 423 in January 1983. The FERC Form 423 dropped stand-alone combustion turbines. In addition, the generator nameplate capacity threshold was changed from 25 megawatts to 50 megawatts. This reduction in coverage eliminated approximately 50 utilities and 250 plants. All historical FPC Form 423 data in this publication were revised to reflect the new generator-nameplate-capacity threshold of 50 or more megawatts reported on the FERC Form 423. In January 1991, the collection of data on the FERC Form 423 was extended to include combined cycle units. Historical data have not been revised to include these units. On January 1, 2008, EIA assumed responsibility for collection of these data and both the utility and nonutility plants began to report their cost and quality of fuels information on Schedule 2 of Form EIA-923, "Power Plant Operations Report.".

Issues within Historical Data Series: These data were collected by FERC for regulatory rather than statistical and publication purposes. EIA did not attempt to resolve any late filing issues in the FERC Form 423 survey. The data were quality reviewed by EIA and when possible quality issues were resolved with FERC.

Natural gas values for 2001 forward do not include blast furnace gas or other gas.

Due to the estimation procedure described below in the discussion of the Form EIA-923, 2003 and later data cannot be directly compared to previous years’ data.

Sensitive Data: Data collected on FERC Form 423 are not business sensitive.

Form EIA-767 (Replaced by Forms EIA-860 and EIA-923)

The Form EIA-767 was used to collect data annually on plant operations and equipment design, including boiler, generator, cooling system, air pollution control equipment, and stack characteristics. Data were collected from a mandatory restricted-universe census of all electric power plants with a total existing or planned organic-fueled or combustible renewable steam-electric generator nameplate rating of 10 or more megawatts. The entire form was filed by approximately 800 power plants with a nameplate capacity of 100 or more megawatts. An additional 600 power plants with a nameplate capacity under 100 megawatts submitted information only on fuel consumption and quality, boiler and generator configuration, and nitrogen oxides, mercury, particulate matter, and sulfur dioxide controls.

Instrument and Design History: The Federal Energy Administration Act of 1974 (Public Law 93-275) defines the legislative authority to collect these data. The predecessor form, FPC-67, "Steam-Electric Plant Air and Water Quality Control Data," was used to collect data from 1969 to 1980, when the form number was changed to Form EIA-767. In 1982, the form was completely redesigned and re-titled Form EIA-767, "Steam-Electric Plant Operation and Design Report." In 1986, the respondent universe of 700 plants was increased to 900 plants to include plants with nameplate capacity from 10 megawatts to 100 megawatts. In 2002, the respondent universe was increased by almost 1,370 plants with the addition of nonutility plants.

Collection of data via the form was suspended for the 2006 data year. Starting with the collection of 2007 calendar year data, most of the Form EIA-767 information is now collected on either the revised Form EIA-860, "Annual Electric Generator Report" or the new Form EIA-923, "Power Plant Operations Report."

Estimation of EIA-767 Data: No estimation of Form EIA-767 data was performed. Normally the survey had no non-response.

Issues within Historical Data Series: As noted above, no data were collected for calendar year 2006.

Sensitive Data: Latitude and longitude data collected on the Form EIA-767 were considered business sensitive.

Form EIA-826

The Form EIA 826, "Monthly Electric Utility Sales and Revenues with State Distributions Report," is a monthly collection of data from a sample of approximately 520 of the largest electric utilities (primarily investor and publicly owned) as well as a census of energy service providers with retail sales in deregulated States. Form EIA-861 (see below), with approximately 3,300 respondents, serves as a frame from which the Form 826 sample is drawn. Based on this sample, a model is used to estimate for the entire universe of U.S. electric utilities on a monthly basis.

Instrument and design history: The collection of electric power sales data and related information began in the early 1940's and was established as FPC Form 5 by FPC Order 141 in 1947. In 1980, the report was revised with only selected income items remaining and became the FERC Form 5. The Form EIA 826, "Electric Utility Company Monthly Statement," replaced the FERC Form 5 in January 1983. In January 1987, the "Electric Utility Company Monthly Statement" was changed to the "Monthly Electric

Utility Sales and Revenue Report with State Distributions." The title was changed again in January 2002 to "Monthly Electric Utility Sales and Revenues with State Distributions Report" to become consistent with other EIA report titles. The Form EIA 826 was revised in January 1990, and some data elements were eliminated.

In 1993, EIA for the first time used a model sample for the Form EIA 826. A stratified random sample, employing auxiliary data, was used for each of the four previous years. The sample for the Form EIA 826 was designed to obtain estimates of electricity sales and average retail price of electricity at the State level by end use sector.

Starting with data for January 2001, the restructuring of the electric power industry was taken into account by forming three schedules on the Form EIA-826. Schedule 1, Part A is for full service utilities that operate as in the past. Schedule 1, Part B is for electric service providers only, and Schedule 1, Part C is for those utilities providing distribution service for those on Schedule 1, Part B. In addition, Schedule 1 Part D is for those retail energy providers or power marketers that provide bundled service. Also, the Form EIA-826 frame was modified to include all investor-owned electric utilities and a sample of companies from other ownership classes. A new method of estimation was implemented at this same time. (See Electric Power Monthly, April 2001, p.1.)

With the October 2004 issue of the Electric Power Monthly (EPM), EIA published for the first time preliminary electricity sales data for the Transportation Sector. These data are for electricity delivered to and consumed by local, regional, and metropolitan transportation systems. The data being published for the first time in the October EPM included July 2004 data as well as year-to-date. EIA's efforts to develop these new data have identified anomalies in several States and the District of Columbia. Some of these anomalies are caused by issues such as: 1) Some respondents have classified themselves as outside the realm of the survey. The Form EIA-826 collects retail data from those respondents providing electricity and other services to the ultimate end users. EIA has experienced specific situations where, although the respondents' customers are the ultimate end users, particular end users qualify under wholesale rate schedules. 2) The Form EIA-826 is a cutoff sample and not intended to be a census.

Data processing and data system editing: Monthly Form EIA-826 submission is available via an Internet Data Collection (IDC) system. The completed data are due to EIA by the last calendar day of the month following the reporting month. Nonrespondents are contacted to obtain the data. The data are edited and additional checks are completed. Following verification, imputation is run, and tables and text of the aggregated data are produced for inclusion in the EPM.

Imputation: Regression prediction, or imputation, is done for entities not in the monthly sample and for any nonrespondents. Regressor data for Schedule 1, Part A is the average monthly sales or revenue from the most recent finalized data from survey Form EIA-861. Beginning with January 2008 data and the finalized 2007 data, the regressor data for Schedule 1 Parts B and C is the prior month's data.

Formulas and methodologies: The Form EIA 826 data are collected by end-use sector (residential, commercial, industrial, and transportation) and State. Form EIA 861 (see below) data are used as the frame from which the sample is selected and in some instances also as regressor data. Updates are made to the frame to reflect mergers that affect data processing.

With the revised definitions for the commercial and industrial sectors to include all data previously reported as 'other' data except transportation, and a separate transportation sector, all responses that would formerly have been reported under the "other" sector are now to be reported under one of the sectors that currently exist. This means there is probably a lower correlation, in general, between, say, commercial Form EIA-826 data for 2004 and commercial Form EIA-861 data for 2003 than there was between commercial Form EIA-826 data for 2003 and commercial Form EIA-861 data for 2002 or earlier years, although commercial and industrial definitions have always been somewhat nebulous due to power companies not having complete information on all customers.

Data submitted for January 2004 represent the first time respondents were to provide data specifically for the transportation end-use sector.

During 2003 transportation data were collected annually through Form EIA-861. Beginning in 2004 the transportation data were collected on a monthly basis via Form EIA-826. In order to develop an estimate of the monthly transportation data for 2003, values for both retail sales of electricity to ultimate customers and revenue from retail sales of electricity to ultimate customers were estimated using the 2004 monthly profile for the sales and revenues from the data collected via Form EIA-826. All monthly non-transportation data for 2003 (i.e. street lighting, etc.), which were previously reported in the "other" end-use sector on the Form EIA-826 have been prorated into the Commercial and Industrial end-use sectors based on the 2003 Form EIA-861 profile.

A monthly distribution factor was developed for the monthly data collected in 2004 (for the months of January through November). The transportation sales and revenues for December 2004 were assumed to be equivalent to the transportation sales and revenues for November 2004. The monthly distribution factors for January through November were applied to the annual values for transportation sales and revenues collected via Form EIA-861 to develop corresponding 2003 monthly values. The eleven month estimated totals from January through November 2003 were subtracted from the annual values obtained from Form EIA-861 in order to obtain the December 2003 values.

Data from the Form EIA-826 are used to determine estimates by sector at the State, Census division, and national level. State level sales and revenues estimates are first calculated. Then the ratio of revenue divided by sales is calculated to estimate retail price of electricity at the State level. The estimates are accumulated separately to produce the Census division and U.S. level estimates[3].

Some electric utilities provide service in more than one State. To facilitate the estimation, the State service area is actually used as the sampling unit. For each State served by each utility, there is a utility State part, or "State service area." This approach allows for an explicit calculation of estimates for sales, revenue, and average retail price of electricity by end use sector at State, Census division, and national level. Estimation procedures include imputation to account for nonresponse. Non-sampling error must also be considered. The non-sampling error is not estimated directly, although attempts are made to minimize the non-sampling error.

Average retail price of electricity represents the cost per unit of electricity sold and is calculated by dividing retail electric revenue by the corresponding sales of electricity. The average retail price of electricity is calculated for all consumers and for each end-use sector.

The electric revenue used to calculate the average retail price of electricity is the operating revenue reported by the electric utility. Operating revenue includes energy charges, demand charges, consumer service charges, environmental surcharges, fuel adjustments, and other miscellaneous charges. Electric utility operating revenues also include State and Federal income taxes and taxes other than income taxes paid by the utility.

The average retail price of electricity reported in this publication by sector represents a weighted average of consumer revenue and sales within sectors and across sectors for all consumers, and does not reflect the per kWh rate charged by the electric utility to the individual consumers. Electric utilities typically employ a number of rate schedules within a single sector. These alternative rate schedules reflect the varying consumption levels and patterns of consumers and their associated impact on the costs to the electric utility for providing electrical service.

Adjusting monthly data to annual data: As a final adjustment based on our most complete data, use is made of final Form EIA-861 data, when available. The annual totals for Form EIA-826 data by State and end-use sector are compared to the corresponding Form EIA-861 values for sales and revenue. The ratio of these two values in each case is then used to adjust each corresponding monthly value.

Sensitive data: Most of the data collected on the Form EIA-826 are not considered business sensitive. However, monthly revenue, sales, and customer data collected from energy service providers (Schedule 1, Part B), which do not also provide energy delivery, are considered business sensitive and must adhere to EIA's "Policy on the Disclosure of Individually Identifiable Energy Information in the Possession of the EIA" (45Federal Register 59812 (1980)).

Form EIA-860

The Form EIA-860 is a mandatory annual census of all existing and planned electric generating facilities in the United States with a total generator nameplate capacity of 1 or more megawatts. The survey is used to collect data on existing power plants and 10 year plans for constructing new plants, as well as generating unit additions, modifications, and retirements in existing plants. Data on the survey are collected at the individual generator level. Certain power plant environmental-related data are collected at the boiler level. These data include environmental equipment design parameters and boiler air emission standards and boiler emission controls.

Instrument and Design History: The Form EIA-860 was originally implemented in January 1985 to collect plant data on electric utilities as of year-end 1984. It was preceded by several Federal Power Commission (FPC) forms including the FPC Form 4, Form 12 and 12E, Form 67, and Form 411. In January 1999, the Form EIA-860 was renamed the Form EIA-860A and was implemented to collect data as of January 1, 1999.

In 1989, the Form EIA-867, "Annual Nonutility Power Producer Report," was initiated to collect plant data on unregulated entities with a total generator nameplate capacity of 5 or more megawatts. In 1992, the reporting threshold of the Form EIA-867 was lowered to include all facilities with a combined nameplate capacity of 1 or more megawatts. Previously, data were collected every 3 years from facilities with a nameplate capacity between 1 and 5 megawatts. In 1998, the Form EIA-867, was renamed Form EIA-860B, "Annual Electric Generator Report – Nonutility." The Form EIA-860B was a mandatory survey

of all existing and planned nonutility electric generating facilities in the United States with a total generator nameplate capacity of 1 or more megawatts.

Beginning with data collected for the year 2001, the infrastructure data collected on the Form EIA-860A and the Form EIA-860B were combined into the new Form EIA-860 and the monthly and annual versions of the Form EIA-906. The Federal Energy Administration Act of 1974 (Public Law 93-275) defines the legislative authority to collect these data.

Starting with 2007, design parameters data formerly collected on Form EIA-767 were collected on Form EIA-860. These include design parameters associated with certain steam-electric plants' boilers, cooling systems, flue gas particulate collectors, flue gas desulfurization units, and stacks and flues.

Estimation of EIA-860 Data: No imputation was required for EIA-860 data.

Issues within Historical Data Series Regarding Categorization of Capacity by Business Sector: There are a small number of electric utility CHP plants, as well as a small number of industrial and commercial generating facilities that are not CHP. For the purposes of this report the data for these plants are included, respectively, in the following categories: "Electricity Generators, Electric Utilities," "Combined Heat and Power, Industrial," and "Combined Heat and Power, Commercial."

Some capacity in 2001 through 2004 is classified based on the operating company's classification as an electric utility or an independent power producer. Starting in the EPA 2006, capacity by producer type was determined at the power plant level for 2005 and all subsequent data collections. This change required revisions to the original published 2005 data.

Issues within Historical Data Series Regarding Planned Capacity: Delays and cancellations may have occurred subsequent to respondent data reporting as of December 31 of the data year.

Issues within Historical Data Series Regarding Capacity by Energy Source: Prior to the EPA 2005, the capacity for generators for which natural gas or petroleum was the most predominant energy source was presented in the following three categories: petroleum only, natural gas only, and dual-fired. The dual-fired category, which was EIA's effort to infer which generators could fuel-switch between natural gas and fuel oil, included only the capacity of generators for which the most predominant energy source and second most predominant energy source were reported as natural gas or petroleum. Beginning in 2005, capacity is assigned to energy source based solely on the most predominant (primary) energy source reported for a generator. The "dual-fired" category was eliminated. Separately, summaries of capacity associated with generators with fuel-switching capability are presented for 2005 and later years. These summaries are based on data collected from new questions added to the Form EIA-860 survey that directly address the ability of generators to switch fuels and co-fire fuels.

In the EPA 2005, certain petroleum-fired capacity was misclassified as natural gas-fired capacity for 1995 – 2003. This was corrected in the EPA 2006. Corrections were noted as revised data.

Prime Movers: The Form EIA-860 sometimes represents a generator's prime mover by using the abbrebiations in the table below.

Prime Mover Code	Prime Mover Description
BA	Energy Storage, Battery
CE	Energy Storage, Compressed Air
CP	Energy Storage, Concentrated Solar Power
FW	Energy Storage, Flywheel
PS	Energy Storage, Reversible Hydraulic Turbine (Pumped Storage)
ES	Energy Storage, Other
ST	Steam Turbine, including nuclear, geothermal and solar steam (does not include combined cycle)
GT	Combustion (Gas) Turbine (including jet engine design)
IC	Internal Combustion Engine (diesel, piston, reciprocating)
CA	Combined Cycle Steam Part
CT	Combined Cycle Combustion Turbine Part
CS	Combined Cycle Single Shaft
CC	Combined Cycle Total Unit
HA	Hydrokinetic, Axial Flow Turbine
HB	Hydrokinetic, Wave Buoy
HK	Hydrokinetic, Other
HY	Hydroelectric Turbine (including turbines associated with delivery of water by pipeline)
BT	Turbines Used in a Binary Cycle (including those used for geothermal applications)
PV	Photovoltaic
WT	Wind Turbine, Onshore
WS	Wind Turbine, Offshore
FC	Fuel Cell
OT	Other

Energy Sources: The Form EIA-860 sometimes represents the energy sources associated with generators by using the abbreviations and/or groupings in the table below.

Energy Source Grouping	Energy Source Code	Energy Source Description
Coal	ANT	Anthracite Coal
	BIT	Bituminous Coal
	LIG	Lignite Coal
	SUB	Subbituminous Coal
	SGC	Coal-Derived Synthesis Gas
	WC	Waste/Other Coal (including anthracite culm, bituminous gob, fine coal, lignite waste, waste coal)
Petroleum Products	DFO	Distillate Fuel Oil (including diesel, No. 1, No. 2, and No. 4 fuel oils)
	JF	Jet Fuel
	KER	Kerosene
	PC	Petroleum Coke
	PG	Gaseous Propane
	RFO	Residual Fuel Oil (including No. 5, and No. 6 fuel oils, and bunker C fuel oil)
	SG	Synthesis Gas from Petroleum Coke
	WO	Waste/Other Oil (including crude oil, liquid butane, liquid propane, naphtha, oil waste, re-refined motor oil, sludge oil, tar oil, or other petroleum-based liquid wastes)
Natural Gas and Other Gases	BFG	Blast Furnace Gas
	NG	Natural Gas
	OG	Other Gas
Nuclear	NUC	Nuclear (including Uranium, Plutonium, and Thorium)
Hydroelectric Conventional	WAT (Prime Mover = HY)	Water at a Conventional Hydroelectric Turbine, and water used in Wave Buoy Hydrokinetic Technology, Current Hydrokinetic Technology, and Tidal Hydrokinetic Technology
Hydroelectric Pumped Storage	WAT (Prime Mover = PS)	Pumping Energy for Reversible (Pumped Storage) Hydroelectric Turbine
Wood and Wood-Derived Fuels	WDS	Wood/Wood Waste Solids (including paper pellets, railroad ties, utility poles, wood chips, bark, and wood waste solids)
	WDL	Wood Waste Liquids (excluding Black Liquor but including red liquor, sludge wood, spent sulfite liquor, and other wood-based liquids)
	BLQ	Black Liquor
Other Biomass	AB	Agricultural By-Products
	MSW	Municipal Solid Waste
	OBG	Other Biomass Gas (including digester gas, methane, and other biomass gases)
	OBL	Other Biomass Liquids
	OBS	Other Biomass Solids
	LFG	Landfill Gas
	SLW	Sludge Waste
Other Renewable Energy Sources	SUN	Solar (including solar thermal)
	WND	Wind
	GEO	Geothermal
Other Energy Sources	PUR	Purchased Steam
	WH	Waste heat not directly attributed to a fuel source
	TDF	Tire-Derived Fuels
	MWH	Electricity used for energy storage
	OTH	Other

Sensitive Data: The tested heat rate data collected on the Form EIA-860 are considered business sensitive.

Form EIA-861

The Form EIA-861 is a mandatory annual census of electric power industry participants in the United States. The survey is used to collect information on power sales and revenue data from approximately 3,300 respondents. About 3,100 are electric utilities, and the remainders are nontraditional entities such as energy service providers or the unregulated subsidiaries of electric utilities and power marketers.

Transportation Sector: Prior to 2003, sales of electric power for transportation (e.g., city subway systems) were included in the Other Sector, along with sales to customers for public buildings, traffic signals, public street lighting, and sales to irrigation consumers. Beginning with the 2003 data collection, sales to the Transportation Sector were collected separately. The balance of the Other Sector was reclassified as Commercial Sector sales except that sales to irrigation customers, where separately identified, were reclassified to the Industrial Sector.

On the Form EIA-861, the Transportation Sector is defined as electrified rail, primarily urban transit, light rail, automated guideway, and other rail systems whose primary propulsive energy source is electricity. Electricity sales to Transportation Sector consumers whose primary propulsive energy source is not electricity (i.e., gasoline, diesel fuel, etc.) are not included.

Benchmark statistics were reviewed from outside surveys, most notably the U.S. Department of Transportation (DOT) Federal Transit Administration's National Transportation Database, a source previously used by EIA to estimate electricity transportation consumption. The DOT survey indicated the State and City locations of expected respondents. The Form EIA-861 survey methodology assumed that sales, revenue, and customer counts associated with these mass transit systems would be provided by the incumbent utilities in these areas, relying on information drawn routinely from rate schedules and classifications designed to serve the sector separately and distinctly. In 2010, 64 respondents reported transportation data in 28 States.

Data Reconciliation: The Electric Power Annual reports total retail sales volumes (megawatthours) and customer counts in States with deregulated markets as the sum of bundled sales reported by full-service providers and delivery reported by transmission and distribution utilities. ERUS has concluded that the retail sales data reported by delivery utilities are more reliable than data reported by power marketers and Energy Service Providers (ESPs).

The reporting methodology change uses sales volumes and a customer count reported by distribution utilities, and modifies only an incremental revenue value, representing revenue associated with misreported sales assumed to be attributable to the ESPs that were under-represented in the survey frame.

Instrument and Design History: The Form EIA-861 was implemented in January 1985 for collection of data as of year-end 1984. The Federal Energy Administration Act of 1974 (Public Law 93-275) defines the legislative authority to collect these data.

Average Retail Price of Electricity: This value represents the average cost per unit of electricity sold and is calculated by dividing retail electric revenue by the corresponding sales of electricity. The average retail price of electricity is calculated for all consumers and for each end-use sector.

The electric revenue used to calculate the average retail price of electricity is the operating revenue reported by the electric power industry participant. Operating revenue includes energy charges, demand charges, consumer service charges, environmental surcharges, fuel adjustments, and other miscellaneous charges. Electric power industry participant operating revenues also include ratepayer reimbursements for State and Federal income taxes and other taxes paid by the utility.

This computed average retail price of electricity reported in this publication by is a weighted average of consumer revenue and sales and does not equal the per kWh rate charged by the electric power industry participant to the individual consumers. Electric utilities typically employ a number of rate schedules within a single sector. These alternative rate schedules reflect the varying consumption levels and patterns of consumers and their associated impact on the costs of the electric power industry participant for providing electrical service.

Issues within Historical Data Series: Changes from year to year in consumer counts, sales and revenues, particularly involving the commercial and industrial consumer sectors, may result from respondent implementation of changes in the definitions of consumers, and reclassifications. Utilities and energy service providers may classify commercial and industrial customers based on either NAICS codes or demands or usage falling within specified limits by rate schedule. The number of ultimate customers is an average of the number of customers at the close of each month. Also see the discussion of the Transportation Sector, above.

Net-Metering: This section was expanded in 2011. Previously, customer count by sector was the only data collected and published. In 2010, the EIA-861 started collecting the capacity of the net-metered installations by sector and technology. The technology types are: photovoltaic (PV), wind and other.

Demand-Side Management (DSM): Prior to 2011, DSM data was separated into two categories, large and small utilities. Some tables contained data for just large utilities and others contained both categories, published separately. Starting in 2011, there is no longer a division in the data. All tables now include all DSM data from utilities; this change is also reflected in the historical data.

Starting in 2011, a new category of respondents were added to the EIA-861, non-utility DSM administrators: Efficiency Maine Trust, Energy trust of Oregon, Focus on Energy, NYSERDA and Vermont Energy Investment Corporation.

The following definitions are supplied to assist in interpreting DSM data. Utility costs reflect the total cash expenditures for the year, in nominal dollars, that used to support DSM programs.

- **Actual Peak Load Reduction** is the actual reduction in annual peak load achieved by all program participants during the reporting year, at the time of annual peak load, as opposed to the installed peak load reduction capability (potential peak load reduction). Actual peak load reduction is reported by large utilities only.

- **Energy Savings** is the change in aggregate electricity use (measured in megawatthours) for consumers that participate in a utility DSM program. These savings represent changes at the consumer's meter (i.e., exclude transmission and distribution effects) and reflect only activities that are undertaken specifically in response to utility-administered programs, including those activities implemented by third parties under contract to the utility.
- **Large Utilities** are those electric utilities with annual sales to ultimate customers or sales for resale greater than or equal to 150 million kilowatthours in 1998-2009 and, for years prior, the threshold was set at 120 million kilowatthours.
- **Potential Peak Load Reduction** is the potential peak load reduction as a result of load management.

Advanced Metering: New in 2011, Automated Meter Reading (AMR) and Advanced Metering Infrastructure (AMI), including historical data back to 2007. From 2007-2009, the count by sector is for number of customers, for 2010-2011, the count is the actual number of meters. For example; if an industrial customer had 12 meters, in 2007-2009 the count would have been 1, in 2010-2011, the count would be 12.

Sensitive Data: None.

Forms EIA-906 and EIA-920 (Replaced in 2008 by Form EIA-923)

The Form EIA-906 was used to collect plant-level data on generation, fuel consumption, stocks, and fuel heat content, from electric utilities and nonutilities. Data were collected monthly from a model-based sample of approximately 1,700 utility and nonutility electric power plants. The form was also used to collect these statistics from another 2,667 plants (i.e., all other generators 1 MW or greater) on an annual basis. The form was ended after the 2007 data collection and replaced by the Form EIA-923.

Instrument and Design History: The Bureau of Census and the U.S. Geological Survey collected, compiled, and published data on the electric power industry prior to 1936. After 1936, the FPC assumed all data collection and publication responsibilities for the electric power industry and implemented the Form FPC-4. The Federal Power Act, Section 311 and 312, and FPC Order 141 defined the legislative authority to collect power production data. The Form EIA-759 replaced the Form FPC-4 in January 1982. In 1996, the Form EIA-900 was initiated to collect sales for resale data from unregulated entities. In 1998, the Form EIA-900 was modified to collect sales for resale, gross generation, and sales to end user data. In 1999, the form was modified to collect net generation, consumption, and ending stock data. In 2000, the form was modified to include data on the production of useful thermal output (typically process steam) by combined heat and power (CHP) plants.

In January 2001, Form EIA-906 superseded Forms EIA-759 and EIA-900. In January 2004, Form EIA-920 superseded Form EIA-906 for those plants defined as CHP plants; all other plants that generated electricity continued to report on Form EIA-906. The Federal Energy Administration Act of 1974 (Public Law 93 275) defines the legislative authority to collect these data. In January 2008, the Form EIA-923 superseded this form.

Issues within Historical Data Series: A relatively small number electric commercial- and industrial-only plants are, for the purposes of this report, are included in the CHP data categories. The small number of electric utility plants that are CHP units are reported together with other utility plants. No information on the production of useful thermal output (UTO) or fuel consumption for UTO was collected or estimated for the electric utility CHP plants.

Sensitive Data: The only business sensitive data element collected on the Forms EIA-906 and EIA-920 was fuel stocks at the end of the reporting period.

Form EIA-923

Form EIA-923, "Power Plant Operations Report," is used to collect information on receipts and cost of fossil fuels, fuel stocks, generation, consumption of fuel for generation, nonutility source and disposition of electricity, combustion by-product collection and disposal, and cooling systems, as well as operational data for flue gas desulfurization, particulates, and nitrous oxide controls. Data are collected from a monthly sample of approximately 1,900 plants, which includes a census of nuclear and pumped-storage hydroelectric plants. The plants in the monthly sample report their receipts, cost and stocks of fossil fuels, electric power generation, and the total consumption of fuels for both electric power generation and, at combined heat and power (CHP) plants, useful thermal output. At the end of the year, the monthly respondents report their annual source and disposition of electric power (nonutilities only), operational data for air emissions controls and cooling systems, and the collection and disposal of combustion by-products on the Form EIA-923 Supplemental Form (Schedules 6, 7, and 8A to 8F). Approximately 4,200 plants, representing all generators not included in the monthly sample and with a nameplate capacity of 1 MW or more, report applicable data on the entire form annually. In addition to electric power generating plants, respondents include fuel storage terminals without generating capacity that receive shipments of fossil fuel for eventual use in electric power generation. The monthly data are due by the last day of the month following the reporting period.

Receipts of fossil fuels, fuel cost and quality information, and fuel stocks at the end of the reporting period are all reported at the plant level. Fuel receipts and costs are collected from plants with a nameplate capacity of 50 MW or more and burn fossil fuels. Plants that burn organic fuels and have a steam turbine capacity of at least 10 megawatts report consumption at the boiler level and generation at the generator level for each month, regardless of whether the plant reports in the monthly sample or reports annually. For all other plants, consumption is reported at the prime-mover level and generation is reported at the prime-mover level or, for noncombustible sources (e.g., wind, nuclear), at the prime-mover and energy source levels (including generating units for nuclear only). The source and disposition of electricity are reported annually for nonutilities at the plant level, as is revenue from sales for resale. Operational data for air emissions equipment are collected annually from facilities that have a steam turbine capacity of at least 10 megawatts, and operational data on cooling systems and data on the collection and disposal of combustion by-products are collected from facilities that have a steam turbine capacity of at least 100 megawatts.

Instrument and Design History: See discussion of predecessor forms (EIA-906, -920, -767, and -423, and FERC Form 423).

Imputation: For data collected monthly, regression prediction, or imputation, is done for all missing data including non-sampled units and any non-respondents. For data collected annually, imputation is performed for non-respondents. For gross generation and total fuel consumption, multiple regression is used for imputation (see discussion, above). Approximately 0.02 percent of the national total generation for is imputed, although this will vary by State and energy source.

When gross generation is reported and net generation is not available, or vice versa, net or gross generation is estimated by using a fixed ratio of net to gross generation by prime-mover type and installed emissions equipment. These ratios are:

Net Generation = (Factor) x Gross Generation
Prime Movers:
Combined Cycle Steam - 0.97
Combined Cycle Single Shaft - 0.97
Combined Cycle Combustion Turbine - 0.97
Compressed Air - 0.97
Fuel Cell - 0.99
Gas Turbine - 0.98
Hydroelectric Turbine - 0.99
Hydroelectric Pumped Storage - 0.99
Internal Combustion Engine - 0.98
Other - 0.97
Photovoltaic - 0.99
Steam Turbine - 0.97
Wind Turbine - 0.99
Environmental Equipment:
Flue Gas Desulfurization - 0.97
Flue Gas Particulate 0.99
All Others - 0.97

For stocks, a linear combination of the prior month's ending stocks value and the current month's consumption and receipts values is used.

Receipts of Fossil Fuels: Receipts data, including cost and quality of fuels, are collected at the plant level from selected electric generating plants and fossil-fuel storage terminals in the United States. Power plants include independent power producers, electric utilities, and commercial and industrial CHP facilities with a total fossil-fueled nameplate capacity of 50 megawatts or more. The data on cost and quality of fuel shipments are used to produce aggregates and weighted averages for each fuel type at the State, Census division, and U.S. levels.

The units for receipts are: 1) coal and petroleum coke, tons and million Btu per ton; 2) petroleum, barrels and million Btu per barrel.; and gases, thousand cubic feet (Mcf) and million Btu per thousand cubic feet.

Net and Gross Generation and Fuel Consumption and Stocks: Generation data are collected in megawatthours from all power plants with a sum of nameplate capacity at least 1 MW. The fuels consumed are collected in tons (solids), barrels (liquids) and thousand cubic feet (gases). Fuels are

grouped into coal, petroleum liquids, petroleum coke, natural gas, other gases, and other miscellaneous fuels. Energy consumption is not collected for nuclear, wind, solar, geothermal or other plants that do not burn fuels. For information on fuel groupings, see the instructions to the Form EIA-923 at http://www.eia.gov/survey/form/eia_923/instructions.pdf. **Combustion By-Product Collection and Disposal:** Data are collected in thousand tons. Associated financial data for by-products (O&M and capital expenses and revenue) are collected in thousand dollars.

Air Emissions Equipment: Operational efficiencies and emission rates are collected for flue gas desulfurization, particulate matter, and nitrous oxide control equipment for steam-electric units with at least 10 MW nameplate capacity.

Cooling Systems: Operational data on water use is collected from steam-electric plants, including nuclear plants, with at least 100 MW nameplate capacity.

Methodology to Estimate Biogenic and Non-biogenic Municipal Solid Waste:[4] Municipal Solid Waste (MSW) consumption for generation of electric power is split into its biogenic and non-biogenic components beginning with 2001 data by the following methodology:

The tonnage of MSW consumed is reported on the Form EIA-923. The composition of MSW and categorization of the components were obtained from the Environmental Protection Agency (EPA) publication, *Municipal Solid Waste in the United States: 2005 Facts and Figures*. The Btu contents of the components of MSW were obtained from various sources.

In 2011, the components of MSW as a percentage of the total were updated. The updated values were applied to final 2011 data and to preliminary 2012 and 2013 data. Although updated component percentages for 2006 through 2010 were available, historical EIA data series for consumption of MSW and net generation were not revised for 2005 to 2010. The tables below are the percentages applied to the EIA data for each year.

The potential quantities of combustible MSW discards (which include all MSW material available for combustion with energy recovery, discards to landfill, and other disposal) were multiplied by their respective Btu contents. The EPA-based categories of MSW were then classified into renewable and non-renewable groupings. From this, EIA calculated how much of the energy potentially consumed from MSW was attributed to biogenic components and how much to non-biogenic components (see Table 1 and 2, below).[5]

These values are used to allocate consumption of municipal solid waste and net generation published in the Electric Power Monthly tables. The tons of biogenic and non-biogenic components were estimated with the assumption that glass and metals were removed prior to combustion. The average Btu/ton for the biogenic and non-biogenic components is estimated by dividing the total Btu consumption by the total tons. Published net generation attributed to biogenic MSW and non-biogenic MSW is classified under Other Renewables and Other, respectively.

Table 1. Btu consumption for biogenic and non-biogenic municipal solid waste (percent)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011

Biogenic	57	56	55	55	56	56	56	56	56	56	51
Non-biogenic	43	44	45	45	44	44	4	44	44	44	49

Table 2. Tonnage consumption for biogenic and non-biogenic municipal solid waste (percent)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Biogenic	77	77	76	76	75	75	75	75	75	75	64
Non-biogenic	23	23	24	24	25	25	25	25	25	25	36

Useful Thermal Output (UTO): With the implementation of the Form EIA-923, "Power Plant Operations Report," in 2008, combined heat and power (CHP) plants were required to report total fuel consumed and electric power generation. Beginning with preliminary January 2008 data, EIA estimated the allocation of the total fuel consumed at CHP plants between electric power generation and UTO.

The estimated allocation methodology is summarized in the following paragraphs. The methodology was retroactively applied to 2004-2007 data. Prior to 2004, UTO was collected on the Form EIA-906 and an estimated allocation of fuel for electricity was not necessary.

First, an efficiency factor is determined for each plant and prime mover type. Based on data for electric power generation and UTO collected in 2003 (on Form EIA-906, "Power Plant Report"), efficiency was calculated for each prime mover type at a plant. The efficiency factor is the total output in Btu, including electric power and UTO, divided by the total input in Btu. Electric power is converted to Btu at 3,412 Btu per kilowatthour.

Second, to calculate the amount of fuel for electric power, the gross generation in Btu is divided by the efficiency factor. The fuel for UTO is the difference between the total fuel reported and the fuel for electric power generation. UTO is calculated by multiplying the fuel for UTO by the efficiency factor.

In addition, if the total fuel reported is less than the estimated fuel for electric power generation, then the fuel for electric power generation is equal to the total fuel consumed, and the UTO will be zero.

Issues within Historical Data Series for Receipts and Cost and Quality of Fossil Fuels: Values for receipts of natural gas for 2001 forward do not include blast furnace gas or other gas.

Historical data collected on FERC Form 423 and published by EIA have been reviewed for consistency between volumes and prices and for their consistency over time. However, these data were collected by FERC for regulatory rather than statistical and publication purposes. EIA did not attempt to resolve any late filing issues in the FERC Form 423 data. In 2003, EIA introduced a procedure to estimate for late or non-responding entities that were required to report on the FERC Form 423. Due to the introduction of this procedure, 2003 and later data cannot be directly compared to previous years' data.

Prior to 2008, regulated plants reported receipts data on the FERC Form 423. These plants, along with unregulated plants, now report receipts data on Schedule 2 of Form EIA-923. Because FERC issued waivers to Form 423 filing requirements to some plants who met certain criteria, and because not all types of generators were required to report (only steam turbines and combined cycle units reported), a significant number of plants either did not submit fossil fuel receipts data or submitted only a portion of their fossil fuel receipts. Since Form EIA-923 does not have exemptions based on generator type, or reporting waivers, receipts data from 2008 and later cannot be directly compared to previous years' data for the regulated sector. Also beginning with January 2008 data, tables for total receipts included imputed quantities for plants with capacity one megawatt or more, to be consistent with other electric power data. Previous published receipts data were from plants at or over a 50 megawatt threshold, which was a legacy of their original collection as information for a regulatory agency, not as a survey to provide more meaningful estimates of totals for statistical purposes. Totals appeared to become smaller as more electric production came from unregulated plants, until the Form EIA-423 was created to help fill that gap. As a further improvement, estimation of all receipts for the universe normally depicted in the Electric Power Annual (i.e., one megawatt and above), with associated relative standard errors, provides a more complete assessment of the market.

Issues within Historical Data Series for Generation and Consumption: Beginning in 2008, a new method of allocating fuel consumption between electric power generation and UTO was implemented (see above). This new methodology evenly distributes a CHP plant's losses between the two output products (electric power and UTO). In the historical data, UTO was consistently assumed to be 80 percent efficient and all other losses at the plant were allocated to electric power. This change causes the fuel for electric power to be lower while the fuel for UTO is higher as both are given the same efficiency. This results in the appearance of an increase in efficiency of production of electric power between periods.

Sensitive Data: The total delivered cost of fuel delivered to nonutilities, the commodity cost of fossil fuels, and fuel stocks are considered business sensitive.

Air Emissions

This section describes the methodology for calculating estimated emissions of carbon dioxide (CO_2) from electric generating plants for 1989 through the present, as well as the estimated emissions of sulfur dioxide (SO_2) and nitrogen oxides (NO_x) from electric generating plants for 2001 through the present. For a description of the methodology used for other years, see the technical notes to the EPA 2003.

Methodology Overview: Initial estimates of uncontrolled SO_2 and NOx emissions for all plants are made by applying an emissions factor to fuel consumption data collected by EIA on the Form EIA-923. An emission factor is the average quantity of a pollutant released from a power plant when a unit of fuel is burned, assuming no use of pollution control equipment. The basic relationship is:

Emissions = Quantity of Fuel Consumed x Emission Factor

Quantity is defined in physical units (e.g., tons of solid fuels, million cubic feet of gaseous fuels, and thousands of barrels of liquid fuels) for determining NO_x and SO_2 emissions. As discussed below, physical quantities are converted to millions of Btus for calculating CO_2 emissions.

For some fuels, the calculation of SO_2 emissions requires including in the formula the sulfur content of the fuel measured in percentage of weight. Examples include coal and fuel oil. In these cases the formula is:

Emissions = Quantity of Fuel Consumed x Emission Factor x Sulfur Content

The fuels that require the percent sulfur as part of the emissions calculation are indicated in Table A.1., which lists the SO_2 emission factors used for this report.

In the case of SO_2 and NO_x emissions, the factor applied to a fuel can also vary with the combustion system: a steam-producing boiler, a combustion turbine, or an internal combustion engine. In the case of boilers, NO_x emissions can also vary with the firing configuration of a boiler and whether or not the boiler is a wet-bottom or dry-bottom design.[6] These distinctions are shown in Tables A.1. and A.2.

For SO_2 and NO_x, the initial estimate of uncontrolled emissions is reduced to account for the plant's operational pollution control equipment, when data on control equipment are available from the historical Form EIA-767 survey (i.e., data for the years 2005 and earlier) and the EIA-860 and EIA-923 surveys for the years 2007 through 2010. A special case for removal of SO_2 is the fluidized bed boiler, in which the sulfur removal process is integral with the operation of the boiler. The SO_2 emission factors shown in Table A.1. for fluidized bed boilers already account for 90 percent removal of SO_2 since, in effect, the plant has no uncontrolled emissions of this pollutant.

Although SO_2 and NO_x emission estimates are made for all plants, in many cases the estimated emissions can be replaced with actual emissions data collected by the U.S. Environmental Protection Agency's (U.S. EPA's) Continuous Emissions Monitoring System (CEMS) program. (CEMS data for CO_2 are incomplete and are not used in this report.) The CEMS data account for the bulk of SO_2 and NO_x emissions from the electric power industry. For those plants for which CEMS data are available, the EIA estimates of SO_2 and NO_x emissions are employed for the limited purpose of allocating emissions by fuel, since the CEMS data itself do not provide a detailed breakdown of plant emissions by fuel. For plants for which CEMS data are unavailable, the EIA-computed values are used as the final emissions estimates.

There are a number of reasons why the historical data are periodically revised. These include data revisions, revisions in emission and technology factors, and changes in methodology. For instance, the 2008 Electric Power Annual report features a revision in historic CO_2 values. This revision occurred due to a change in the accepted methodology regarding adjustments made for the percentage combustion of fuels.

The emissions estimation methodologies are described in more detail below.

CO_2 Emissions: CO_2 emissions are estimated using the information on fuel consumption in physical units and the heat content of fuel collected on the Form EIA-923 and predecessors. Heat content information is used to convert physical units to millions of Btu (MMBtu) consumed. To estimate CO_2 emissions, the fuel-specific emission factor from Table A.3. is multiplied by the fuel consumption in MMBtu.

The estimation procedure calculates uncontrolled CO_2 emissions. CO_2 control technologies are currently in the early stages of research and there are no commercial systems installed. Therefore, no estimates of controlled CO_2 emissions are made.

SO_2 and NO_x Emissions: To comply with environmental regulations controlling SO_2 emissions, many coal-fired generating plants have installed flue gas desulfurization (FGD) units. Similarly, NO_x control regulations require many fossil-fueled plants to install low-NO_x burners, selective catalytic reduction systems, or other technologies to reduce emissions. It is common for power plants to employ two or even three NO_x control technologies; accordingly, the NO_x emissions estimation approach accounts for the combined effect of the equipment (Table A.4.). However, control equipment information is available only for plants that reported on the Form EIA-923 and for historical data from the Form EIA-767. The Form EIA-860, EIA-923, and the historical EIA-767 surveys are limited to plants with boilers fired by combustible fuels[7] with a minimum generating capacity of 10 megawatts (nameplate). Pollution control equipment data are unavailable from EIA sources for plants that did not report on the historical EIA-767 survey, or the Forms EIA-860 and EIA-923.

The following method is used to estimate SO_2 and NO_x emissions:

- For steam electric plants, uncontrolled emissions are estimated using the emission factors shown in Tables A.1. and A.2. as well as reported data on fuel consumption, sulfur content, and boiler firing configuration. Controlled emissions are then determined when pollution control equipment is present. Although information on control equipment was not collected in 2006, updates for new installations during this period were made based on EPA data. Beginning in 2007, these data were collected on the Forms EIA-860 and EIA-923. For SO_2, the reported efficiency of the plant's FGD units is used to convert uncontrolled to controlled emission estimates. For NO_x, the reduction percentages shown in Table A.4. are applied to the uncontrolled estimates.
- For plants and prime movers not reported on the historical Form EIA-767 survey or Forms EIA-860 and EIA-923, uncontrolled emissions are estimated using the Table A.1. and Table A.2. emission factors and the following data and assumptions:
    - Fuel consumption is taken from the Form EIA-923 and predecessors.
    - The sulfur content of the fuel is estimated from fuel receipts for the plant reported on the Form EIA-923. When plant-specific sulfur content data are unavailable, the national average sulfur content for the fuel, computed from the Form EIA-923 is applied to the plant.
    - As noted earlier, the emission factor for plants with boilers depends in part on the type of combustion system, including whether a boiler is wet-bottom or dry-bottom, and the boiler firing configuration. However, this boiler information is unavailable for steam electric plants that did not report on the historical Forms EIA-767 or EIA-860. For these cases, the plant is assumed to have a dry-bottom, non-cyclone boiler using a firing method that falls into the "All Other" category shown on Table A.1.[8]

      For the plants that did not report on the historical Form EIA-767 or EIA-860, pollution control equipment data are unavailable and the uncontrolled estimates are not reduced.
- If actual emissions of SO_2 or NO_x are reported in the EPA's CEMS data, the EIA estimates are replaced with the CEMS values, using the EIA estimates to allocate the CEMS plant-level data by fuel. If CEMS data are unavailable, the EIA estimates are used as the final values.

Conversion Factors for Propane, Petroleum Coke, and Synthesis Gases.

The quantity conversion for petroleum coke is 5 barrels (of 42 U.S. gallons each) per short ton (2,000 pounds), propane is 1.53 thousand cubic feet per barrel, coal-derived synthesis gas is 98.06 thousand cubic feet per ton, and petroleum coke-derived synthesis gas is 107.31 thousand cubic feet per ton.

Relative Standard Error

The relative standard error (RSE) statistic, usually given as a percent, describes the magnitude of sampling error that might reasonably be incurred. The RSE is the square root of the estimated variance, divided by the variable of interest. The variable of interest may be the ratio of two variables, or a single variable.

The sampling error may be less than the non-sampling error. In fact, large RSE estimates found in preliminary work with these data have often indicated non-sampling errors, which were then identified and corrected. Non-sampling errors may be attributed to many sources, including response errors, definitional difficulties, differences in the interpretation of questions, mistakes in recording or coding data obtained, and other errors of collection, response, or coverage. These non-sampling errors also occur in complete censuses.

Using the Central Limit Theorem, which applies to sums and means such as are applicable here, there is approximately a 68 percent chance that the true total or mean is within one RSE of the estimated total. Note that reported RSEs are always estimates, themselves, and are usually, as here, reported as percents. As an example, suppose that a net generation from coal value is estimated to be 1,507 total million kilowatthours with an estimated RSE of 4.9 percent. This means that, ignoring any non-sampling error, there is approximately a 68 percent chance that the true million kilowatthour value is within approximately 4.9 percent of 1,507 million kilowatthours (that is, between 1,433 and 1,581 million kilowatthours). Also under the Central Limit Theorem, there is approximately a 95 percent chance that the true mean or total is within 2 RSEs of the estimated mean or total.

Note that there are times when a model may not apply, such as in the case of a substantial reclassification of sales, when the relationship between the variable of interest and the regressor data does not hold. In such a case, the new information represents only itself, and such numbers are added to model results when estimating totals. Further, there are times when sample data may be known to be in error, or are not reported. Such cases are treated as if they were never part of the model-based sample, and values are imputed.

Business Classification

Nonutility power producers consist of entities that own or operate electric generating units but are not subject to direct economic regulation of rates, such as by state utility commissions. Nonutility power producers do not have a designated franchised service area. In addition to entities whose primary business is the production and sale of electric power, entities with other primary business classifications can and do sell electric power. These can consist of, for example, manufacturing facilities and paper mills.

The EIA, in the Electric Power Annual and other data products, classifies nonutility power producers into the following categories:

- **Electric Utility (Sector 1):** All regulated plants with a primary purpose of selling electricity in the public markets (NAICS = 22).

- **Independent Power Producers (Sector 2):** All non-regulated plants with a primary purpose of electric power generation and a primary purpose of selling electricity in the public markets (NAICS = 22) with no ability to cogenerate heat and power.
- **Electric Power, Combined Heat and Power (Sector 3):** All non-regulated plants with a primary purpose of electric power generation and a primary purpose of selling electricity in the public markets (NAICS = 22) with the ability to cogenerate heat and power.
- **Commercial, Non-Combined Heat and Power (Sector 4):** All plants with a commercial primary purpose with no ability to cogenerate heat and power.
- **Commercial, Combined Heat and Power (Sector 5):** All plants with a commercial primary purpose with the ability to cogenerate heat and power.
- **Industrial, Non-Combined Heat and Power (Sector 6):** All plants with an industrial primary purpose with no ability to cogenerate heat and power.
- **Industrial, Combined Heat and Power (Sector 7):** All plants with an industrial primary purpose with the ability to cogenerate heat and power.

The following is a list of the North American Industry Classification System (NAICS) classifications used by EIA.

	Agriculture, Forestry, Fishing and Hunting
111	Crop Production
112	Animal Production
113	Forestry and Logging
114	Fishing, Hunting and Trapping
115	Support Activities for Agriculture and Forestry
	Mining, Quarrying, and Oil and Gas Extraction
211	Oil and Gas Extraction
2121	Coal Mining
2122	Metal Ore Mining
2123	Nonmetallic Mineral Mining and Quarrying
	Utilities
22	Electric Power Generation, Transmission and Distribution (other than 2212, 2213, 22131, 22132 or 22133)
2212	Natural Gas Distribution
22131	Water Supply and Irrigation Systems
22132	Sewage Treatment Facilities
22133	Steam and Air-Conditioning Supply
	Manufacturing
311	Food Manufacturing
312	Beverage and Tobacco Product Manufacturing
313	Textile Mills (Fiber, Yarn, Thread, Fabric, and Textiles)
314	Textile Product Mills
315	Apparel Manufacturing
316	Leather and Allied Product Manufacturing
321	Wood Product Manufacturing
322	Paper Manufacturing (other than 322122 or 32213)
322122	Newsprint Mills

32213	Paperboard Mills
323	Printing and Related Support Activities
324	Petroleum and Coal Products Manufacturing (other than 32411)
32411	Petroleum Refineries
325	Chemical Manufacturing (other than 32511, 32512, 325193, 325188, 3252 325211, 3253 or 325311)
32511	Petrochemical Manufacturing
32512	Industrial Gas Manufacturing
325193	Ethyl Alcohol Manufacturing (including Ethanol)
325188	Industrial Inorganic Chemicals
3252	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing (other than 325211)
325211	Plastics Material and Resin Manufacturing
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing (other than 325311)
325311	Nitrogenous Fertilizer Manufacturing
326	Plastics and Rubber Products Manufacturing
327	Nonmetallic Mineral Product Manufacturing (other than 32731)
32731	Cement Manufacturing
331	Primary Metal Manufacturing (other than 331111 or 331312)
331111	Iron and Steel Mills
331312	Primary Aluminum Production
332	Fabricated Metal Product Manufacturing
333	Machinery Manufacturing
334	Computer and Electronic Product Manufacturing
335	Electrical Equipment, Appliance, and Component Manufacturing
336	Transportation Equipment Manufacturing
337	Furniture and Related Product Manufacturing
339	Miscellaneous Manufacturing
421	**Wholesale Trade**
441	**Retail Trade**
	Transportation and Warehousing
481	Air Transportation
482	Rail Transportation
483	Water Transportation
484	Truck Transportation
485	Transit and Ground Passenger Transportation
486	Pipeline Transportation
487	Scenic and Sightseeing Transportation
488	Support Activities for Transportation (other than 4881, 4882, 4883 or 4884)
4881	Support Activities for Air Transportation (including Airports)
4882	Support Activities for Rail Transportation (including Rail Stations)
4883	Support Activities for Water Transportation (including Marinas)
4884	Support Activities for Road Transportation
491	Postal Service
492	Couriers and Messengers
493	Warehousing and Storage
	Information
511	Publishing Industries (except Internet)
512	Motion Picture and Sound Recording Industries
515	Broadcasting (except Internet)

517	Telecommunications
518	Data Processing, Hosting, and Related Services
519	Other Information Services
521	**Finance and Insurance**
53	**Real Estate and Rental and Leasing (including Convention Centers and Office Buildings)**
541	**Professional, Scientific, and Technical Services**
55	**Management of Companies and Enterprises**
	Administrative and Support and Waste Management and Remediation Services
561	Administrative and Support Services
562	Waste Management and Remediation Services (other than 562212 or 562213)
562212	Solid Waste Landfill
562213	Solid Waste Combustors and Incinerators
611	**Educational Services**
	Health Care and Social Assistance
621	Ambulatory Health Care Services
622	Hospitals
623	Nursing and Residential Care Facilities
624	Social Assistance
	Arts, Entertainment, and Recreation
711	Performing Arts, Spectator Sports, and Related Industries
712	Museums, Historical Sites, and Similar Institutions
713	Amusement, Gambling, and Recreation Industries
	Accommodation and Food Services
721	Accommodation
722	Food Services and Drinking Places
	Other Services (except Public Administration)
811	Repair and Maintenance
812	Personal and Laundry Services
813	Religious, Grantmaking, Civic, Professional, and Similar Organizations
814	Private Households
92	**Public Administration (other than 921, 922, 92214 or 928)**
921	Executive, Legislative, and Other General Government Services
922	Justice, Public Order and Safety Activities (other than 92214)
92214	Correctional Facilities
928	National Security and International Affairs (including Military Bases)

[1] The basic technique employed is described in the paper "Model-Based Sampling and Inference," on the EIA website. Additional references can be found on the InterStat website (http://interstat.statjournals.net/). See the following sources: Knaub, J.R., Jr. (1999a), "Using Prediction-Oriented Software for Survey Estimation," InterStat, August 1999, http://interstat.statjournals.net/; Knaub, J.R. Jr. (1999b), "Model-Based Sampling, Inference and Imputation," EIA web site:

http://www.eia.gov/cneaf/electricity/forms/eiawebme.pdf; Knaub, J.R., Jr. (2005), "Classical Ratio Estimator," InterStat, October 2005, http://interstat.statjournals.net/; Knaub, J.R., Jr. (2007a), "Cutoff Sampling and Inference," InterStat, April 2007, http://interstat.statjournals.net/; Knaub, J.R., Jr. (2008), "Cutoff Sampling." Definition in Encyclopedia of Survey Research Methods, Editor: Paul J. Lavrakas, Sage, to appear; Knaub, J.R., Jr. (2000), "Using Prediction-Oriented Software for Survey Estimation - Part II: Ratios of Totals," InterStat, June 2000, http://interstat.statjournals.net/; Knaub, J.R., Jr. (2001), "Using Prediction-Oriented Software for Survey Estimation - Part III: Full-Scale Study of Variance and Bias," InterStat, June 2001, http://interstat.statjournals.net/.

[2] Due to the restructuring of the electric power industry, many plants which had historically submitted this information for utility plants on the FERC Form 423 (see subsequent section) were being transferred to the nonutility sector. As a result, a large percentage of fossil fuel receipts were no longer being reported. The Form EIA-423 was implemented to fill this void and to capture the data associated with existing nonregulated power producers. Its design closely follows that of the FERC Form 423.

[3] The basic technique employed is described in the paper "Model-Based Sampling and Inference," on the EIA website. Additional references can be found on the InterStat website (http://interstat.statjournals.net/). See the following sources: Knaub, J.R., Jr. (1999a), "Using Prediction-Oriented Software for Survey Estimation," InterStat, August 1999, http://interstat.statjournals.net/; Knaub, J.R. Jr. (1999b), "Model-Based Sampling, Inference and Imputation," EIA web site: http://www.eia.gov/cneaf/electricity/forms/eiawebme.pdf; Knaub, J.R., Jr. (2005), "Classical Ratio Estimator," InterStat, October 2005, http://interstat.statjournals.net/; Knaub, J.R., Jr. (2007a), "Cutoff Sampling and Inference," InterStat, April 2007, http://interstat.statjournals.net/; Knaub, J.R., Jr. (2008), "Cutoff Sampling." Definition in Encyclopedia of Survey Research Methods, Editor: Paul J. Lavrakas, Sage, to appear; Knaub, J.R., Jr. (2000), "Using Prediction-Oriented Software for Survey Estimation - Part II: Ratios of Totals," InterStat, June 2000, http://interstat.statjournals.net/; Knaub, J.R., Jr. (2001), "Using Prediction-Oriented Software for Survey Estimation - Part III: Full-Scale Study of Variance and Bias," InterStat, June 2001, http://interstat.statjournals.net/.

[4] See the following sources: Bahillo, A. et al. Journal of Energy Resources Technology, "NOx and N2O Emissions During Fluidized Bed Combustion of Leather Wastes." Volume 128, Issue 2, June 2006. pp. 99-103; U.S. Energy Information Administration. *Renewable Energy Annual 2004*. "Average Heat Content of Selected Biomass Fuels." Washington, DC, 2005; Penn State Agricultural College Agricultural and Biological Engineering and Council for Solid Waste Solutions. Garth, J. and Kowal, P. Resource Recovery, Turning Waste into Energy, University Park, PA, 1993; Utah State University Recycling Center Frequently Asked Questions

[5] Biogenic components include newsprint, paper, containers and packaging, leather, textiles, yard trimmings, food wastes, and wood. Non-biogenic components include plastics, rubber and other miscellaneous non-biogenic waste.

[6] A boiler's firing configuration relates to the arrangement of the fuel burners in the boiler, and whether the boiler is of conventional or cyclone design. Wet- and dry-bottom boilers use different methods to collect a portion of the ash that results from burning coal. For information on wet- and dry-bottom boilers, see the EIA Glossary at http://www.eia.gov/glossary/index.html. Additional information on wet- and dry-bottom boilers and on other aspects of boiler design and operation, including the differences between conventional and cyclone designs, can be found in Babcock and Wilcox, *Steam: Its Generation and Use*, 41st Edition, 2005.

[7] Boilers that rely entirely on waste heat to create steam, including the heat recovery portion of most combined cycle plants, did not report on the historical Form EIA-767 or EIA-923.

[8] The "All Other" firing configuration category includes, for example, arch firing and concentric firing. For a full list of firing method options for reporting on the historical Form EIA-767, see the form instructions, page xi, at http://www.eia.gov/survey/form/eia_767/instructions_form.pdf.

Table A.1. Sulfur Dioxide Uncontrolled Emission Factors

Fuel, Code, Source and Emission Units				Combustion System Type / Firing Configuration							
Fuel	EIA Fuel Code	Source and Tables (As Appropriate)	Emissions Units Lbs = Pounds MMCF = Million Cubic Feet MG = Thousand Gallons	Cyclone Boiler	Fluidized Bed Boiler	Opposed Firing Boiler	Spreader Stoker Boiler	Tangential Boiler	All Other Boiler Types	Combustion Turbine	Internal Combustion Engine
Agricultural Byproducts	AB	Source: 1	Lbs per ton	0.08	0.01	0.08	0.08	0.08	0.08	N/A	N/A
Blast Furnace Gas	BFG	Sources: 1 (including footnote 7 within source); 2, Table 1.4-2 (including footnote d within source)	Lbs per MMCF	0.60	0.06	0.60	0.60	0.60	0.60	0.60	0.60
Bituminous Coal*	BIT	Source: 2, Table 1.1-3	Lbs per ton	38.00	3.80	38.00	38.00	38.00	38.00	N/A	N/A
Black Liquor	BLQ	Source: 1	Lbs per ton **	7.00	0.70	7.00	7.00	7.00	7.00	N/A	N/A
Distillate Fuel Oil*	DFO	Source: 2, Table 3.1-2a, 3.4-1 & 1.3-1	Lbs per MG	157.00	15.70	157.00	157.00	157.00	157.00	140.00	140.00
Jet Fuel*	JF	Assumed to have emissions similar to DFO.	Lbs per MG	157.00	15.70	157.00	157.00	157.00	157.00	140.00	140.00
Kerosene*	KER	Assumed to have emissions similar to DFO.	Lbs per MG	157.00	15.70	157.00	157.00	157.00	157.00	140.00	140.00
Landfill Gas	LFG	Sources: 1 (including footnote 7 within source); 2, Table 1.4-2 (including footnote d within source)	Lbs per MMCF	0.60	0.06	0.60	0.60	0.60	0.60	0.60	0.60
Lignite Coal*	LIG	Source: 2, Table 1.7-1	Lbs per ton	30.00	3.00	30.00	30.00	30.00	30.00	N/A	N/A
Municipal Solid Waste	MSW	Source: 1	Lbs per ton	1.70	0.17	1.70	1.70	1.70	1.70	N/A	N/A
Natural Gas	NG	Sources: 1 (including footnote 7 within source); 2, Table 1.4-2 (including footnote d within source)	Lbs per MMCF	0.60	0.06	0.60	0.60	0.60	0.60	0.60	0.60
Other Biomass Gas	OBG	Sources: 1 (including footnote 7 within source); 2, Table 1.4-2 (including footnote d within source)	Lbs per MMCF	0.60	0.06	0.60	0.60	0.60	0.60	0.60	0.60
Other Biomass Liquids*	OBL	Source: 1 (including footnotes 3 and 16 within source)	Lbs per MG	157.00	15.70	157.00	157.00	157.00	157.00	140.00	140.00
Other Biomass Solids	OBS	Source: 1 (including footnote 11 within source)	Lbs per ton	0.23	0.02	0.23	0.23	0.23	0.23	N/A	N/A
Other Gases	OG	Source: 1 (including footnote 7 within source)	Lbs per MMCF	0.60	0.06	0.60	0.60	0.60	0.60	0.60	0.60
Other	OTH	Assumed to have emissions similar to Natural Gas.	Lbs per MMCF	0.60	0.06	0.60	0.60	0.60	0.60	0.60	0.60
Petroleum Coke*	PC	Source: 1	Lbs per ton	39.00	3.90	39.00	39.00	39.00	39.00	N/A	N/A
Propane Gas	PG	Sources: 1 (including footnote 7 within source); 2, Table 1.4-2 (including footnote d within source)	Lbs per MMCF	0.60	0.06	0.60	0.60	0.60	0.60	0.60	0.60
Residual Fuel Oil*	RFO	Source: 2, Table 1.3-1	Lbs per MG	157.00	15.70	157.00	157.00	157.00	157.00	N/A	N/A
Synthetic Coal*	SC	Assumed to have the emissions similar to Bituminous Coal.	Lbs per ton	38.00	3.80	38.00	38.00	38.00	38.00	N/A	N/A
Sludge Waste	SLW	Source: 1 (including footnote 11 within source)	Lbs per ton **	2.80	0.28	2.80	2.80	2.80	2.80	N/A	N/A
Subbituminous Coal*	SUB	Source: 2, Table 1.1-3	Lbs per ton	35.00	3.50	35.00	38.00	35.00	35.00	N/A	N/A
Tire-Derived Fuel*	TDF	Source: 1 (including footnote 13 within source)	Lbs per ton	38.00	3.80	38.00	38.00	38.00	38.00	N/A	N/A
Waste Coal*	WC	Source: 1 (including footnote 20 within source)	Lbs per ton	30.00	3.00	30.00	30.00	30.00	30.00	N/A	N/A
Wood Waste Liquids*	WDL	Source: 1 (including footnotes 3 and 16 within source)	Lbs per MG	157.00	15.70	157.00	157.00	157.00	157.00	140.00	140.00
Wood Waste Solids	WDS	Source: 1	Lbs per ton	0.29	0.08	0.29	0.08	0.29	0.29	N/A	N/A
Waste Oil*	WO	Source: 2, Table 1.11-2	Lbs per MG	147.00	14.70	147.00	147.00	147.00	147.00	N/A	N/A

Notes:
* For these fuels, emissions are estimated by multiplying the emissions factor by the physical volume of fuel and the sulfur percentage of the fuel (other fuels do not require the sulfur percentage in the calculation). Note that EIA data do not provide the sulfur content of TDF. The value used (1.56 percent) is from U.S. EPA, Control of Mercury Emissions from Coal-Fired Electric Utility Boilers, April 2002, EPA-600/R-01-109, Table A-11 (available at:http://www.epa.gov/appcdwww/aptb/EPA-600-R-01-109A.pdf).
** Although Sludge Waste and Black Liquor consist substantially of liquids, these fuels are measured and reported to EIA in tons.

Sources:

1. Eastern Research Group, Inc. and E.H. Pechan & Associates, Inc., Documentation for the 2002 Electric Generating Unit National Emissions Inventory, Table 6, September 2004. Prepared for the U.S. Environmental Protection Agency, Emission Factor and Inventory Group (D205-01), Emissions, Monitoring and Analysis Division, Research Triangle Park
2. U.S. Environmental Protection Agency, AP 42, Fifth Edition (Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources); available at: http://www.epa.gov/ttn/chief/ap42/

Table A.2. Nitrogen Oxides Uncontrolled Emission Factors

Fuel, Code, Source and Emission Units				Combustion System Type / Firing Configuration				
				Cyclone Boiler	Fluidized Bed Boiler	Opposed Firing Boiler		Spreader Stoker Boiler
Fuel	EIA Fuel Code	Source and Tables (As Appropriate)	Emissions Units Lbs = Pounds MMCF = Million Cubic Feet MG = Thousand Gallons	Dry-Bottom Boilers	Dry-Bottom Boilers	Dry-Bottom Boilers	Wet-Bottom Boilers	Dry-Bottom Boilers
Agricultural Byproducts	AB	Source: 1	Lbs per ton	1.20	1.20	1.20	N/A	1.20
Blast Furnace Gas	BFG	Sources: 1 (including footnote 7 within source); EIA estimates	Lbs per MMCF	15.40	15.40	15.40	N/A	15.40
Bituminous Coal	BIT	Source: 2, Table 1.1-3	Lbs per ton	33.00	5.00	12.00	31.00	11.00
Black Liquor	BLQ	Source: 1	Lbs per ton **	1.50	1.50	1.50	N/A	1.50
Distillate Fuel Oil	DFO	Source: 2, Tables 3.4-1 & 1.3-1	Lbs per MG	24.00	24.00	24.00	N/A	24.00
Jet Fuel	JF	Source: 2, Tables 3.1-2a, 3.4-1 & 1.3-1	Lbs per MG	24.00	24.00	24.00	N/A	24.00
Kerosene	KER	Source: 2, Tables 3.1-2a, 3.4-1 & 1.3-1	Lbs per MG	24.00	24.00	24.00	N/A	24.00
Landfill Gas	LFG	Sources: 1 (including footnote 7 within source); EIA estimates	Lbs per MMCF	72.44	72.44	72.44	N/A	72.44
Lignite Coal	LIG	Source: 2, Table 1.7-1	Lbs per ton	15.00	3.60	6.30	N/A	5.80
Municipal Solid Waste	MSW	Source: 1	Lbs per ton	5.00	5.00	5.00	N/A	5.00
Natural Gas	NG	Source: 2, Tables 1.4-1, 3.1-1, and 3.4-1	Lbs per MMCF	280.00	280.00	280.00	N/A	280.00
Other Biomass Gas	OBG	Sources: 1 (including footnote 7 within source); EIA estimates	Lbs per MMCF	112.83	112.83	112.83	N/A	112.83
Other Biomass Liquids	OBL	Source: 1 (including footnote 3 within source)	Lbs per MG	19.00	19.00	19.00	N/A	19.00
Other Biomass Solids	OBS	Source: 1 (including footnote 11 within source)	Lbs per ton	2.00	2.00	2.00	N/A	2.00
Other Gases	OG	Sources: 1 (including footnote 7 within source); EIA estimates	Lbs per MMCF	152.82	152.82	152.82	N/A	152.82
Other	OTH	Assumed to have emissions similar to Natural Gas.	Lbs per MMCF	280.00	280.00	280.00	N/A	280.00
Petroleum Coke	PC	Source: 1 (including footnote 8 within source)	Lbs per ton	21.00	5.00	21.00	N/A	21.00
Propane Gas	PG	Sources: 3; EIA estimates	Lbs per MMCF	215.00	215.00	215.00	N/A	215.00
Residual Fuel Oil	RFO	Source: 2, Table 1.3-1	Lbs per MG	47.00	47.00	47.00	N/A	47.00
Synthetic Coal	SC	Assumed to have the emissions similar to Bituminous Coal.	Lbs per ton	33.00	5.00	12.00	31.00	11.00
Sludge Waste	SLW	Source: 1 (including footnote 11 within source)	Lbs per ton **	5.00	5.00	5.00	N/A	5.00
Subbituminous Coal	SUB	Source: 2, Table 1.1-3	Lbs per ton	17.00	5.00	7.40	24.00	8.80
Tire-Derived Fuel	TDF	Source: 1 (including footnote 13 within source)	Lbs per ton	33.00	5.00	12.00	31.00	11.00
Waste Coal	WC	Source: 1 (including footnote 20 within source)	Lbs per ton	15.00	3.60	6.30	N/A	5.80
Wood Waste Liquids	WDL	Source: 1 (including footnote 16 within source)	Lbs per MG	5.43	5.43	5.43	N/A	5.43
Wood Waste Solids	WDS	Source: 1	Lbs per ton	2.51	2.00	2.51	N/A	1.50
Waste Oil	WO	Source: 2, Table 1.11-2	Lbs per MG	19.00	19.00	19.00	N/A	19.00

Fuel, Code, Source and Emission Units				Combustion System Type / Firing Configuration					
				Tangential Boiler		All Other Boiler Types		Combustion Turbine	Internal Combustion Engine
Fuel	EIA Fuel Code	Source and Tables (As Appropriate)	Emissions Units Lbs = Pounds MMCF = Million Cubic Feet MG = Thousand Gallons	Dry-Bottom Boilers	Wet-Bottom Boilers	Dry-Bottom Boilers	Wet-Bottom Boilers	Dry-Bottom Boilers	Dry-Bottom Boilers
Agricultural Byproducts	AB	Source: 1	Lbs per ton	1.20	N/A	1.20	N/A	N/A	N/A
Blast Furnace Gas	BFG	Sources: 1 (including footnote 7 within source); EIA estimates	Lbs per MMCF	15.40	N/A	15.40	N/A	30.40	256.55
Bituminous Coal	BIT	Source: 2, Table 1.1-3	Lbs per ton	10.00	14.00	12.00	31.00	N/A	N/A
Black Liquor	BLQ	Source: 1	Lbs per ton **	1.50	N/A	1.50	N/A	N/A	N/A
Distillate Fuel Oil	DFO	Source: 2, Tables 3.4-1 & 1.3-1	Lbs per MG	24.00	N/A	24.00	N/A	122.00	443.80
Jet Fuel	JF	Source: 2, Tables 3.1-2a, 3.4-1 & 1.3-1	Lbs per MG	24.00	N/A	24.00	N/A	118.00	432.00
Kerosene	KER	Source: 2, Tables 3.1-2a, 3.4-1 & 1.3-1	Lbs per MG	24.00	N/A	24.00	N/A	118.00	432.00
Landfill Gas	LFG	Sources: 1 (including footnote 7 within source); EIA estimates	Lbs per MMCF	72.44	N/A	72.44	N/A	144.00	1,215.22
Lignite Coal	LIG	Source: 2, Table 1.7-1	Lbs per ton	7.10	N/A	6.30	N/A	N/A	N/A
Municipal Solid Waste	MSW	Source: 1	Lbs per ton	5.00	N/A	5.00	N/A	N/A	N/A
Natural Gas	NG	Source: 2, Tables 1.4-1, 3.1-1, and 3.4-1	Lbs per MMCF	170.00	N/A	280.00	N/A	328.00	2,768.00
Other Biomass Gas	OBG	Sources: 1 (including footnote 7 within source); EIA estimates	Lbs per MMCF	112.83	N/A	112.83	N/A	313.60	2,646.48
Other Biomass Liquids	OBL	Source: 1 (including footnote 3 within source)	Lbs per MG	19.00	N/A	19.00	N/A	N/A	N/A
Other Biomass Solids	OBS	Source: 1 (including footnote 11 within source)	Lbs per ton	2.00	N/A	2.00	N/A	N/A	N/A
Other Gases	OG	Sources: 1 (including footnote 7 within source); EIA estimates	Lbs per MMCF	152.82	N/A	152.82	N/A	263.82	2,226.41
Other	OTH	Assumed to have emissions similar to Natural Gas.	Lbs per MMCF	170.00	N/A	280.00	N/A	328.00	2,768.00
Petroleum Coke	PC	Source: 1 (including footnote 8 within source)	Lbs per ton	21.00	N/A	21.00	N/A	N/A	N/A
Propane Gas	PG	Sources: 3; EIA estimates	Lbs per MMCF	215.00	N/A	215.00	N/A	330.75	2,791.22
Residual Fuel Oil	RFO	Source: 2, Table 1.3-1	Lbs per MG	32.00	N/A	47.00	N/A	N/A	N/A
Synthetic Coal	SC	Assumed to have the emissions similar to Bituminous Coal.	Lbs per ton	10.00	14.00	12.00	31.00	N/A	N/A
Sludge Waste	SLW	Source: 1 (including footnote 11 within source)	Lbs per ton **	5.00	N/A	5.00	N/A	N/A	N/A
Subbituminous Coal	SUB	Source: 2, Table 1.1-3	Lbs per ton	7.20	N/A	7.40	24.00	N/A	N/A
Tire-Derived Fuel	TDF	Source: 1 (including footnote 13 within source)	Lbs per ton	10.00	14.00	12.00	31.00	N/A	N/A
Waste Coal	WC	Source: 1 (including footnote 20 within source)	Lbs per ton	7.10	N/A	6.30	N/A	N/A	N/A
Wood Waste Liquids	WDL	Source: 1 (including footnote 16 within source)	Lbs per MG	5.43	N/A	5.43	N/A	N/A	N/A
Wood Waste Solids	WDS	Source: 1	Lbs per ton	2.51	N/A	2.51	N/A	N/A	N/A
Waste Oil	WO	Source: 2, Table 1.11-2	Lbs per MG	19.00	N/A	19.00	N/A	N/A	N/A

Notes:
** Although Sludge Waste and Black Liquor consist substantially of liquids, these fuels are measured and reported to EIA in tons.

Sources:

1. Eastern Research Group, Inc. and E.H. Pechan & Associates, Inc., Documentation for the 2002 Electric Generating Unit National Emissions Inventory, Table 6, September 2004. Prepared for the U.S. Environmental Protection Agency, Emission Factor and Inventory Group (D205-01), Emissions, Monitoring and Analysis Division, Research Triangle Park
2. U.S. Environmental Protection Agency, AP 42, Fifth Edition (Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources); available at: http://www.epa.gov/ttn/chief/ap42/
3. U.S. Environmental Protection Agency, Factor Information Retrieval (FIRE) Database, Version 6.25; available at: http://www.epa.gov/ttn/chief/software/fire/index.html

Table A.3. Carbon Dioxide Uncontrolled Emission Factors

Fuel	EIA Fuel Code	Source and Tables (As Appropriate)	Factor (Pounds of CO2 Per Million Btu)***
Bituminous Coal	BIT	Source: 1	205.30000
Distillate Fuel Oil	DFO	Source: 1	161.38600
Geothermal	GEO	Estimate from EIA, Office of Integrated Analysis and Forecasting	16.59983
Jet Fuel	JF	Source: 1	156.25800
Kerosene	KER	Source: 1	159.53500
Lignite Coal	LIG	Source: 1	215.40000
Municipal Solid Waste	MSW	Source: 1 (including footnote 2 within source)	91.90000
Natural Gas	NG	Source: 1	117.08000
Petroleum Coke	PC	Source: 1	225.13000
Propane Gas	PG	Sources: 1	139.17800
Residual Fuel Oil	RFO	Source: 1	173.90600
Synthetic Coal	SC	Assumed to have the emissions similar to Bituminous Coal.	205.30000
Subbituminous Coal	SUB	Source: 1	212.70000
Tire-Derived Fuel	TDF	Source: 1	189.53800
Waste Coal	WC	Assumed to have emissions similar to Bituminous Coal.	205.30000
Waste Oil	WO	Source: 2, Table 1.11-3 (assumes typical heat content of 4.4 MMBtus per barrel)	210.00000

Notes:
*** CO2 factors do not vary by combustion system type or boiler firing configuration.

Sources:
1. Energy Information Administration, Office of Integrated Analysis and Forecasting, Voluntary Reporting of Greenhouse Gases Program, Table of Fuel and Energy Source: Codes and Emission Coefficients; available at: http://www.eia.doe.gov/oiaf/1605/coefficients.html
2. U.S. Environmental Protection Agency, AP 42, Fifth Edition (Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources); available at: http://www.epa.gov/ttn/chief/ap42/

Table A.4. Nitrogen Oxides Control Technology Emissions Reduction Factors

Nitrogen Oxides Control Technology	EIA-Code(s)	Reduction Factor
Advanced Overfire Air	AA	30%
Alternate Burners	BF	20%
Flue Gas Recirculation	FR	40%
Fluidized Bed Combustor	CF	20%
Fuel Reburning	FU	30%
Low Excess Air	LA	20%
Low NOx Burners	LN	30%
Other (or Unspecified)	OT	20%
Overfire Air	OV	20%
Selective Catalytic Reduction	SR	70%
Selective Catalytic Reduction With Low Nitrogen Oxide Burners	SR and LN	90%
Selective Noncatalytic Reduction	SN	30%
Selective Noncatalytic Reduction With Low NOx Burners	SN and LN	50%
Slagging	SC	20%

Notes: Starting with 1995 data, reduction factors for Advanced Overfire Air, Low NOx Burners, and Overfire Air were reduced by 10 percent.

Table A.5. Unit of Measure Equivalents

Unit	Equivalent
Kilowatt (kW)	1,000 (One Thousand) Watts
Megawatt (MW)	1,000,000 (One Million) Watts
Gigawatt (GW)	1,000,000,000 (One Billion) Watts
Terawatt (TW)	1,000,000,000,000 (One Trillion) Watts
Gigawatt	1,000,000 (One Million) Kilowatts
Thousand Gigawatts	1,000,000,000 (One Billion) Kilowatts
Kilowatthours (kWh)	1,000 (One Thousand) Watthours
Megawatthours (MWh)	1,000,000 (One Million) Watthours
Gigawatthours (GWh)	1,000,000,000 (One Billion) Watthours
Terawatthours (TWh)	1,000,000,000,000 (One Trillion) Watthours
Gigawatthours	1,000,000 (One Million) Kilowatthours
Thousand Gigawatthours	1,000,000,000(One Billion Kilowatthours
U.S. Dollar	1,000 (One Thousand) Mills
U.S. Cent	10 (Ten) Mills
Barrel of Oil	42 Gallons

Source: U.S. Energy Information Administration

EIA Electric Industry Data Collection