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Preface

The Electric Power Monthly (EPM) presents monthly electricity statistics for a wide audience including Congress, Federal and State agencies, the electric power industry, and the general public. The purpose of this publication is to provide energy decision makers with accurate and timely information that may be used in forming various perspectives on electric issues that lie ahead. In order to provide an integrated view of the electric power industry, data in this report have been separated into two major categories: electric power sector and combined heat and power producers. The U.S. Energy Information Administration (EIA) collected the information in this report to fulfill its data collection and dissemination responsibilities as specified in the Federal Energy Administration Act of 1974 (Public Law 93 275) as amended.

Background

The Office of Electricity, Renewables & Uranium Statistics, U.S. EIA, U.S. Department of Energy, prepares the EPM. This publication provides monthly statistics at the State (lowest level of aggregation), Census Division, and U.S. levels for net generation, fossil fuel consumption and stocks, cost, quantity, and quality of fossil fuels received, sales of electricity to ultimate consumers, associated revenue, and average price of electricity sold. In addition, the report contains rolling 12-month totals in the national overviews, as appropriate.

Data sources

The EPM contains information from the following data sources: Form EIA-923, "Power Plant Operations Report;" Form EIA-826, "Monthly Electric Sales and Revenue With State Distributions Report;" Form EIA-860, "Annual Electric Generator Report;" Form EIA-860M, "Monthly Update to the Annual Electric Generator Report;" and Form EIA-861, "Annual Electric Power Industry Report." Forms and their instructions may be obtained from: http://www.eia.gov/survey/#electricity. A detailed description of these forms and associated algorithms are found in Appendix C, “Technical Notes.”

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Executive Summary

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Net Generation and Consumption of Fuels for November														
		Total (All Sectors)			Electric Power Sector				Commercial		Industrial		Residential	
					Electric Utilities		Independent Power Producers							
Fuel	Facility Type	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
Net Generation (Thousand Megawatthours)														
Coal	Utility Scale Facilities	92,738	90,986	1.9%	68,728	64,983	23,411	25,364	27	29	573	610	0	0
Petroleum Liquids	Utility Scale Facilities	954	903	5.7%	674	633	228	215	12	7	39	47	0	0
Petroleum Coke	Utility Scale Facilities	699	755	-7.4%	477	583	177	111	1	1	44	61	0	0
Natural Gas	Utility Scale Facilities	106,804	94,883	12.6%	50,217	45,117	47,779	41,702	640	611	8,168	7,453	0	0
Other Gas	Utility Scale Facilities	933	1,001	-6.9%	0	15	299	337	0	0	634	649	0	0
Nuclear	Utility Scale Facilities	63,948	66,618	-4.0%	33,043	34,541	30,904	32,077	0	0	0	0	0	0
Hydroelectric Conventional	Utility Scale Facilities	22,174	20,565	7.8%	19,806	18,529	2,224	1,891	NM	23	127	121	0	0
Renewable Sources Excluding Hydroelectric	Utility Scale Facilities	32,892	34,005	-3.3%	3,899	4,514	26,386	26,865	239	262	2,368	2,364	0	0
... Wind	Utility Scale Facilities	22,493	24,082	-6.6%	3,092	3,743	19,375	20,316	17	14	9	8	0	0
... Solar Thermal and Photovoltaic	Utility Scale Facilities	3,945	3,409	15.7%	344	279	3,561	3,093	34	34	6	3	0	0
... Wood and Wood-Derived Fuels	Utility Scale Facilities	3,293	3,430	-4.0%	264	288	755	875	2	6	2,272	2,261	0	0
... Other Biomass	Utility Scale Facilities	1,752	1,795	-2.4%	111	118	1,374	1,378	184	207	82	91	0	0
... Geothermal	Utility Scale Facilities	1,410	1,289	9.3%	88	87	1,322	1,202	0	0	0	0	0	0
Hydroelectric Pumped Storage	Utility Scale Facilities	-343	-478	-28.3%	-254	-394	-88	-84	0	0	0	0	0	0
Other Energy Sources	Utility Scale Facilities	1,080	1,077	0.3%	52	45	559	539	78	88	390	405	0	0
All Energy Sources	Utility Scale Facilities	321,879	310,315	3.7%	176,642	168,569	131,879	129,016	1,014	1,020	12,345	11,710	0	0
Estimated Small Scale Solar Photovoltaic	Small Scale Facilities	1,914	1,561	22.6%	0	0	0	0	625	502	175	156	1,114	904
Estimated Total Solar Photovoltaic	All Facilities	5,690	4,839	17.6%	343	278	3,393	2,964	659	536	181	158	1,114	904
Estimated Total Solar	All Facilities	5,859	4,970	17.9%	344	279	3,561	3,093	659	536	181	158	1,114	904
Consumption of Fossil Fuels for Electricity Generation														
Coal (1000 tons)	Utility Scale Facilities	51,599	50,882	1.4%	37,882	35,778	13,493	14,873	7	8	217	222	0	0
Petroleum Liquids (1000 barrels)	Utility Scale Facilities	1,657	1,591	4.1%	1,210	1,170	384	362	23	15	40	45	0	0
Petroleum Coke (1000 tons)	Utility Scale Facilities	247	293	-15.7%	196	234	38	40	0	0	13	18	0	0
Natural Gas (1000 Mcf)	Utility Scale Facilities	775,042	686,346	12.9%	382,596	340,195	340,902	298,079	3,817	3,776	47,727	44,297	0	0
Consumption of Fossil Fuels for Useful Thermal Output														
Coal (1000 tons)	Utility Scale Facilities	1,133	1,260	-10.1%	181	263	110	98	41	44	802	855	0	0
Petroleum Liquids (1000 barrels)	Utility Scale Facilities	182	242	-24.8%	2	4	16	19	30	19	133	200	0	0
Petroleum Coke (1000 tons)	Utility Scale Facilities	65	80	-18.4%	1	1	8	9	2	1	55	69	0	0
Natural Gas (1000 Mcf)	Utility Scale Facilities	105,288	95,578	10.2%	3,064	3,119	27,511	24,763	8,611	8,391	66,102	59,305	0	0
Consumption of Fossil Fuels for Electricity Generation and Useful Thermal Output														
Coal (1000 tons)	Utility Scale Facilities	52,732	52,142	1.1%	38,063	36,042	13,603	14,971	48	52	1,018	1,077	0	0
Petroleum Liquids (1000 barrels)	Utility Scale Facilities	1,839	1,833	0.3%	1,212	1,174	401	381	53	34	173	245	0	0
Petroleum Coke (1000 tons)	Utility Scale Facilities	312	373	-16.3%	196	235	46	49	2	1	68	87	0	0
Natural Gas (1000 Mcf)	Utility Scale Facilities	880,330	781,924	12.6%	385,660	343,314	368,413	322,841	12,428	12,167	113,829	103,602	0	0
Fuel Stocks (end-of-month)														
Coal (1000 tons)	Utility Scale Facilities	105,110	144,778	-27.4%	86,435	117,758	17,988	25,666	64	147	623	1,207	0	0
Petroleum Liquids (1000 barrels)	Utility Scale Facilities	25,762	32,339	-20.3%	16,376	20,626	7,983	9,875	339	451	1,064	1,386	0	0
Petroleum Coke (1000 tons)	Utility Scale Facilities	933	1,038	-10.1%	548	677	144	182	4	3	237	176	0	0

Sales, Revenue, and Average Price of Electricity to Ultimate Customers for November									
	Total U.S. Electric Power Industry								
	Sales of Electricity to Ultimate Customers (million kWh)			Revenue from Sales of Electricity to Ultimate Customers (million dollars)			Average Price of Electricity to Ultimate Customers (cents/kWh)		
Sector	November 2018	November 2017	Percentage Change	November 2018	November 2017	Percentage Change	November 2018	November 2017	Percentage Change
Residential	103,372	98,321	5.1%	13,382	12,721	5.2%	12.95	12.94	0.1%
Commercial	104,629	104,973	-0.3%	11,051	11,016	0.3%	10.56	10.49	0.7%
Industrial	76,927	79,456	-3.2%	5,292	5,345	-1.0%	6.88	6.73	2.2%
Transportation	622	598	4.0%	60	57	6.4%	9.72	9.50	2.3%
All Sectors	285,550	283,347	0.8%	29,785	29,139	2.2%	10.43	10.28	1.5%

NM = Not meaningful due to large relative standard error.
W = Withheld to avoid disclosure of individual company data.
Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
Coal generation and consumption includes anthracite, bituminous, subbituminous, lignite, waste coal, refined coal, synthetic coal, 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 synthetic coal; waste coal is excluded.
Sales of electricity to ultimate customers 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 sales of electricity to ultimate customers and associated revenue accumulate from bills collected for periods of time that vary depending

Table ES1.B. Total Electric Power Industry Summary Statistics, Year-to-Date 2018 and 2017

Net Generation and Consumption of Fuels for January through November														
		Total (All Sectors)			Electric Power Sector				Commercial		Industrial		Residential	
					Electric Utilities		Independent Power Producers							
Fuel	Facility Type	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
Net Generation (Thousand Megawatthours)														
Coal	Utility Scale Facilities	1,049,299	1,099,290	-4.5%	787,876	816,769	254,220	275,208	297	294	6,906	7,018	0	0
Petroleum Liquids	Utility Scale Facilities	14,763	10,432	41.5%	9,167	7,614	4,975	2,329	137	80	484	408	0	0
Petroleum Coke	Utility Scale Facilities	8,030	8,239	-2.5%	6,216	6,155	1,121	1,358	6	7	687	718	0	0
Natural Gas	Utility Scale Facilities	1,362,996	1,185,042	15.0%	666,854	570,482	602,710	523,816	7,661	7,367	85,771	83,377	0	0
Other Gas	Utility Scale Facilities	11,202	11,373	-1.5%	151	124	3,506	3,619	0	0	7,544	7,630	0	0
Nuclear	Utility Scale Facilities	735,420	731,250	0.6%	386,028	385,614	349,393	345,636	0	0	0	0	0	0
Hydroelectric Conventional	Utility Scale Facilities	267,976	277,956	-3.6%	244,350	254,948	22,134	21,508	223	217	1,268	1,283	0	0
Renewable Sources Excluding Hydroelectric	Utility Scale Facilities	386,478	351,126	10.1%	44,065	41,439	312,861	280,679	2,931	2,983	26,620	26,025	0	0
... Wind	Utility Scale Facilities	250,102	229,727	8.9%	33,567	33,263	216,286	196,259	153	130	96	75	0	0
... Solar Thermal and Photovoltaic	Utility Scale Facilities	63,456	49,897	27.2%	5,087	3,044	57,678	46,321	604	492	88	39	0	0
... Wood and Wood-Derived Fuels	Utility Scale Facilities	38,152	37,413	2.0%	3,159	2,876	9,351	9,479	69	64	25,574	24,994	0	0
... Other Biomass	Utility Scale Facilities	19,529	19,733	-1.0%	1,292	1,324	15,269	15,196	2,106	2,297	863	916	0	0
... Geothermal	Utility Scale Facilities	15,238	14,356	6.1%	960	932	14,278	13,424	0	0	0	0	0	0
Hydroelectric Pumped Storage	Utility Scale Facilities	-5,382	-5,839	-7.8%	-4,359	-4,891	-1,024	-948	0	0	0	0	0	0
Other Energy Sources	Utility Scale Facilities	11,552	11,948	-3.3%	536	501	5,829	5,941	932	996	4,255	4,509	0	0
All Energy Sources	Utility Scale Facilities	3,842,334	3,680,817	4.4%	2,140,885	2,078,756	1,555,726	1,459,147	12,187	11,946	133,536	130,968	0	0
Estimated Small Scale Solar Photovoltaic	Small Scale Facilities	27,760	22,518	23.3%	0	0	0	0	9,165	7,192	2,475	2,226	16,120	13,100
Estimated Total Solar Photovoltaic	All Facilities	87,716	69,269	26.6%	5,036	3,028	54,229	43,190	9,769	7,685	2,563	2,265	16,120	13,100
Estimated Total Solar	All Facilities	91,216	72,415	26.0%	5,087	3,044	57,678	46,321	9,769	7,685	2,563	2,265	16,120	13,100
Consumption of Fossil Fuels for Electricity Generation														
Coal (1000 tons)	Utility Scale Facilities	580,160	605,453	-4.2%	431,911	442,657	145,674	160,164	86	85	2,490	2,547	0	0
Petroleum Liquids (1000 barrels)	Utility Scale Facilities	25,554	18,282	39.8%	16,572	13,788	8,227	3,910	261	160	495	424	0	0
Petroleum Coke (1000 tons)	Utility Scale Facilities	3,019	3,198	-5.6%	2,499	2,500	346	498	2	2	172	198	0	0
Natural Gas (1000 Mcf)	Utility Scale Facilities	10,094,438	8,701,365	16.0%	5,126,325	4,350,429	4,417,125	3,812,813	47,767	45,801	503,221	492,322	0	0
Consumption of Fossil Fuels for Useful Thermal Output														
Coal (1000 tons)	Utility Scale Facilities	12,526	13,382	-6.4%	2,134	2,595	1,041	1,039	454	459	8,897	9,289	0	0
Petroleum Liquids (1000 barrels)	Utility Scale Facilities	2,451	1,640	49.5%	89	54	267	173	327	192	1,768	1,220	0	0
Petroleum Coke (1000 tons)	Utility Scale Facilities	756	901	-16.1%	11	10	85	106	9	13	651	773	0	0
Natural Gas (1000 Mcf)	Utility Scale Facilities	1,422,202	1,061,951	33.9%	37,793	35,011	303,684	282,273	390,191	94,835	690,533	649,831	0	0
Consumption of Fossil Fuels for Electricity Generation and Useful Thermal Output														
Coal (1000 tons)	Utility Scale Facilities	592,687	618,835	-4.2%	434,045	445,252	146,715	161,203	540	545	11,387	11,836	0	0
Petroleum Liquids (1000 barrels)	Utility Scale Facilities	28,005	19,921	40.6%	16,661	13,842	8,494	4,083	587	352	2,263	1,644	0	0
Petroleum Coke (1000 tons)	Utility Scale Facilities	3,775	4,099	-7.9%	2,510	2,509	431	604	10	15	824	970	0	0
Natural Gas (1000 Mcf)	Utility Scale Facilities	11,516,640	9,763,316	18.0%	5,164,118	4,385,439	4,720,810	4,095,086	437,958	140,637	1,193,754	1,142,153	0	0

Sales, Revenue, and Average Price of Electricity to Ultimate Customers for January through November									
	Total U.S. Electric Power Industry								
	Sales of Electricity to Ultimate Customers (million kWh)			Revenue from Sales of Electricity to Ultimate Customers (million dollars)			Average Price of Electricity to Ultimate Customers (cents/kWh)		
Sector	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	Percentage Change
Residential	1,341,528	1,256,643	6.8%	173,464	162,473	6.8%	12.93	12.93	0.0%
Commercial	1,269,093	1,243,582	2.1%	135,556	133,003	1.9%	10.68	10.70	-0.2%
Industrial	876,062	904,056	-3.1%	60,975	62,441	-2.3%	6.96	6.91	0.7%
Transportation	7,077	6,859	3.2%	690	666	3.6%	9.75	9.72	0.3%
All Sectors	3,493,760	3,411,140	2.4%	370,684	358,583	3.4%	10.61	10.51	1.0%

NM = Not meaningful due to large relative standard error.
W = Withheld to avoid disclosure of individual company data.
Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
Coal generation and consumption includes anthracite, bituminous, subbituminous, lignite, waste coal, refined coal, synthetic coal, 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 synthetic coal; waste coal is excluded.
Sales of electricity to ultimate customers 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 sales of electricity to ultimate customers and associated revenue accumulate from bills collected for periods of time that vary depending

Table ES2.A. Summary Statistics: Receipts and Cost of Fossil Fuels for the Electric Power Industry by Sector, Physical Units, 2018 and 2017

Total (All Sectors)										
							Year-to-Date			
	Receipts		Cost				Receipts		Cost	
	(Physical Units)		(Dollars / Physical Unit)		Number of Plants		(Physical Units)		(Dollars / Physical Unit)	
Fuel	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
Coal (1000 tons)	49,919	52,087	39.11	38.56	254	292	541,743	590,513	39.28	39.33
Petroleum Liquids (1000 barrels)	1,330	1,622	94.10	74.17	148	192	17,837	14,354	86.32	69.68
Petroleum Coke (1000 tons)	235	266	63.10	69.77	6	7	2,772	3,022	73.01	59.79
Natural Gas (1000 Mcf)	741,855	697,890	4.29	3.46	555	775	9,302,882	8,814,246	3.57	3.46

Electric Utilities										
							Year-to-Date			
	Receipts		Cost				Receipts		Cost	
	(Physical Units)		(Dollars / Physical Unit)		Number of Plants		(Physical Units)		(Dollars / Physical Unit)	
Fuel	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
Coal (1000 tons)	36,314	38,128	39.97	40.23	172	199	399,438	430,052	40.28	40.87
Petroleum Liquids (1000 barrels)	795	1,156	95.04	73.12	92	124	11,304	10,597	86.75	69.35
Petroleum Coke (1000 tons)	229	252	63.55	70.93	5	6	2,708	2,937	73.61	60.25
Natural Gas (1000 Mcf)	346,630	331,585	4.38	3.76	284	418	4,490,437	4,250,839	3.71	3.73

Independent Power Producers										
							Year-to-Date			
	Receipts		Cost				Receipts		Cost	
	(Physical Units)		(Dollars / Physical Unit)		Number of Plants		(Physical Units)		(Dollars / Physical Unit)	
Fuel	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
Coal (1000 tons)	12,923	13,224	36.06	33.00	64	75	135,014	152,047	35.63	34.23
Petroleum Liquids (1000 barrels)	502	434	92.98	77.15	46	59	6,204	3,502	85.59	70.67
Petroleum Coke (1000 tons)	0	0	--	--	0	0	0	0	--	--
Natural Gas (1000 Mcf)	326,516	300,737	4.24	3.13	223	306	4,117,194	3,847,220	3.43	3.13

Commercial Sector										
							Year-to-Date			
	Receipts		Cost				Receipts		Cost	
	(Physical Units)		(Dollars / Physical Unit)		Number of Plants		(Physical Units)		(Dollars / Physical Unit)	
Fuel	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
Coal (1000 tons)	3	1	66.44	63.70	1	1	11	20	66.46	63.31
Petroleum Liquids (1000 barrels)	0	0	--	--	0	0	0	0	--	--
Petroleum Coke (1000 tons)	0	0	--	--	0	0	0	0	--	--
Natural Gas (1000 Mcf)	701	725	3.52	3.84	3	3	8,091	6,881	3.60	3.95

Industrial Sector										
							Year-to-Date			
	Receipts		Cost				Receipts		Cost	
	(Physical Units)		(Dollars / Physical Unit)		Number of Plants		(Physical Units)		(Dollars / Physical Unit)	
Fuel	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
Coal (1000 tons)	679	734	51.10	51.43	17	17	7,280	8,394	51.86	52.49
Petroleum Liquids (1000 barrels)	33	32	87.74	72.03	10	9	329	255	83.76	69.64
Petroleum Coke (1000 tons)	6	14	46.62	48.91	1	1	64	85	47.52	44.08
Natural Gas (1000 Mcf)	68,008	64,843	4.07	3.11	45	48	687,160	709,306	3.33	3.29

NM = Not meaningful due to large relative standard error.
W = Withheld to avoid disclosure of individual company data.
Number of Plants represents the number of plants for which receipts data were collected this month.
.... A plant using more than one fuel may be counted multiple times.
Coal includes anthracite, bituminous, subbituminous, lignite, waste coal, synthetic coal, and coal-derived synthesis gas.
Petroleum Liquids include distillate fuel oil, residual fuel oil, jet fuel, kerosene, propane, and waste oil.
Natural Gas includes a small amount of supplemental gaseous fuels that cannot be identified separately.

Table ES2.B. Summary Statistics: Receipts and Cost of Fossil Fuels for the Electric Power Industry by Sector, Btus, 2018 and 2017

Total (All Sectors)										
							Year-to-Date			
	Receipts		Cost				Receipts		Cost	
	(Billion Btu)		(Dollars / Million Btu)		Number of Plants		(Billion Btu)		(Dollars / Million Btu)	
Fuel	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
Coal	948,457	984,968	2.06	2.04	254	292	10,346,608	11,279,235	2.06	2.06
Petroleum Liquids	7,952	9,787	15.73	12.29	148	192	107,559	86,224	14.29	11.60
Petroleum Coke	6,696	7,469	2.21	2.49	6	7	78,404	84,749	2.58	2.13
Natural Gas	765,844	720,648	4.16	3.35	555	775	9,604,887	9,109,977	3.46	3.35
Fossil Fuels	1,728,949	1,722,872	3.01	2.62	713	963	20,137,458	20,560,185	2.76	2.64

Electric Utilities										
							Year-to-Date			
	Receipts		Cost				Receipts		Cost	
	(Billion Btu)		(Dollars / Million Btu)		Number of Plants		(Billion Btu)		(Dollars / Million Btu)	
Fuel	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
Coal	690,560	726,042	2.10	2.11	172	199	7,647,504	8,295,323	2.10	2.12
Petroleum Liquids	4,799	7,044	15.75	12.00	92	124	68,679	64,077	14.27	11.47
Petroleum Coke	6,524	7,084	2.23	2.52	5	6	76,671	82,393	2.60	2.15
Natural Gas	357,160	342,138	4.25	3.64	284	418	4,633,235	4,391,629	3.59	3.61
Fossil Fuels	1,059,043	1,082,307	2.89	2.66	392	543	12,426,088	12,833,422	2.73	2.67

Independent Power Producers										
							Year-to-Date			
	Receipts		Cost				Receipts		Cost	
	(Billion Btu)		(Dollars / Million Btu)		Number of Plants		(Billion Btu)		(Dollars / Million Btu)	
Fuel	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
Coal	244,048	243,578	1.91	1.79	64	75	2,547,768	2,807,224	1.89	1.85
Petroleum Liquids	2,946	2,544	15.83	13.15	46	59	36,828	20,560	14.37	12.03
Petroleum Coke	0	0	--	--	0	0	0	0	--	--
Natural Gas	338,095	310,865	4.09	3.03	223	306	4,256,421	3,979,439	3.31	3.03
Fossil Fuels	585,090	556,987	3.15	2.47	271	366	6,841,017	6,807,223	2.77	2.51

Commercial Sector										
							Year-to-Date			
	Receipts		Cost				Receipts		Cost	
	(Billion Btu)		(Dollars / Million Btu)		Number of Plants		(Billion Btu)		(Dollars / Million Btu)	
Fuel	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
Coal	62	13	2.94	2.79	1	1	244	459	2.93	2.77
Petroleum Liquids	0	0	--	--	0	0	0	0	--	--
Petroleum Coke	0	0	--	--	0	0	0	0	--	--
Natural Gas	723	749	3.41	3.72	3	3	8,334	7,107	3.49	3.83
Fossil Fuels	785	763	3.37	3.70	3	3	8,578	7,566	3.48	3.76

Industrial Sector										
							Year-to-Date			
	Receipts		Cost				Receipts		Cost	
	(Billion Btu)		(Dollars / Million Btu)		Number of Plants		(Billion Btu)		(Dollars / Million Btu)	
Fuel	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
Coal	13,787	15,335	2.52	2.46	17	17	151,093	176,229	2.50	2.50
Petroleum Liquids	206	199	14.01	11.67	10	9	2,051	1,587	13.42	11.18
Petroleum Coke	172	386	1.69	1.77	1	1	1,733	2,356	1.76	1.59
Natural Gas	69,866	66,895	3.97	3.01	45	48	706,898	731,802	3.24	3.18
Fossil Fuels	84,031	82,815	3.75	2.93	47	51	861,775	911,974	3.13	3.06

NM = Not meaningful due to large relative standard error.
W = Withheld to avoid disclosure of individual company data.
Number of Plants represents the number of plants for which receipts data were collected this month.
.... The total number of fossil fuel plants is not the sum of the figures above it because a plant that receives two or more different fuels is only counted once.
Coal includes anthracite, bituminous, subbituminous, lignite, waste coal, synthetic coal, and coal-derived synthesis gas.
Petroleum Liquids include distillate fuel oil, residual fuel oil, jet fuel, kerosene, propane, and waste oil.
Natural Gas includes a small amount of supplemental gaseous fuels that cannot be identified separately.

Chapter 1

Net Generation

Table 1.1. Net Generation by Energy Source: Total (All Sectors), 2008-November 2018
(Thousand Megawatthours)

	Generation at Utility Scale Facilities												Small Scale Generation	Net Generation From Utility and Small Scale Facilities	
Period	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gas	Nuclear	Hydroelectric Conventional	Solar	Renewable Sources Excluding Hydroelectric and Solar	Hydroelectric Pumped Storage	Other	Total Generation at Utility Scale Facilities	Estimated Solar Photovoltaic	Estimated Total Solar Photovoltaic	Estimated Total Solar
Annual Totals															
2008	1,985,801	31,917	14,325	882,981	11,707	806,208	254,831	864	125,237	-6,288	11,804	4,119,388	N/A	N/A	N/A
2009	1,755,904	25,972	12,964	920,979	10,632	798,855	273,445	891	143,388	-4,627	11,928	3,950,331	N/A	N/A	N/A
2010	1,847,290	23,337	13,724	987,697	11,313	806,968	260,203	1,212	165,961	-5,501	12,855	4,125,060	N/A	N/A	N/A
2011	1,733,430	16,086	14,096	1,013,689	11,566	790,204	319,355	1,818	192,163	-6,421	14,154	4,100,141	N/A	N/A	N/A
2012	1,514,043	13,403	9,787	1,225,894	11,898	769,331	276,240	4,327	214,006	-4,950	13,787	4,047,765	N/A	N/A	N/A
2013	1,581,115	13,820	13,344	1,124,836	12,853	789,016	268,565	9,036	244,472	-4,681	13,588	4,065,964	N/A	N/A	N/A
2014	1,581,710	18,276	11,955	1,126,609	12,022	797,166	259,367	17,691	261,522	-6,174	13,461	4,093,606	11,233	26,482	28,924
2015	1,352,398	17,372	10,877	1,333,482	13,117	797,178	249,080	24,893	270,268	-5,091	14,028	4,077,601	14,139	35,805	39,032
2016	1,239,149	13,008	11,197	1,378,307	12,807	805,694	267,812	36,054	305,579	-6,686	13,754	4,076,675	18,812	51,483	54,866
2017	1,205,835	12,414	8,976	1,296,415	12,469	804,950	300,333	53,286	332,991	-6,495	13,094	4,034,268	23,990	74,007	77,276
Year 2016															
January	113,459	1,396	966	110,044	1,195	72,525	25,615	1,486	25,193	-312	1,153	352,719	980	2,380	2,465
February	92,705	1,299	910	98,552	1,062	65,638	24,139	2,242	26,496	-399	1,041	313,685	1,145	3,145	3,386
March	72,173	874	927	103,890	1,197	66,149	27,390	2,617	28,467	-384	1,090	304,390	1,525	3,885	4,143
April	72,113	833	1,006	98,876	1,132	62,732	25,878	2,880	26,787	-452	1,109	292,894	1,703	4,309	4,583
May	81,695	984	974	110,430	1,053	66,576	25,486	3,425	25,286	-321	1,195	316,784	1,879	4,916	5,304
June	116,034	972	1,005	131,395	1,043	67,175	23,237	3,473	22,763	-497	1,180	367,781	1,928	4,990	5,401
July	136,316	1,273	1,049	151,554	1,077	70,349	21,455	3,945	24,428	-784	1,225	411,887	2,000	5,474	5,945
August	135,635	1,258	1,078	154,760	1,064	71,526	19,570	3,969	20,496	-902	1,248	409,701	1,942	5,543	5,911
Sept	114,138	946	980	125,603	1,020	65,448	16,368	3,635	22,894	-715	1,168	351,484	1,735	5,007	5,370
October	99,194	937	635	102,898	913	60,733	17,339	3,191	26,558	-561	1,108	312,945	1,552	4,495	4,743
November	86,940	1,070	799	93,942	1,013	65,179	18,808	2,767	26,052	-607	1,098	297,062	1,257	3,840	4,024
December	118,747	1,166	869	96,364	1,037	71,662	22,528	2,424	30,159	-753	1,139	345,343	1,167	3,500	3,591
Year 2017															
January	115,333	1,121	944	95,473	1,046	73,121	26,788	2,030	26,676	-435	1,093	343,190	1,246	3,186	3,276
February	86,822	874	723	82,694	977	63,560	23,643	2,555	27,317	-508	995	289,652	1,384	3,804	3,939
March	89,365	950	699	95,022	1,060	65,093	29,272	4,245	31,688	-521	1,062	317,935	1,972	5,921	6,218
April	81,335	846	431	88,418	1,001	56,743	29,390	4,696	30,854	-439	1,049	294,325	2,195	6,580	6,891
May	92,777	971	847	98,067	1,055	61,313	32,384	5,663	28,782	-423	1,083	322,518	2,423	7,684	8,086
June	107,508	1,001	901	117,317	992	67,011	30,222	6,175	26,258	-568	1,099	357,916	2,487	8,197	8,662
July	127,697	916	889	146,994	1,048	71,314	26,491	5,753	22,832	-759	1,211	404,386	2,555	7,996	8,308
August	119,488	970	765	141,209	1,134	72,384	21,851	5,434	20,527	-638	1,220	384,342	2,480	7,573	7,914
Sept	98,203	925	712	118,112	1,060	68,098	19,067	5,115	24,142	-606	1,033	335,861	2,225	6,991	7,340
October	89,775	956	572	106,852	999	65,995	18,284	4,821	31,558	-463	1,027	320,376	1,990	6,497	6,811
November	90,986	903	755	94,883	1,001	66,618	20,565	3,409	30,596	-478	1,077	310,315	1,561	4,839	4,970
December	106,546	1,982	737	111,373	1,096	73,700	22,377	3,389	31,762	-656	1,146	353,452	1,472	4,739	4,861
Year 2018															
January	118,939	5,289	952	110,064	996	74,649	25,594	3,413	33,934	-547	1,115	374,398	1,614	4,899	5,027
February	81,922	780	738	96,013	991	64,790	25,532	4,120	30,569	-315	1,001	306,142	1,761	5,689	5,880
March	80,613	811	648	104,939	1,063	67,033	25,950	5,211	34,124	-490	1,114	321,015	2,426	7,379	7,636
April	73,383	854	691	99,447	944	59,133	27,488	6,257	32,931	-377	1,039	301,791	2,736	8,679	8,993
May	85,311	1,022	415	116,110	1,008	67,320	30,433	7,079	30,288	-390	1,075	339,671	3,009	9,658	10,088
June	101,508	1,062	765	130,827	1,010	69,688	27,953	7,811	31,085	-433	1,111	372,386	3,058	10,352	10,869
July	115,472	970	924	167,066	1,102	72,456	24,013	6,943	22,964	-644	1,117	412,383	3,144	9,707	10,087
August	115,218	991	878	164,954	1,224	72,282	21,398	6,982	26,298	-747	1,007	410,485	3,018	9,591	10,000
Sept	96,743	1,040	835	142,745	1,001	64,725	18,663	6,471	24,319	-603	801	356,738	2,681	8,723	9,153
October	87,452	989	484	124,027	930	59,397	18,779	5,225	27,563	-492	1,092	325,446	2,400	7,350	7,625
November	92,738	954	699	106,804	933	63,948	22,174	3,945	28,947	-343	1,080	321,879	1,914	5,690	5,859
Year to Date															
2016	1,120,402	11,842	10,327	1,281,943	11,770	734,032	245,284	33,631	275,419	-5,933	12,615	3,731,332	17,645	47,983	51,276
2017	1,099,290	10,432	8,239	1,185,042	11,373	731,250	277,956	49,897	301,229	-5,839	11,948	3,680,817	22,518	69,269	72,415
2018	1,049,299	14,763	8,030	1,362,996	11,202	735,420	267,976	63,456	323,022	-5,382	11,552	3,842,334	27,760	87,716	91,216
Rolling 12 Months Ending in November															
2017	1,218,037	11,598	9,108	1,281,405	12,410	802,912	300,484	52,321	331,389	-6,591	13,087	4,026,159	23,686	72,769	76,006
2018	1,155,845	16,745	8,767	1,474,369	12,298	809,120	290,353	66,845	354,784	-6,038	12,698	4,195,786	29,232	92,455	96,077

Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; synthetic coal 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.
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 for 2017 and prior years are final. Values for 2018 are preliminary. 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.
Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
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.
Estimated small scale solar photovoltaic generation and small scale solar photovoltaic capacity are based on data from Form EIA-861M, Form EIA-861 and from estimation methods described in the technical notes.

Table 1.1.A. Net Generation from Renewable Sources: Total (All Sectors), 2008-November 2018
(Thousand Megawatthours)

	Generation at Utility Scale Facilities										Small Scale Generation	Generation From Utility and Small Scale Facilities	
Period	Wind	Solar Photovoltaic	Solar Thermal	Wood and Wood-Derived Fuels	Landfill Gas	Biogenic Municipal Solid Waste	Other Waste Biomass	Geothermal	Conventional Hydroelectric	Total Renewable Generation at Utility Scale Facilities	Estimated Solar Photovoltaic	Estimated Total Solar Photovoltaic	Estimated Total Solar
Annual Totals													
2008	55,363	76	788	37,300	7,156	8,097	2,481	14,840	254,831	380,932	N/A	N/A	N/A
2009	73,886	157	735	36,050	7,924	8,058	2,461	15,009	273,445	417,724	N/A	N/A	N/A
2010	94,652	423	789	37,172	8,377	7,927	2,613	15,219	260,203	427,376	N/A	N/A	N/A
2011	120,177	1,012	806	37,449	9,044	7,354	2,824	15,316	319,355	513,336	N/A	N/A	N/A
2012	140,822	3,451	876	37,799	9,803	7,320	2,700	15,562	276,240	494,573	N/A	N/A	N/A
2013	167,840	8,121	915	40,028	10,658	7,186	2,986	15,775	268,565	522,073	N/A	N/A	N/A
2014	181,655	15,250	2,441	42,340	11,220	7,228	3,202	15,877	259,367	538,579	11,233	26,482	28,924
2015	190,719	21,666	3,227	41,929	11,291	7,211	3,201	15,918	249,080	544,241	14,139	35,805	39,032
2016	226,993	32,670	3,384	40,947	11,218	7,265	3,331	15,826	267,812	609,445	18,812	51,483	54,866
2017	254,303	50,017	3,269	41,152	11,543	6,951	3,115	15,927	300,333	686,610	23,990	74,007	77,276
Year 2016													
January	18,466	1,400	86	3,600	915	603	277	1,332	25,615	52,294	980	2,380	2,465
February	20,138	2,000	241	3,406	886	537	285	1,243	24,139	52,877	1,145	3,145	3,386
March	21,939	2,360	257	3,403	949	579	281	1,315	27,390	58,474	1,525	3,885	4,143
April	20,799	2,606	273	2,967	932	593	287	1,209	25,878	55,544	1,703	4,309	4,583
May	18,848	3,037	388	3,187	980	649	280	1,342	25,486	54,197	1,879	4,916	5,304
June	16,303	3,062	412	3,414	934	614	247	1,251	23,237	49,473	1,928	4,990	5,401
July	17,618	3,473	471	3,658	943	635	262	1,311	21,455	49,828	2,000	5,474	5,945
August	13,589	3,602	368	3,722	942	634	285	1,324	19,570	44,035	1,942	5,543	5,911
Sept	16,404	3,272	363	3,407	895	589	272	1,327	16,368	42,897	1,735	5,007	5,370
October	20,335	2,942	249	3,176	839	589	265	1,353	17,339	47,088	1,552	4,495	4,743
November	19,406	2,583	184	3,391	993	602	296	1,364	18,808	47,627	1,257	3,840	4,024
December	23,146	2,333	91	3,615	1,011	640	293	1,454	22,528	55,111	1,167	3,500	3,591
Year 2017													
January	19,840	1,940	90	3,505	1,050	617	280	1,383	26,788	55,494	1,246	3,186	3,276
February	21,198	2,419	136	3,186	910	528	256	1,239	23,643	53,515	1,384	3,804	3,939
March	24,993	3,949	297	3,457	1,007	557	290	1,385	29,272	65,205	1,972	5,921	6,218
April	24,613	4,385	310	3,149	956	544	254	1,337	29,390	64,939	2,195	6,580	6,891
May	22,450	5,261	402	3,189	989	604	267	1,283	32,384	66,829	2,423	7,684	8,086
June	19,809	5,710	465	3,439	956	588	251	1,214	30,222	62,655	2,487	8,197	8,662
July	15,960	5,442	311	3,703	948	604	261	1,355	26,491	55,077	2,555	7,996	8,308
August	13,621	5,093	341	3,753	945	617	246	1,345	21,851	47,812	2,480	7,573	7,914
Sept	17,855	4,766	349	3,294	914	558	224	1,297	19,067	48,325	2,225	6,991	7,340
October	25,306	4,507	314	3,306	921	558	238	1,229	18,284	54,663	1,990	6,497	6,811
November	24,082	3,278	131	3,430	951	571	272	1,289	20,565	54,569	1,561	4,839	4,970
December	24,575	3,267	123	3,738	995	606	276	1,571	22,377	57,528	1,472	4,739	4,861
Year 2018													
January	26,885	3,285	128	3,779	989	590	275	1,416	25,594	62,941	1,614	4,899	5,027
February	24,077	3,929	191	3,398	941	561	259	1,333	25,532	60,221	1,761	5,689	5,880
March	27,287	4,953	258	3,553	999	599	272	1,414	25,950	65,284	2,426	7,379	7,636
April	26,803	5,943	314	3,107	941	570	256	1,255	27,488	66,677	2,736	8,679	8,993
May	23,542	6,649	430	3,564	932	574	238	1,438	30,433	67,799	3,009	9,658	10,088
June	24,340	7,294	517	3,588	927	630	230	1,370	27,953	66,849	3,058	10,352	10,869
July	16,022	6,562	380	3,709	945	640	212	1,436	24,013	53,920	3,144	9,707	10,087
August	19,507	6,572	409	3,565	951	632	214	1,429	21,398	54,678	3,018	9,591	10,000
Sept	17,991	6,041	430	3,305	880	563	191	1,388	18,663	49,453	2,681	8,723	9,153
October	21,154	4,950	275	3,291	929	597	240	1,352	18,779	51,567	2,400	7,350	7,625
November	22,493	3,777	168	3,293	936	588	227	1,410	22,174	55,066	1,914	5,690	5,859
Year to Date													
2016	203,847	30,337	3,293	37,332	10,207	6,624	3,037	14,372	245,284	554,334	17,645	47,983	51,276
2017	229,727	46,750	3,147	37,413	10,548	6,345	2,839	14,356	277,956	629,082	22,518	69,269	72,415
2018	250,102	59,956	3,500	38,152	10,369	6,545	2,616	15,238	267,976	654,454	27,760	87,716	91,216
Rolling 12 Months Ending in November													
2017	252,873	49,083	3,237	41,029	11,559	6,985	3,133	15,810	300,484	684,193	23,686	72,769	76,006
2018	274,677	63,223	3,622	41,891	11,364	7,151	2,892	16,809	290,353	711,982	29,232	92,455	96,077

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 Waste Biomass includes 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 for 2017 and prior years are final. Values for 2018 are preliminary. 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.
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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.
Estimated small scale solar photovoltaic generation and small scale solar photovoltaic capacity are based on data from Form EIA-861M, Form EIA-861 and from estimation methods described in the technical notes.

Table 1.2.A. Net Generation by Energy Source: Electric Utilities, 2008-November 2018
(Thousand Megawatthours)

	Generation at Utility Scale Facilities											
Period	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gas	Nuclear	Hydroelectric Conventional	Solar	Renewable Sources Excluding Hydroelectric and Solar	Hydroelectric Pumped Storage	Other	Total
Annual Totals												
2008	1,466,395	22,206	5,918	320,190	46	424,256	229,645	17	11,291	-5,143	545	2,475,367
2009	1,322,092	18,035	7,182	349,166	96	417,275	247,198	28	14,589	-3,369	483	2,372,776
2010	1,378,028	17,258	8,807	392,616	52	424,843	236,104	101	17,826	-4,466	462	2,471,632
2011	1,301,107	11,688	9,428	414,843	29	415,298	291,413	216	21,717	-5,492	604	2,460,851
2012	1,146,480	9,892	5,664	504,958	0	394,823	252,936	639	27,378	-4,202	603	2,339,172
2013	1,188,452	9,446	9,522	501,427	798	406,114	243,040	943	31,474	-3,773	615	2,388,058
2014	1,173,073	10,696	9,147	501,414	112	419,871	238,185	1,218	33,278	-5,144	622	2,382,473
2015	998,385	10,386	8,278	617,817	199	416,680	229,640	1,494	35,992	-4,105	558	2,315,323
2016	922,399	9,069	8,881	654,780	154	424,400	247,787	1,995	40,666	-5,629	421	2,304,923
2017	893,639	8,567	6,711	623,835	149	424,485	275,677	3,348	42,763	-5,448	551	2,274,277
Year 2016												
January	84,012	965	832	52,818	3	37,974	23,579	95	3,303	-230	34	203,384
February	69,852	830	734	48,009	4	34,281	22,015	135	3,624	-332	30	179,182
March	56,982	623	724	49,949	5	34,445	25,125	151	3,696	-291	42	171,452
April	53,542	602	858	46,425	7	34,036	23,742	169	3,887	-367	34	162,936
May	62,093	695	763	52,908	10	36,531	23,508	187	3,098	-257	33	179,569
June	86,611	710	793	63,858	16	37,000	21,716	188	3,034	-409	40	213,557
July	100,856	926	833	71,913	21	37,919	20,030	197	2,837	-678	34	234,890
August	100,156	905	856	72,293	13	37,927	18,241	207	2,432	-787	33	232,277
Sept	83,223	644	807	58,392	23	33,919	15,283	190	3,215	-626	35	195,105
October	72,950	658	418	47,710	7	30,016	16,149	182	3,479	-471	36	171,134
November	64,830	700	596	44,171	22	33,082	17,599	154	3,635	-522	35	164,301
December	87,293	811	667	46,333	22	37,268	20,799	139	4,425	-657	36	197,136
Year 2017												
January	85,985	810	743	45,702	13	38,425	24,717	136	3,161	-346	44	199,391
February	64,844	632	540	39,534	17	33,911	21,619	178	3,541	-418	39	164,437
March	65,992	755	535	46,397	16	34,693	26,768	260	4,241	-455	43	179,245
April	58,913	631	260	43,444	18	30,217	26,683	288	4,020	-368	46	164,153
May	69,099	710	654	48,524	5	31,728	29,577	328	3,467	-350	38	183,781
June	81,297	714	698	56,453	10	35,022	27,897	338	3,298	-474	45	205,299
July	96,782	648	673	71,107	19	37,874	24,333	324	2,639	-646	53	233,807
August	90,517	698	540	67,671	2	38,667	20,124	318	2,304	-531	55	220,364
Sept	71,859	661	523	56,393	0	35,496	17,749	304	2,946	-522	49	185,458
October	66,498	721	405	50,140	9	35,038	16,950	291	4,543	-388	44	174,251
November	64,983	633	583	45,117	15	34,541	18,529	279	4,235	-394	45	168,569
December	76,870	953	556	53,353	24	38,871	20,729	304	4,369	-557	50	195,521
Year 2018												
January	88,647	2,358	770	55,200	26	39,366	23,664	296	4,419	-475	42	214,312
February	61,029	609	575	46,838	17	33,941	23,504	345	3,931	-226	40	170,605
March	58,552	585	491	50,590	16	35,262	23,793	465	4,181	-408	49	173,577
April	55,319	619	477	48,319	28	30,580	25,150	515	3,871	-295	42	164,625
May	64,011	730	336	58,568	11	34,479	28,051	506	3,348	-309	47	189,778
June	77,886	747	670	65,943	13	36,437	25,826	582	3,510	-339	52	211,327
July	88,147	648	716	82,577	15	38,293	21,964	528	2,723	-522	57	235,146
August	87,383	700	686	80,195	24	38,885	19,240	536	2,973	-626	58	230,053
Sept	73,136	763	639	68,921	3	34,377	16,649	509	3,054	-500	50	197,602
October	65,038	733	378	59,485	0	31,364	16,703	461	3,416	-405	46	177,218
November	68,728	674	477	50,217	0	33,043	19,806	344	3,554	-254	52	176,642
Year to Date												
2016	835,106	8,258	8,214	608,447	132	387,131	226,988	1,856	36,241	-4,972	385	2,107,786
2017	816,769	7,614	6,155	570,482	124	385,614	254,948	3,044	38,395	-4,891	501	2,078,756
2018	787,876	9,167	6,216	666,854	151	386,028	244,350	5,087	38,978	-4,359	536	2,140,885
Rolling 12 Months Ending in November												
2017	904,063	8,425	6,822	616,815	146	422,882	275,747	3,183	42,820	-5,548	537	2,275,892
2018	864,746	10,120	6,772	720,207	175	424,899	265,079	5,390	43,347	-4,916	586	2,336,406

Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; synthetic coal 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.
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 for 2017 and prior years are final. Values for 2018 are preliminary. 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.
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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 1.2.B Net Generation by Energy Source: Independent Power Producers, 2008-November 2018
(Thousand Megawatthours)

	Generation at Utility Scale Facilities											
Period	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gas	Nuclear	Hydroelectric Conventional	Solar	Renewable Sources Excluding Hydroelectric and Solar	Hydroelectric Pumped Storage	Other	Total
Annual Totals												
2008	502,442	8,021	6,737	482,182	3,154	381,952	23,451	847	84,928	-1,145	6,414	1,498,982
2009	419,031	6,306	4,288	491,839	2,962	381,579	24,308	863	100,997	-1,259	6,146	1,437,061
2010	449,709	5,117	3,497	508,774	2,915	382,126	22,351	1,105	119,851	-1,035	6,345	1,500,754
2011	416,783	3,655	3,431	511,447	2,911	374,906	26,117	1,511	140,442	-928	7,059	1,487,335
2012	354,076	2,757	1,758	627,833	2,984	374,509	20,923	3,525	156,539	-748	7,030	1,551,186
2013	379,270	3,761	1,780	527,522	3,524	382,902	22,018	7,782	181,263	-908	6,742	1,515,657
2014	395,701	6,789	1,410	531,758	3,246	377,295	19,861	16,086	196,723	-1,030	6,690	1,554,530
2015	342,608	6,240	1,601	619,839	3,517	380,498	17,996	22,962	202,858	-987	6,838	1,603,971
2016	307,263	3,360	1,401	624,600	3,758	381,294	18,539	33,502	233,553	-1,057	6,941	1,613,156
2017	304,198	3,281	1,480	572,919	3,978	380,465	23,034	49,375	258,962	-1,047	6,527	1,603,173
Year 2016												
January	28,612	379	42	48,969	341	34,551	1,884	1,363	19,168	-82	589	135,816
February	22,057	416	99	42,840	295	31,357	1,991	2,065	20,345	-66	540	121,939
March	14,363	210	138	45,900	355	31,704	2,100	2,420	22,164	-93	549	119,810
April	17,877	188	97	44,832	311	28,696	1,993	2,662	20,487	-84	554	117,612
May	18,842	233	124	49,574	303	30,046	1,847	3,188	19,608	-64	610	124,310
June	28,585	214	131	59,185	335	30,175	1,410	3,229	17,117	-88	595	140,888
July	34,564	291	136	70,645	324	32,430	1,306	3,690	18,856	-106	610	162,745
August	34,607	309	140	73,317	319	33,599	1,217	3,701	15,341	-115	617	163,051
Sept	30,124	258	113	58,805	323	31,529	996	3,394	17,145	-89	557	143,155
October	25,524	232	141	47,044	228	30,717	1,080	2,965	20,549	-90	549	128,939
November	21,446	325	116	41,736	330	32,097	1,122	2,576	19,760	-85	560	119,981
December	30,661	307	124	41,755	296	34,394	1,591	2,250	23,013	-96	613	134,908
Year 2017												
January	28,587	254	139	41,183	336	34,695	1,918	1,876	20,878	-90	583	130,360
February	21,314	197	123	35,510	291	29,650	1,894	2,348	21,360	-90	514	113,110
March	22,696	147	81	40,458	342	30,400	2,358	3,941	24,871	-66	523	125,751
April	21,829	174	113	37,135	282	26,526	2,538	4,358	24,347	-71	507	117,739
May	23,043	220	136	41,497	345	29,585	2,628	5,277	22,777	-73	548	125,981
June	25,528	249	132	52,380	313	31,988	2,185	5,772	20,315	-93	549	139,318
July	30,237	227	138	66,734	350	33,440	2,030	5,366	17,417	-114	572	156,397
August	28,293	231	140	64,705	358	33,717	1,617	5,056	15,432	-107	580	150,023
Sept	25,701	223	136	53,827	346	32,602	1,228	4,755	18,701	-84	508	137,942
October	22,616	191	110	48,686	318	30,957	1,221	4,480	24,488	-75	518	133,509
November	25,364	215	111	41,702	337	32,077	1,891	3,093	23,772	-84	539	129,016
December	28,990	951	122	49,104	359	34,828	1,526	3,054	24,605	-99	586	144,026
Year 2018												
January	29,504	2,805	116	46,057	303	35,283	1,796	3,084	26,761	-72	580	146,217
February	20,198	122	106	41,330	309	30,849	1,893	3,734	24,131	-89	549	123,131
March	21,359	177	100	46,384	330	31,770	2,011	4,693	27,267	-82	570	134,579
April	17,451	191	154	43,138	306	28,553	2,194	5,677	26,540	-82	535	124,658
May	20,649	244	23	49,392	350	32,841	2,230	6,498	24,224	-81	533	136,903
June	22,986	263	NM	56,381	317	33,251	1,990	7,137	24,929	-95	590	147,768
July	26,660	261	135	75,390	348	34,163	1,917	6,337	17,483	-123	594	163,165
August	27,173	243	124	75,497	369	33,398	2,035	6,365	20,658	-121	442	166,182
Sept	22,986	230	125	65,199	315	30,348	1,897	5,887	18,763	-103	312	145,957
October	21,843	212	43	56,164	259	28,033	1,948	4,706	21,603	-87	564	135,288
November	23,411	228	177	47,779	299	30,904	2,224	3,561	22,825	-88	559	131,879
Year to Date												
2016	276,602	3,053	1,277	582,845	3,462	346,900	16,947	31,253	210,541	-961	6,328	1,478,248
2017	275,208	2,329	1,358	523,816	3,619	345,636	21,508	46,321	234,358	-948	5,941	1,459,147
2018	254,220	4,975	1,121	602,710	3,506	349,393	22,134	57,678	255,183	-1,024	5,829	1,555,726
Rolling 12 Months Ending in November												
2017	305,870	2,636	1,482	565,570	3,915	380,031	23,099	48,571	257,371	-1,043	6,554	1,594,055
2018	283,210	5,926	NM	651,814	3,865	384,221	23,660	60,732	279,788	-1,122	6,415	1,699,752

Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; synthetic coal 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.
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 for 2017 and prior years are final. Values for 2018 are preliminary. 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.
Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
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 1.2.C. Net Generation by Energy Source: Commercial Sector, 2008-November 2018
(Thousand Megawatthours)

	Generation at Utility Scale Facilities												Small Scale Generation	Net Generation From Utility and Small Scale Facilities	
Period	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gas	Nuclear	Hydroelectric Conventional	Solar	Renewable Sources Excluding Hydroelectric and Solar	Hydroelectric Pumped Storage	Other	Total Generation at Utility Scale Facilities	Estimated Solar Photovoltaic	Estimated Total Solar Photovoltaic	Estimated Total Solar
Annual Totals															
2008	1,261	136	6	4,188	0	0	60	0	1,555	0	720	7,926	N/A	N/A	N/A
2009	1,096	157	5	4,225	0	0	71	0	1,769	0	842	8,165	N/A	N/A	N/A
2010	1,111	117	7	4,725	3	0	80	5	1,709	0	834	8,592	N/A	N/A	N/A
2011	1,049	86	3	5,487	3	0	26	84	2,392	0	950	10,080	N/A	N/A	N/A
2012	883	191	6	6,603	0	0	28	148	2,397	0	1,046	11,301	N/A	N/A	N/A
2013	839	118	5	7,154	0	0	44	294	2,662	0	1,118	12,234	N/A	N/A	N/A
2014	595	247	9	7,227	0	0	38	371	2,862	0	1,171	12,520	5,146	5,516	5,516
2015	509	183	8	7,471	0	0	35	416	2,803	0	1,170	12,595	5,689	6,106	6,106
2016	383	77	6	7,730	0	0	217	529	2,697	0	1,068	12,706	6,158	6,687	6,687
2017	329	103	8	8,042	0	0	240	521	2,729	0	1,088	13,060	7,685	8,206	8,206
Year 2016															
January	43	8	1	605	0	0	21	26	230	0	89	1,022	346	373	373
February	45	8	1	570	0	0	18	39	210	0	75	967	398	437	437
March	46	3	1	579	0	0	22	44	225	0	90	1,011	520	564	564
April	24	6	0	551	0	0	15	46	221	0	97	961	566	612	612
May	20	6	0	607	0	0	12	48	230	0	96	1,019	616	663	663
June	23	5	0	692	0	0	13	53	220	0	83	1,089	623	676	676
July	24	8	1	831	0	0	15	55	234	0	96	1,263	640	696	696
August	26	7	0	859	0	0	19	58	234	0	95	1,298	620	677	677
Sept	29	4	0	700	0	0	23	48	223	0	87	1,114	556	605	605
October	27	5	0	617	0	0	21	42	218	0	90	1,021	493	536	536
November	35	8	0	521	0	0	17	36	224	0	85	927	393	428	428
December	42	8	1	598	0	0	21	33	228	0	85	1,015	387	420	420
Year 2017															
January	41	13	1	681	0	0	27	17	232	0	84	1,098	420	438	438
February	32	8	1	597	0	0	15	27	206	0	78	963	458	485	485
March	33	9	1	652	0	0	15	42	233	0	86	1,071	629	671	671
April	20	5	0	574	0	0	23	46	222	0	87	976	699	745	745
May	19	7	0	619	0	0	24	53	245	0	101	1,069	770	823	823
June	21	5	0	718	0	0	15	61	225	0	89	1,135	777	838	838
July	25	7	0	786	0	0	14	58	237	0	99	1,227	808	866	866
August	23	8	1	766	0	0	17	55	231	0	100	1,202	788	843	843
Sept	27	6	1	701	0	0	14	52	216	0	90	1,107	709	761	761
October	24	6	1	661	0	0	29	47	217	0	94	1,079	632	679	679
November	29	7	1	611	0	0	23	34	228	0	88	1,020	502	536	536
December	35	23	1	674	0	0	23	29	238	0	91	1,114	492	521	521
Year 2018															
January	44	NM	1	674	0	0	23	28	223	0	85	1,122	546	575	575
February	31	8	1	637	0	0	23	36	199	0	73	1,007	599	634	634
March	26	8	1	652	0	0	NM	45	221	0	84	1,061	813	858	858
April	22	9	0	635	0	0	25	57	207	0	82	1,038	901	958	958
May	19	9	0	644	0	0	NM	66	213	0	91	1,068	986	1,052	1,052
June	21	8	0	706	0	0	NM	81	215	0	92	1,147	999	1,080	1,080
July	25	12	0	822	0	0	NM	68	213	0	91	1,250	1,031	1,100	1,100
August	30	10	0	831	0	0	NM	71	217	0	91	1,267	990	1,060	1,060
Sept	29	8	1	747	0	0	14	66	198	0	80	1,144	891	957	957
October	24	8	1	672	0	0	NM	51	217	0	84	1,070	785	835	835
November	27	12	1	640	0	0	NM	34	204	0	78	1,014	625	659	659
Year to Date															
2016	342	68	4	7,132	0	0	196	496	2,468	0	983	11,691	5,771	6,267	6,267
2017	294	80	7	7,367	0	0	217	492	2,491	0	996	11,946	7,192	7,685	7,685
2018	297	137	6	7,661	0	0	223	604	2,327	0	932	12,187	9,165	9,769	9,769
Rolling 12 Months Ending in November															
2017	336	88	8	7,965	0	0	238	525	2,719	0	1,081	12,961	7,579	8,105	8,105
2018	332	NM	7	8,335	0	0	NM	633	2,566	0	1,023	13,301	9,658	10,290	10,290

Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; synthetic coal 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.
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 for 2017 and prior years are final. Values for 2018 are preliminary. 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.
Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
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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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.
Estimated small scale solar photovoltaic generation and small scale solar photovoltaic capacity are based on data from Form EIA-861M, Form EIA-861 and from estimation methods described in the technical notes.

Table 1.2.D. Net Generation by Energy Source: Industrial Sector, 2008-November 2018
(Thousand Megawatthours)

	Generation at Utility Scale Facilities												Small Scale Generation	Net Generation From Utility and Small Scale Facilities	
Period	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gas	Nuclear	Hydroelectric Conventional	Solar	Renewable Sources Excluding Hydroelectric and Solar	Hydroelectric Pumped Storage	Other	Total Generation at Utility Scale Facilities	Estimated Solar Photovoltaic	Estimated Total Solar Photovoltaic	Estimated Total Solar
Annual Totals															
2008	15,703	1,555	1,664	76,421	8,507	0	1,676	0	27,462	0	4,125	137,113	N/A	N/A	N/A
2009	13,686	1,474	1,489	75,748	7,574	0	1,868	0	26,033	0	4,457	132,329	N/A	N/A	N/A
2010	18,441	844	1,414	81,583	8,343	0	1,668	2	26,574	0	5,214	144,082	N/A	N/A	N/A
2011	14,490	657	1,234	81,911	8,624	0	1,799	7	27,612	0	5,541	141,875	N/A	N/A	N/A
2012	12,603	563	2,359	86,500	8,913	0	2,353	14	27,693	0	5,108	146,107	N/A	N/A	N/A
2013	12,554	495	2,036	88,733	8,531	0	3,463	17	29,074	0	5,113	150,015	N/A	N/A	N/A
2014	12,341	544	1,389	86,209	8,664	0	1,282	16	28,659	0	4,978	144,083	1,139	1,156	1,156
2015	10,896	563	990	88,355	9,401	0	1,410	21	28,614	0	5,462	145,712	1,451	1,472	1,472
2016	9,103	503	909	91,197	8,895	0	1,269	27	28,663	0	5,324	145,890	2,060	2,087	2,087
2017	7,669	463	776	91,619	8,343	0	1,383	42	28,536	0	4,928	143,758	2,364	2,406	2,406
Year 2016															
January	793	45	91	7,653	851	0	130	1	2,492	0	442	12,497	113	115	115
February	750	45	76	7,133	763	0	115	2	2,317	0	396	11,597	124	126	126
March	781	39	63	7,462	837	0	142	2	2,381	0	409	12,117	171	173	173
April	670	37	50	7,067	815	0	128	2	2,192	0	424	11,386	186	189	189
May	740	51	87	7,341	740	0	119	3	2,350	0	456	11,886	206	208	208
June	814	44	81	7,661	692	0	99	3	2,391	0	463	12,248	206	209	209
July	873	48	79	8,165	731	0	104	3	2,501	0	486	12,989	214	217	217
August	847	37	81	8,291	732	0	92	3	2,489	0	503	13,075	209	212	212
Sept	762	41	60	7,706	674	0	65	2	2,312	0	489	12,111	190	192	192
October	693	41	75	7,527	679	0	88	2	2,312	0	433	11,851	174	176	176
November	630	37	87	7,514	662	0	69	2	2,433	0	418	11,852	139	140	140
December	750	40	78	7,678	720	0	117	1	2,493	0	405	12,283	128	129	129
Year 2017															
January	720	43	61	7,907	696	0	126	1	2,405	0	382	12,341	123	124	124
February	632	38	60	7,052	668	0	115	2	2,209	0	364	11,142	137	139	139
March	644	38	82	7,515	702	0	131	3	2,342	0	411	11,868	197	200	200
April	573	35	58	7,266	701	0	146	4	2,265	0	410	11,457	213	217	217
May	616	34	57	7,428	704	0	155	4	2,293	0	396	11,686	239	242	242
June	662	33	71	7,765	668	0	124	5	2,420	0	416	12,164	241	246	246
July	653	34	78	8,367	679	0	115	5	2,540	0	486	12,956	252	257	257
August	655	33	83	8,067	774	0	93	5	2,560	0	484	12,754	246	251	251
Sept	615	34	52	7,191	715	0	75	4	2,281	0	386	11,354	223	227	227
October	637	38	56	7,366	673	0	84	4	2,310	0	370	11,537	201	204	204
November	610	47	61	7,453	649	0	121	3	2,361	0	405	11,710	156	158	158
December	651	55	58	8,242	713	0	99	3	2,550	0	419	12,790	138	141	141
Year 2018															
January	744	81	66	8,134	667	0	112	4	2,531	0	408	12,747	145	150	150
February	664	41	55	7,208	665	0	112	5	2,309	0	339	11,399	154	159	159
March	676	41	56	7,313	717	0	122	7	2,455	0	410	11,799	219	226	226
April	591	35	59	7,355	610	0	119	8	2,313	0	379	11,470	239	247	247
May	632	40	55	7,506	647	0	125	9	2,503	0	405	11,922	265	274	274
June	615	43	77	7,797	680	0	114	11	2,432	0	376	12,144	266	277	277
July	639	50	73	8,277	740	0	113	9	2,546	0	376	12,823	275	284	284
August	633	37	68	8,430	831	0	106	11	2,451	0	416	12,982	267	278	278
Sept	592	38	70	7,878	682	0	103	10	2,303	0	359	12,035	246	255	255
October	547	37	63	7,706	671	0	115	8	2,327	0	398	11,871	224	231	231
November	573	39	44	8,168	634	0	127	6	2,363	0	390	12,345	175	181	181
Year to Date															
2016	8,352	463	832	83,519	8,175	0	1,152	26	26,170	0	4,918	133,608	1,932	1,958	1,958
2017	7,018	408	718	83,377	7,630	0	1,283	39	25,986	0	4,509	130,968	2,226	2,265	2,265
2018	6,906	484	687	85,771	7,544	0	1,268	88	26,533	0	4,255	133,536	2,475	2,563	2,563
Rolling 12 Months Ending in November															
2017	7,769	448	795	91,055	8,349	0	1,400	41	28,479	0	4,915	143,251	2,353	2,394	2,394
2018	7,557	539	745	94,013	8,257	0	1,368	90	29,083	0	4,674	146,326	2,613	2,704	2,704

Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; synthetic coal 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.
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 for 2017 and prior years are final. Values for 2018 are preliminary. 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.
Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
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.
Estimated small scale solar photovoltaic generation and small scale solar photovoltaic capacity are based on data from Form EIA-861M, Form EIA-861 and from estimation methods described in the technical notes.

Table 1.2.E. Net Generation by Energy Source: Residential Sector, 2014-November 2018 (Thousand Megawatthours)

	Small Scale Generation
Period	**Estimated Small Scale Solar Photovoltaic Generation**
Annual Totals	
2014	4,947
2015	6,999
2016	10,595
2017	13,942
Year 2016	
January	520
February	622
March	835
April	951
May	1,058
June	1,099
July	1,146
August	1,113
Sept	989
October	884
November	726
December	653
Year 2017	
January	703
February	789
March	1,147
April	1,283
May	1,415
June	1,469
July	1,495
August	1,446
Sept	1,293
October	1,157
November	904
December	841
Year 2018	
January	922
February	1,008
March	1,394
April	1,596
May	1,757
June	1,793
July	1,838
August	1,761
Sept	1,545
October	1,391
November	1,114
Year to Date	
2016	9,942
2017	13,100
2018	16,120
Rolling 12 Months Ending in November	
2017	13,753
2018	16,961

See Glossary for definitions. Values for 2017 and prior years are final. Values for 2018 are preliminary.
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.
Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
Sources:
Estimated small scale solar photovoltaic generation and small scale solar photovoltaic capacity are based on data from Form EIA-861M, Form EIA-861 and from estimation methods described in the technical notes.

Table 1.3.A. Utility Scale Facility Net Generation by State, by Sector, November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	7,855	8,159	-3.7%	236	188	7,268	7,632	106	106	246	233
Connecticut	2,885	2,770	4.2%	10	9	2,794	2,668	33	39	48	54
Maine	965	925	4.4%	0	0	789	762	14	19	162	144
Massachusetts	1,884	2,129	-11.5%	45	37	1,768	2,035	48	37	22	21
New Hampshire	1,462	1,475	-0.9%	100	71	1,353	1,396	7	7	3	1
Rhode Island	455	683	-33.4%	0	0	439	666	4	4	12	13
Vermont	204	177	15.2%	80	71	124	107	0	0	0	0
Middle Atlantic	33,438	32,809	1.9%	2,989	2,905	29,925	29,374	174	185	349	346
New Jersey	5,306	5,258	0.9%	NM	5	5,196	5,138	32	54	60	60
New York	11,001	10,185	8.0%	2,957	2,890	7,865	7,126	108	99	71	69
Pennsylvania	17,131	17,367	-1.4%	15	9	16,865	17,109	33	32	218	217
East North Central	49,054	47,598	3.1%	18,944	18,627	29,075	27,995	147	134	888	843
Illinois	14,955	15,349	-2.6%	432	333	14,235	14,771	39	26	249	219
Indiana	9,534	7,995	19.2%	6,962	5,857	2,253	1,811	15	22	304	305
Michigan	8,564	8,503	0.7%	6,371	5,649	1,991	2,670	70	66	132	118
Ohio	10,728	9,709	10.5%	1,122	2,062	9,535	7,586	12	11	60	51
Wisconsin	5,273	6,042	-12.7%	4,057	4,725	1,061	1,157	11	9	144	151
West North Central	28,395	27,363	3.8%	22,896	21,411	5,116	5,546	47	49	336	357
Iowa	5,353	4,910	9.0%	4,077	3,571	1,113	1,150	18	18	145	170
Kansas	4,102	4,072	0.7%	2,718	2,595	1,368	1,470	NM	1	15	6
Minnesota	5,321	5,254	1.3%	4,203	3,875	985	1,241	15	14	119	124
Missouri	6,720	5,703	17.8%	6,208	5,303	498	382	11	14	3	4
Nebraska	2,733	2,846	-4.0%	2,273	2,359	421	450	1	1	38	36
North Dakota	3,372	3,666	-8.0%	2,803	2,994	552	655	0	0	16	17
South Dakota	793	912	-13.0%	614	714	179	198	NM	0	0	0
South Atlantic	61,402	59,155	3.8%	50,236	48,258	9,404	9,231	140	118	1,622	1,548
Delaware	324	344	-5.9%	1	2	205	281	1	1	117	61
District of Columbia	4	4	-1.9%	0	0	0	0	4	4	0	0
Florida	17,918	17,202	4.2%	16,698	15,978	773	795	6	6	441	423
Georgia	10,371	9,392	10.4%	8,978	7,840	969	1,115	NM	0	424	437
Maryland	3,490	2,955	18.1%	351	92	3,040	2,796	77	42	21	25
North Carolina	10,660	9,693	10.0%	9,271	8,761	1,217	733	23	31	150	167
South Carolina	7,078	7,023	0.8%	6,600	6,567	318	311	0	0	160	146
Virginia	7,159	7,430	-3.6%	5,289	5,724	1,627	1,466	28	34	214	206
West Virginia	4,398	5,113	-14.0%	3,049	3,294	1,255	1,735	0	0	95	84
East South Central	27,772	26,607	4.4%	23,347	22,516	3,654	3,355	18	15	754	721
Alabama	10,788	11,018	-2.1%	7,641	7,779	2,770	2,852	0	0	377	387
Kentucky	6,401	5,485	16.7%	6,280	5,400	71	32	0	0	51	52
Mississippi	5,076	4,437	14.4%	4,123	3,851	794	444	0	0	159	142
Tennessee	5,507	5,666	-2.8%	5,302	5,486	20	26	18	15	167	139
West South Central	54,005	51,397	5.1%	18,173	15,791	29,133	29,501	76	60	6,623	6,045
Arkansas	5,147	4,514	14.0%	4,390	3,823	618	541	NM	2	135	148
Louisiana	7,421	7,417	0.0%	4,201	4,158	624	708	16	13	2,579	2,539
Oklahoma	6,403	5,393	18.7%	3,330	2,470	3,003	2,849	0	0	71	75
Texas	35,035	34,072	2.8%	6,251	5,340	24,889	25,404	57	45	3,838	3,283
Mountain	30,142	28,453	5.9%	23,102	21,854	6,724	6,280	42	45	274	275
Arizona	8,061	7,879	2.3%	6,897	7,100	1,153	767	11	12	0	0
Colorado	4,535	4,145	9.4%	3,515	3,136	1,013	1,000	NM	3	7	7
Idaho	1,334	1,531	-12.9%	873	973	408	519	4	4	50	35
Montana	2,520	2,545	-1.0%	791	863	1,726	1,679	0	0	3	3
Nevada	2,875	2,782	3.3%	1,926	1,903	923	848	8	10	18	21
New Mexico	3,131	2,661	17.6%	2,134	1,791	979	862	9	8	8	0
Utah	3,669	3,123	17.5%	3,337	2,743	268	297	9	8	54	75
Wyoming	4,017	3,787	6.1%	3,629	3,345	254	308	0	0	134	134
Pacific Contiguous	28,500	27,358	4.2%	15,866	16,055	11,209	9,747	206	245	1,219	1,311
California	15,177	14,206	6.8%	5,407	5,781	8,518	7,052	198	236	1,054	1,137
Oregon	5,097	4,651	9.6%	3,550	3,523	1,494	1,070	5	6	48	53
Washington	8,226	8,500	-3.2%	6,910	6,751	1,197	1,625	2	3	117	121
Pacific Noncontiguous	1,315	1,416	-7.2%	854	964	370	357	58	63	33	32
Alaska	459	623	-26.2%	401	563	23	20	26	34	9	6
Hawaii	855	794	7.8%	452	401	347	337	32	29	24	26
U.S. Total	321,879	310,315	3.7%	176,642	168,569	131,879	129,016	1,014	1,020	12,345	11,710

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Notes: See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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 1.3.B. Utility Scale Facility Net Generation

by State, by Sector, Year-to-Date through November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	96,873	95,950	1.0%	2,823	2,231	90,087	89,866	1,169	1,202	2,794	2,651
Connecticut	35,439	31,082	14.0%	84	89	34,443	30,050	355	383	558	559
Maine	10,715	10,284	4.2%	0	0	8,734	8,400	151	196	1,829	1,688
Massachusetts	25,812	29,763	-13.3%	608	491	24,408	28,525	544	503	252	244
New Hampshire	16,133	15,838	1.9%	1,265	806	14,777	14,943	62	62	29	27
Rhode Island	6,644	7,033	-5.5%	0	3	6,464	6,842	54	55	126	133
Vermont	2,131	1,950	9.3%	867	842	1,261	1,106	3	3	0	0
Middle Atlantic	387,906	379,756	2.1%	33,016	31,557	348,717	341,989	2,175	2,169	3,998	4,041
New Jersey	69,249	69,287	-0.1%	154	130	67,843	67,862	616	623	637	672
New York	122,864	116,867	5.1%	32,727	31,329	88,079	83,553	1,213	1,194	845	790
Pennsylvania	195,793	193,603	1.1%	135	98	192,795	190,574	347	352	2,516	2,579
East North Central	557,941	524,322	6.4%	221,474	214,768	324,815	298,728	1,827	1,756	9,825	9,070
Illinois	172,303	166,863	3.3%	5,242	4,660	163,876	159,316	478	391	2,707	2,496
Indiana	102,549	88,594	15.8%	76,802	69,510	22,017	15,527	234	242	3,496	3,314
Michigan	107,488	102,427	4.9%	74,944	73,340	30,359	27,127	766	761	1,419	1,199
Ohio	113,763	107,994	5.3%	16,214	21,179	96,676	85,983	234	248	639	584
Wisconsin	61,839	58,443	5.8%	48,272	46,078	11,887	10,776	116	114	1,564	1,476
West North Central	325,214	308,515	5.4%	264,947	252,584	55,698	51,655	568	552	4,002	3,723
Iowa	58,488	52,538	11.3%	44,944	39,198	11,358	11,314	200	191	1,986	1,835
Kansas	48,161	46,165	4.3%	32,174	30,686	15,895	15,429	14	14	78	37
Minnesota	57,815	52,887	9.3%	44,775	41,347	11,478	10,030	177	168	1,385	1,343
Missouri	78,719	77,335	1.8%	73,646	74,305	4,874	2,825	161	162	39	42
Nebraska	33,556	32,159	4.3%	28,734	27,488	4,457	4,331	17	17	348	322
North Dakota	38,126	37,503	1.7%	32,073	31,464	5,887	5,896	0	0	165	143
South Dakota	10,349	9,927	4.3%	8,601	8,095	1,748	1,831	NM	0	0	0
South Atlantic	757,106	726,414	4.2%	616,375	604,347	121,822	103,504	1,522	1,354	17,387	17,209
Delaware	5,777	6,994	-17.4%	36	22	4,725	5,872	7	6	1,009	1,095
District of Columbia	71	61	16.9%	0	0	0	0	71	61	0	0
Florida	226,552	220,666	2.7%	210,331	205,843	11,447	10,036	65	66	4,708	4,722
Georgia	119,827	116,539	2.8%	99,532	97,832	15,453	14,093	8	5	4,834	4,608
Maryland	40,536	30,927	31.1%	3,559	199	35,992	29,979	755	491	229	258
North Carolina	123,106	117,005	5.2%	106,406	104,077	14,755	10,896	260	324	1,686	1,708
South Carolina	92,659	84,984	9.0%	85,476	80,299	5,391	3,061	2	2	1,790	1,622
Virginia	86,862	82,453	5.3%	65,244	65,006	18,994	14,855	353	399	2,272	2,192
West Virginia	61,715	66,785	-7.6%	45,790	51,069	15,066	14,712	0	0	859	1,004
East South Central	338,658	320,695	5.6%	286,234	275,258	43,867	37,009	196	180	8,360	8,248
Alabama	133,099	127,938	4.0%	93,603	93,007	35,394	30,898	0	0	4,102	4,033
Kentucky	72,504	66,808	8.5%	71,273	65,877	707	365	0	0	524	565
Mississippi	59,487	54,695	8.8%	50,249	47,399	7,487	5,546	6	4	1,745	1,747
Tennessee	73,568	71,253	3.2%	71,110	68,974	279	199	190	176	1,990	1,903
West South Central	674,444	625,739	7.8%	236,775	208,687	367,194	347,649	897	845	69,578	68,559
Arkansas	61,675	54,767	12.6%	53,841	48,936	6,234	4,285	39	39	1,562	1,507
Louisiana	93,731	89,195	5.1%	57,889	51,693	8,445	9,363	155	124	27,241	28,015
Oklahoma	80,294	67,448	19.0%	39,310	33,916	40,171	32,785	0	0	813	746
Texas	438,745	414,330	5.9%	85,736	74,142	312,345	301,215	703	682	39,961	38,291
Mountain	339,101	330,613	2.6%	259,955	258,573	75,753	68,605	527	529	2,866	2,907
Arizona	103,050	97,541	5.6%	87,090	83,978	15,808	13,409	152	154	0	0
Colorado	50,881	49,114	3.6%	38,269	37,921	12,511	11,099	33	28	69	67
Idaho	16,032	15,805	1.4%	10,321	10,445	5,158	4,834	46	47	508	478
Montana	25,028	25,520	-1.9%	10,547	10,668	14,455	14,825	0	0	27	28
Nevada	36,996	35,103	5.4%	25,597	24,802	10,953	9,913	127	117	318	272
New Mexico	29,433	31,030	-5.1%	18,797	22,881	10,514	8,042	98	107	24	1
Utah	35,778	33,973	5.3%	31,586	29,514	3,584	3,602	71	76	537	780
Wyoming	41,903	42,527	-1.5%	37,748	38,365	2,770	2,882	0	0	1,385	1,281
Pacific Contiguous	349,930	353,943	-1.1%	209,027	220,709	123,920	116,326	2,617	2,711	14,366	14,196
California	182,249	191,395	-4.8%	70,373	84,307	96,871	92,112	2,516	2,622	12,489	12,353
Oregon	59,271	56,822	4.3%	43,979	44,297	14,637	11,906	75	65	580	554
Washington	108,410	105,726	2.5%	94,675	92,105	12,412	12,309	26	23	1,296	1,289
Pacific Noncontiguous	15,162	14,870	2.0%	10,259	10,042	3,853	3,816	688	646	362	366
Alaska	6,008	5,859	2.6%	5,350	5,248	233	211	327	301	98	100
Hawaii	9,154	9,011	1.6%	4,909	4,794	3,619	3,605	361	345	265	266
U.S. Total	3,842,334	3,680,817	4.4%	2,140,885	2,078,756	1,555,726	1,459,147	12,187	11,946	133,536	130,968

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Notes: See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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 1.4.A. Utility Scale Facility Net Generation from Coal by State, by Sector, November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	NM	15	NM	NM	11	39	4	0	0	0	0
Connecticut	35	-1	NM	0	0	35	-1	0	0	0	0
Maine	4	5	-22.0%	0	0	4	5	0	0	0	0
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	NM	11	NM	NM	11	0	0	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	3,305	3,921	-15.7%	0	0	3,291	3,901	0	0	14	20
New Jersey	82	88	-7.0%	0	0	82	88	0	0	0	0
New York	3	44	-93.1%	0	0	3	33	0	0	0	11
Pennsylvania	3,220	3,789	-15.0%	0	0	3,206	3,780	0	0	14	9
East North Central	22,110	21,568	2.5%	13,131	13,208	8,781	8,188	NM	6	195	165
Illinois	4,632	5,048	-8.2%	369	300	4,105	4,621	NM	3	157	125
Indiana	6,633	5,521	20.1%	6,223	5,319	409	199	1	4	0	0
Michigan	3,276	3,100	5.7%	3,240	3,060	33	38	0	0	NM	3
Ohio	4,735	4,783	-1.0%	500	1,452	4,235	3,331	0	0	0	1
Wisconsin	2,833	3,115	-9.1%	2,799	3,078	0	0	0	0	34	37
West North Central	15,596	14,620	6.7%	15,401	14,400	0	0	9	7	185	213
Iowa	2,555	1,795	42.3%	2,447	1,666	0	0	7	6	101	124
Kansas	1,524	1,375	10.9%	1,524	1,375	0	0	0	0	0	0
Minnesota	2,339	2,292	2.0%	2,303	2,250	0	0	0	0	35	42
Missouri	4,909	4,976	-1.3%	4,907	4,974	0	0	2	2	0	0
Nebraska	1,896	1,671	13.5%	1,858	1,635	0	0	0	0	38	36
North Dakota	2,229	2,310	-3.5%	2,219	2,298	0	0	0	0	NM	12
South Dakota	143	201	-29.1%	143	201	0	0	0	0	0	0
South Atlantic	14,341	12,974	10.5%	12,358	10,768	1,915	2,140	5	6	63	60
Delaware	-3	35	-108.6%	0	0	-3	35	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	2,238	2,393	-6.5%	2,230	2,387	0	0	0	0	8	5
Georgia	3,038	1,853	64.0%	3,018	1,834	0	0	0	0	20	18
Maryland	862	586	47.0%	0	0	856	580	0	0	6	7
North Carolina	1,975	1,752	12.7%	1,954	1,724	5	10	5	5	11	13
South Carolina	1,590	1,045	52.1%	1,589	1,043	0	0	0	0	1	2
Virginia	692	622	11.3%	611	563	62	43	0	1	18	14
West Virginia	3,950	4,688	-15.7%	2,956	3,216	994	1,472	0	0	0	0
East South Central	8,075	8,087	-0.1%	7,767	7,885	273	148	0	0	36	54
Alabama	1,774	2,070	-14.3%	1,768	2,067	0	0	0	0	5	3
Kentucky	4,874	4,061	20.0%	4,874	4,061	0	0	0	0	0	0
Mississippi	522	406	28.7%	250	258	273	148	0	0	0	0
Tennessee	905	1,550	-41.6%	874	1,499	0	0	0	0	31	51
West South Central	14,158	15,101	-6.2%	7,518	6,632	6,619	8,441	0	0	21	29
Arkansas	2,887	2,050	40.8%	2,400	1,601	482	444	0	0	4	5
Louisiana	981	788	24.5%	629	422	352	366	0	0	0	0
Oklahoma	1,035	1,316	-21.3%	822	1,152	197	140	0	0	17	24
Texas	9,255	10,948	-15.5%	3,667	3,457	5,588	7,491	0	0	0	0
Mountain	14,003	13,690	2.3%	12,345	12,054	1,623	1,596	0	0	35	41
Arizona	2,483	2,751	-9.7%	2,483	2,751	0	0	0	0	0	0
Colorado	2,283	2,389	-4.4%	2,282	2,388	0	0	0	0	1	1
Idaho	NM	3	NM	0	0	0	0	0	0	NM	3
Montana	1,445	1,405	2.8%	24	0	1,421	1,405	0	0	1	1
Nevada	260	89	191.9%	145	-3	115	92	0	0	0	0
New Mexico	1,555	1,481	5.0%	1,555	1,481	0	0	0	0	0	0
Utah	2,522	2,415	4.5%	2,485	2,377	37	38	0	0	0	0
Wyoming	3,452	3,158	9.3%	3,371	3,061	50	61	0	0	31	36
Pacific Contiguous	874	840	4.1%	117	0	734	812	0	0	23	28
California	21	26	-19.1%	0	0	0	0	0	0	21	26
Oregon	117	0	--	117	0	0	0	0	0	0	0
Washington	736	814	-9.6%	0	0	734	812	0	0	3	2
Pacific Noncontiguous	199	169	17.6%	NM	26	135	134	NM	9	0	0
Alaska	83	50	64.7%	NM	26	NM	15	NM	9	0	0
Hawaii	116	119	-2.3%	0	0	116	119	0	0	0	0
U.S. Total	92,738	90,986	1.9%	68,728	64,983	23,411	25,364	27	29	573	610

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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 1.4.B. Utility Scale Facility Net Generation from Coal

by State, by Sector, Year-to-Date through November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	933	1,469	-36.5%	580	178	335	1,282	0	0	18	9
Connecticut	287	94	206.5%	0	0	287	94	0	0	0	0
Maine	67	61	8.5%	0	0	48	52	0	0	18	9
Massachusetts	0	1,136	-100.0%	0	0	0	1,136	0	0	0	0
New Hampshire	580	178	225.8%	580	178	0	0	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	41,529	43,873	-5.3%	0	0	41,353	43,508	0	0	175	365
New Jersey	1,095	1,087	0.7%	0	0	1,095	1,087	0	0	0	0
New York	623	656	-4.9%	0	0	612	455	0	0	11	201
Pennsylvania	39,811	42,130	-5.5%	0	0	39,646	41,966	0	0	165	164
East North Central	249,768	251,771	-0.8%	148,549	152,480	98,976	97,401	73	57	2,170	1,833
Illinois	55,077	52,865	4.2%	3,623	3,658	49,723	47,772	35	25	1,695	1,410
Indiana	70,931	65,248	8.7%	66,992	62,879	3,901	2,337	38	32	0	0
Michigan	39,361	38,946	1.1%	38,891	38,496	394	408	0	0	76	43
Ohio	53,962	62,290	-13.4%	8,999	15,397	44,958	46,884	0	0	5	8
Wisconsin	30,437	32,421	-6.1%	30,044	32,050	0	0	0	0	393	372
West North Central	172,098	168,445	2.2%	169,662	166,107	0	1	78	96	2,359	2,240
Iowa	25,978	23,314	11.4%	24,494	21,868	0	0	67	75	1,417	1,371
Kansas	18,414	17,482	5.3%	18,414	17,482	0	0	0	0	0	0
Minnesota	21,028	20,547	2.3%	20,539	20,095	0	0	1	1	488	451
Missouri	58,088	61,582	-5.7%	58,078	61,561	0	1	9	20	0	0
Nebraska	21,237	19,307	10.0%	20,889	18,984	0	0	0	0	348	322
North Dakota	25,297	24,375	3.8%	25,191	24,279	0	0	0	0	106	96
South Dakota	2,057	1,838	11.9%	2,057	1,838	0	0	0	0	0	0
South Atlantic	179,876	193,277	-6.9%	156,669	171,986	22,531	20,544	38	47	638	700
Delaware	271	296	-8.3%	0	0	271	296	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	27,708	35,068	-21.0%	27,616	34,833	7	109	0	0	85	126
Georgia	29,573	29,983	-1.4%	29,395	29,825	0	0	0	0	179	157
Maryland	9,488	7,600	24.8%	0	0	9,433	7,534	0	0	54	67
North Carolina	29,274	31,583	-7.3%	29,025	31,290	88	102	32	38	129	153
South Carolina	18,037	16,693	8.1%	18,022	16,672	0	0	0	0	15	22
Virginia	8,565	9,895	-13.4%	7,829	9,262	554	448	5	9	176	176
West Virginia	56,960	62,160	-8.4%	44,783	50,103	12,177	12,057	0	0	0	0
East South Central	107,423	110,342	-2.6%	104,230	107,646	2,546	2,032	0	0	646	665
Alabama	29,544	28,692	3.0%	29,501	28,665	0	0	0	0	43	27
Kentucky	53,869	52,549	2.5%	53,869	52,549	0	0	0	0	0	0
Mississippi	4,810	4,325	11.2%	2,263	2,294	2,546	2,032	0	0	0	0
Tennessee	19,200	24,775	-22.5%	18,596	24,137	0	0	0	0	603	638
West South Central	153,485	174,294	-11.9%	84,387	83,607	68,873	90,380	0	0	225	307
Arkansas	26,985	23,700	13.9%	22,237	20,625	4,706	3,035	0	0	42	40
Louisiana	10,837	11,264	-3.8%	7,204	6,557	3,633	4,707	0	0	0	0
Oklahoma	13,467	16,151	-16.6%	11,629	14,348	1,655	1,536	0	0	183	267
Texas	102,195	123,178	-17.0%	43,317	42,076	58,878	81,102	0	0	0	0
Mountain	136,392	147,467	-7.5%	122,412	132,834	13,585	14,025	0	0	395	608
Arizona	27,939	28,929	-3.4%	27,939	28,929	0	0	0	0	0	0
Colorado	23,816	26,769	-11.0%	23,806	26,761	0	0	0	0	11	8
Idaho	23	21	9.4%	0	0	0	0	0	0	23	21
Montana	11,928	12,336	-3.3%	207	225	11,716	12,106	0	0	4	5
Nevada	2,064	1,792	15.2%	1,151	905	913	887	0	0	0	0
New Mexico	11,878	17,215	-31.0%	11,878	17,215	0	0	0	0	0	0
Utah	23,008	23,886	-3.7%	22,626	23,295	381	375	0	0	0	217
Wyoming	35,736	36,519	-2.1%	34,805	35,504	575	657	0	0	357	357
Pacific Contiguous	5,957	6,590	-9.6%	1,061	1,688	4,616	4,612	0	0	280	289
California	259	264	-2.0%	0	0	0	0	0	0	259	264
Oregon	1,061	1,688	-37.2%	1,061	1,688	0	0	0	0	0	0
Washington	4,638	4,638	0.0%	0	0	4,616	4,612	0	0	22	26
Pacific Noncontiguous	1,838	1,763	4.3%	326	244	1,404	1,425	109	94	0	0
Alaska	621	504	23.3%	326	244	187	165	109	94	0	0
Hawaii	1,217	1,260	-3.3%	0	0	1,217	1,260	0	0	0	0
U.S. Total	1,049,299	1,099,290	-4.5%	787,876	816,769	254,220	275,208	297	294	6,906	7,018

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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 1.5.A. Utility Scale Facility Net Generation from Petroleum Liquids by State, by Sector, November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	33	25	27.9%	9	2	16	20	5	2	2	1
Connecticut	9	-1	-810.9%	0	0	8	-2	1	0	0	0
Maine	3	7	-65.4%	0	0	1	6	0	0	2	1
Massachusetts	8	12	-38.0%	NM	1	4	11	3	1	0	0
New Hampshire	11	3	234.1%	7	1	2	1	2	2	0	0
Rhode Island	NM	3	NM	0	0	NM	3	0	0	0	0
Vermont	NM	0	NM	NM	0	0	0	0	0	0	0
Middle Atlantic	36	29	21.9%	11	4	19	22	NM	1	4	3
New Jersey	3	1	450.6%	1	0	3	1	0	0	0	0
New York	20	9	125.2%	11	4	4	2	NM	0	4	3
Pennsylvania	13	20	-34.9%	0	0	13	19	0	0	NM	0
East North Central	44	55	-20.3%	21	26	20	25	0	0	2	4
Illinois	5	2	104.6%	NM	1	4	2	0	0	0	0
Indiana	14	15	-4.4%	12	11	0	0	0	0	2	4
Michigan	7	7	-8.4%	6	7	0	0	0	0	0	0
Ohio	17	28	-39.4%	NM	5	16	23	0	0	0	0
Wisconsin	NM	2	NM	NM	2	0	0	0	0	NM	0
West North Central	26	36	-28.2%	25	33	NM	3	0	0	0	0
Iowa	8	11	-30.6%	8	11	NM	0	0	0	0	0
Kansas	4	9	-61.7%	4	9	0	0	0	0	0	0
Minnesota	2	5	-63.3%	2	2	NM	3	0	0	0	0
Missouri	7	7	-0.2%	7	7	0	0	0	0	0	0
Nebraska	NM	1	NM	NM	1	0	0	0	0	0	0
North Dakota	4	2	43.9%	4	2	0	0	0	0	0	0
South Dakota	2	0	NM	2	0	0	0	NM	0	0	0
South Atlantic	114	115	-1.0%	73	78	27	18	4	3	10	17
Delaware	NM	1	NM	0	1	NM	1	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	18	17	2.6%	14	15	NM	0	0	0	3	2
Georgia	12	19	-35.4%	7	6	NM	0	0	0	5	13
Maryland	4	8	-42.7%	0	1	5	7	NM	0	0	0
North Carolina	17	28	-38.6%	16	25	NM	1	NM	0	NM	1
South Carolina	12	6	95.9%	11	6	0	0	NM	0	1	0
Virginia	40	24	62.3%	16	13	20	9	4	2	NM	0
West Virginia	10	11	-13.1%	10	11	0	0	0	0	0	0
East South Central	26	19	37.1%	25	18	1	0	0	0	NM	1
Alabama	2	1	111.8%	1	1	1	0	0	0	NM	0
Kentucky	9	7	17.7%	9	7	0	0	0	0	0	0
Mississippi	1	1	187.6%	1	0	0	0	0	0	0	0
Tennessee	14	10	36.6%	14	10	0	0	0	0	0	0
West South Central	11	14	-19.5%	9	11	1	2	0	0	1	0
Arkansas	1	3	-42.1%	1	3	0	0	0	0	0	0
Louisiana	NM	3	NM	NM	3	0	0	0	0	0	0
Oklahoma	3	3	-4.1%	2	3	0	0	0	0	0	0
Texas	6	6	-4.5%	4	3	1	2	0	0	0	0
Mountain	17	14	22.9%	16	13	1	1	0	0	0	0
Arizona	4	5	-18.0%	4	5	0	0	0	0	0	0
Colorado	2	1	372.5%	2	1	0	0	0	0	0	0
Idaho	0	0	530.7%	0	0	0	0	0	0	0	0
Montana	0	0	-11.0%	NM	0	0	0	0	0	0	0
Nevada	1	0	798.0%	1	0	0	0	0	0	0	0
New Mexico	2	4	-44.5%	2	4	0	0	0	0	0	0
Utah	3	2	30.5%	3	2	0	0	0	0	0	0
Wyoming	4	2	148.5%	4	2	0	0	0	0	0	0
Pacific Contiguous	6	4	27.9%	4	3	1	1	NM	0	NM	1
California	3	3	-1.7%	3	3	0	0	0	0	0	0
Oregon	1	0	NM	1	0	0	0	NM	0	0	0
Washington	2	1	26.2%	NM	0	1	1	0	0	NM	1
Pacific Noncontiguous	642	591	8.7%	479	446	143	124	1	1	18	20
Alaska	56	70	-19.8%	52	66	0	0	1	1	3	3
Hawaii	586	521	12.5%	427	379	143	124	0	0	16	17
U.S. Total	954	903	5.7%	674	633	228	215	12	7	39	47

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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 1.5.B. Utility Scale Facility Net Generation from Petroleum Liquids

by State, by Sector, Year-to-Date through November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	1,295	252	413.7%	205	37	1,020	177	42	29	28	9
Connecticut	373	38	870.4%	NM	3	364	34	NM	1	1	0
Maine	199	47	322.7%	0	0	172	37	2	2	26	8
Massachusetts	471	126	273.9%	90	13	358	100	NM	12	1	1
New Hampshire	179	28	533.3%	104	15	62	2	14	11	0	0
Rhode Island	NM	8	NM	0	3	NM	3	2	2	0	0
Vermont	NM	4	NM	NM	3	0	0	0	0	0	0
Middle Atlantic	2,196	399	451.0%	580	63	1,553	291	NM	8	37	36
New Jersey	257	32	700.7%	2	0	249	32	5	0	1	0
New York	1,464	175	737.3%	577	63	840	74	NM	4	31	34
Pennsylvania	475	192	147.8%	2	0	465	185	4	4	NM	2
East North Central	557	477	16.7%	283	290	245	166	6	4	24	18
Illinois	63	47	33.4%	NM	8	51	39	0	0	0	0
Indiana	125	112	11.0%	105	98	NM	0	1	0	18	14
Michigan	110	97	14.1%	105	92	0	0	4	3	2	2
Ohio	237	189	25.3%	41	60	192	127	1	0	3	2
Wisconsin	23	32	-30.3%	21	32	1	0	0	0	NM	1
West North Central	320	258	23.9%	305	250	NM	5	2	1	1	1
Iowa	98	90	9.1%	97	89	1	0	0	0	0	0
Kansas	53	49	9.0%	53	49	0	0	0	0	0	0
Minnesota	38	31	24.3%	24	24	NM	5	2	1	1	1
Missouri	86	49	74.2%	86	49	0	0	0	0	0	0
Nebraska	7	5	39.5%	7	5	0	0	0	0	0	0
North Dakota	32	32	0.8%	32	32	0	0	0	0	0	0
South Dakota	6	3	93.5%	6	3	0	0	NM	0	0	0
South Atlantic	2,825	1,509	87.2%	1,942	1,179	705	214	53	31	125	86
Delaware	150	10	NM	6	1	144	9	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	533	476	12.0%	496	459	12	3	0	0	25	15
Georgia	205	118	73.6%	NM	62	47	4	5	2	69	50
Maryland	249	91	174.0%	3	2	240	86	NM	1	3	2
North Carolina	468	215	117.9%	427	194	NM	11	NM	1	NM	9
South Carolina	265	88	199.2%	215	80	39	1	NM	0	10	7
Virginia	813	401	102.8%	581	273	186	99	44	26	NM	3
West Virginia	142	110	29.2%	129	109	14	1	0	0	0	0
East South Central	288	219	31.4%	248	206	25	3	0	0	15	10
Alabama	62	30	107.5%	28	20	25	3	0	0	NM	7
Kentucky	80	73	9.0%	80	73	0	0	0	0	0	0
Mississippi	27	9	192.2%	23	7	0	0	0	0	4	2
Tennessee	119	107	11.6%	117	105	0	0	0	0	2	1
West South Central	147	144	2.6%	116	84	23	56	1	1	7	4
Arkansas	35	43	-18.4%	NM	18	6	24	0	0	3	2
Louisiana	NM	18	NM	NM	18	0	0	0	0	0	0
Oklahoma	17	14	22.2%	16	13	0	0	0	0	1	1
Texas	59	69	-15.1%	37	35	18	32	1	1	3	1
Mountain	174	189	-7.8%	155	172	19	17	0	0	0	0
Arizona	48	51	-5.3%	48	51	0	0	0	0	0	0
Colorado	11	6	72.0%	11	6	0	0	0	0	0	0
Idaho	0	0	204.9%	0	0	0	0	0	0	0	0
Montana	16	13	23.9%	NM	0	15	12	0	0	0	0
Nevada	9	8	10.6%	7	5	3	3	0	0	0	0
New Mexico	19	37	-49.4%	19	37	0	0	0	0	0	0
Utah	32	35	-8.3%	32	34	1	1	0	0	0	0
Wyoming	39	38	2.1%	39	38	0	0	0	0	0	0
Pacific Contiguous	93	74	26.5%	41	44	15	14	NM	1	37	15
California	66	43	53.7%	32	32	5	3	0	0	28	7
Oregon	NM	10	NM	5	10	0	0	NM	0	0	0
Washington	23	21	6.9%	5	3	9	11	0	0	9	8
Pacific Noncontiguous	6,867	6,911	-0.6%	5,293	5,290	1,357	1,387	7	6	211	227
Alaska	701	805	-12.8%	659	759	0	0	4	4	38	42
Hawaii	6,166	6,106	1.0%	4,634	4,532	1,357	1,387	3	2	173	186
U.S. Total	14,763	10,432	41.5%	9,167	7,614	4,975	2,329	137	80	484	408

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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 1.6.A. Utility Scale Facility Net Generation from Petroleum Coke by State, by Sector, November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	0	0	--	0	0	0	0	0	0	0	0
Connecticut	0	0	--	0	0	0	0	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	0	0	--	0	0	0	0	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	NM	14	NM	0	0	0	0	0	0	NM	14
New Jersey	5	7	-28.3%	0	0	0	0	0	0	5	7
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	NM	7	NM	0	0	0	0	0	0	NM	7
East North Central	218	182	19.9%	72	90	134	75	0	0	12	17
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	73	90	-19.2%	61	73	0	0	0	0	12	17
Ohio	134	75	78.3%	0	0	134	75	0	0	0	0
Wisconsin	11	17	-33.8%	11	17	0	0	0	0	0	0
West North Central	1	6	-78.7%	0	0	0	0	1	1	0	5
Iowa	1	6	-78.7%	0	0	0	0	1	1	0	5
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	0	0	--	0	0	0	0	0	0	0	0
Missouri	0	0	--	0	0	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	29	74	-60.6%	17	60	0	0	0	0	NM	14
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	17	60	-71.4%	17	60	0	0	0	0	0	0
Georgia	NM	14	NM	0	0	0	0	0	0	NM	14
Maryland	0	0	--	0	0	0	0	0	0	0	0
North Carolina	0	0	--	0	0	0	0	0	0	0	0
South Carolina	0	0	--	0	0	0	0	0	0	0	0
Virginia	0	0	--	0	0	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	0	0	--	0	0	0	0	0	0	0	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	0	0	--	0	0	0	0	0	0	0	0
West South Central	393	445	-11.6%	388	434	0	0	0	0	5	11
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	389	439	-11.5%	388	434	0	0	0	0	0	5
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	5	6	-21.3%	0	0	0	0	0	0	5	6
Mountain	42	35	18.7%	0	0	42	35	0	0	0	0
Arizona	0	0	--	0	0	0	0	0	0	0	0
Colorado	0	0	--	0	0	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	42	35	18.7%	0	0	42	35	0	0	0	0
Nevada	0	0	--	0	0	0	0	0	0	0	0
New Mexico	0	0	--	0	0	0	0	0	0	0	0
Utah	0	0	--	0	0	0	0	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	0	0	--	0	0	0	0	0	0	0	0
California	0	0	--	0	0	0	0	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	0	0	--	0	0	0	0	0	0	0	0
Pacific Noncontiguous	0	0	--	0	0	0	0	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	699	755	-7.4%	477	583	177	111	1	1	44	61

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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 1.6.B. Utility Scale Facility Net Generation from Petroleum Coke

by State, by Sector, Year-to-Date through November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	0	0	--	0	0	0	0	0	0	0	0
Connecticut	0	0	--	0	0	0	0	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	0	0	--	0	0	0	0	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	150	159	-5.5%	0	0	0	0	0	0	150	159
New Jersey	55	69	-20.5%	0	0	0	0	0	0	55	69
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	95	90	6.0%	0	0	0	0	0	0	95	90
East North Central	1,845	1,990	-7.3%	996	895	735	954	0	0	114	141
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	1,007	941	7.1%	903	800	0	0	0	0	104	141
Ohio	746	954	-21.8%	0	0	735	954	0	0	10	0
Wisconsin	92	96	-3.4%	92	96	0	0	0	0	0	0
West North Central	42	35	20.6%	0	0	0	0	6	7	36	28
Iowa	42	35	20.6%	0	0	0	0	6	7	36	28
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	0	0	--	0	0	0	0	0	0	0	0
Missouri	0	0	--	0	0	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	1,596	972	64.3%	1,403	846	0	0	0	0	193	126
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	1,403	846	65.9%	1,403	846	0	0	0	0	0	0
Georgia	193	126	53.3%	0	0	0	0	0	0	193	126
Maryland	0	0	--	0	0	0	0	0	0	0	0
North Carolina	0	0	--	0	0	0	0	0	0	0	0
South Carolina	0	0	--	0	0	0	0	0	0	0	0
Virginia	0	0	--	0	0	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	0	427	-100.1%	0	427	0	0	0	0	0	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	0	427	-100.1%	0	427	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	0	0	--	0	0	0	0	0	0	0	0
West South Central	4,011	4,251	-5.7%	3,817	3,987	0	0	0	0	194	264
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	3,940	4,167	-5.5%	3,817	3,987	0	0	0	0	122	181
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	71	84	-15.3%	0	0	0	0	0	0	71	84
Mountain	386	404	-4.6%	0	0	386	404	0	0	0	0
Arizona	0	0	--	0	0	0	0	0	0	0	0
Colorado	0	0	--	0	0	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	386	404	-4.6%	0	0	386	404	0	0	0	0
Nevada	0	0	--	0	0	0	0	0	0	0	0
New Mexico	0	0	--	0	0	0	0	0	0	0	0
Utah	0	0	--	0	0	0	0	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	0	0	--	0	0	0	0	0	0	0	0
California	0	0	--	0	0	0	0	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	0	0	--	0	0	0	0	0	0	0	0
Pacific Noncontiguous	0	0	--	0	0	0	0	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	8,030	8,239	-2.5%	6,216	6,155	1,121	1,358	6	7	687	718

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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 1.7.A. Utility Scale Facility Net Generation from Natural Gas by State, by Sector, November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	3,665	3,868	-5.3%	NM	15	3,468	3,672	78	77	107	103
Connecticut	1,814	1,542	17.7%	4	7	1,731	1,442	32	39	48	54
Maine	156	52	199.1%	0	0	130	35	3	2	23	15
Massachusetts	1,092	1,374	-20.5%	NM	9	1,024	1,313	39	32	21	20
New Hampshire	186	254	-26.9%	0	0	182	252	1	1	3	1
Rhode Island	417	645	-35.5%	0	0	401	629	3	4	12	13
Vermont	0	0	78.5%	0	0	0	0	0	0	0	0
Middle Atlantic	12,546	10,967	14.4%	778	752	11,478	9,942	89	91	202	181
New Jersey	2,829	2,307	22.6%	NM	14	2,777	2,244	10	19	30	30
New York	3,823	3,122	22.5%	765	738	2,943	2,291	69	60	46	33
Pennsylvania	5,893	5,538	6.4%	0	0	5,758	5,407	10	12	125	118
East North Central	9,948	8,418	18.2%	2,645	2,721	6,899	5,314	112	99	292	284
Illinois	987	773	27.7%	51	25	841	670	37	23	59	55
Indiana	2,105	1,533	37.4%	657	468	1,331	914	10	14	106	137
Michigan	1,863	1,996	-6.7%	379	564	1,378	1,349	49	48	57	36
Ohio	3,910	2,933	33.3%	588	579	3,289	2,331	11	9	23	13
Wisconsin	1,082	1,182	-8.5%	970	1,084	60	49	5	5	46	43
West North Central	1,617	1,550	4.4%	1,205	1,267	317	198	25	23	71	63
Iowa	342	507	-32.6%	295	459	NM	1	7	9	40	39
Kansas	180	185	-2.8%	166	180	0	0	0	0	14	6
Minnesota	465	437	6.4%	362	237	82	180	10	7	12	13
Missouri	485	279	73.7%	238	252	235	16	8	7	3	4
Nebraska	NM	29	NM	NM	29	0	0	0	0	0	0
North Dakota	NM	57	NM	NM	56	0	0	0	0	1	1
South Dakota	NM	55	NM	NM	55	0	0	0	0	0	0
South Atlantic	26,625	24,756	7.6%	21,917	20,401	4,204	3,975	87	52	418	328
Delaware	294	276	6.6%	1	1	200	237	0	0	94	38
District of Columbia	0	0	-271.2%	0	0	0	0	0	0	0	0
Florida	12,298	11,496	7.0%	11,732	10,932	428	445	2	2	137	117
Georgia	3,474	3,832	-9.3%	2,620	2,892	802	897	0	0	53	43
Maryland	883	769	14.8%	351	91	450	630	74	40	8	8
North Carolina	3,588	3,124	14.8%	2,917	2,950	650	156	NM	8	13	10
South Carolina	2,118	1,423	48.8%	1,859	1,144	247	269	0	0	12	10
Virginia	3,862	3,714	4.0%	2,427	2,380	1,369	1,272	2	1	63	60
West Virginia	108	122	-11.7%	11	12	58	68	0	0	39	42
East South Central	9,913	9,386	5.6%	6,362	6,069	3,305	3,122	17	15	228	181
Alabama	4,393	4,348	1.0%	1,556	1,448	2,732	2,809	0	0	104	91
Kentucky	1,045	920	13.6%	956	868	68	30	0	0	21	22
Mississippi	3,409	3,425	-0.5%	2,867	3,106	503	280	0	0	39	38
Tennessee	1,065	694	53.6%	983	647	1	2	17	15	63	30
West South Central	23,815	19,834	20.1%	7,219	5,277	10,642	9,273	67	52	5,886	5,233
Arkansas	952	799	19.1%	811	687	111	86	NM	2	28	25
Louisiana	4,211	4,126	2.0%	1,842	1,743	175	271	16	13	2,178	2,099
Oklahoma	2,914	1,847	57.7%	2,162	1,063	725	761	0	0	26	23
Texas	15,738	13,061	20.5%	2,404	1,783	9,632	8,155	49	37	3,654	3,086
Mountain	8,168	5,866	39.2%	6,307	4,448	1,689	1,220	33	35	139	162
Arizona	2,817	1,689	66.7%	1,985	1,201	822	478	10	11	0	0
Colorado	1,309	858	52.6%	1,118	737	189	118	0	1	2	2
Idaho	312	404	-22.8%	205	220	92	170	3	3	12	10
Montana	48	27	74.7%	23	23	24	4	0	0	1	1
Nevada	1,875	1,939	-3.3%	1,666	1,729	188	183	4	5	18	21
New Mexico	933	548	70.3%	549	279	367	261	9	8	8	0
Utah	786	330	138.3%	734	246	7	6	8	7	38	71
Wyoming	88	71	23.1%	27	13	0	0	0	0	61	58
Pacific Contiguous	10,313	9,936	3.8%	3,584	3,868	5,777	4,986	132	167	820	915
California	8,222	7,326	12.2%	2,594	2,373	4,693	3,896	127	161	807	896
Oregon	1,705	1,594	7.0%	728	908	967	673	3	4	7	9
Washington	386	1,016	-62.0%	261	587	117	416	2	2	6	11
Pacific Noncontiguous	195	303	-35.5%	189	300	0	0	0	0	6	3
Alaska	195	303	-35.5%	189	300	0	0	0	0	6	3
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	106,804	94,883	12.6%	50,217	45,117	47,779	41,702	640	611	8,168	7,453

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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 1.7.B. Utility Scale Facility Net Generation from Natural Gas

by State, by Sector, Year-to-Date through November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	46,689	47,275	-1.2%	252	258	44,256	44,881	893	901	1,287	1,236
Connecticut	17,879	14,429	23.9%	38	59	16,933	13,429	351	381	556	559
Maine	2,156	2,187	-1.4%	0	0	1,793	1,878	28	27	335	281
Massachusetts	17,528	20,578	-14.8%	183	167	16,644	19,740	461	436	240	235
New Hampshire	2,925	3,388	-13.7%	31	31	2,858	3,321	7	9	29	27
Rhode Island	6,200	6,692	-7.4%	0	0	6,028	6,512	46	46	126	133
Vermont	2	1	12.0%	1	1	0	0	1	1	0	0
Middle Atlantic	153,036	144,993	5.5%	9,702	9,160	139,933	132,685	1,081	1,107	2,320	2,041
New Jersey	35,766	34,845	2.6%	173	199	35,053	34,108	180	205	359	334
New York	46,890	43,537	7.7%	9,522	8,955	36,008	33,479	782	779	578	324
Pennsylvania	70,380	66,611	5.7%	6	7	68,872	65,099	119	123	1,382	1,383
East North Central	122,052	90,743	34.5%	41,158	30,501	76,347	56,139	1,408	1,345	3,138	2,758
Illinois	15,396	13,646	12.8%	1,503	917	12,844	11,701	433	360	616	668
Indiana	23,196	15,888	46.0%	8,965	5,875	12,816	8,706	157	174	1,258	1,133
Michigan	28,526	23,647	20.6%	9,179	7,549	18,227	15,200	535	513	584	384
Ohio	38,588	25,356	52.2%	6,864	5,449	31,303	19,529	220	234	201	143
Wisconsin	16,347	12,206	33.9%	14,648	10,711	1,156	1,003	64	63	479	429
West North Central	29,395	18,547	58.5%	25,027	15,683	3,343	2,017	293	258	732	590
Iowa	7,314	3,985	83.5%	6,722	3,509	NM	2	90	79	502	395
Kansas	3,834	1,966	95.0%	3,760	1,931	0	0	0	0	74	35
Minnesota	8,793	6,086	44.5%	7,300	4,948	1,287	937	97	89	110	112
Missouri	6,634	4,692	41.4%	4,438	3,486	2,056	1,078	104	89	37	40
Nebraska	1,194	598	99.8%	1,191	596	0	0	3	1	0	0
North Dakota	653	622	5.1%	644	615	0	0	0	0	9	7
South Dakota	972	599	62.1%	972	599	0	0	0	0	0	0
South Atlantic	337,805	302,768	11.6%	271,976	248,468	60,877	49,644	859	609	4,093	4,047
Delaware	4,993	6,324	-21.0%	23	15	4,212	5,484	0	0	758	825
District of Columbia	20	19	3.5%	0	0	0	0	20	19	0	0
Florida	160,444	149,587	7.3%	151,572	142,108	7,417	6,136	19	23	1,437	1,320
Georgia	49,927	48,087	3.8%	36,554	36,049	12,802	11,499	0	0	572	539
Maryland	12,945	6,049	114.0%	3,546	190	8,590	5,300	725	476	85	82
North Carolina	40,748	34,890	16.8%	34,045	30,188	6,488	4,531	82	82	133	88
South Carolina	21,631	15,795	36.9%	17,161	13,105	4,352	2,579	0	0	118	111
Virginia	45,720	40,567	12.7%	28,902	26,659	16,134	13,284	13	8	670	615
West Virginia	1,377	1,451	-5.1%	173	154	883	831	0	0	321	466
East South Central	127,351	109,085	16.7%	84,766	72,406	40,128	34,349	190	176	2,267	2,154
Alabama	54,813	48,658	12.6%	18,867	17,012	34,814	30,559	0	0	1,132	1,087
Kentucky	13,723	9,180	49.5%	12,855	8,620	684	344	0	0	184	216
Mississippi	46,857	41,894	11.8%	41,819	38,050	4,617	3,433	6	4	415	408
Tennessee	11,958	9,353	27.9%	11,225	8,724	12	12	185	173	537	443
West South Central	336,659	284,944	18.1%	113,769	88,949	161,320	135,901	807	767	60,763	59,326
Arkansas	18,586	15,588	19.2%	17,076	14,237	1,191	1,071	34	33	285	246
Louisiana	57,638	54,033	6.7%	31,266	27,331	3,870	3,730	155	124	22,345	22,847
Oklahoma	39,352	27,717	42.0%	24,437	16,479	14,570	11,012	0	0	346	226
Texas	221,083	187,606	17.8%	40,990	30,902	141,688	120,088	618	610	37,787	36,007
Mountain	97,403	80,796	20.6%	74,818	62,296	20,746	16,695	377	395	1,462	1,410
Arizona	34,480	27,489	25.4%	23,529	18,706	10,821	8,651	130	132	0	0
Colorado	15,467	11,364	36.1%	12,850	9,616	2,599	1,728	0	1	17	18
Idaho	2,791	2,647	5.4%	1,327	1,333	1,315	1,158	36	36	113	119
Montana	414	377	9.8%	305	276	107	98	0	0	3	3
Nevada	24,956	24,568	1.6%	22,627	22,281	1,956	1,963	58	55	315	269
New Mexico	10,470	8,340	25.5%	6,473	5,209	3,878	3,025	96	105	24	1
Utah	7,958	5,313	49.8%	7,455	4,738	69	70	58	67	376	437
Wyoming	866	699	24.0%	252	136	1	1	0	0	613	561
Pacific Contiguous	109,614	102,965	6.5%	42,451	39,895	55,760	51,505	1,751	1,807	9,652	9,759
California	83,989	80,566	4.2%	28,456	27,449	44,351	41,762	1,688	1,755	9,495	9,599
Oregon	15,810	12,946	22.1%	7,965	6,860	7,722	5,976	46	37	78	73
Washington	9,815	9,454	3.8%	6,031	5,586	3,688	3,767	17	15	79	86
Pacific Noncontiguous	2,993	2,925	2.3%	2,934	2,866	0	0	0	2	58	57
Alaska	2,993	2,925	2.3%	2,934	2,866	0	0	0	2	58	57
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	1,362,996	1,185,042	15.0%	666,854	570,482	602,710	523,816	7,661	7,367	85,771	83,377

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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 1.7.C. Utility Scale Facility Net Generation from Natural Gas by Technology: Total (All Sectors), 2008-November 2018 (Thousand Megawatthours)

	Natural Gas					
Period	Natural Gas Fired Combined Cycle	Natural Gas Fired Combustion Turbine	Steam Turbine	Internal Combustion Engine	Natural Gas Other	Total
Annual Factors						
2008	693,958	80,144	107,316	1,482	80	882,981
2009	743,901	76,141	99,588	1,332	18	920,979
2010	804,033	85,820	96,332	1,490	22	987,697
2011	828,554	85,392	97,578	2,125	40	1,013,689
2012	1,017,040	98,446	108,285	1,986	138	1,225,894
2013	947,172	91,272	83,746	2,328	317	1,124,836
2014	958,921	90,159	74,100	2,921	508	1,126,609
2015	1,130,617	108,655	89,796	3,760	654	1,333,482
2016	1,152,245	123,429	98,204	3,714	715	1,378,307
2017	1,094,951	111,733	84,492	4,370	869	1,296,415
Year 2016						
January	97,555	7,212	4,933	295	50	110,044
February	86,920	6,841	4,491	253	47	98,552
March	87,256	9,126	7,184	275	49	103,890
April	80,910	9,788	7,843	278	56	98,876
May	92,066	9,681	8,328	301	53	110,430
June	108,301	11,690	10,993	345	66	131,395
July	120,441	15,821	14,812	402	78	151,554
August	124,933	15,905	13,421	421	80	154,760
Sept	104,442	11,340	9,422	333	65	125,603
October	84,780	9,990	7,788	276	65	102,898
November	80,168	8,609	4,859	252	54	93,942
December	84,473	7,426	4,129	282	53	96,364
Year 2017						
January	83,813	7,936	3,325	330	71	95,473
February	72,179	7,254	2,933	269	60	82,694
March	80,222	9,299	5,134	303	65	95,022
April	74,282	8,063	5,716	304	53	88,418
May	82,415	8,806	6,458	319	69	98,067
June	97,888	9,970	9,002	380	76	117,317
July	121,419	12,091	12,908	481	94	146,994
August	118,900	11,160	10,591	464	93	141,209
Sept	98,230	10,132	9,276	398	76	118,112
October	88,194	9,451	8,749	382	75	106,852
November	81,319	8,336	4,804	359	65	94,883
December	96,089	9,235	5,595	382	71	111,373
Year 2018						
January	92,784	10,674	6,232	364	11	110,064
February	85,094	6,493	4,140	277	10	96,013
March	89,751	9,049	5,778	350	10	104,939
April	82,019	10,962	6,097	355	13	99,447
May	92,471	13,275	9,896	451	18	116,110
June	107,092	13,122	10,132	463	17	130,827
July	131,302	20,325	14,638	778	23	167,066
August	131,140	19,540	13,518	733	22	164,954
Sept	116,190	15,277	10,711	549	18	142,745
October	101,053	13,224	9,249	484	17	124,027
November	90,553	9,684	6,199	357	11	106,804

Values for 2017 and prior years are final. Values for 2018 are preliminary.
The 'Natural Gas Other' category consists of power plants with prime movers of Fuel Cells and Other Prime Movers that consume natural gas.
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.

Table 1.8.A. Utility Scale Facility Net Generation from Other Gases by State, by Sector, November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	0	0	--	0	0	0	0	0	0	0	0
Connecticut	0	0	--	0	0	0	0	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	0	0	--	0	0	0	0	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	49	54	-10.2%	0	0	0	0	0	0	49	54
New Jersey	18	17	7.1%	0	0	0	0	0	0	18	17
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	31	38	-17.9%	0	0	0	0	0	0	31	38
East North Central	333	355	-6.1%	0	15	149	182	0	0	184	158
Illinois	11	13	-15.6%	0	0	0	0	0	0	11	13
Indiana	161	135	19.2%	0	0	0	0	0	0	161	135
Michigan	107	144	-25.5%	0	15	107	128	0	0	0	0
Ohio	54	63	-14.4%	0	0	41	53	0	0	12	10
Wisconsin	0	0	--	0	0	0	0	0	0	0	0
West North Central	4	4	-0.9%	0	0	0	0	0	0	4	4
Iowa	0	0	--	0	0	0	0	0	0	0	0
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	0	0	--	0	0	0	0	0	0	0	0
Missouri	0	0	--	0	0	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	4	4	-0.9%	0	0	0	0	0	0	4	4
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	25	24	4.5%	0	0	0	0	0	0	25	24
Delaware	22	21	4.1%	0	0	0	0	0	0	22	21
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	1	0	170.3%	0	0	0	0	0	0	1	0
Georgia	0	0	--	0	0	0	0	0	0	0	0
Maryland	0	0	--	0	0	0	0	0	0	0	0
North Carolina	0	0	--	0	0	0	0	0	0	0	0
South Carolina	0	0	--	0	0	0	0	0	0	0	0
Virginia	0	0	--	0	0	0	0	0	0	0	0
West Virginia	3	3	-5.0%	0	0	0	0	0	0	3	3
East South Central	1	0	128.8%	0	0	0	0	0	0	1	0
Alabama	0	0	-100.0%	0	0	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	1	0	695.2%	0	0	0	0	0	0	1	0
West South Central	347	367	-5.5%	0	0	122	127	0	0	225	241
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	155	162	-4.1%	0	0	0	0	0	0	155	162
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	192	206	-6.7%	0	0	122	127	0	0	70	79
Mountain	37	35	4.7%	0	0	1	0	0	0	36	35
Arizona	0	0	--	0	0	0	0	0	0	0	0
Colorado	0	0	--	0	0	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	1	0	--	0	0	1	0	0	0	0	0
Nevada	0	0	--	0	0	0	0	0	0	0	0
New Mexico	0	0	--	0	0	0	0	0	0	0	0
Utah	0	1	-40.1%	0	0	0	0	0	0	0	1
Wyoming	35	34	3.0%	0	0	0	0	0	0	35	34
Pacific Contiguous	132	156	-15.2%	0	0	27	29	0	0	105	127
California	105	127	-17.5%	0	0	0	0	0	0	105	127
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	27	29	-5.2%	0	0	27	29	0	0	0	0
Pacific Noncontiguous	5	5	-9.2%	0	0	0	0	0	0	5	5
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	5	5	-9.2%	0	0	0	0	0	0	5	5
U.S. Total	933	1,001	-6.9%	0	15	299	337	0	0	634	649

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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 1.8.B. Utility Scale Facility Net Generation from Other Gases

by State, by Sector, Year-to-Date through November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	0	0	--	0	0	0	0	0	0	0	0
Connecticut	0	0	--	0	0	0	0	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	0	0	--	0	0	0	0	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	567	594	-4.6%	0	0	1	0	0	0	566	594
New Jersey	193	200	-3.7%	0	0	0	0	0	0	193	200
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	375	394	-5.0%	0	0	1	0	0	0	373	394
East North Central	4,154	4,206	-1.2%	151	124	1,803	1,928	0	0	2,200	2,154
Illinois	176	166	6.1%	0	0	1	0	0	0	176	166
Indiana	1,880	1,833	2.6%	0	0	0	0	0	0	1,880	1,833
Michigan	1,463	1,488	-1.7%	151	124	1,312	1,363	0	0	0	0
Ohio	634	719	-11.8%	0	0	491	565	0	0	144	154
Wisconsin	0	0	--	0	0	0	0	0	0	0	0
West North Central	47	38	22.8%	0	0	0	0	0	0	47	38
Iowa	0	0	--	0	0	0	0	0	0	0	0
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	0	0	--	0	0	0	0	0	0	0	0
Missouri	0	0	--	0	0	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	47	38	22.8%	0	0	0	0	0	0	47	38
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	267	293	-8.9%	0	0	0	0	0	0	267	293
Delaware	240	257	-6.8%	0	0	0	0	0	0	240	257
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	5	5	8.6%	0	0	0	0	0	0	5	5
Georgia	0	0	--	0	0	0	0	0	0	0	0
Maryland	0	0	--	0	0	0	0	0	0	0	0
North Carolina	0	0	--	0	0	0	0	0	0	0	0
South Carolina	0	0	--	0	0	0	0	0	0	0	0
Virginia	0	0	--	0	0	0	0	0	0	0	0
West Virginia	22	31	-29.3%	0	0	0	0	0	0	22	31
East South Central	11	20	-45.5%	0	0	0	0	0	0	11	20
Alabama	1	9	-88.7%	0	0	0	0	0	0	1	9
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	10	11	-13.0%	0	0	0	0	0	0	10	11
West South Central	3,990	4,209	-5.2%	0	0	1,285	1,355	0	0	2,705	2,855
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	1,775	1,959	-9.4%	0	0	0	0	0	0	1,775	1,959
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	2,215	2,250	-1.6%	0	0	1,285	1,355	0	0	929	895
Mountain	353	351	0.5%	0	0	11	14	0	0	341	337
Arizona	0	0	--	0	0	0	0	0	0	0	0
Colorado	0	0	--	0	0	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	11	14	-17.0%	0	0	11	14	0	0	0	0
Nevada	0	0	--	0	0	0	0	0	0	0	0
New Mexico	0	0	--	0	0	0	0	0	0	0	0
Utah	5	15	-63.0%	0	0	0	0	0	0	5	15
Wyoming	336	323	4.1%	0	0	0	0	0	0	336	323
Pacific Contiguous	1,759	1,613	9.0%	0	0	405	322	0	0	1,354	1,291
California	1,354	1,291	4.9%	0	0	0	0	0	0	1,354	1,291
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	405	322	25.6%	0	0	405	322	0	0	0	0
Pacific Noncontiguous	54	47	14.5%	0	0	0	0	0	0	54	47
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	54	47	14.5%	0	0	0	0	0	0	54	47
U.S. Total	11,202	11,373	-1.5%	151	124	3,506	3,619	0	0	7,544	7,630

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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 1.9.A. Utility Scale Facility Net Generation from Nuclear Energy by State, by Sector, November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	2,236	2,460	-9.1%	0	0	2,236	2,460	0	0	0	0
Connecticut	888	1,070	-17.0%	0	0	888	1,070	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	449	489	-8.1%	0	0	449	489	0	0	0	0
New Hampshire	899	902	-0.3%	0	0	899	902	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	13,054	13,374	-2.4%	0	0	13,054	13,374	0	0	0	0
New Jersey	2,177	2,664	-18.3%	0	0	2,177	2,664	0	0	0	0
New York	3,784	3,689	2.6%	0	0	3,784	3,689	0	0	0	0
Pennsylvania	7,093	7,022	1.0%	0	0	7,093	7,022	0	0	0	0
East North Central	13,045	12,861	1.4%	2,473	1,648	10,572	11,213	0	0	0	0
Illinois	8,124	8,194	-0.9%	0	0	8,124	8,194	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	2,473	2,237	10.6%	2,473	1,648	0	590	0	0	0	0
Ohio	1,575	1,578	-0.2%	0	0	1,575	1,578	0	0	0	0
Wisconsin	873	852	2.5%	0	0	873	852	0	0	0	0
West North Central	3,664	2,860	28.1%	3,221	2,420	443	440	0	0	0	0
Iowa	443	440	0.7%	0	0	443	440	0	0	0	0
Kansas	884	884	0.0%	884	884	0	0	0	0	0	0
Minnesota	1,213	980	23.7%	1,213	980	0	0	0	0	0	0
Missouri	893	-12	NM	893	-12	0	0	0	0	0	0
Nebraska	231	567	-59.3%	231	567	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	15,543	17,401	-10.7%	14,238	16,105	1,305	1,296	0	0	0	0
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	2,466	2,433	1.4%	2,466	2,433	0	0	0	0	0	0
Georgia	3,004	3,002	0.1%	3,004	3,002	0	0	0	0	0	0
Maryland	1,305	1,296	0.8%	0	0	1,305	1,296	0	0	0	0
North Carolina	3,808	3,776	0.8%	3,808	3,776	0	0	0	0	0	0
South Carolina	2,915	4,226	-31.0%	2,915	4,226	0	0	0	0	0	0
Virginia	2,044	2,668	-23.4%	2,044	2,668	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	6,641	6,368	4.3%	6,641	6,368	0	0	0	0	0	0
Alabama	3,113	3,371	-7.6%	3,113	3,371	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	1,005	486	106.8%	1,005	486	0	0	0	0	0	0
Tennessee	2,523	2,512	0.5%	2,523	2,512	0	0	0	0	0	0
West South Central	5,446	6,190	-12.0%	2,151	2,896	3,295	3,293	0	0	0	0
Arkansas	811	1,340	-39.5%	811	1,340	0	0	0	0	0	0
Louisiana	1,340	1,556	-13.9%	1,340	1,556	0	0	0	0	0	0
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	3,295	3,293	0.0%	0	0	3,295	3,293	0	0	0	0
Mountain	1,904	2,633	-27.7%	1,904	2,633	0	0	0	0	0	0
Arizona	1,904	2,633	-27.7%	1,904	2,633	0	0	0	0	0	0
Colorado	0	0	--	0	0	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	0	0	--	0	0	0	0	0	0	0	0
New Mexico	0	0	--	0	0	0	0	0	0	0	0
Utah	0	0	--	0	0	0	0	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	2,414	2,471	-2.3%	2,414	2,471	0	0	0	0	0	0
California	1,574	1,629	-3.4%	1,574	1,629	0	0	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	840	842	-0.1%	840	842	0	0	0	0	0	0
Pacific Noncontiguous	0	0	--	0	0	0	0	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	63,948	66,618	-4.0%	33,043	34,541	30,904	32,077	0	0	0	0

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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 1.9.B. Utility Scale Facility Net Generation from Nuclear Energy

by State, by Sector, Year-to-Date through November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	28,413	28,543	-0.5%	0	0	28,413	28,543	0	0	0	0
Connecticut	15,342	14,941	2.7%	0	0	15,342	14,941	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	3,937	4,541	-13.3%	0	0	3,937	4,541	0	0	0	0
New Hampshire	9,133	9,061	0.8%	0	0	9,133	9,061	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	144,113	144,990	-0.6%	0	0	144,113	144,990	0	0	0	0
New Jersey	29,337	30,902	-5.1%	0	0	29,337	30,902	0	0	0	0
New York	38,931	38,508	1.1%	0	0	38,931	38,508	0	0	0	0
Pennsylvania	75,844	75,580	0.3%	0	0	75,844	75,580	0	0	0	0
East North Central	143,884	142,627	0.9%	23,167	23,839	120,717	118,788	0	0	0	0
Illinois	89,247	88,491	0.9%	0	0	89,247	88,491	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	28,597	29,325	-2.5%	23,167	23,839	5,430	5,486	0	0	0	0
Ohio	16,737	16,063	4.2%	0	0	16,737	16,063	0	0	0	0
Wisconsin	9,303	8,748	6.3%	0	0	9,303	8,748	0	0	0	0
West North Central	40,742	41,375	-1.5%	36,303	36,614	4,439	4,760	0	0	0	0
Iowa	4,439	4,760	-6.8%	0	0	4,439	4,760	0	0	0	0
Kansas	8,257	9,736	-15.2%	8,257	9,736	0	0	0	0	0	0
Minnesota	13,282	12,592	5.5%	13,282	12,592	0	0	0	0	0	0
Missouri	9,729	7,975	22.0%	9,729	7,975	0	0	0	0	0	0
Nebraska	5,035	6,311	-20.2%	5,035	6,311	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	184,487	186,441	-1.0%	170,852	172,678	13,636	13,763	0	0	0	0
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	26,528	26,391	0.5%	26,528	26,391	0	0	0	0	0	0
Georgia	31,289	30,614	2.2%	31,289	30,614	0	0	0	0	0	0
Maryland	13,636	13,763	-0.9%	0	0	13,636	13,763	0	0	0	0
North Carolina	38,202	38,487	-0.7%	38,202	38,487	0	0	0	0	0	0
South Carolina	48,206	49,318	-2.3%	48,206	49,318	0	0	0	0	0	0
Virginia	26,626	27,868	-4.5%	26,626	27,868	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	74,763	74,545	0.3%	74,763	74,545	0	0	0	0	0	0
Alabama	35,511	38,792	-8.5%	35,511	38,792	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	6,144	7,048	-12.8%	6,144	7,048	0	0	0	0	0	0
Tennessee	33,108	28,705	15.3%	33,108	28,705	0	0	0	0	0	0
West South Central	65,069	59,892	8.6%	26,993	25,101	38,076	34,791	0	0	0	0
Arkansas	11,431	11,304	1.1%	11,431	11,304	0	0	0	0	0	0
Louisiana	15,562	13,797	12.8%	15,562	13,797	0	0	0	0	0	0
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	38,076	34,791	9.4%	0	0	38,076	34,791	0	0	0	0
Mountain	28,328	29,356	-3.5%	28,328	29,356	0	0	0	0	0	0
Arizona	28,328	29,356	-3.5%	28,328	29,356	0	0	0	0	0	0
Colorado	0	0	--	0	0	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	0	0	--	0	0	0	0	0	0	0	0
New Mexico	0	0	--	0	0	0	0	0	0	0	0
Utah	0	0	--	0	0	0	0	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	25,622	23,481	9.1%	25,622	23,481	0	0	0	0	0	0
California	16,726	16,220	3.1%	16,726	16,220	0	0	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	8,896	7,261	22.5%	8,896	7,261	0	0	0	0	0	0
Pacific Noncontiguous	0	0	--	0	0	0	0	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	735,420	731,250	0.6%	386,028	385,614	349,393	345,636	0	0	0	0

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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 1.10.A. Utility Scale Facility Net Generation from Hydroelectric (Conventional) Power by State, by Sector, November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	788	712	10.7%	116	93	635	580	0	0	37	39
Connecticut	41	25	63.4%	6	2	36	23	0	0	0	0
Maine	336	354	-5.1%	0	0	300	316	0	0	36	38
Massachusetts	109	86	26.0%	29	21	79	65	0	0	1	1
New Hampshire	166	132	26.3%	33	32	133	100	0	0	0	0
Rhode Island	1	0	134.5%	0	0	1	0	0	0	0	0
Vermont	134	114	18.0%	47	39	87	75	0	0	0	0
Middle Atlantic	3,074	2,936	4.7%	2,216	2,185	852	744	1	1	5	6
New Jersey	3	1	243.3%	0	0	3	1	0	0	0	0
New York	2,724	2,635	3.4%	2,202	2,176	516	451	1	1	5	6
Pennsylvania	347	301	15.5%	15	9	333	292	0	0	0	0
East North Central	397	429	-7.6%	335	385	46	27	0	0	15	18
Illinois	13	12	13.8%	7	5	NM	7	0	0	0	0
Indiana	34	27	26.2%	34	27	0	0	0	0	0	0
Michigan	113	143	-20.9%	104	131	NM	9	0	0	NM	2
Ohio	54	24	122.7%	30	24	NM	0	0	0	0	0
Wisconsin	183	224	-18.3%	161	198	NM	11	0	0	13	15
West North Central	932	916	1.7%	903	883	17	19	0	0	12	14
Iowa	71	65	9.8%	70	64	1	0	0	0	0	0
Kansas	3	1	105.4%	0	0	3	1	0	0	0	0
Minnesota	88	112	-21.6%	61	80	NM	18	0	0	12	14
Missouri	147	82	79.2%	147	82	0	0	0	0	0	0
Nebraska	102	105	-2.5%	102	105	0	0	0	0	0	0
North Dakota	173	182	-4.7%	173	182	0	0	0	0	0	0
South Dakota	349	370	-5.8%	349	370	0	0	0	0	0	0
South Atlantic	1,793	946	89.5%	1,377	703	360	201	2	1	55	41
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	23	16	40.8%	23	16	0	0	0	0	0	0
Georgia	314	179	75.2%	312	178	NM	0	0	0	1	1
Maryland	300	161	85.8%	0	0	300	161	0	0	0	0
North Carolina	558	255	119.2%	551	251	NM	3	1	1	NM	0
South Carolina	286	164	75.0%	281	159	NM	4	0	0	0	0
Virginia	143	47	203.7%	137	43	NM	4	0	0	0	0
West Virginia	169	124	36.2%	72	55	43	29	0	0	53	40
East South Central	2,571	2,195	17.1%	2,570	2,194	NM	1	0	0	0	0
Alabama	1,201	889	35.1%	1,201	889	0	0	0	0	0	0
Kentucky	423	454	-6.8%	422	453	NM	1	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	946	851	11.1%	946	851	0	0	0	0	0	0
West South Central	867	481	80.2%	772	411	96	70	NM	0	0	0
Arkansas	370	196	88.8%	366	192	NM	4	0	0	0	0
Louisiana	90	63	42.7%	0	0	90	63	0	0	0	0
Oklahoma	247	142	74.2%	247	142	0	0	0	0	0	0
Texas	161	81	99.3%	159	78	1	2	NM	0	0	0
Mountain	2,348	2,509	-6.4%	2,248	2,412	99	96	0	0	0	0
Arizona	487	488	-0.3%	487	488	0	0	0	0	0	0
Colorado	115	7	NM	99	5	NM	1	0	0	0	0
Idaho	721	809	-10.9%	653	735	68	74	0	0	0	0
Montana	736	830	-11.3%	726	818	NM	12	0	0	0	0
Nevada	112	179	-37.4%	109	172	NM	7	0	0	0	0
New Mexico	NM	12	NM	NM	12	0	0	0	0	0	0
Utah	89	99	-10.1%	88	97	1	1	0	0	0	0
Wyoming	75	85	-11.3%	75	85	0	0	0	0	0	0
Pacific Contiguous	9,286	9,250	0.4%	9,171	9,099	115	150	NM	0	0	0
California	1,150	1,756	-34.5%	1,084	1,650	NM	106	NM	0	0	0
Oregon	2,647	2,575	2.8%	2,626	2,554	21	21	0	0	0	0
Washington	5,489	4,918	11.6%	5,461	4,895	28	24	0	0	0	0
Pacific Noncontiguous	117	190	-38.2%	99	163	3	3	NM	20	NM	4
Alaska	111	183	-39.5%	98	163	0	0	NM	20	0	0
Hawaii	7	7	-7.1%	1	1	3	3	0	0	NM	4
U.S. Total	22,174	20,565	7.8%	19,806	18,529	2,224	1,891	NM	23	127	121

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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 1.10.B. Utility Scale Facility Net Generation from Hydroelectric (Conventional) Power

by State, by Sector, Year-to-Date through November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	7,293	6,914	5.5%	1,047	979	5,891	5,590	4	4	351	340
Connecticut	348	314	10.8%	38	24	311	290	0	0	0	0
Maine	3,237	3,117	3.8%	0	0	2,892	2,782	0	0	345	335
Massachusetts	1,014	990	2.5%	259	241	745	740	4	4	6	5
New Hampshire	1,447	1,311	10.4%	325	315	1,122	995	0	0	0	0
Rhode Island	3	2	60.2%	0	0	3	2	0	0	0	0
Vermont	1,243	1,180	5.3%	425	400	818	780	0	0	0	0
Middle Atlantic	31,213	30,466	2.5%	23,150	22,789	8,004	7,608	5	6	53	63
New Jersey	32	14	134.7%	0	0	32	14	0	0	0	0
New York	28,041	27,474	2.1%	23,023	22,698	4,959	4,707	5	6	53	63
Pennsylvania	3,140	2,978	5.4%	127	91	3,012	2,887	0	0	0	0
East North Central	4,852	4,631	4.8%	4,159	4,161	519	288	1	1	173	180
Illinois	130	116	12.7%	55	44	75	70	1	1	0	0
Indiana	304	281	8.1%	304	281	0	0	0	0	0	0
Michigan	1,517	1,539	-1.4%	1,394	1,412	100	101	0	0	24	27
Ohio	506	255	98.3%	276	255	230	0	0	0	0	0
Wisconsin	2,395	2,440	-1.9%	2,131	2,169	114	117	0	0	149	153
West North Central	11,834	11,845	-0.1%	11,500	11,488	213	215	0	0	120	142
Iowa	924	981	-5.8%	918	974	6	7	0	0	0	0
Kansas	24	27	-8.9%	0	0	24	27	0	0	0	0
Minnesota	1,115	1,149	-2.9%	812	825	183	182	0	0	120	142
Missouri	1,226	1,091	12.4%	1,226	1,091	0	0	0	0	0	0
Nebraska	1,377	1,373	0.3%	1,377	1,373	0	0	0	0	0	0
North Dakota	2,347	2,380	-1.4%	2,347	2,380	0	0	0	0	0	0
South Dakota	4,821	4,845	-0.5%	4,821	4,845	0	0	0	0	0	0
South Atlantic	14,560	12,244	18.9%	10,951	9,311	3,063	2,398	14	11	533	525
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	213	207	3.0%	213	207	0	0	0	0	0	0
Georgia	2,456	2,228	10.2%	2,431	2,204	NM	6	0	0	10	18
Maryland	2,504	1,895	32.2%	0	0	2,504	1,895	0	0	0	0
North Carolina	4,334	3,579	21.1%	4,270	3,537	44	33	12	10	NM	0
South Carolina	2,186	1,708	28.0%	2,130	1,664	55	43	2	1	0	0
Virginia	1,261	1,052	19.9%	1,201	995	60	56	0	0	0	0
West Virginia	1,605	1,574	1.9%	706	703	384	365	0	0	515	507
East South Central	22,555	20,504	10.0%	22,545	20,494	NM	10	0	0	0	0
Alabama	9,657	8,499	13.6%	9,657	8,499	0	0	0	0	0	0
Kentucky	4,278	4,065	5.2%	4,268	4,056	NM	10	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	8,620	7,939	8.6%	8,620	7,939	0	0	0	0	0	0
West South Central	7,272	6,489	12.1%	6,329	5,570	942	917	NM	1	0	0
Arkansas	3,085	2,771	11.3%	3,034	2,729	51	42	0	0	0	0
Louisiana	862	846	1.9%	0	0	862	846	0	0	0	0
Oklahoma	2,100	1,900	10.5%	2,100	1,900	0	0	0	0	0	0
Texas	1,225	972	26.0%	1,194	941	29	30	NM	1	0	0
Mountain	32,191	32,188	0.0%	30,802	30,798	1,377	1,377	13	13	0	0
Arizona	6,443	6,373	1.1%	6,443	6,373	0	0	0	0	0	0
Colorado	1,801	1,829	-1.5%	1,563	1,571	225	245	13	13	0	0
Idaho	9,754	9,854	-1.0%	8,827	8,948	926	906	0	0	0	0
Montana	9,982	10,109	-1.3%	9,842	9,965	141	143	0	0	0	0
Nevada	1,815	1,610	12.8%	1,746	1,544	69	66	0	0	0	0
New Mexico	181	181	-0.3%	181	181	0	0	0	0	0	0
Utah	1,181	1,194	-1.1%	1,174	1,184	7	10	0	0	0	0
Wyoming	1,033	1,038	-0.5%	1,024	1,031	9	8	0	0	0	0
Pacific Contiguous	134,590	151,156	-11.0%	132,504	148,051	2,076	3,087	NM	19	0	0
California	24,472	40,539	-39.6%	23,050	38,084	1,411	2,436	NM	19	0	0
Oregon	34,001	34,956	-2.7%	33,715	34,670	286	287	0	0	0	0
Washington	76,117	75,661	0.6%	75,739	75,297	378	364	0	0	0	0
Pacific Noncontiguous	1,616	1,519	6.4%	1,364	1,308	40	17	174	162	38	33
Alaska	1,520	1,461	4.1%	1,346	1,299	0	0	174	162	0	0
Hawaii	96	59	64.1%	18	9	40	17	0	0	38	33
U.S. Total	267,976	277,956	-3.6%	244,350	254,948	22,134	21,508	223	217	1,268	1,283

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
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Notes: See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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 1.11.A. Utility Scale Facility Net Generation from Renewable Sources Excluding Hydroelectric by State, by Sector, November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	950	967	-1.8%	62	67	782	805	16	18	89	77
Connecticut	61	84	-26.9%	0	0	61	84	NM	0	NM	0
Maine	433	475	-8.7%	0	0	339	389	6	8	88	77
Massachusetts	191	143	33.6%	8	6	177	132	6	4	0	0
New Hampshire	159	169	-6.0%	22	29	133	136	4	4	0	0
Rhode Island	36	34	6.8%	0	0	35	33	1	1	0	0
Vermont	70	63	10.2%	33	32	37	31	0	0	0	0
Middle Atlantic	1,245	1,393	-10.6%	5	5	1,136	1,273	50	55	54	61
New Jersey	143	135	5.7%	5	5	121	108	16	22	NM	0
New York	593	634	-6.4%	0	0	557	598	20	20	16	15
Pennsylvania	509	624	-18.5%	0	0	457	567	14	12	38	45
East North Central	2,932	3,721	-21.2%	315	597	2,463	2,962	20	17	134	145
Illinois	1,161	1,284	-9.5%	5	3	1,156	1,280	NM	1	0	0
Indiana	556	739	-24.8%	35	32	513	698	2	2	6	7
Michigan	679	825	-17.7%	159	214	455	544	10	10	55	58
Ohio	248	224	10.8%	NM	2	221	195	1	1	23	26
Wisconsin	288	649	-55.6%	113	345	119	245	NM	4	50	55
West North Central	6,506	7,337	-11.3%	2,111	2,393	4,325	4,875	10	15	59	54
Iowa	1,933	2,086	-7.3%	1,257	1,372	669	709	3	3	4	3
Kansas	1,507	1,617	-6.8%	140	146	1,366	1,469	NM	1	0	0
Minnesota	1,182	1,396	-15.4%	247	312	876	1,029	4	4	55	51
Missouri	268	374	-28.3%	NM	3	263	366	1	5	0	0
Nebraska	443	473	-6.3%	21	22	421	450	1	1	0	0
North Dakota	920	1,106	-16.9%	367	451	552	655	0	0	NM	0
South Dakota	253	285	-11.4%	73	88	179	198	0	0	0	0
South Atlantic	2,693	2,712	-0.7%	390	349	1,386	1,440	32	43	885	881
Delaware	9	10	-11.2%	NM	1	7	8	1	1	1	1
District of Columbia	4	4	5.8%	0	0	0	0	4	4	0	0
Florida	598	530	12.8%	215	135	213	239	4	4	166	152
Georgia	513	572	-10.3%	19	17	165	218	NM	0	330	338
Maryland	114	107	6.3%	NM	1	103	95	3	2	8	10
North Carolina	669	708	-5.5%	25	34	531	539	8	17	105	117
South Carolina	230	194	18.6%	22	27	65	36	0	0	142	131
Virginia	394	419	-6.0%	108	135	142	138	12	15	132	132
West Virginia	160	167	-3.8%	0	0	160	167	0	0	0	0
East South Central	577	579	-0.4%	14	11	75	84	NM	1	487	484
Alabama	306	339	-9.8%	NM	4	38	43	0	0	266	293
Kentucky	42	38	11.7%	11	7	NM	1	0	0	30	30
Mississippi	138	120	14.6%	0	0	18	16	0	0	119	104
Tennessee	90	81	11.1%	0	0	18	24	NM	1	72	57
West South Central	8,893	8,877	0.2%	125	137	8,347	8,282	8	8	412	450
Arkansas	124	126	-1.8%	NM	0	20	6	1	1	103	119
Louisiana	215	229	-6.2%	NM	NM	NM	7	0	0	208	222
Oklahoma	2,213	2,088	6.0%	109	118	2,076	1,943	0	0	28	27
Texas	6,342	6,434	-1.4%	16	19	6,244	6,326	8	7	73	82
Mountain	3,586	3,654	-1.9%	299	326	3,244	3,302	9	9	34	18
Arizona	381	328	16.3%	49	37	331	289	NM	1	0	0
Colorado	832	907	-8.3%	24	27	807	879	NM	1	0	0
Idaho	296	310	-4.3%	16	18	247	275	1	1	32	16
Montana	222	218	2.0%	18	22	202	194	0	0	2	2
Nevada	624	571	9.1%	2	2	617	565	4	4	0	0
New Mexico	628	618	1.7%	15	16	612	602	NM	0	0	0
Utah	247	272	-9.0%	23	19	223	252	1	1	0	0
Wyoming	355	431	-17.5%	152	184	204	247	0	0	0	0
Pacific Contiguous	5,387	4,635	16.2%	562	616	4,538	3,747	74	78	214	194
California	4,020	3,281	22.5%	136	128	3,748	3,036	70	75	66	42
Oregon	624	479	30.3%	77	61	504	372	3	3	41	44
Washington	743	875	-15.1%	348	428	286	339	1	1	108	108
Pacific Noncontiguous	124	129	-3.3%	16	14	89	96	19	19	NM	0
Alaska	15	17	-13.2%	8	9	4	5	3	4	NM	0
Hawaii	109	111	-1.8%	8	6	85	91	16	15	0	0
U.S. Total	32,892	34,005	-3.3%	3,899	4,514	26,386	26,865	239	262	2,368	2,364

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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 1.11.B. Utility Scale Facility Net Generation from Renewable Sources Excluding Hydroelectric

by State, by Sector, Year-to-Date through November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	11,088	10,234	8.3%	739	778	9,190	8,334	170	188	989	935
Connecticut	780	768	1.5%	3	3	776	764	NM	1	NM	0
Maine	4,718	4,511	4.6%	0	0	3,672	3,493	62	86	984	932
Massachusetts	2,511	2,032	23.6%	76	70	2,372	1,908	58	51	5	3
New Hampshire	1,824	1,828	-0.2%	225	267	1,559	1,520	40	42	0	0
Rhode Island	375	331	13.4%	0	0	369	324	7	7	0	0
Vermont	880	765	15.1%	435	438	443	325	2	2	0	0
Middle Atlantic	14,169	13,197	7.4%	93	77	12,736	11,760	662	639	678	721
New Jersey	2,130	1,757	21.3%	93	77	1,720	1,386	307	286	10	8
New York	6,492	6,062	7.1%	0	0	6,106	5,681	216	213	171	168
Pennsylvania	5,546	5,378	3.1%	0	0	4,910	4,693	139	140	497	545
East North Central	30,700	27,737	10.7%	3,638	3,091	25,370	22,993	209	212	1,483	1,441
Illinois	12,009	11,304	6.2%	51	34	11,949	11,266	9	5	0	0
Indiana	5,826	4,952	17.7%	435	376	5,299	4,484	20	19	72	73
Michigan	7,308	6,834	6.9%	1,798	1,655	4,780	4,466	116	125	614	588
Ohio	2,345	2,173	7.9%	37	21	2,030	1,870	13	14	265	268
Wisconsin	3,212	2,475	29.8%	1,316	1,004	1,312	907	51	50	532	513
West North Central	70,283	67,451	4.2%	21,904	22,138	47,562	44,521	162	158	656	633
Iowa	19,693	19,371	1.7%	12,714	12,757	6,912	6,545	36	30	31	39
Kansas	17,574	16,902	4.0%	1,689	1,489	15,871	15,402	14	14	0	-3
Minnesota	13,186	12,120	8.8%	2,649	2,712	9,868	8,770	51	46	618	593
Missouri	2,921	1,842	58.6%	53	39	2,818	1,747	47	53	3	3
Nebraska	4,706	4,566	3.1%	236	219	4,457	4,331	14	16	0	0
North Dakota	9,709	10,010	-3.0%	3,819	4,112	5,887	5,896	0	0	3	2
South Dakota	2,494	2,641	-5.6%	746	810	1,748	1,831	0	0	0	0
South Atlantic	34,023	28,227	20.5%	4,968	3,125	18,734	15,031	421	487	9,900	9,584
Delaware	123	107	14.8%	7	6	98	84	7	6	11	12
District of Columbia	51	42	23.0%	0	0	0	0	51	42	0	0
Florida	6,987	5,274	32.5%	2,502	999	2,606	2,447	47	43	1,832	1,784
Georgia	6,632	6,469	2.5%	298	241	2,589	2,584	3	3	3,741	3,640
Maryland	1,413	1,238	14.1%	10	8	1,288	1,110	28	13	87	107
North Carolina	9,586	7,728	24.0%	436	380	7,826	5,962	132	193	1,191	1,193
South Carolina	2,948	2,258	30.6%	395	374	938	433	0	0	1,615	1,450
Virginia	4,664	3,640	28.1%	1,320	1,116	1,769	940	153	187	1,422	1,398
West Virginia	1,619	1,471	10.1%	0	0	1,619	1,471	0	0	0	0
East South Central	6,757	6,130	10.2%	182	133	1,158	616	5	4	5,412	5,377
Alabama	3,511	3,259	7.7%	39	19	555	336	0	0	2,918	2,903
Kentucky	496	476	4.3%	144	115	13	12	0	0	339	350
Mississippi	1,650	1,416	16.5%	0	0	324	81	0	0	1,326	1,335
Tennessee	1,101	979	12.5%	0	0	266	187	5	4	829	788
West South Central	103,215	90,491	14.1%	1,457	1,480	96,918	84,156	87	76	4,753	4,779
Arkansas	1,514	1,337	13.2%	NM	2	280	115	5	6	1,226	1,215
Louisiana	2,502	2,531	-1.1%	NM	2	80	81	0	0	2,420	2,448
Oklahoma	25,431	21,734	17.0%	1,255	1,287	23,897	20,196	0	0	280	251
Texas	73,768	64,890	13.7%	198	189	72,661	63,765	82	70	826	866
Mountain	43,407	39,544	9.8%	3,594	3,370	39,338	35,754	137	120	337	300
Arizona	5,802	5,373	8.0%	792	592	4,989	4,759	22	22	0	0
Colorado	9,978	9,394	6.2%	284	266	9,670	9,112	20	13	3	3
Idaho	3,406	3,221	5.7%	166	164	2,917	2,770	10	11	313	276
Montana	2,015	1,963	2.7%	193	201	1,802	1,742	0	0	19	19
Nevada	8,124	7,097	14.5%	39	38	8,013	6,994	70	62	2	2
New Mexico	6,885	5,257	31.0%	247	238	6,635	5,017	NM	2	0	0
Utah	3,383	3,369	0.4%	245	214	3,126	3,146	13	9	0	0
Wyoming	3,814	3,871	-1.5%	1,629	1,656	2,185	2,215	0	0	0	0
Pacific Contiguous	71,388	66,742	7.0%	7,318	7,074	60,804	56,529	855	885	2,412	2,254
California	54,595	51,241	6.5%	2,107	2,048	50,948	47,741	817	849	723	603
Oregon	8,361	7,186	16.3%	1,235	1,070	6,594	5,607	29	28	502	481
Washington	8,433	8,315	1.4%	3,975	3,956	3,261	3,181	9	9	1,187	1,169
Pacific Noncontiguous	1,448	1,372	5.5%	173	172	1,052	986	222	213	1	1
Alaska	176	168	5.1%	89	83	47	46	39	38	1	1
Hawaii	1,272	1,205	5.6%	84	90	1,005	940	183	175	0	0
U.S. Total	386,478	351,126	10.1%	44,065	41,439	312,861	280,679	2,931	2,983	26,620	26,025

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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 1.12.A. Utility Scale Facility Net Generation from Hydroelectric (Pumped Storage) Power by State, by Sector, November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	-33	-41	-18.3%	0	0	-33	-41	0	0	0	0
Connecticut	2	0	--	0	0	2	0	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	-36	-41	-12.8%	0	0	-36	-41	0	0	0	0
New Hampshire	0	0	--	0	0	0	0	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	-76	-85	-10.1%	-21	-41	-55	-44	0	0	0	0
New Jersey	0	-13	-98.4%	0	-13	0	0	0	0	0	0
New York	-21	-28	-25.8%	-21	-28	0	0	0	0	0	0
Pennsylvania	-55	-44	26.5%	0	0	-55	-44	0	0	0	0
East North Central	-50	-63	-20.4%	-50	-63	0	0	0	0	0	0
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	-50	-63	-20.4%	-50	-63	0	0	0	0	0	0
Ohio	0	0	--	0	0	0	0	0	0	0	0
Wisconsin	0	0	--	0	0	0	0	0	0	0	0
West North Central	10	-5	-327.2%	10	-5	0	0	0	0	0	0
Iowa	0	0	--	0	0	0	0	0	0	0	0
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	0	0	--	0	0	0	0	0	0	0	0
Missouri	10	-5	-327.2%	10	-5	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	-132	-204	-35.3%	-132	-204	0	0	0	0	0	0
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	0	0	--	0	0	0	0	0	0	0	0
Georgia	-2	-89	-97.9%	-2	-89	0	0	0	0	0	0
Maryland	0	0	--	0	0	0	0	0	0	0	0
North Carolina	0	0	--	0	0	0	0	0	0	0	0
South Carolina	-76	-37	104.5%	-76	-37	0	0	0	0	0	0
Virginia	-54	-78	-30.7%	-54	-78	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	-39	-34	17.3%	-39	-34	0	0	0	0	0	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	-39	-34	17.3%	-39	-34	0	0	0	0	0	0
West South Central	-11	-7	49.9%	-11	-7	0	0	0	0	0	0
Arkansas	2	0	463.8%	2	0	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	-12	-7	68.0%	-12	-7	0	0	0	0	0	0
Texas	0	0	--	0	0	0	0	0	0	0	0
Mountain	-25	-37	-30.9%	-25	-37	0	0	0	0	0	0
Arizona	-15	-16	-7.6%	-15	-16	0	0	0	0	0	0
Colorado	-11	-21	-49.0%	-11	-21	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	0	0	--	0	0	0	0	0	0	0	0
New Mexico	0	0	--	0	0	0	0	0	0	0	0
Utah	0	0	--	0	0	0	0	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	14	-3	-567.3%	14	-3	0	0	0	0	0	0
California	16	-3	-703.4%	16	-3	0	0	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	-1	-1	124.6%	-1	-1	0	0	0	0	0	0
Pacific Noncontiguous	0	0	--	0	0	0	0	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	-343	-478	-28.3%	-254	-394	-88	-84	0	0	0	0

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Notes: See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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 1.12.B. Utility Scale Facility Net Generation from Hydroelectric (Pumped Storage) Power

by State, by Sector, Year-to-Date through November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	-425	-398	6.6%	0	0	-425	-398	0	0	0	0
Connecticut	2	-2	-174.1%	0	0	2	-2	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	-426	-396	7.6%	0	0	-426	-396	0	0	0	0
New Hampshire	0	0	--	0	0	0	0	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	-1,109	-1,082	2.5%	-510	-532	-599	-549	0	0	0	0
New Jersey	-115	-146	-21.4%	-115	-146	0	0	0	0	0	0
New York	-395	-386	2.2%	-395	-386	0	0	0	0	0	0
Pennsylvania	-599	-549	9.0%	0	0	-599	-549	0	0	0	0
East North Central	-645	-626	3.1%	-645	-626	0	0	0	0	0	0
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	-645	-626	3.1%	-645	-626	0	0	0	0	0	0
Ohio	0	0	--	0	0	0	0	0	0	0	0
Wisconsin	0	0	--	0	0	0	0	0	0	0	0
West North Central	36	101	-64.7%	36	101	0	0	0	0	0	0
Iowa	0	0	--	0	0	0	0	0	0	0	0
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	0	0	--	0	0	0	0	0	0	0	0
Missouri	36	101	-64.7%	36	101	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	-2,386	-3,245	-26.5%	-2,386	-3,245	0	0	0	0	0	0
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	0	0	--	0	0	0	0	0	0	0	0
Georgia	-519	-1,163	-55.4%	-519	-1,163	0	0	0	0	0	0
Maryland	0	0	--	0	0	0	0	0	0	0	0
North Carolina	0	0	--	0	0	0	0	0	0	0	0
South Carolina	-652	-915	-28.7%	-652	-915	0	0	0	0	0	0
Virginia	-1,215	-1,167	4.2%	-1,215	-1,167	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	-557	-637	-12.5%	-557	-637	0	0	0	0	0	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	-557	-637	-12.5%	-557	-637	0	0	0	0	0	0
West South Central	-93	-90	3.5%	-93	-90	0	0	0	0	0	0
Arkansas	33	20	64.0%	33	20	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	-126	-110	14.6%	-126	-110	0	0	0	0	0	0
Texas	0	0	--	0	0	0	0	0	0	0	0
Mountain	-235	-328	-28.3%	-235	-328	0	0	0	0	0	0
Arizona	11	-29	-138.0%	11	-29	0	0	0	0	0	0
Colorado	-246	-299	-17.7%	-246	-299	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	0	0	--	0	0	0	0	0	0	0	0
New Mexico	0	0	--	0	0	0	0	0	0	0	0
Utah	0	0	--	0	0	0	0	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	32	466	-93.2%	32	466	0	0	0	0	0	0
California	2	463	-99.5%	2	463	0	0	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	29	3	843.7%	29	3	0	0	0	0	0	0
Pacific Noncontiguous	0	0	--	0	0	0	0	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	-5,382	-5,839	-7.8%	-4,359	-4,891	-1,024	-948	0	0	0	0

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Notes: See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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 1.13.A. Utility Scale Facility Net Generation from Other Energy Sources by State, by Sector, November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	142	152	-6.5%	0	0	125	133	5	8	12	12
Connecticut	34	51	-33.7%	0	0	34	51	0	0	0	0
Maine	33	31	6.3%	0	0	15	11	5	8	12	12
Massachusetts	71	66	8.3%	0	0	71	66	0	0	0	0
New Hampshire	4	4	1.5%	0	0	4	4	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	189	205	-7.7%	0	0	149	161	34	38	6	6
New Jersey	45	51	-12.8%	0	0	32	33	6	13	6	6
New York	75	82	-7.9%	0	0	57	63	18	18	0	0
Pennsylvania	69	72	-4.0%	0	0	60	65	9	7	0	0
East North Central	77	73	5.2%	2	1	9	9	12	11	53	52
Illinois	21	24	-10.0%	0	0	-1	-2	0	0	23	26
Indiana	30	25	20.7%	0	0	0	0	2	2	28	23
Michigan	22	23	-0.6%	0	0	11	12	10	9	2	2
Ohio	1	0	NM	0	0	0	-1	0	0	1	1
Wisconsin	2	2	13.8%	2	1	0	0	0	0	0	1
West North Central	39	38	1.1%	19	19	14	11	NM	3	5	5
Iowa	0	0	--	0	0	0	0	0	0	0	0
Kansas	0	0	-0.5%	0	0	0	0	0	0	0	0
Minnesota	34	32	6.5%	15	14	14	11	NM	3	4	4
Missouri	0	1	-100.0%	0	1	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	4	4	-8.7%	4	4	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	371	358	3.7%	0	0	207	161	10	14	154	183
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	260	257	0.9%	0	0	133	111	0	0	126	147
Georgia	4	9	-61.0%	0	0	0	0	0	0	4	9
Maryland	21	27	-22.6%	0	0	21	27	0	0	0	0
North Carolina	44	49	-9.4%	0	0	24	23	0	0	20	26
South Carolina	4	2	77.7%	0	0	1	1	0	0	3	2
Virginia	39	14	181.9%	0	0	28	0	10	14	0	0
West Virginia	0	-1	-60.7%	0	0	0	-1	0	0	0	0
East South Central	8	6	47.8%	8	5	0	0	0	0	NM	1
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	8	5	59.8%	8	5	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	NM	1	NM	0	0	0	0	0	0	NM	1
West South Central	85	94	-9.3%	0	0	11	13	0	0	74	81
Arkansas	0	0	-89.2%	0	0	0	0	0	0	0	0
Louisiana	39	51	-24.7%	0	0	0	0	0	0	39	51
Oklahoma	5	6	-12.8%	0	0	5	5	0	0	0	0
Texas	41	36	13.9%	0	0	6	7	0	0	35	29
Mountain	63	53	19.4%	8	4	25	30	0	0	30	19
Arizona	0	0	156.4%	0	0	0	0	0	0	0	0
Colorado	4	5	-3.3%	0	0	1	1	0	0	4	3
Idaho	4	6	-41.0%	0	0	0	0	0	0	4	6
Montana	25	29	-13.2%	0	0	25	29	0	0	0	0
Nevada	3	3	4.5%	3	3	0	0	0	0	0	0
New Mexico	0	0	-121.8%	0	0	0	0	0	0	0	0
Utah	21	5	341.9%	5	1	0	0	0	0	16	3
Wyoming	7	6	12.3%	0	0	0	0	0	0	7	6
Pacific Contiguous	73	69	6.1%	0	1	18	22	0	0	56	46
California	68	61	10.6%	0	1	12	14	0	0	56	46
Oregon	2	3	-48.6%	0	0	2	4	0	0	0	0
Washington	4	4	-12.3%	0	0	4	5	0	0	0	0
Pacific Noncontiguous	32	30	8.8%	16	15	NM	0	16	14	0	0
Alaska	0	0	-12.5%	0	0	0	0	0	0	0	0
Hawaii	32	30	8.7%	17	16	NM	0	16	14	0	0
U.S. Total	1,080	1,077	0.3%	52	45	559	539	78	88	390	405

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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 1.13.B. Utility Scale Facility Net Generation from Other Energy Sources

by State, by Sector, Year-to-Date through November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	1,587	1,661	-4.4%	0	0	1,406	1,458	59	81	121	122
Connecticut	428	499	-14.2%	0	0	428	499	0	0	0	0
Maine	338	361	-6.4%	0	0	157	158	59	81	121	122
Massachusetts	777	756	2.7%	0	0	777	756	0	0	0	0
New Hampshire	44	45	-1.6%	0	0	44	45	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	2,043	2,168	-5.8%	0	1	1,623	1,697	401	409	19	61
New Jersey	500	527	-5.3%	0	1	358	334	123	132	19	61
New York	817	842	-2.9%	0	0	623	649	194	192	0	0
Pennsylvania	726	799	-9.2%	0	0	642	714	84	85	0	0
East North Central	774	766	1.0%	18	13	102	70	130	138	523	545
Illinois	206	229	-9.8%	0	0	-14	-23	0	0	221	252
Indiana	286	279	2.5%	0	0	0	0	19	18	267	262
Michigan	243	237	2.6%	0	0	116	102	111	120	16	15
Ohio	9	-4	-332.0%	-2	-3	0	-9	0	0	11	8
Wisconsin	29	25	18.2%	21	16	0	0	0	0	9	9
West North Central	418	419	-0.4%	210	203	128	135	27	31	52	50
Iowa	0	2	-100.0%	0	0	0	0	0	0	0	2
Kansas	5	4	6.6%	0	0	0	0	0	0	5	4
Minnesota	371	362	2.6%	169	152	128	135	27	31	47	43
Missouri	1	4	-79.1%	1	4	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	41	47	-13.1%	41	47	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	4,052	3,927	3.2%	0	0	2,276	1,910	137	169	1,639	1,848
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	2,729	2,813	-3.0%	0	0	1,405	1,341	0	0	1,324	1,472
Georgia	72	78	-8.0%	0	0	0	0	0	0	72	78
Maryland	301	291	3.6%	0	0	301	291	0	0	0	0
North Carolina	495	522	-5.3%	0	0	284	257	0	0	211	265
South Carolina	38	38	-0.5%	0	0	7	6	0	0	31	33
Virginia	428	197	117.7%	0	0	291	27	137	169	0	0
West Virginia	-11	-13	-13.5%	0	0	-11	-13	0	0	0	0
East South Central	66	60	11.5%	57	37	0	0	0	0	9	22
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	57	37	54.3%	57	37	0	0	0	0	0	0
Mississippi	0	2	-100.0%	0	0	0	0	0	0	0	2
Tennessee	9	21	-55.9%	0	0	0	0	0	0	9	21
West South Central	689	1,116	-38.3%	0	0	-243	93	0	0	931	1,023
Arkansas	5	4	39.2%	0	0	0	0	0	0	5	4
Louisiana	578	581	-0.4%	0	0	0	0	0	0	578	581
Oklahoma	52	42	23.3%	0	0	49	41	0	0	4	1
Texas	53	489	-89.2%	0	0	-292	51	0	0	344	437
Mountain	702	646	8.7%	81	77	291	319	0	0	331	251
Arizona	-2	-1	85.4%	0	0	-2	-1	0	0	0	0
Colorado	54	52	4.9%	0	0	16	14	0	0	38	38
Idaho	59	62	-4.9%	0	0	0	0	0	0	59	62
Montana	276	305	-9.6%	0	0	276	305	0	0	0	0
Nevada	27	29	-6.3%	27	29	0	0	0	0	0	0
New Mexico	0	-1	-91.3%	0	-1	0	0	0	0	0	0
Utah	209	161	30.4%	54	49	0	0	0	0	155	112
Wyoming	79	40	98.9%	0	0	0	0	0	0	79	40
Pacific Contiguous	875	855	2.3%	-1	10	245	258	0	0	630	588
California	786	769	2.2%	0	11	155	170	0	0	630	588
Oregon	34	36	-4.3%	-1	0	35	36	0	0	0	0
Washington	55	51	8.4%	0	-1	55	52	0	0	0	0
Pacific Noncontiguous	346	331	4.4%	170	162	NM	1	176	168	0	0
Alaska	-2	-3	-12.7%	-2	-3	0	0	0	0	0	0
Hawaii	348	334	4.3%	173	164	NM	1	176	168	0	0
U.S. Total	11,552	11,948	-3.3%	536	501	5,829	5,941	932	996	4,255	4,509

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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 1.14.A. Utility Scale Facility Net Generation from Wind by State, by Sector, November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	317	377	-16.1%	20	25	293	349	4	3	0	0
Connecticut	NM	1	NM	0	0	NM	1	0	0	0	0
Maine	212	261	-18.7%	0	0	212	261	0	0	0	0
Massachusetts	21	23	-8.8%	5	6	12	14	3	2	0	0
New Hampshire	35	44	-21.4%	0	0	35	44	0	0	0	0
Rhode Island	16	15	1.9%	0	0	15	15	1	1	0	0
Vermont	32	32	-0.5%	15	19	17	13	0	0	0	0
Middle Atlantic	683	852	-19.8%	0	0	683	851	NM	1	0	0
New Jersey	NM	2	NM	0	0	NM	2	0	0	0	0
New York	375	429	-12.8%	0	0	374	429	NM	1	0	0
Pennsylvania	307	420	-27.0%	0	0	307	420	0	0	0	0
East North Central	2,431	3,208	-24.2%	240	518	2,180	2,683	NM	1	7	7
Illinois	1,122	1,245	-9.9%	NM	1	1,120	1,243	NM	1	0	0
Indiana	497	684	-27.4%	0	0	497	684	0	0	0	0
Michigan	466	611	-23.7%	154	210	312	401	0	0	0	0
Ohio	184	159	15.6%	NM	1	176	152	0	0	7	6
Wisconsin	163	509	-68.1%	84	306	76	203	NM	0	1	1
West North Central	6,249	7,103	-12.0%	2,063	2,352	4,182	4,747	NM	5	0	0
Iowa	1,913	2,070	-7.5%	1,254	1,370	659	699	0	0	0	0
Kansas	1,501	1,612	-6.9%	140	146	1,360	1,464	NM	1	0	0
Minnesota	977	1,208	-19.1%	214	282	761	923	NM	3	0	0
Missouri	252	358	-29.7%	0	0	252	358	0	0	0	0
Nebraska	434	464	-6.6%	15	15	419	449	0	0	0	0
North Dakota	919	1,106	-16.9%	367	451	552	655	0	0	0	0
South Dakota	253	285	-11.4%	73	88	179	198	0	0	0	0
South Atlantic	265	241	10.0%	0	0	264	240	1	1	0	0
Delaware	1	1	16.8%	0	0	0	0	1	1	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	0	0	--	0	0	0	0	0	0	0	0
Georgia	0	0	--	0	0	0	0	0	0	0	0
Maryland	47	45	4.2%	0	0	47	45	0	0	0	0
North Carolina	57	28	99.9%	0	0	57	28	0	0	0	0
South Carolina	0	0	--	0	0	0	0	0	0	0	0
Virginia	0	0	--	0	0	0	0	0	0	0	0
West Virginia	160	167	-3.8%	0	0	160	167	0	0	0	0
East South Central	4	4	-5.3%	0	0	4	4	0	0	0	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	4	4	-5.3%	0	0	4	4	0	0	0	0
West South Central	8,176	8,196	-0.3%	121	134	8,049	8,057	5	4	NM	1
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	2,179	2,057	5.9%	105	116	2,074	1,941	0	0	0	0
Texas	5,997	6,139	-2.3%	16	18	5,975	6,116	5	4	NM	1
Mountain	2,238	2,469	-9.3%	208	250	2,029	2,217	NM	0	0	0
Arizona	44	57	-22.4%	0	0	44	57	0	0	0	0
Colorado	756	837	-9.7%	24	27	732	810	NM	0	0	0
Idaho	213	254	-16.0%	14	17	199	237	0	0	0	0
Montana	218	215	1.6%	18	22	200	193	0	0	0	0
Nevada	28	36	-22.5%	0	0	28	36	0	0	0	0
New Mexico	549	541	1.4%	0	0	549	541	NM	0	0	0
Utah	74	98	-24.2%	0	0	74	98	0	0	0	0
Wyoming	355	431	-17.5%	152	184	204	247	0	0	0	0
Pacific Contiguous	2,078	1,568	32.5%	432	455	1,645	1,113	1	0	0	0
California	981	498	96.9%	33	20	947	477	1	0	0	0
Oregon	496	361	37.1%	72	55	424	306	0	0	0	0
Washington	601	708	-15.1%	326	379	275	329	0	0	0	0
Pacific Noncontiguous	53	63	-15.2%	8	9	46	55	0	0	0	0
Alaska	12	13	-9.7%	8	9	4	5	0	0	0	0
Hawaii	42	50	-16.7%	0	0	42	50	0	0	0	0
U.S. Total	22,493	24,082	-6.6%	3,092	3,743	19,375	20,316	17	14	9	8

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Notes: See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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 1.14.B. Utility Scale Facility Net Generation from Wind

by State, by Sector, Year-to-Date through November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	3,331	3,053	9.1%	220	214	3,078	2,812	30	26	3	1
Connecticut	12	11	4.7%	0	0	12	11	0	0	0	0
Maine	2,195	2,068	6.1%	0	0	2,195	2,068	0	0	0	0
Massachusetts	218	212	2.6%	55	57	137	135	23	19	3	1
New Hampshire	400	364	10.0%	0	0	400	364	0	0	0	0
Rhode Island	147	133	10.4%	0	0	140	127	7	7	0	0
Vermont	359	265	35.6%	165	158	194	107	0	0	0	0
Middle Atlantic	7,346	6,909	6.3%	0	0	7,340	6,905	NM	4	3	1
New Jersey	21	21	1.8%	0	0	21	21	0	0	0	0
New York	4,014	3,800	5.6%	0	0	4,008	3,795	NM	4	3	1
Pennsylvania	3,311	3,089	7.2%	0	0	3,311	3,089	0	0	0	0
East North Central	24,770	22,112	12.0%	2,669	2,301	22,016	19,747	12	9	72	55
Illinois	11,537	10,817	6.6%	13	12	11,520	10,801	NM	5	0	0
Indiana	5,031	4,252	18.3%	0	0	5,031	4,251	0	1	0	0
Michigan	4,851	4,494	7.9%	1,695	1,594	3,156	2,900	0	0	0	0
Ohio	1,575	1,408	11.8%	13	11	1,492	1,346	3	3	66	49
Wisconsin	1,777	1,141	55.8%	948	684	818	450	NM	0	6	7
West North Central	66,775	64,559	3.4%	21,360	21,639	45,374	42,879	41	41	0	0
Iowa	19,479	19,172	1.6%	12,677	12,734	6,799	6,435	3	4	0	0
Kansas	17,512	16,844	4.0%	1,687	1,487	15,811	15,343	14	14	0	0
Minnesota	10,319	9,779	5.5%	2,268	2,350	8,028	7,406	24	23	0	0
Missouri	2,676	1,655	61.7%	0	0	2,676	1,655	0	0	0	0
Nebraska	4,591	4,463	2.9%	164	146	4,427	4,317	0	0	0	0
North Dakota	9,706	10,008	-3.0%	3,819	4,112	5,887	5,896	0	0	0	0
South Dakota	2,492	2,639	-5.6%	746	810	1,746	1,829	0	0	0	0
South Atlantic	2,617	2,396	9.2%	0	0	2,612	2,392	5	5	0	0
Delaware	5	5	4.4%	0	0	0	0	5	5	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	0	0	--	0	0	0	0	0	0	0	0
Georgia	0	0	--	0	0	0	0	0	0	0	0
Maryland	500	497	0.6%	0	0	500	497	0	0	0	0
North Carolina	493	423	16.6%	0	0	493	423	0	0	0	0
South Carolina	0	0	--	0	0	0	0	0	0	0	0
Virginia	0	0	--	0	0	0	0	0	0	0	0
West Virginia	1,619	1,471	10.1%	0	0	1,619	1,471	0	0	0	0
East South Central	48	39	23.6%	0	0	48	39	0	0	0	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	48	39	23.6%	0	0	48	39	0	0	0	0
West South Central	94,240	82,869	13.7%	1,383	1,441	92,795	81,379	51	38	11	10
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	25,069	21,435	17.0%	1,192	1,256	23,877	20,179	0	0	0	0
Texas	69,170	61,434	12.6%	191	185	68,918	61,201	51	38	11	10
Mountain	24,208	22,158	9.3%	2,254	2,275	21,946	19,877	NM	4	3	3
Arizona	543	511	6.3%	0	0	543	511	0	0	0	0
Colorado	8,790	8,345	5.3%	278	264	8,507	8,077	NM	1	3	3
Idaho	2,343	2,280	2.8%	154	153	2,190	2,127	0	0	0	0
Montana	1,959	1,931	1.5%	193	201	1,766	1,729	0	0	0	0
Nevada	339	324	4.8%	0	0	339	324	0	0	0	0
New Mexico	5,622	4,103	37.0%	0	0	5,619	4,101	NM	2	0	0
Utah	796	793	0.4%	0	0	796	793	0	0	0	0
Wyoming	3,814	3,871	-1.5%	1,629	1,656	2,185	2,215	0	0	0	0
Pacific Contiguous	26,132	25,022	4.4%	5,592	5,310	20,530	19,702	5	5	5	5
California	12,663	12,465	1.6%	787	771	11,866	11,684	5	5	5	5
Oregon	6,690	5,954	12.4%	1,173	1,006	5,517	4,948	0	0	0	0
Washington	6,778	6,604	2.6%	3,632	3,533	3,146	3,070	0	0	0	0
Pacific Noncontiguous	635	610	4.2%	89	83	547	527	0	0	0	0
Alaska	135	128	5.7%	89	83	47	46	0	0	0	0
Hawaii	500	481	3.8%	0	0	500	481	0	0	0	0
U.S. Total	250,102	229,727	8.9%	33,567	33,263	216,286	196,259	153	130	96	75

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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 1.15.A. Utility Scale Facility Net Generation from Biomass by State, by Sector, November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	545	555	-1.9%	37	39	407	424	12	15	88	77
Connecticut	53	80	-33.4%	0	0	53	80	0	0	0	0
Maine	220	213	3.3%	0	0	126	127	6	8	88	77
Massachusetts	100	94	6.4%	0	0	97	92	2	2	0	0
New Hampshire	124	125	-0.5%	22	29	98	92	4	4	0	0
Rhode Island	18	18	3.6%	0	0	18	18	0	0	0	0
Vermont	30	26	12.5%	16	11	NM	16	0	0	0	0
Middle Atlantic	459	470	-2.4%	0	0	365	365	41	46	53	60
New Jersey	70	79	-10.8%	0	0	62	64	8	15	0	0
New York	192	192	-0.1%	0	0	157	157	19	19	16	15
Pennsylvania	197	200	-1.3%	0	0	146	144	14	12	37	44
East North Central	458	484	-5.4%	61	70	254	259	16	16	127	139
Illinois	37	36	3.4%	3	2	34	34	0	0	0	0
Indiana	39	41	-5.5%	27	28	4	4	2	2	6	7
Michigan	204	210	-3.2%	0	0	138	143	10	10	55	58
Ohio	55	58	-5.2%	NM	0	37	38	1	1	16	20
Wisconsin	123	138	-10.9%	30	40	41	40	3	4	50	54
West North Central	173	199	-13.4%	46	41	61	94	7	10	59	54
Iowa	19	16	17.0%	NM	2	10	10	3	2	4	3
Kansas	NM	4	NM	0	0	NM	5	0	0	0	0
Minnesota	131	159	-17.7%	33	30	42	77	2	2	55	51
Missouri	9	12	-19.7%	NM	3	NM	3	1	5	0	0
Nebraska	8	8	0.2%	7	7	0	0	1	1	0	0
North Dakota	NM	0	NM	0	0	0	0	0	0	NM	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	1,606	1,646	-2.4%	180	179	519	555	23	32	885	880
Delaware	NM	5	NM	0	0	NM	4	0	0	1	1
District of Columbia	4	4	5.8%	0	0	0	0	4	4	0	0
Florida	422	423	-0.2%	63	57	189	210	4	4	166	152
Georgia	394	441	-10.8%	0	0	64	104	0	0	330	338
Maryland	38	46	-17.1%	0	0	28	35	2	1	8	10
North Carolina	206	239	-14.2%	0	0	99	115	1	8	105	117
South Carolina	196	184	6.8%	22	27	32	27	0	0	142	131
Virginia	342	303	12.6%	95	95	103	61	12	15	132	132
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	524	518	1.2%	NM	5	29	29	0	0	487	484
Alabama	286	314	-8.7%	0	0	20	21	0	0	266	293
Kentucky	39	36	9.4%	NM	5	NM	1	0	0	30	30
Mississippi	120	105	14.6%	0	0	NM	1	0	0	119	104
Tennessee	78	63	23.5%	0	0	NM	7	0	0	71	57
West South Central	472	515	-8.4%	0	0	57	62	3	4	411	449
Arkansas	112	124	-9.9%	0	0	8	5	1	1	103	119
Louisiana	215	229	-6.2%	0	0	NM	7	0	0	208	222
Oklahoma	30	29	2.3%	0	0	NM	2	0	0	28	27
Texas	115	133	-13.3%	0	0	40	49	3	3	73	81
Mountain	91	61	49.9%	NM	1	54	40	2	2	34	18
Arizona	NM	3	NM	0	0	NM	3	0	0	0	0
Colorado	14	14	2.7%	0	0	14	14	0	0	0	0
Idaho	47	30	56.7%	NM	1	12	12	1	1	32	16
Montana	2	2	-2.2%	0	0	0	0	0	0	2	2
Nevada	NM	5	NM	0	0	NM	5	0	0	0	0
New Mexico	2	1	23.1%	0	0	2	1	0	0	0	0
Utah	NM	6	NM	0	0	NM	5	1	1	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	688	752	-8.6%	35	67	379	421	64	71	210	192
California	472	496	-4.9%	8	13	341	374	60	68	62	41
Oregon	77	89	-14.1%	NM	5	29	38	3	3	41	44
Washington	139	167	-16.6%	22	49	9	10	1	1	108	108
Pacific Noncontiguous	29	25	16.8%	5	2	NM	4	19	19	NM	0
Alaska	3	4	-24.3%	0	0	0	0	3	4	NM	0
Hawaii	26	21	25.0%	5	2	NM	4	16	15	0	0
U.S. Total	5,044	5,225	-3.5%	375	405	2,129	2,253	187	214	2,354	2,353

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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 1.15.B. Utility Scale Facility Net Generation from Biomass

by State, by Sector, Year-to-Date through November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	6,263	6,272	-0.1%	449	508	4,696	4,676	133	156	984	932
Connecticut	658	719	-8.5%	0	0	658	719	0	0	0	0
Maine	2,511	2,437	3.0%	0	0	1,465	1,419	62	86	984	932
Massachusetts	1,091	1,062	2.8%	0	0	1,063	1,036	28	26	0	0
New Hampshire	1,424	1,464	-2.8%	225	267	1,159	1,156	40	42	0	0
Rhode Island	193	184	4.7%	0	0	193	184	0	0	0	0
Vermont	386	405	-4.7%	224	241	160	162	2	2	0	0
Middle Atlantic	5,118	5,154	-0.7%	0	0	3,983	3,958	479	492	656	704
New Jersey	876	843	3.9%	0	0	733	691	143	152	0	0
New York	2,098	2,089	0.4%	0	0	1,723	1,717	207	205	168	167
Pennsylvania	2,145	2,222	-3.5%	0	0	1,527	1,550	130	135	487	537
East North Central	5,168	5,125	0.8%	712	638	2,860	2,902	187	201	1,409	1,384
Illinois	415	437	-5.1%	36	20	379	417	0	0	0	0
Indiana	432	431	0.0%	294	295	45	45	20	18	72	73
Michigan	2,303	2,279	1.1%	0	0	1,574	1,566	116	125	614	588
Ohio	628	664	-5.5%	14	3	411	437	6	7	197	217
Wisconsin	1,391	1,314	5.9%	368	320	451	438	45	50	526	506
West North Central	2,107	2,242	-6.0%	521	488	811	1,004	120	116	656	633
Iowa	198	194	2.2%	24	19	110	110	33	26	31	39
Kansas	54	53	1.5%	0	0	54	56	0	0	0	-3
Minnesota	1,626	1,769	-8.1%	378	359	603	795	27	22	618	593
Missouri	141	134	4.7%	48	36	44	44	46	52	3	3
Nebraska	85	89	-4.9%	71	73	0	0	14	16	0	0
North Dakota	3	2	85.6%	0	0	0	0	0	0	3	2
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	18,497	17,929	3.2%	2,128	1,805	6,199	6,181	274	360	9,896	9,583
Delaware	58	57	0.3%	0	0	46	45	0	0	11	12
District of Columbia	51	42	23.0%	0	0	0	0	51	42	0	0
Florida	4,688	4,545	3.1%	612	379	2,208	2,342	40	40	1,828	1,783
Georgia	4,562	4,569	-0.2%	0	0	821	929	0	0	3,741	3,640
Maryland	493	486	1.4%	0	0	387	372	19	7	87	107
North Carolina	2,451	2,571	-4.7%	0	0	1,250	1,295	10	84	1,191	1,193
South Carolina	2,379	2,197	8.3%	395	374	369	372	0	0	1,615	1,450
Virginia	3,816	3,462	10.2%	1,122	1,052	1,119	826	153	187	1,422	1,398
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	5,820	5,789	0.5%	95	97	320	315	0	0	5,406	5,377
Alabama	3,142	3,119	0.7%	0	0	225	216	0	0	2,918	2,903
Kentucky	445	458	-2.8%	95	97	11	11	0	0	339	350
Mississippi	1,337	1,346	-0.7%	0	0	11	11	0	0	1,326	1,335
Tennessee	897	866	3.5%	0	0	74	78	0	0	823	788
West South Central	5,563	5,544	0.3%	0	0	786	739	35	36	4,742	4,769
Arkansas	1,319	1,308	0.8%	0	0	87	87	5	6	1,226	1,215
Louisiana	2,500	2,528	-1.1%	0	0	80	81	0	0	2,420	2,448
Oklahoma	299	268	11.5%	0	0	19	17	0	0	280	251
Texas	1,446	1,440	0.4%	0	0	600	554	30	30	816	856
Mountain	963	902	6.8%	12	11	596	576	23	20	332	295
Arizona	168	168	-0.2%	0	0	168	168	0	0	0	0
Colorado	152	152	0.1%	0	0	152	152	0	0	0	0
Idaho	468	422	10.9%	12	11	133	124	10	11	313	276
Montana	19	19	0.3%	0	0	0	0	0	0	19	19
Nevada	63	53	19.3%	0	0	63	53	0	0	0	0
New Mexico	18	16	16.3%	0	0	18	16	0	0	0	0
Utah	74	72	3.4%	0	0	61	62	13	9	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	7,862	7,882	-0.2%	485	604	4,320	4,280	702	767	2,356	2,232
California	5,276	5,277	0.0%	86	124	3,859	3,841	664	730	667	582
Oregon	935	894	4.5%	56	57	348	328	29	28	502	481
Washington	1,651	1,711	-3.5%	343	423	113	110	9	9	1,187	1,169
Pacific Noncontiguous	321	309	4.0%	49	49	49	45	222	213	1	1
Alaska	41	39	3.0%	0	0	0	0	39	38	1	1
Hawaii	280	269	4.1%	49	49	49	45	183	175	0	0
U.S. Total	57,682	57,146	0.9%	4,451	4,200	24,619	24,675	2,175	2,361	26,437	25,910

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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 1.16.A. Utility Scale Facility Net Generation from Geothermal by State, by Sector, November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	0	0	--	0	0	0	0	0	0	0	0
Connecticut	0	0	--	0	0	0	0	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	0	0	--	0	0	0	0	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	0	0	--	0	0	0	0	0	0	0	0
New Jersey	0	0	--	0	0	0	0	0	0	0	0
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	0	0	--	0	0	0	0	0	0	0	0
East North Central	0	0	--	0	0	0	0	0	0	0	0
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	0	0	--	0	0	0	0	0	0	0	0
Ohio	0	0	--	0	0	0	0	0	0	0	0
Wisconsin	0	0	--	0	0	0	0	0	0	0	0
West North Central	0	0	--	0	0	0	0	0	0	0	0
Iowa	0	0	--	0	0	0	0	0	0	0	0
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	0	0	--	0	0	0	0	0	0	0	0
Missouri	0	0	--	0	0	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	0	0	--	0	0	0	0	0	0	0	0
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	0	0	--	0	0	0	0	0	0	0	0
Georgia	0	0	--	0	0	0	0	0	0	0	0
Maryland	0	0	--	0	0	0	0	0	0	0	0
North Carolina	0	0	--	0	0	0	0	0	0	0	0
South Carolina	0	0	--	0	0	0	0	0	0	0	0
Virginia	0	0	--	0	0	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	0	0	--	0	0	0	0	0	0	0	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	0	0	--	0	0	0	0	0	0	0	0
West South Central	0	0	--	0	0	0	0	0	0	0	0
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	0	0	--	0	0	0	0	0	0	0	0
Mountain	358	301	19.1%	23	19	335	281	0	0	0	0
Arizona	0	0	--	0	0	0	0	0	0	0	0
Colorado	0	0	--	0	0	0	0	0	0	0	0
Idaho	7	7	3.4%	0	0	7	7	0	0	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	310	256	20.9%	0	0	310	256	0	0	0	0
New Mexico	1	1	55.2%	0	0	1	1	0	0	0	0
Utah	40	37	8.5%	23	19	17	18	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	1,024	962	6.4%	65	68	959	894	0	0	0	0
California	1,007	948	6.3%	65	68	942	880	0	0	0	0
Oregon	16	14	15.2%	0	0	16	14	0	0	0	0
Washington	0	0	--	0	0	0	0	0	0	0	0
Pacific Noncontiguous	28	26	5.5%	0	0	28	26	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	28	26	5.5%	0	0	28	26	0	0	0	0
U.S. Total	1,410	1,289	9.3%	88	87	1,322	1,202	0	0	0	0

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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 1.16.B. Utility Scale Facility Net Generation from Geothermal

by State, by Sector, Year-to-Date through November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	0	0	--	0	0	0	0	0	0	0	0
Connecticut	0	0	--	0	0	0	0	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	0	0	--	0	0	0	0	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	0	0	--	0	0	0	0	0	0	0	0
New Jersey	0	0	--	0	0	0	0	0	0	0	0
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	0	0	--	0	0	0	0	0	0	0	0
East North Central	0	0	--	0	0	0	0	0	0	0	0
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	0	0	--	0	0	0	0	0	0	0	0
Ohio	0	0	--	0	0	0	0	0	0	0	0
Wisconsin	0	0	--	0	0	0	0	0	0	0	0
West North Central	0	0	--	0	0	0	0	0	0	0	0
Iowa	0	0	--	0	0	0	0	0	0	0	0
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	0	0	--	0	0	0	0	0	0	0	0
Missouri	0	0	--	0	0	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	0	0	--	0	0	0	0	0	0	0	0
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	0	0	--	0	0	0	0	0	0	0	0
Georgia	0	0	--	0	0	0	0	0	0	0	0
Maryland	0	0	--	0	0	0	0	0	0	0	0
North Carolina	0	0	--	0	0	0	0	0	0	0	0
South Carolina	0	0	--	0	0	0	0	0	0	0	0
Virginia	0	0	--	0	0	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	0	0	--	0	0	0	0	0	0	0	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	0	0	--	0	0	0	0	0	0	0	0
West South Central	0	0	--	0	0	0	0	0	0	0	0
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	0	0	--	0	0	0	0	0	0	0	0
Mountain	3,794	3,330	13.9%	245	214	3,550	3,116	0	0	0	0
Arizona	0	0	--	0	0	0	0	0	0	0	0
Colorado	0	0	--	0	0	0	0	0	0	0	0
Idaho	72	73	-0.5%	0	0	72	73	0	0	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	3,281	2,833	15.8%	0	0	3,281	2,833	0	0	0	0
New Mexico	12	11	3.1%	0	0	12	11	0	0	0	0
Utah	429	413	3.8%	245	214	185	199	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	11,149	10,732	3.9%	716	718	10,434	10,013	0	0	0	0
California	10,977	10,572	3.8%	716	717	10,261	9,855	0	0	0	0
Oregon	172	160	8.0%	0	2	172	158	0	0	0	0
Washington	0	0	--	0	0	0	0	0	0	0	0
Pacific Noncontiguous	295	294	0.4%	0	0	295	294	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	295	294	0.4%	0	0	295	294	0	0	0	0
U.S. Total	15,238	14,356	6.1%	960	932	14,278	13,424	0	0	0	0

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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 1.17.A. Net Generation from Solar Photovoltaic
by State, by Sector, November 2018 and 2017 (Thousand Megawatthours)

	All Sectors							Electric Power Sector				Commercial Sector						Industrial Sector						Residential Sector	
								Electric Utilities		Independent Power Producers															
	Estimated Generation From Utility and Small Scale Facilities			Generation at Utility Scale Facilities		Estimated Small Scale Generation		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Estimated Generation From Utility and Small Scale Facilities		Generation at Utility Scale Facilities		Estimated Small Scale Generation		Estimated Generation From Utility and Small Scale Facilities		Generation at Utility Scale Facilities		Estimated Small Scale Generation		Estimated Small Scale Generation	
Census Division and State	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	239	161	48.2%	88	35	150	126	5	2	83	32	NM	69	NM	0	86	68	NM	6	NM	0	6	6	58	52
Connecticut	34	26	32.4%	7	3	27	23	0	0	7	2	NM	9	NM	0	11	9	NM	1	NM	0	1	1	15	13
Maine	NM	3	NM	NM	0	3	2	0	0	NM	0	1	1	0	0	1	1	0	0	0	0	0	0	2	2
Massachusetts	172	114	51.7%	70	26	102	87	NM	0	68	26	NM	54	NM	0	66	54	4	4	0	0	4	4	32	30
New Hampshire	6	5	17.1%	0	0	6	5	0	0	0	0	2	1	0	0	2	1	0	0	0	0	0	0	3	3
Rhode Island	NM	4	NM	NM	1	7	4	0	0	NM	1	5	2	0	0	5	2	0	0	0	0	0	0	3	2
Vermont	14	10	38.0%	8	5	6	5	3	2	5	3	2	2	0	0	2	2	NM	NM	0	0	NM	NM	4	3
Middle Atlantic	315	255	23.3%	103	71	212	184	5	5	88	57	106	91	9	9	97	82	NM	12	NM	1	12	11	103	91
New Jersey	183	154	18.9%	71	54	112	100	5	5	57	41	66	59	9	8	57	51	NM	7	NM	0	8	7	47	42
New York	104	77	35.8%	27	13	77	64	0	0	27	12	NM	24	NM	0	32	24	1	1	0	0	1	1	45	40
Pennsylvania	28	25	11.5%	5	4	23	21	0	0	4	4	NM	8	NM	0	8	8	NM	4	NM	1	3	3	11	10
East North Central	72	48	48.4%	44	29	28	19	14	9	30	19	NM	12	NM	0	17	12	1	1	0	0	1	1	10	7
Illinois	9	7	27.6%	3	3	6	4	NM	0	2	3	NM	3	NM	0	4	3	NM	NM	0	0	NM	NM	2	1
Indiana	27	17	59.1%	21	14	6	2	8	4	12	10	4	1	0	0	4	1	0	0	0	0	0	0	2	1
Michigan	13	7	81.2%	9	4	4	3	5	4	5	0	2	2	0	0	2	2	0	NM	0	0	0	NM	2	1
Ohio	17	13	27.2%	9	6	8	7	NM	0	8	5	NM	5	NM	0	6	5	0	0	0	0	0	0	2	2
Wisconsin	NM	5	NM	NM	1	4	3	0	0	NM	1	NM	1	NM	0	2	1	1	1	0	0	1	1	2	1
West North Central	114	58	95.8%	84	34	30	23	NM	1	82	34	15	12	0	0	15	12	1	1	0	0	1	1	14	11
Iowa	NM	6	NM	NM	0	8	6	NM	0	NM	0	5	4	0	0	5	4	0	0	0	0	0	0	3	2
Kansas	NM	2	NM	NM	0	2	1	NM	0	NM	0	1	0	0	0	1	0	0	0	0	0	0	0	1	1
Minnesota	78	32	144.0%	73	28	5	3	NM	0	73	28	2	1	0	0	2	1	1	0	0	0	1	0	3	2
Missouri	22	17	27.2%	7	4	14	13	0	0	7	4	7	7	0	0	7	6	0	0	0	0	0	0	7	6
Nebraska	NM	1	NM	NM	1	1	0	0	0	NM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
North Dakota	0	0	45.1%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
South Dakota	NM	0	NM	NM	0	0	0	0	0	NM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
South Atlantic	975	949	2.8%	821	824	154	124	209	168	604	645	54	49	8	11	46	38	NM	19	NM	0	21	19	88	68
Delaware	10	11	-4.4%	4	5	7	6	NM	1	3	4	NM	2	NM	0	2	2	1	0	0	0	1	0	4	4
District of Columbia	5	4	35.3%	0	0	5	4	0	0	0	0	3	2	0	0	3	2	0	0	0	0	0	0	2	1
Florida	210	130	62.1%	175	106	35	24	151	76	24	29	NM	7	NM	0	8	7	NM	1	NM	0	1	1	26	16
Georgia	138	148	-6.7%	120	131	19	NM	19	17	101	114	NM	NM	NM	0	NM	NM	NM	NM	0	0	NM	NM	NM	NM
Maryland	77	61	27.4%	29	16	48	44	NM	1	28	15	NM	13	NM	0	15	12	2	2	0	0	2	2	31	30
North Carolina	423	453	-6.7%	407	440	15	13	25	34	375	396	15	17	7	10	8	7	0	0	0	0	0	0	7	5
South Carolina	52	21	142.6%	33	10	18	11	0	0	33	10	5	3	0	0	5	3	2	1	0	0	2	1	11	7
Virginia	60	121	-50.7%	53	116	7	5	13	39	40	77	2	2	0	0	2	2	0	0	0	0	0	0	4	3
West Virginia	1	0	19.4%	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
East South Central	58	65	-11.0%	48	57	10	8	5	5	43	51	NM	6	NM	1	6	6	NM	0	NM	0	NM	0	3	3
Alabama	NM	26	NM	20	26	NM	NM	NM	4	17	22	1	0	0	0	1	0	0	0	0	0	0	0	NM	NM
Kentucky	5	3	48.3%	3	2	2	2	3	2	NM	0	1	1	0	0	1	1	0	0	0	0	0	0	1	1
Mississippi	18	16	15.1%	17	15	1	1	0	0	17	15	0	0	0	0	0	0	NM	NM	0	0	NM	NM	0	0
Tennessee	14	20	-27.3%	8	14	6	6	0	0	8	13	NM	5	NM	1	4	4	NM	NM	NM	0	NM	NM	2	2
West South Central	318	216	47.5%	246	166	72	50	4	3	241	163	15	10	0	0	15	10	0	0	0	0	0	0	57	40
Arkansas	13	2	446.0%	12	2	2	1	NM	0	12	2	1	0	0	0	1	0	0	0	0	0	0	0	1	NM
Louisiana	NM	14	NM	NM	NM	17	14	NM	NM	0	0	1	1	0	0	1	1	0	0	0	0	0	0	16	13
Oklahoma	5	2	94.4%	4	2	1	0	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Texas	283	197	44.1%	230	162	53	35	NM	0	230	161	14	9	0	0	13	9	0	0	0	0	0	0	40	26
Mountain	1,139	1,025	11.2%	845	789	294	236	67	55	772	727	93	83	6	6	87	77	5	4	0	0	5	4	202	155
Arizona	450	370	21.6%	282	238	168	132	49	37	232	199	NM	46	NM	1	53	45	1	1	0	0	1	1	114	86
Colorado	101	92	9.4%	62	56	39	36	NM	0	61	55	NM	15	NM	1	15	14	0	NM	0	0	0	NM	24	21
Idaho	32	21	54.2%	29	19	2	1	0	0	29	19	0	0	0	0	0	0	0	0	0	0	0	0	2	1
Montana	NM	2	NM	NM	1	1	1	0	0	NM	1	0	NM	0	0	0	NM	0	0	0	0	0	0	1	1
Nevada	303	297	2.0%	268	270	36	27	2	2	261	263	11	11	4	4	7	7	3	2	0	0	2	2	26	18
New Mexico	96	90	6.5%	76	74	20	16	15	16	61	58	7	6	0	0	7	6	0	0	0	0	0	0	13	10
Utah	154	152	1.0%	126	131	28	22	0	0	126	131	5	5	0	0	5	5	1	1	0	0	1	1	22	17
Wyoming	0	0	36.3%	0	0	0	NM	0	0	0	0	0	NM	0	0	0	NM	0	0	0	0	0	0	0	0
Pacific Contiguous	2,375	1,980	19.9%	1,484	1,259	891	721	30	27	1,442	1,224	236	178	9	7	226	172	133	116	4	1	129	115	535	435
California	2,323	1,955	18.8%	1,446	1,245	877	710	29	26	1,404	1,210	231	175	9	7	222	168	132	116	4	1	129	114	526	428
Oregon	44	21	108.7%	35	14	8	7	NM	0	35	14	4	3	0	0	4	3	1	1	0	0	1	1	4	3
Washington	NM	4	NM	NM	0	6	4	0	0	NM	0	1	1	0	0	1	1	0	0	0	0	0	0	5	4
Pacific Noncontiguous	87	83	5.5%	14	14	73	68	3	3	11	11	29	26	0	0	29	26	0	0	0	0	0	0	44	42
Alaska	0	0	83.3%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hawaii	87	83	5.5%	14	14	73	68	3	3	11	11	29	26	0	0	29	26	0	0	0	0	0	0	44	42
U.S. Total	5,690	4,839	17.6%	3,777	3,278	1,914	1,561	343	278	3,393	2,964	659	536	34	34	625	502	181	158	6	3	175	156	1,114	904

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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.
Sources: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report;
Estimated small scale solar photovoltaic generation and small scale solar photovoltaic capacity are based on data from Form EIA-861M, Form EIA-861 and from estimation methods described in the technical notes.

Table 1.17.B. Net Generation from Solar Photovoltaic
by State, by Sector, Year-to-Date through November 2018 and 2017 (Thousand Megawatthours)

	All Sectors							Electric Power Sector				Commercial Sector						Industrial Sector						Residential Sector	
								Electric Utilities		Independent Power Producers															
	Estimated Generation From Utility and Small Scale Facilities			Generation at Utility Scale Facilities		Estimated Small Scale Generation		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Estimated Generation From Utility and Small Scale Facilities		Generation at Utility Scale Facilities		Estimated Small Scale Generation		Estimated Generation From Utility and Small Scale Facilities		Generation at Utility Scale Facilities		Estimated Small Scale Generation		Estimated Small Scale Generation	
Census Division and State	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	4,154	3,004	38.3%	1,495	910	2,659	2,095	69	56	1,416	846	1,475	1,097	7	6	1,468	1,091	109	93	2	1	107	92	1,084	912
Connecticut	575	424	35.6%	111	38	464	386	3	3	106	34	181	147	NM	1	180	147	24	20	NM	0	23	20	261	219
Maine	64	44	46.4%	12	5	52	38	0	0	12	5	18	13	0	0	18	13	0	0	0	0	0	0	34	25
Massachusetts	3,031	2,189	38.4%	1,202	758	1,829	1,432	21	14	1,173	737	1,154	850	6	6	1,148	844	76	66	2	1	74	65	606	523
New Hampshire	102	82	23.6%	0	0	102	82	0	0	0	0	30	24	0	0	30	24	7	5	0	0	7	5	65	53
Rhode Island	124	64	93.2%	35	14	89	51	0	0	35	14	48	25	0	0	48	25	0	0	0	0	0	0	41	26
Vermont	258	201	28.6%	135	95	123	106	45	39	90	56	45	38	0	0	45	38	2	2	0	0	2	2	77	66
Middle Atlantic	5,330	4,159	28.2%	1,704	1,133	3,626	3,026	93	77	1,412	897	1,816	1,507	179	144	1,638	1,363	210	179	20	16	190	164	1,798	1,499
New Jersey	3,053	2,460	24.1%	1,233	893	1,820	1,567	93	77	966	674	1,083	956	164	134	919	822	128	105	10	8	118	97	783	648
New York	1,793	1,295	38.5%	380	174	1,413	1,121	0	0	375	169	583	415	5	4	578	410	16	13	0	0	16	13	819	698
Pennsylvania	483	404	19.5%	90	67	393	338	0	0	71	54	151	136	9	6	141	131	65	61	10	7	55	53	196	154
East North Central	1,234	825	49.6%	762	500	472	325	257	152	494	344	300	197	9	3	291	194	26	21	2	2	24	19	157	112
Illinois	147	104	41.0%	57	49	90	55	2	2	51	47	62	35	NM	0	58	35	1	0	0	0	1	0	32	19
Indiana	454	301	51.0%	364	269	91	32	141	81	223	188	60	16	0	0	60	16	3	1	0	0	3	1	28	15
Michigan	230	123	86.4%	154	61	76	62	103	61	51	0	39	32	0	0	39	32	1	1	0	0	1	1	36	29
Ohio	287	224	28.3%	143	101	144	123	11	8	127	88	110	94	4	3	106	92	8	8	2	2	6	6	32	25
Wisconsin	116	73	58.9%	45	20	71	53	0	0	43	20	30	19	NM	0	28	19	13	11	0	0	13	11	30	23
West North Central	1,855	1,005	84.6%	1,402	650	453	354	23	11	1,377	638	224	184	1	2	223	183	17	9	0	0	17	9	213	163
Iowa	135	89	51.7%	16	5	119	84	13	5	NM	0	75	52	0	0	75	52	4	3	0	0	4	3	40	29
Kansas	34	20	65.4%	8	5	25	16	NM	2	6	3	10	5	0	0	10	5	0	0	0	0	0	0	16	10
Minnesota	1,320	628	110.1%	1,241	572	79	56	3	2	1,238	570	28	23	0	0	28	23	9	4	0	0	9	4	41	28
Missouri	323	245	31.7%	104	52	219	193	4	3	98	48	107	102	1	2	105	100	4	1	0	0	4	1	110	91
Nebraska	40	19	109.2%	30	14	10	5	0	0	30	14	4	2	0	0	4	2	1	0	0	0	1	0	6	3
North Dakota	0	0	10.3%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
South Dakota	3	3	7.7%	NM	2	1	1	0	0	NM	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0
South Atlantic	15,005	9,567	56.8%	12,858	7,886	2,147	1,681	2,789	1,303	9,922	6,459	768	642	143	122	625	519	288	234	NM	1	284	232	1,238	929
Delaware	164	132	24.2%	61	45	103	87	7	6	52	38	32	28	NM	1	30	26	8	5	0	0	8	5	65	56
District of Columbia	67	48	37.2%	0	0	67	48	0	0	0	0	40	27	0	0	40	27	0	0	0	0	0	0	26	21
Florida	2,642	983	168.7%	2,248	713	393	270	1,839	604	399	105	106	89	6	3	100	87	14	10	NM	1	10	9	283	175
Georgia	2,322	2,110	10.0%	2,070	1,899	252	210	298	241	1,769	1,656	36	31	3	3	32	28	203	168	0	0	203	168	16	15
Maryland	1,229	951	29.3%	419	255	810	696	10	8	401	240	232	199	9	6	223	192	35	31	0	0	35	31	552	473
North Carolina	6,839	4,908	39.3%	6,642	4,734	196	173	436	380	6,084	4,245	230	214	122	109	108	105	6	7	0	0	6	7	82	62
South Carolina	802	188	326.9%	569	61	232	127	0	0	569	61	59	30	0	0	59	30	20	12	0	0	20	12	152	85
Virginia	933	239	289.7%	848	178	85	61	198	64	650	114	30	23	0	0	30	23	1	1	0	0	1	1	53	38
West Virginia	9	7	21.0%	0	0	9	7	0	0	0	0	2	2	0	0	2	2	0	0	0	0	0	0	7	5
East South Central	1,025	424	142.0%	889	301	137	122	87	36	789	262	98	89	5	4	93	85	8	1	6	0	1	1	43	36
Alabama	379	147	158.0%	369	139	10	8	39	19	330	120	7	5	0	0	7	5	1	0	0	0	1	0	3	2
Kentucky	81	41	96.5%	51	18	30	23	49	17	NM	1	17	14	0	0	17	14	0	0	0	0	0	0	12	9
Mississippi	324	80	304.3%	313	71	11	9	0	0	313	71	7	6	0	0	7	6	0	0	0	0	0	0	4	3
Tennessee	241	155	55.3%	156	73	85	82	0	0	144	70	67	63	5	4	62	60	6	1	6	0	0	1	24	22
West South Central	4,319	2,724	58.5%	3,412	2,079	906	645	74	39	3,337	2,038	200	136	2	2	198	135	2	0	0	0	2	0	706	510
Arkansas	215	38	461.9%	195	29	20	9	NM	2	193	27	7	3	0	0	7	3	1	0	0	0	1	0	12	6
Louisiana	215	190	13.3%	NM	2	212	187	NM	2	0	0	13	8	0	0	13	8	0	0	0	0	0	0	199	180
Oklahoma	73	36	102.1%	63	31	10	5	63	31	0	0	3	1	0	0	3	1	0	0	0	0	0	0	6	4
Texas	3,815	2,460	55.1%	3,152	2,017	663	443	6	4	3,144	2,011	176	124	2	2	174	122	1	0	0	0	1	0	489	321
Mountain	17,166	15,440	11.2%	13,385	12,298	3,781	3,142	1,083	870	12,190	11,329	1,224	1,120	109	96	1,115	1,024	64	51	2	2	61	49	2,605	2,070
Arizona	6,432	5,758	11.7%	4,330	3,994	2,102	1,764	792	592	3,516	3,379	663	614	22	22	641	592	19	15	0	0	19	15	1,442	1,157
Colorado	1,585	1,394	13.7%	1,035	896	550	498	6	2	1,011	883	222	211	18	12	205	199	2	2	0	0	2	2	343	297
Idaho	554	462	19.9%	522	447	32	15	0	0	522	447	5	4	0	0	5	4	1	0	0	0	1	0	26	11
Montana	55	27	104.5%	36	12	19	14	0	0	36	12	5	4	0	0	5	4	0	0	0	0	0	0	13	10
Nevada	4,605	4,117	11.9%	4,145	3,730	460	387	39	38	4,034	3,628	167	156	70	62	98	94	32	25	2	2	30	23	333	270
New Mexico	1,474	1,315	12.1%	1,232	1,127	242	189	247	238	986	889	85	70	0	0	85	70	1	1	0	0	1	1	156	118
Utah	2,454	2,362	3.9%	2,084	2,092	370	270	0	0	2,084	2,092	74	59	0	0	74	59	8	7	0	0	8	7	288	204
Wyoming	6	4	34.2%	0	0	6	4	0	0	0	0	2	1	0	0	2	1	0	0	0	0	0	0	4	3
Pacific Contiguous	36,475	31,056	17.4%	23,853	20,832	12,622	10,224	525	443	23,129	20,259	3,285	2,378	148	113	3,137	2,265	1,837	1,675	51	17	1,786	1,658	7,699	6,301
California	35,566	30,593	16.3%	23,287	20,653	12,279	9,939	518	437	22,570	20,086	3,179	2,284	148	113	3,032	2,170	1,822	1,661	51	17	1,771	1,644	7,477	6,125
Oregon	761	351	116.8%	563	179	198	173	7	6	557	173	83	76	0	0	83	76	14	14	0	0	14	14	100	82
Washington	148	113	31.2%	3	0	145	112	0	0	NM	0	23	18	0	0	23	18	0	0	0	0	0	0	122	93
Pacific Noncontiguous	1,154	1,064	8.4%	197	160	958	904	35	41	162	120	378	334	0	0	378	334	2	2	0	0	2	2	578	567
Alaska	3	2	51.0%	0	0	3	2	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	2	1
Hawaii	1,151	1,062	8.4%	197	160	955	902	35	41	162	120	377	334	0	0	377	334	2	2	0	0	2	2	576	566
U.S. Total	87,716	69,269	26.6%	59,956	46,750	27,760	22,518	5,036	3,028	54,229	43,190	9,769	7,685	604	492	9,165	7,192	2,563	2,265	88	39	2,475	2,226	16,120	13,100

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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.
Sources: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report;
Estimated small scale solar photovoltaic generation and small scale solar photovoltaic capacity are based on data from Form EIA-861M, Form EIA-861 and from estimation methods described in the technical notes.

Table 1.18.A. Utility Scale Facility Net Generation from Solar Thermal by State, by Sector, November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	0	0	--	0	0	0	0	0	0	0	0
Connecticut	0	0	--	0	0	0	0	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	0	0	--	0	0	0	0	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	0	0	--	0	0	0	0	0	0	0	0
New Jersey	0	0	--	0	0	0	0	0	0	0	0
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	0	0	--	0	0	0	0	0	0	0	0
East North Central	0	0	--	0	0	0	0	0	0	0	0
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	0	0	--	0	0	0	0	0	0	0	0
Ohio	0	0	--	0	0	0	0	0	0	0	0
Wisconsin	0	0	--	0	0	0	0	0	0	0	0
West North Central	0	0	--	0	0	0	0	0	0	0	0
Iowa	0	0	--	0	0	0	0	0	0	0	0
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	0	0	--	0	0	0	0	0	0	0	0
Missouri	0	0	--	0	0	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	1	2	-52.5%	1	2	0	0	0	0	0	0
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	1	2	-52.5%	1	2	0	0	0	0	0	0
Georgia	0	0	--	0	0	0	0	0	0	0	0
Maryland	0	0	--	0	0	0	0	0	0	0	0
North Carolina	0	0	--	0	0	0	0	0	0	0	0
South Carolina	0	0	--	0	0	0	0	0	0	0	0
Virginia	0	0	--	0	0	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	0	0	--	0	0	0	0	0	0	0	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	0	0	--	0	0	0	0	0	0	0	0
West South Central	0	0	--	0	0	0	0	0	0	0	0
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	0	0	--	0	0	0	0	0	0	0	0
Mountain	54	35	54.1%	0	0	54	35	0	0	0	0
Arizona	41	31	35.0%	0	0	41	31	0	0	0	0
Colorado	0	0	--	0	0	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	13	4	186.7%	0	0	13	4	0	0	0	0
New Mexico	0	0	--	0	0	0	0	0	0	0	0
Utah	0	0	--	0	0	0	0	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	113	95	19.9%	0	0	113	95	0	0	0	0
California	113	95	19.9%	0	0	113	95	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	0	0	--	0	0	0	0	0	0	0	0
Pacific Noncontiguous	0	0	--	0	0	0	0	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	168	131	28.1%	1	2	167	130	0	0	0	0

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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 1.18.B. Utility Scale Facility Net Generation from Solar Thermal

by State, by Sector, Year-to-Date through November 2018 and 2017 (Thousand Megawatthours)

	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	Generation at Utility Scale Facilities			Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
Census Division and State	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	0	0	--	0	0	0	0	0	0	0	0
Connecticut	0	0	--	0	0	0	0	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	0	0	--	0	0	0	0	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	0	0	--	0	0	0	0	0	0	0	0
New Jersey	0	0	--	0	0	0	0	0	0	0	0
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	0	0	--	0	0	0	0	0	0	0	0
East North Central	0	0	--	0	0	0	0	0	0	0	0
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	0	0	--	0	0	0	0	0	0	0	0
Ohio	0	0	--	0	0	0	0	0	0	0	0
Wisconsin	0	0	--	0	0	0	0	0	0	0	0
West North Central	0	0	--	0	0	0	0	0	0	0	0
Iowa	0	0	--	0	0	0	0	0	0	0	0
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	0	0	--	0	0	0	0	0	0	0	0
Missouri	0	0	--	0	0	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	51	16	220.3%	51	16	0	0	0	0	0	0
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	51	16	220.3%	51	16	0	0	0	0	0	0
Georgia	0	0	--	0	0	0	0	0	0	0	0
Maryland	0	0	--	0	0	0	0	0	0	0	0
North Carolina	0	0	--	0	0	0	0	0	0	0	0
South Carolina	0	0	--	0	0	0	0	0	0	0	0
Virginia	0	0	--	0	0	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	0	0	--	0	0	0	0	0	0	0	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	0	0	--	0	0	0	0	0	0	0	0
West South Central	0	0	--	0	0	0	0	0	0	0	0
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	0	0	--	0	0	0	0	0	0	0	0
Mountain	1,057	857	23.4%	0	0	1,057	857	0	0	0	0
Arizona	761	700	8.8%	0	0	761	700	0	0	0	0
Colorado	0	0	--	0	0	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	296	157	88.8%	0	0	296	157	0	0	0	0
New Mexico	0	0	--	0	0	0	0	0	0	0	0
Utah	0	0	--	0	0	0	0	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	2,392	2,274	5.2%	0	0	2,392	2,274	0	0	0	0
California	2,392	2,274	5.2%	0	0	2,392	2,274	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	0	0	--	0	0	0	0	0	0	0	0
Pacific Noncontiguous	0	0	--	0	0	0	0	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	3,500	3,147	11.2%	51	16	3,449	3,131	0	0	0	0

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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.

Chapter 2

Consumption of Fossil Fuels

Table 2.1.A. Coal: Consumption for Electricity Generation, by Sector, 2008-November 2018 (Thousand Tons)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2012	825,734	615,467	205,295	307	4,665
2013	860,729	638,327	217,219	513	4,670
2014	853,634	624,235	224,568	202	4,629
2015	739,594	539,506	195,927	163	3,999
2016	677,371	496,192	178,047	111	3,021
2017	663,911	484,389	176,643	95	2,783
Year 2016					
January	61,983	45,395	16,319	12	258
February	50,516	37,538	12,717	13	248
March	39,864	30,983	8,616	13	252
April	39,065	28,614	10,238	7	206
May	45,032	33,712	11,064	6	249
June	63,186	46,191	16,721	7	266
July	74,132	53,946	19,894	7	285
August	73,798	53,681	19,827	8	282
Sept	62,335	44,665	17,407	8	254
October	54,537	39,319	14,974	8	237
November	48,076	35,090	12,758	10	218
December	64,847	47,058	17,512	12	266
Year 2017					
January	63,460	46,708	16,471	11	270
February	47,985	35,491	12,240	9	245
March	48,840	35,655	12,926	9	250
April	44,279	31,403	12,656	6	214
May	50,898	37,373	13,294	6	224
June	58,852	43,744	14,881	6	221
July	69,769	51,971	17,560	7	230
August	65,761	48,954	16,574	7	227
Sept	54,713	39,390	15,098	8	218
October	50,015	36,190	13,591	7	227
November	50,882	35,778	14,873	8	222
December	58,457	41,733	16,479	9	236
Year 2018					
January	64,517	47,706	16,524	12	274
February	45,655	33,933	11,471	9	243
March	44,388	32,273	11,864	8	243
April	40,554	30,358	9,980	6	210
May	47,469	35,222	12,011	6	230
June	56,030	42,467	13,338	6	219
July	63,805	48,286	15,283	7	229
August	63,710	47,867	15,612	9	222
Sept	53,945	40,309	13,416	8	212
October	48,488	35,607	12,682	7	191
November	51,599	37,882	13,493	7	217
Year to Date					
2016	612,524	449,135	160,535	99	2,755
2017	605,453	442,657	160,164	85	2,547
2018	580,160	431,911	145,674	86	2,490
Rolling 12 Months Ending in November					
2017	670,301	489,715	177,676	97	2,813
2018	638,618	473,643	162,153	95	2,726

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 for 2017 and prior years are final. Values for 2018 are preliminary. 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; synthetic coal 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 2.1.B. Coal: Consumption for Useful Thermal Output, by Sector, 2008-November 2018 (Thousand Tons)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2008	22,168	0	3,689	1,652	16,827
2009	20,507	0	3,935	1,481	15,091
2010	21,727	0	3,808	1,406	16,513
2011	21,532	0	3,628	1,321	16,584
2012	19,333	0	2,790	1,143	15,400
2013	18,350	0	2,416	843	15,090
2014	18,107	978	1,821	861	14,448
2015	16,632	1,032	1,980	635	12,985
2016	16,586	2,979	1,336	572	11,700
2017	14,667	2,802	1,158	515	10,192
Year 2016					
January	1,624	288	133	63	1,140
February	1,503	277	130	62	1,034
March	1,433	232	117	61	1,023
April	1,215	204	103	39	870
May	1,264	215	90	31	929
June	1,353	241	97	39	976
July	1,472	278	118	39	1,036
August	1,434	270	112	42	1,010
Sept	1,257	216	97	41	903
October	1,260	224	105	42	889
November	1,256	233	99	50	875
December	1,515	301	136	63	1,015
Year 2017					
January	1,470	300	117	59	995
February	1,198	213	104	48	832
March	1,292	238	106	57	892
April	1,129	221	78	36	794
May	1,137	209	75	34	819
June	1,153	211	84	34	823
July	1,202	254	96	40	812
August	1,214	256	100	36	823
Sept	1,103	207	86	38	773
October	1,223	223	94	35	871
November	1,260	263	98	44	855
December	1,285	208	119	56	903
Year 2018					
January	1,404	235	141	58	970
February	1,266	215	139	45	868
March	1,242	205	96	43	897
April	1,107	183	80	39	805
May	1,097	171	79	35	811
June	1,089	192	91	36	770
July	1,068	201	81	40	746
August	1,032	195	77	41	720
Sept	1,079	193	79	42	765
October	1,009	164	67	35	743
November	1,133	181	110	41	802
Year to Date					
2016	15,071	2,678	1,200	508	10,685
2017	13,382	2,595	1,039	459	9,289
2018	12,526	2,134	1,041	454	8,897
Rolling 12 Months Ending in November					
2017	14,897	2,896	1,175	523	10,303
2018	13,812	2,342	1,159	510	9,800

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 for 2017 and prior years are final. Values for 2018 are preliminary. 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; synthetic coal 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 2.1.C. Coal: Consumption for Electricity Generation and Useful Thermal Output, by Sector, 2008-November 2018 (Thousand Tons)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2012	845,066	615,467	208,085	1,450	20,065
2013	879,078	638,327	219,635	1,356	19,761
2014	871,741	625,212	226,389	1,063	19,076
2015	756,226	540,538	197,906	798	16,984
2016	693,958	499,172	179,383	683	14,720
2017	678,578	487,192	177,801	610	12,975
Year 2016					
January	63,607	45,683	16,452	75	1,397
February	52,019	37,815	12,846	75	1,282
March	41,297	31,215	8,733	74	1,275
April	40,280	28,818	10,341	46	1,076
May	46,297	33,928	11,154	37	1,178
June	64,539	46,432	16,818	46	1,243
July	75,604	54,224	20,012	46	1,321
August	75,232	53,951	19,938	49	1,292
Sept	63,592	44,881	17,504	50	1,157
October	55,798	39,543	15,079	50	1,126
November	49,331	35,322	12,857	60	1,093
December	66,362	47,359	17,648	75	1,280
Year 2017					
January	64,930	47,008	16,588	71	1,264
February	49,183	35,705	12,344	58	1,077
March	50,132	35,893	13,032	66	1,141
April	45,408	31,624	12,735	42	1,008
May	52,034	37,582	13,370	39	1,043
June	60,005	43,955	14,965	40	1,045
July	70,971	52,225	17,656	47	1,042
August	66,975	49,209	16,673	43	1,050
Sept	55,817	39,596	15,184	45	991
October	51,238	36,413	13,686	42	1,098
November	52,142	36,042	14,971	52	1,077
December	59,743	41,940	16,598	66	1,139
Year 2018					
January	65,921	47,941	16,665	70	1,245
February	46,922	34,148	11,609	54	1,111
March	45,630	32,478	11,961	51	1,140
April	41,661	30,541	10,059	45	1,015
May	48,566	35,393	12,091	41	1,041
June	57,119	42,659	13,430	42	988
July	64,873	48,487	15,364	47	975
August	64,742	48,061	15,688	49	943
Sept	55,025	40,502	13,496	51	977
October	49,497	35,772	12,749	42	934
November	52,732	38,063	13,603	48	1,018
Year to Date					
2016	627,596	451,813	161,735	607	13,440
2017	618,835	445,252	161,203	545	11,836
2018	592,687	434,045	146,715	540	11,387
Rolling 12 Months Ending in November					
2017	685,197	492,610	178,851	620	13,116
2018	652,430	475,985	163,313	606	12,526

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 for 2017 and prior years are final. Values for 2018 are preliminary. 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; synthetic coal 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 2.2.A. Petroleum Liquids: Consumption for Electricity Generation, by Sector, 2008-November 2018 (Thousand Barrels)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2012	22,604	17,521	4,110	272	702
2013	23,231	16,827	5,494	328	582
2014	31,531	19,652	10,689	451	739
2015	28,925	18,562	9,473	249	641
2016	22,405	16,137	5,624	108	536
2017	21,696	15,567	5,461	191	476
Year 2016					
January	2,472	1,727	685	12	48
February	2,230	1,474	698	12	46
March	1,495	1,096	355	4	40
April	1,421	1,055	320	8	38
May	1,662	1,212	386	8	56
June	1,693	1,275	364	7	48
July	2,287	1,711	514	11	52
August	2,231	1,644	537	10	39
Sept	1,620	1,128	441	7	44
October	1,629	1,156	423	7	43
November	1,672	1,249	372	11	40
December	1,995	1,410	530	12	43
Year 2017					
January	1,937	1,436	433	20	48
February	1,542	1,143	345	13	41
March	1,658	1,342	262	15	40
April	1,479	1,153	281	9	36
May	1,713	1,290	373	15	35
June	1,763	1,313	403	13	34
July	1,592	1,173	369	16	34
August	1,710	1,267	390	19	34
Sept	1,623	1,199	372	14	38
October	1,674	1,303	319	13	39
November	1,591	1,170	362	15	45
December	3,414	1,779	1,551	31	52
Year 2018					
January	9,044	4,359	4,541	66	77
February	1,369	1,090	219	15	44
March	1,409	1,058	297	12	42
April	1,529	1,128	349	16	37
May	1,780	1,297	421	20	42
June	1,826	1,343	421	19	43
July	1,689	1,166	439	28	56
August	1,745	1,257	425	25	38
Sept	1,775	1,346	373	20	37
October	1,732	1,318	359	17	38
November	1,657	1,210	384	23	40
Year to Date					
2016	20,410	14,727	5,094	96	493
2017	18,282	13,788	3,910	160	424
2018	25,554	16,572	8,227	261	495
Rolling 12 Months Ending in November					
2017	20,276	15,199	4,440	171	467
2018	28,968	18,351	9,778	292	547

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 for 2017 and prior years are final. Values for 2018 are preliminary. 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 2.2.B. Petroleum Liquids: Consumption for Useful Thermal Output, by Sector, 2008-November 2018 (Thousand Barrels)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2008	7,533	0	1,311	461	5,762
2009	8,128	0	1,301	293	6,534
2010	4,866	0	1,086	212	3,567
2011	3,826	0	1,004	168	2,654
2012	3,097	0	992	122	1,984
2013	3,456	0	1,050	498	1,908
2014	3,099	64	1,170	216	1,650
2015	3,142	62	1,155	282	1,643
2016	2,277	68	245	245	1,719
2017	2,012	72	220	238	1,482
Year 2016					
January	231	12	24	43	153
February	316	17	39	27	233
March	178	3	28	7	140
April	174	3	16	17	138
May	198	3	18	14	163
June	181	6	13	14	149
July	185	2	12	28	142
August	153	3	15	18	117
Sept	143	3	14	9	117
October	174	3	18	9	144
November	167	4	14	35	113
December	178	9	33	26	110
Year 2017					
January	199	13	37	36	113
February	137	9	17	24	87
March	152	5	8	26	113
April	140	3	10	12	117
May	137	3	12	15	107
June	120	4	13	10	92
July	117	3	12	12	89
August	119	3	11	15	91
Sept	134	3	18	11	102
October	142	3	16	13	110
November	242	4	19	19	200
December	373	19	47	46	262
Year 2018					
January	716	49	107	108	452
February	147	5	10	26	107
March	165	4	13	22	126
April	147	4	12	19	113
May	164	3	17	17	126
June	221	5	14	16	187
July	173	3	11	30	129
August	195	4	39	25	128
Sept	170	6	12	17	135
October	169	5	16	17	131
November	182	2	16	30	133
Year to Date					
2016	2,099	59	212	219	1,609
2017	1,640	54	173	192	1,220
2018	2,451	89	267	327	1,768
Rolling 12 Months Ending in November					
2017	1,818	63	206	218	1,331
2018	2,824	108	314	372	2,030

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 for 2017 and prior years are final. Values for 2018 are preliminary. 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 2.2.C. Petroleum Liquids: Consumption for Electricity Generation and Useful Thermal Output, by Sector, 2008-November 2018 (Thousand Barrels)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2012	25,702	17,521	5,102	394	2,685
2013	26,687	16,827	6,544	826	2,490
2014	34,630	19,716	11,859	667	2,389
2015	32,067	18,624	10,629	531	2,283
2016	24,682	16,205	5,869	352	2,255
2017	23,708	15,640	5,681	429	1,958
Year 2016					
January	2,702	1,739	709	55	200
February	2,546	1,491	737	38	279
March	1,673	1,099	383	12	180
April	1,594	1,058	337	24	175
May	1,860	1,216	403	22	219
June	1,875	1,281	377	21	197
July	2,472	1,713	527	38	194
August	2,384	1,647	552	28	156
Sept	1,763	1,131	455	16	161
October	1,803	1,159	441	16	187
November	1,838	1,254	386	46	153
December	2,173	1,419	563	37	154
Year 2017					
January	2,136	1,450	470	56	161
February	1,679	1,152	362	37	128
March	1,810	1,346	271	40	152
April	1,620	1,155	291	21	153
May	1,850	1,293	385	30	142
June	1,883	1,317	416	23	126
July	1,709	1,177	381	28	123
August	1,829	1,270	400	33	125
Sept	1,756	1,202	390	24	140
October	1,816	1,306	335	26	149
November	1,833	1,174	381	34	245
December	3,787	1,797	1,598	77	314
Year 2018					
January	9,760	4,408	4,648	175	530
February	1,516	1,095	229	40	151
March	1,574	1,062	310	35	168
April	1,677	1,132	361	35	150
May	1,944	1,300	438	37	169
June	2,048	1,348	435	36	229
July	1,862	1,169	450	58	186
August	1,940	1,260	463	50	166
Sept	1,945	1,352	384	36	173
October	1,900	1,323	375	34	169
November	1,839	1,212	401	53	173
Year to Date					
2016	22,509	14,786	5,306	315	2,102
2017	19,921	13,842	4,083	352	1,644
2018	28,005	16,661	8,494	587	2,263
Rolling 12 Months Ending in November					
2017	22,094	15,261	4,646	389	1,798
2018	31,792	18,459	10,092	665	2,577

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 for 2017 and prior years are final. Values for 2018 are preliminary. 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 2.3.A. Petroleum Coke: Consumption for Electricity Generation, by Sector, 2008-November 2018 (Thousand Tons)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2012	3,675	2,105	756	1	812
2013	4,852	3,409	779	1	662
2014	4,412	3,440	599	2	371
2015	4,044	3,120	669	2	253
2016	4,253	3,427	591	2	233
2017	3,490	2,731	542	3	214
Year 2016					
January	342	302	16	0	23
February	330	271	39	0	19
March	362	283	63	0	17
April	382	325	43	0	14
May	370	296	52	0	23
June	380	308	52	0	21
July	400	324	56	0	20
August	419	337	61	0	21
Sept	376	311	49	0	16
October	250	171	61	0	18
November	307	239	46	0	21
December	336	260	55	0	20
Year 2017					
January	368	301	51	0	15
February	277	217	44	0	15
March	265	214	31	0	20
April	168	110	41	0	16
May	329	264	49	0	16
June	350	282	48	0	20
July	344	271	51	0	22
August	300	226	52	0	22
Sept	276	209	50	0	16
October	228	171	40	0	18
November	293	234	40	0	18
December	292	231	44	0	16
Year 2018					
January	349	296	38	0	15
February	275	234	30	0	10
March	245	198	35	0	12
April	246	193	37	0	15
May	161	140	8	0	13
June	312	269	24	0	19
July	346	284	41	0	21
August	332	272	39	0	20
Sept	316	259	39	0	18
October	190	158	15	0	16
November	247	196	38	0	13
Year to Date					
2016	3,918	3,167	536	1	213
2017	3,198	2,500	498	2	198
2018	3,019	2,499	346	2	172
Rolling 12 Months Ending in November					
2017	3,533	2,760	553	3	217
2018	3,311	2,731	390	2	189

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 for 2017 and prior years are final. Values for 2018 are preliminary. 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 2.3.B. Petroleum Coke: Consumption for Useful Thermal Output, by Sector, 2008-November 2018 (Thousand Tons)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2008	897	0	119	9	769
2009	1,007	0	126	8	873
2010	1,059	0	98	11	950
2011	1,080	0	112	6	962
2012	1,346	0	113	11	1,222
2013	1,486	0	96	11	1,379
2014	1,283	3	90	16	1,174
2015	1,144	9	109	16	1,010
2016	1,099	6	113	9	971
2017	977	11	115	15	836
Year 2016					
January	86	1	11	2	73
February	95	0	10	2	83
March	85	0	11	2	72
April	73	1	7	0	66
May	96	0	7	0	89
June	100	0	9	0	91
July	101	1	9	1	91
August	101	1	10	0	91
Sept	75	1	10	0	64
October	92	1	11	0	80
November	99	0	10	0	89
December	95	1	10	2	83
Year 2017					
January	81	0	10	2	70
February	69	0	10	1	58
March	90	1	10	2	77
April	74	0	10	1	64
May	78	1	10	1	66
June	91	1	9	1	80
July	86	1	10	0	75
August	90	2	9	2	77
Sept	76	1	9	2	64
October	86	1	9	1	74
November	80	1	9	1	69
December	76	1	10	2	63
Year 2018					
January	72	1	9	2	60
February	63	1	8	2	53
March	62	1	9	1	50
April	78	1	10	1	66
May	64	1	6	0	57
June	66	1	1	0	63
July	71	1	9	0	61
August	69	1	9	0	59
Sept	72	1	7	1	63
October	75	0	9	1	64
November	65	1	8	2	55
Year to Date					
2016	1,003	5	103	7	888
2017	901	10	106	13	773
2018	756	11	85	9	651
Rolling 12 Months Ending in November					
2017	996	10	116	14	856
2018	832	12	95	11	715

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 for 2017 and prior years are final. Values for 2018 are preliminary. 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 2.3.C. Petroleum Coke: Consumption for Electricity Generation and Useful Thermal Output, by Sector, 2008-November 2018 (Thousand Tons)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2012	5,021	2,105	869	13	2,034
2013	6,338	3,409	875	12	2,041
2014	5,695	3,443	689	18	1,545
2015	5,188	3,128	779	18	1,263
2016	5,352	3,433	705	10	1,204
2017	4,467	2,742	657	17	1,050
Year 2016					
January	427	302	27	3	96
February	425	272	49	2	102
March	447	283	74	2	89
April	455	326	50	0	80
May	466	296	58	0	112
June	480	308	60	0	111
July	502	325	65	1	111
August	520	337	71	0	112
Sept	451	311	59	0	80
October	342	172	72	0	99
November	406	240	56	0	110
December	431	261	65	2	103
Year 2017					
January	449	301	61	2	85
February	347	218	54	1	74
March	355	215	41	2	97
April	242	110	51	1	80
May	406	265	59	1	82
June	441	283	57	1	100
July	430	272	60	0	98
August	390	228	61	2	99
Sept	352	211	60	2	80
October	314	172	49	2	92
November	373	235	49	1	87
December	368	233	54	2	80
Year 2018					
January	421	297	47	2	75
February	338	235	38	2	63
March	307	199	44	2	63
April	323	195	47	1	81
May	225	141	14	0	70
June	378	270	26	0	82
July	417	285	49	0	82
August	401	273	49	0	79
Sept	389	260	47	1	81
October	264	159	24	1	80
November	312	196	46	2	68
Year to Date					
2016	4,921	3,172	639	9	1,101
2017	4,099	2,509	604	15	970
2018	3,775	2,510	431	10	824
Rolling 12 Months Ending in November					
2017	4,530	2,770	669	17	1,073
2018	4,144	2,743	485	13	904

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 2.4.A. Natural Gas: Consumption for Electricity Generation, by Sector, 2008-November 2018 (Million Cubic Feet)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2012	9,484,710	4,101,927	4,686,260	63,116	633,407
2013	8,596,299	3,970,447	3,917,131	66,570	642,152
2014	8,544,387	3,895,008	3,954,032	71,957	623,390
2015	10,016,576	4,745,255	4,576,683	70,092	624,545
2016	10,170,110	5,018,894	4,571,375	46,304	533,537
2017	9,507,760	4,754,883	4,161,987	50,060	540,830
Year 2016					
January	786,040	390,246	347,970	3,499	44,325
February	702,082	352,877	304,311	3,344	41,550
March	758,344	377,953	333,147	3,493	43,751
April	734,600	362,063	327,542	3,278	41,717
May	819,345	407,178	365,297	3,620	43,251
June	985,722	497,616	439,024	4,109	44,973
July	1,157,589	569,028	535,036	5,188	48,337
August	1,168,337	564,916	549,161	5,384	48,875
Sept	932,041	451,574	431,159	4,223	45,086
October	760,610	368,087	345,831	3,675	43,017
November	679,004	333,973	298,069	2,944	44,018
December	686,396	343,384	294,829	3,547	44,637
Year 2017					
January	679,456	337,365	291,293	4,212	46,587
February	587,375	291,892	250,059	3,763	41,661
March	690,237	350,941	290,725	4,044	44,527
April	646,952	331,856	268,401	3,537	43,158
May	720,458	374,380	298,341	3,820	43,917
June	872,928	436,021	386,492	4,400	46,015
July	1,104,716	552,301	498,292	4,942	49,181
August	1,043,414	516,896	474,421	4,803	47,295
Sept	877,808	433,254	397,947	4,400	42,206
October	791,673	385,327	358,763	4,105	43,478
November	686,346	340,195	298,079	3,776	44,297
December	806,395	404,455	349,174	4,259	48,508
Year 2018					
January	803,870	419,727	332,226	4,156	47,761
February	717,459	356,653	314,825	3,973	42,008
March	771,201	387,856	336,457	4,116	42,772
April	726,677	369,327	309,622	3,909	43,820
May	872,078	456,403	367,132	4,107	44,437
June	972,168	510,433	411,722	4,434	45,579
July	1,252,609	638,618	560,343	5,137	48,511
August	1,220,963	608,370	557,994	5,166	49,433
Sept	1,064,303	536,010	477,474	4,666	46,154
October	918,069	460,333	408,429	4,287	45,020
November	775,042	382,596	340,902	3,817	47,727
Year to Date					
2016	9,483,714	4,675,510	4,276,546	42,757	488,900
2017	8,701,365	4,350,429	3,812,813	45,801	492,322
2018	10,094,438	5,126,325	4,417,125	47,767	503,221
Rolling 12 Months Ending in November					
2017	9,387,761	4,693,812	4,107,642	49,348	536,959
2018	10,900,834	5,530,780	4,766,299	52,026	551,729

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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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 2.4.B. Natural Gas: Consumption for Useful Thermal Output, by Sector, 2008-November 2018 (Million Cubic Feet)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2008	793,537	0	326,048	32,813	434,676
2009	816,787	0	305,542	41,275	469,970
2010	821,775	0	301,769	46,324	473,683
2011	839,681	0	308,669	39,856	491,155
2012	886,103	0	322,607	47,883	515,613
2013	882,385	0	303,177	51,057	528,151
2014	865,146	4,926	292,016	46,635	521,569
2015	935,098	8,060	283,372	46,287	597,379
2016	1,151,866	38,096	356,905	80,943	675,922
2017	1,168,850	38,740	309,945	104,324	715,842
Year 2016					
January	102,014	3,434	32,304	7,160	59,117
February	92,405	3,264	29,348	6,354	53,439
March	95,161	3,002	30,664	6,298	55,197
April	88,634	2,286	27,002	6,104	53,241
May	92,471	2,888	29,069	6,096	54,418
June	96,618	3,649	30,019	6,907	56,043
July	102,867	3,805	32,099	8,142	58,821
August	105,025	3,723	33,436	8,377	59,489
Sept	95,330	2,973	29,581	6,850	55,926
October	92,360	2,740	27,138	6,125	56,357
November	90,321	2,812	27,191	5,773	54,544
December	98,660	3,520	29,054	6,758	59,328
Year 2017					
January	101,360	3,704	27,262	9,905	60,489
February	90,127	3,216	23,614	8,341	54,956
March	97,233	3,489	27,021	8,120	58,603
April	89,236	2,985	23,807	6,830	55,614
May	92,148	3,093	24,244	7,223	57,587
June	95,359	2,722	25,799	8,475	58,363
July	103,932	3,441	27,792	9,956	62,744
August	101,846	3,216	27,487	9,983	61,161
Sept	97,464	2,980	25,078	8,964	60,443
October	97,666	3,046	25,407	8,647	60,566
November	95,578	3,119	24,763	8,391	59,305
December	106,899	3,729	27,671	9,488	66,010
Year 2018					
January	143,718	3,580	29,041	44,014	67,082
February	129,472	3,168	26,534	39,844	59,926
March	135,672	3,311	28,121	40,356	63,885
April	128,365	2,981	25,434	39,362	60,588
May	129,536	3,149	26,428	40,286	59,673
June	132,500	3,535	26,778	41,046	61,139
July	141,471	4,154	30,260	43,383	63,675
August	141,825	4,146	29,291	44,204	64,184
Sept	133,764	3,498	27,336	40,848	62,083
October	100,591	3,209	26,951	8,236	62,195
November	105,288	3,064	27,511	8,611	66,102
Year to Date					
2016	1,053,206	34,576	327,850	74,184	616,594
2017	1,061,951	35,011	282,273	94,835	649,831
2018	1,422,202	37,793	303,684	390,191	690,533
Rolling 12 Months Ending in November					
2017	1,160,611	38,531	311,328	101,594	709,159
2018	1,529,101	41,522	331,356	399,679	756,544

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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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 2.4.C. Natural Gas: Consumption for Electricity Generation and Useful Thermal Output, by Sector, 2008-November 2018 (Million Cubic Feet)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2012	10,370,812	4,101,927	5,008,867	110,999	1,149,020
2013	9,478,685	3,970,447	4,220,309	117,626	1,170,303
2014	9,409,532	3,899,934	4,246,048	118,591	1,144,959
2015	10,951,674	4,753,315	4,860,055	116,380	1,221,924
2016	11,321,975	5,056,990	4,928,280	127,246	1,209,459
2017	10,676,610	4,793,623	4,471,932	154,383	1,256,672
Year 2016					
January	888,054	393,680	380,273	10,658	103,442
February	794,487	356,141	333,659	9,697	94,990
March	853,505	380,955	363,811	9,791	98,949
April	823,234	364,349	354,544	9,383	94,958
May	911,816	410,066	394,365	9,716	97,669
June	1,082,340	501,265	469,043	11,016	101,016
July	1,260,455	572,833	567,135	13,330	107,158
August	1,273,362	568,640	582,596	13,761	108,365
Sept	1,027,371	454,547	460,740	11,073	101,012
October	852,970	370,827	372,969	9,800	99,374
November	769,325	336,785	325,260	8,716	98,563
December	785,056	346,904	323,883	10,305	103,965
Year 2017					
January	780,816	341,068	318,555	14,116	107,077
February	677,502	295,109	273,673	12,104	96,617
March	787,471	354,430	317,746	12,165	103,130
April	736,188	334,841	292,208	10,367	98,772
May	812,607	377,474	322,585	11,043	101,504
June	968,287	438,743	412,291	12,875	104,377
July	1,208,649	555,742	526,084	14,898	111,925
August	1,145,261	520,111	501,908	14,786	108,456
Sept	975,272	436,234	423,025	13,364	102,649
October	889,339	388,373	384,170	12,752	104,044
November	781,924	343,314	322,841	12,167	103,602
December	913,294	408,184	376,845	13,747	114,519
Year 2018					
January	947,588	423,307	361,266	48,171	114,844
February	846,931	359,821	341,359	43,817	101,934
March	906,873	391,167	364,578	44,472	106,656
April	855,042	372,307	335,056	43,271	104,408
May	1,001,614	459,552	393,559	44,392	104,110
June	1,104,667	513,969	438,500	45,480	106,718
July	1,394,080	642,771	590,603	48,519	112,186
August	1,362,788	612,516	587,285	49,370	113,617
Sept	1,198,067	539,507	504,810	45,514	108,236
October	1,018,660	463,542	435,379	12,523	107,216
November	880,330	385,660	368,413	12,428	113,829
Year to Date					
2016	10,536,919	4,710,087	4,604,397	116,941	1,105,494
2017	9,763,316	4,385,439	4,095,086	140,637	1,142,153
2018	11,516,640	5,164,118	4,720,810	437,958	1,193,754
Rolling 12 Months Ending in November					
2017	10,548,372	4,732,343	4,418,969	150,942	1,246,118
2018	12,429,935	5,572,302	5,097,655	451,705	1,308,273

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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.
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 2.5.A. Landfill Gas: Consumption for Electricity Generation, by Sector, 2008-November 2018 (Million Cubic Feet)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2008	195,777	20,465	169,547	5,235	530
2009	206,792	19,583	180,689	5,931	589
2010	218,331	19,975	192,428	5,535	393
2011	232,795	22,086	180,856	29,469	384
2012	256,376	25,193	201,965	26,672	2,545
2013	271,967	27,259	211,942	28,143	4,623
2014	285,982	25,819	228,447	27,038	4,678
2015	282,530	25,257	227,381	25,250	4,642
2016	273,557	24,280	224,993	20,445	3,839
2017	278,112	25,074	229,050	20,121	3,866
Year 2016					
January	22,612	2,036	18,360	1,865	351
February	21,859	2,088	17,744	1,705	323
March	23,337	2,187	19,021	1,786	343
April	22,556	2,080	18,805	1,340	331
May	23,744	2,120	19,554	1,717	354
June	22,668	1,896	18,683	1,768	320
July	23,052	1,950	19,047	1,734	321
August	23,038	2,011	18,978	1,726	324
Sept	21,757	2,010	17,792	1,678	278
October	20,377	1,922	16,583	1,610	263
November	24,047	1,941	20,036	1,762	307
December	24,510	2,041	20,392	1,753	324
Year 2017					
January	25,272	2,182	20,948	1,784	358
February	21,912	2,167	17,878	1,529	337
March	24,177	2,303	19,774	1,742	359
April	22,941	2,145	18,844	1,620	332
May	23,879	2,202	19,651	1,731	294
June	23,091	1,921	19,163	1,670	336
July	22,896	1,983	18,932	1,702	279
August	22,923	2,030	18,919	1,668	305
Sept	22,102	1,851	18,287	1,672	292
October	22,063	2,037	18,243	1,465	318
November	22,870	2,105	18,715	1,728	322
December	23,986	2,148	19,695	1,810	333
Year 2018					
January	25,148	2,570	20,492	1,782	305
February	23,593	2,396	19,225	1,661	311
March	25,276	2,604	20,497	1,847	327
April	23,720	2,353	19,467	1,593	307
May	23,568	2,195	19,632	1,474	267
June	23,693	2,007	19,930	1,504	252
July	23,947	2,006	20,218	1,492	232
August	24,698	2,059	20,932	1,494	214
Sept	21,204	1,702	17,849	1,454	198
October	23,066	1,909	19,207	1,704	246
November	22,951	1,907	19,077	1,715	252
Year to Date					
2016	249,047	22,239	204,602	18,692	3,515
2017	254,125	22,926	209,356	18,311	3,533
2018	260,864	23,707	216,526	17,720	2,912
Rolling 12 Months Ending in November					
2017	278,635	24,967	229,747	20,064	3,857
2018	284,851	25,855	236,221	19,530	3,245

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 for 2017 and prior years are final. Values for 2018 are preliminary. 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 2.5.B. Landfill Gas: Consumption for Useful Thermal Output, by Sector, 2008-November 2018 (Million Cubic Feet)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2008	1,025	0	454	433	138
2009	793	0	545	176	72
2010	1,623	0	1,195	370	58
2011	3,195	0	2,753	351	91
2012	3,189	0	2,788	340	61
2013	831	0	261	423	147
2014	1,710	176	525	674	335
2015	1,522	2	644	515	362
2016	4,163	3	2,339	1,034	788
2017	3,940	2	1,948	1,099	891
Year 2016					
January	352	0	202	84	66
February	340	0	189	86	65
March	358	0	196	86	75
April	355	0	201	88	66
May	356	0	194	90	72
June	344	0	193	85	66
July	335	0	181	87	66
August	332	0	181	82	68
Sept	327	0	187	81	59
October	301	0	157	87	56
November	378	0	227	86	66
December	387	0	230	91	65
Year 2017					
January	352	0	171	94	87
February	329	0	156	92	81
March	353	0	177	92	84
April	346	0	153	107	87
May	299	0	134	85	80
June	329	0	165	89	75
July	312	0	176	85	51
August	348	0	172	98	78
Sept	330	0	169	98	62
October	319	0	170	93	56
November	298	0	140	85	73
December	324	0	165	81	77
Year 2018					
January	411	1	259	68	83
February	400	1	238	79	82
March	435	1	262	82	90
April	351	1	179	85	87
May	272	1	127	71	73
June	248	1	135	46	67
July	264	1	126	76	62
August	282	1	138	82	61
Sept	268	0	128	82	57
October	380	1	212	95	73
November	369	0	220	73	75
Year to Date					
2016	3,776	3	2,108	942	723
2017	3,616	2	1,783	1,018	814
2018	3,679	8	2,023	840	808
Rolling 12 Months Ending in November					
2017	4,003	2	2,013	1,109	879
2018	4,003	8	2,188	921	885

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 for 2017 and prior years are final. Values for 2018 are preliminary. 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 2.5.C. Landfill Gas: Consumption for Electricity Generation and Useful Thermal Output, by Sector, 2008-November 2018 (Million Cubic Feet)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2008	196,802	20,465	170,001	5,668	668
2009	207,585	19,583	181,234	6,106	661
2010	219,954	19,975	193,623	5,905	451
2011	235,990	22,086	183,609	29,820	474
2012	259,564	25,193	204,753	27,012	2,606
2013	272,798	27,259	212,203	28,566	4,770
2014	287,692	25,995	228,971	27,713	5,013
2015	284,052	25,259	228,024	25,765	5,004
2016	277,720	24,283	227,332	21,479	4,626
2017	282,051	25,076	230,998	21,220	4,757
Year 2016					
January	22,964	2,036	18,562	1,949	417
February	22,200	2,088	17,933	1,791	388
March	23,694	2,187	19,217	1,873	417
April	22,911	2,081	19,005	1,428	397
May	24,100	2,120	19,748	1,807	425
June	23,012	1,896	18,876	1,853	386
July	23,387	1,950	19,229	1,822	386
August	23,370	2,011	19,159	1,808	392
Sept	22,084	2,010	17,978	1,759	337
October	20,678	1,922	16,740	1,697	319
November	24,425	1,941	20,263	1,848	373
December	24,897	2,042	20,622	1,845	388
Year 2017					
January	25,625	2,182	21,119	1,878	446
February	22,241	2,167	18,034	1,621	419
March	24,530	2,303	19,951	1,834	442
April	23,287	2,146	18,996	1,727	418
May	24,178	2,202	19,785	1,816	374
June	23,419	1,921	19,329	1,759	411
July	23,208	1,983	19,108	1,786	330
August	23,271	2,030	19,092	1,766	383
Sept	22,431	1,851	18,456	1,771	354
October	22,382	2,037	18,413	1,558	374
November	23,168	2,105	18,855	1,813	395
December	24,310	2,149	19,860	1,891	410
Year 2018					
January	25,560	2,571	20,751	1,850	388
February	23,993	2,396	19,463	1,740	393
March	25,710	2,605	20,759	1,929	417
April	24,071	2,353	19,645	1,679	394
May	23,839	2,195	19,759	1,545	340
June	23,941	2,008	20,064	1,550	319
July	24,211	2,007	20,344	1,568	293
August	24,981	2,059	21,071	1,576	275
Sept	21,471	1,702	17,978	1,536	255
October	23,446	1,909	19,418	1,799	319
November	23,320	1,908	19,297	1,788	327
Year to Date					
2016	252,824	22,242	206,710	19,634	4,238
2017	257,741	22,928	211,138	19,328	4,347
2018	264,543	23,714	218,549	18,560	3,720
Rolling 12 Months Ending in November					
2017	282,638	24,969	231,760	21,173	4,736
2018	288,853	25,863	238,409	20,451	4,130

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 for 2017 and prior years are final. Values for 2018 are preliminary. 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 2.6.A. Biogenic Municipal Solid Waste: Consumption for Electricity Generation, by Sector, 2008-November 2018 (Thousand Tons)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2008	19,805	509	17,487	1,809	0
2009	19,669	465	17,048	2,155	0
2010	19,437	402	16,802	2,233	0
2011	16,972	388	14,625	1,955	4
2012	16,968	418	14,235	2,304	12
2013	17,007	456	14,057	2,485	8
2014	16,706	444	13,809	2,447	6
2015	16,631	452	13,797	2,375	8
2016	16,994	464	13,953	2,566	11
2017	16,348	422	13,381	2,537	8
Year 2016					
January	1,398	34	1,161	202	1
February	1,283	27	1,081	174	1
March	1,344	41	1,091	211	1
April	1,413	40	1,153	219	1
May	1,463	44	1,205	214	1
June	1,468	40	1,202	225	1
July	1,486	37	1,212	236	1
August	1,509	42	1,233	233	1
Sept	1,397	43	1,142	210	1
October	1,378	37	1,127	213	1
November	1,379	39	1,127	212	1
December	1,476	38	1,220	218	0
Year 2017					
January	1,434	35	1,194	205	0
February	1,244	19	1,034	191	0
March	1,330	36	1,091	204	0
April	1,288	35	1,044	209	0
May	1,410	36	1,147	226	1
June	1,421	38	1,175	207	1
July	1,440	41	1,172	226	1
August	1,453	47	1,182	223	1
Sept	1,321	41	1,072	207	1
October	1,317	33	1,065	218	1
November	1,311	30	1,074	207	1
December	1,378	32	1,132	214	1
Year 2018					
January	1,350	28	1,132	190	0
February	1,278	26	1,076	175	1
March	1,377	40	1,138	198	1
April	1,342	38	1,109	194	1
May	1,398	43	1,143	212	1
June	1,454	42	1,202	208	1
July	1,458	48	1,208	200	1
August	1,461	47	1,204	209	1
Sept	1,313	36	1,082	194	1
October	1,372	43	1,130	199	0
November	1,356	39	1,120	196	0
Year to Date					
2016	15,518	425	12,733	2,349	11
2017	14,970	390	12,249	2,323	7
2018	15,158	430	12,545	2,175	9
Rolling 12 Months Ending in November					
2017	16,446	428	13,469	2,541	7
2018	16,536	461	13,677	2,389	9

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 for 2017 and prior years are final. Values for 2018 are preliminary. 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 2.6.B. Biogenic Municipal Solid Waste: Consumption for Useful Thermal Output, by Sector, 2008-November 2018 (Thousand Tons)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2008	2,328	0	806	1,514	8
2009	2,426	0	823	1,466	137
2010	2,287	0	819	1,316	152
2011	2,044	0	742	1,148	154
2012	1,986	0	522	1,273	190
2013	1,865	0	517	1,160	187
2014	1,955	0	650	1,104	200
2015	1,986	0	655	1,127	203
2016	2,232	0	885	1,134	213
2017	2,124	0	814	1,102	208
Year 2016					
January	191	0	80	92	18
February	189	0	87	88	14
March	219	0	96	104	19
April	181	0	65	98	18
May	182	0	70	96	17
June	172	0	73	81	18
July	186	0	74	96	16
August	191	0	71	96	23
Sept	176	0	64	95	18
October	179	0	65	95	19
November	180	0	68	94	17
December	185	0	71	98	16
Year 2017					
January	203	0	72	111	20
February	171	0	64	94	12
March	187	0	75	93	19
April	173	0	69	86	18
May	182	0	69	96	18
June	185	0	68	101	16
July	185	0	72	97	17
August	196	0	77	97	22
Sept	154	0	63	74	17
October	155	0	59	78	18
November	166	0	64	88	15
December	168	0	63	88	17
Year 2018					
January	170	0	64	90	17
February	151	0	60	80	12
March	155	0	64	79	12
April	147	0	54	77	16
May	161	0	59	86	16
June	163	0	65	80	18
July	164	0	65	83	17
August	168	0	66	80	21
Sept	134	0	58	58	17
October	150	0	61	73	16
November	162	0	66	82	14
Year to Date					
2016	2,047	0	814	1,035	197
2017	1,957	0	751	1,015	191
2018	1,726	0	682	867	176
Rolling 12 Months Ending in November					
2017	2,142	0	822	1,113	207
2018	1,894	0	745	955	193

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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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 2.6.C. Biogenic Municipal Solid Waste: Consumption for Electricity Generation and Useful Thermal Output, by Sector, 2008-November 2018 (Thousand Tons)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2008	22,134	509	18,294	3,323	8
2009	22,095	465	17,872	3,622	137
2010	21,725	402	17,621	3,549	152
2011	19,016	388	15,367	3,103	158
2012	18,954	418	14,757	3,577	203
2013	18,871	456	14,574	3,646	195
2014	18,661	444	14,459	3,551	206
2015	18,617	452	14,452	3,502	211
2016	19,226	464	14,838	3,700	224
2017	18,473	422	14,195	3,639	216
Year 2016					
January	1,589	34	1,241	295	19
February	1,472	27	1,167	262	15
March	1,563	41	1,188	315	19
April	1,594	40	1,218	317	18
May	1,646	44	1,274	310	18
June	1,640	40	1,275	305	19
July	1,673	37	1,286	332	17
August	1,700	42	1,304	330	25
Sept	1,573	43	1,206	305	19
October	1,557	37	1,192	308	20
November	1,559	39	1,195	306	18
December	1,661	38	1,291	316	16
Year 2017					
January	1,637	35	1,266	316	20
February	1,415	19	1,098	286	12
March	1,517	36	1,165	297	19
April	1,461	35	1,113	294	18
May	1,592	36	1,215	322	19
June	1,606	38	1,243	309	17
July	1,625	41	1,244	323	18
August	1,649	47	1,259	320	23
Sept	1,475	41	1,135	281	18
October	1,472	33	1,124	295	19
November	1,477	30	1,138	295	15
December	1,546	32	1,195	301	18
Year 2018					
January	1,521	28	1,196	279	17
February	1,429	26	1,136	255	13
March	1,532	40	1,202	277	13
April	1,489	38	1,163	271	17
May	1,559	43	1,202	297	17
June	1,617	42	1,267	289	19
July	1,622	48	1,273	283	18
August	1,629	47	1,270	290	22
Sept	1,447	36	1,141	252	18
October	1,521	43	1,191	271	16
November	1,518	39	1,187	278	14
Year to Date					
2016	17,565	425	13,547	3,384	208
2017	16,926	390	13,000	3,338	199
2018	16,884	430	13,227	3,042	185
Rolling 12 Months Ending in November					
2017	18,588	428	14,291	3,654	215
2018	18,430	461	14,422	3,344	202

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 for 2017 and prior years are final. Values for 2018 are preliminary. 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 2.7.A. Wood / Wood Waste Biomass: Consumption for Electricity Generation, by Sector, 2008-November 2018 (Billion Btus)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2008	338,786	29,150	130,122	287	179,227
2009	320,444	29,565	130,894	274	159,712
2010	349,530	40,167	137,072	274	172,016
2011	347,623	35,474	130,108	482	181,559
2012	390,342	32,723	138,217	478	218,924
2013	397,929	43,363	143,721	536	210,308
2014	431,285	45,643	174,513	961	210,167
2015	406,650	43,919	171,387	504	190,840
2016	359,983	41,036	149,516	473	168,959
2017	363,971	42,806	151,877	460	168,828
Year 2016					
January	31,835	4,082	13,250	40	14,463
February	30,721	3,797	13,249	41	13,634
March	30,380	3,388	13,073	23	13,897
April	25,323	2,547	10,177	31	12,569
May	26,827	2,497	10,522	14	13,794
June	29,961	3,835	11,762	59	14,305
July	32,167	4,067	13,230	51	14,818
August	33,526	4,113	14,559	72	14,782
Sept	30,502	3,489	13,145	51	13,817
October	27,598	2,574	11,139	29	13,857
November	29,176	2,597	12,211	20	14,349
December	31,967	4,051	13,200	42	14,674
Year 2017					
January	31,111	4,492	12,653	56	13,910
February	28,404	3,584	11,989	50	12,781
March	31,284	4,210	13,448	26	13,601
April	27,497	3,136	11,066	34	13,261
May	28,273	2,799	11,614	43	13,817
June	30,264	3,180	12,592	38	14,454
July	32,600	3,942	13,505	41	15,112
August	33,336	3,803	14,249	41	15,244
Sept	28,574	2,090	13,001	15	13,469
October	28,951	3,387	11,782	33	13,748
November	30,458	3,608	12,600	41	14,210
December	33,219	4,575	13,378	43	15,222
Year 2018					
January	32,264	4,532	13,000	63	14,668
February	28,875	3,645	11,706	42	13,482
March	30,272	4,010	11,813	36	14,414
April	25,869	2,208	10,102	16	13,542
May	30,796	3,455	12,419	32	14,890
June	31,124	4,157	12,647	53	14,267
July	31,808	4,337	12,558	59	14,854
August	30,312	4,299	11,616	69	14,328
Sept	27,931	3,607	10,844	52	13,428
October	27,753	3,491	10,896	27	13,340
November	27,459	3,610	10,113	20	13,716
Year to Date					
2016	328,016	36,984	136,316	431	154,285
2017	330,752	38,231	138,498	417	153,606
2018	324,463	41,352	127,713	469	154,930
Rolling 12 Months Ending in November					
2017	362,719	42,282	151,699	459	168,280
2018	357,682	45,927	141,091	512	170,152

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 for 2017 and prior years are final. Values for 2018 are preliminary. 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 2.7.B. Wood / Wood Waste Biomass: Consumption for Useful Thermal Output, by Sector, 2008-November 2018 (Billion Btus)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2008	923,889	0	18,075	1,123	904,690
2009	816,285	0	19,587	1,135	795,563
2010	876,041	0	18,357	1,064	856,620
2011	893,314	0	16,577	1,022	875,716
2012	883,158	0	19,251	949	862,958
2013	919,631	0	20,342	950	898,339
2014	946,344	8,835	22,262	3,766	911,481
2015	943,962	9,351	19,200	3,714	911,697
2016	969,841	10,950	22,905	4,520	931,465
2017	1,036,427	11,656	22,986	4,522	997,263
Year 2016					
January	84,483	1,087	2,270	460	80,665
February	79,157	1,150	2,299	415	75,293
March	79,225	1,084	1,926	288	75,928
April	74,954	732	1,780	353	72,089
May	78,419	949	1,753	280	75,437
June	79,180	707	1,832	415	76,225
July	80,796	943	1,826	384	77,644
August	81,164	931	1,794	442	77,998
Sept	75,314	513	1,918	395	72,488
October	76,347	508	1,450	347	74,041
November	80,391	1,132	1,898	340	77,021
December	100,410	1,214	2,159	401	96,636
Year 2017					
January	90,099	1,206	2,090	525	86,278
February	79,451	1,037	1,879	430	76,104
March	87,759	1,170	2,113	299	84,176
April	82,426	1,044	1,548	295	79,539
May	84,129	716	1,623	301	81,490
June	85,459	1,007	1,641	322	82,490
July	89,160	683	1,963	355	86,159
August	90,434	989	2,010	365	87,071
Sept	81,960	931	2,032	233	78,763
October	86,217	893	1,972	402	82,950
November	87,430	902	1,929	473	84,126
December	91,903	1,079	2,186	524	88,115
Year 2018					
January	88,471	859	2,073	454	85,086
February	83,125	832	2,122	474	79,698
March	85,627	994	2,053	493	82,086
April	84,957	913	1,784	339	81,920
May	84,885	946	1,779	319	81,841
June	85,398	968	1,815	402	82,214
July	88,781	914	2,034	382	85,450
August	90,409	847	2,034	417	87,111
Sept	82,161	918	1,655	336	79,252
October	86,411	979	1,924	329	83,179
November	85,416	749	1,839	343	82,486
Year to Date					
2016	869,431	9,736	20,746	4,119	834,829
2017	944,523	10,577	20,800	3,999	909,148
2018	945,641	9,919	21,111	4,288	910,322
Rolling 12 Months Ending in November					
2017	1,044,933	11,791	22,959	4,400	1,005,784
2018	1,037,544	10,998	23,297	4,811	998,437

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 for 2017 and prior years are final. Values for 2018 are preliminary. 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 2.7.C. Wood / Wood Waste Biomass: Consumption for Electricity Generation and Useful Thermal Output, by Sector, 2008-November 2018 (Billion Btus)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
2008	1,262,675	29,150	148,198	1,410	1,083,917
2009	1,136,729	29,565	150,481	1,408	955,276
2010	1,225,571	40,167	155,429	1,338	1,028,637
2011	1,240,937	35,474	146,684	1,504	1,057,275
2012	1,273,500	32,723	157,468	1,427	1,081,882
2013	1,317,560	43,363	164,063	1,486	1,108,647
2014	1,377,629	54,478	196,775	4,727	1,121,648
2015	1,350,612	53,269	190,587	4,219	1,102,537
2016	1,329,824	51,986	172,421	4,993	1,100,424
2017	1,400,397	54,462	174,862	4,982	1,166,091
Year 2016					
January	116,318	5,169	15,520	500	95,128
February	109,878	4,947	15,548	456	88,928
March	109,606	4,471	14,999	311	89,825
April	100,276	3,279	11,956	384	84,657
May	105,246	3,446	12,275	294	89,231
June	109,140	4,542	13,594	474	90,530
July	112,964	5,010	15,056	435	92,462
August	114,690	5,044	16,353	514	92,780
Sept	105,816	4,002	15,063	446	86,306
October	103,946	3,083	12,589	376	87,898
November	109,567	3,729	14,108	360	91,370
December	132,377	5,265	15,360	443	111,310
Year 2017					
January	121,210	5,698	14,743	581	100,188
February	107,854	4,621	13,868	480	88,885
March	119,043	5,380	15,562	325	97,777
April	109,922	4,180	12,613	328	92,800
May	112,402	3,515	13,237	344	95,306
June	115,723	4,187	14,232	360	96,944
July	121,760	4,625	15,469	395	101,271
August	123,771	4,792	16,258	406	102,315
Sept	110,535	3,021	15,033	249	92,232
October	115,168	4,281	13,754	435	96,698
November	117,888	4,509	14,529	514	98,336
December	125,122	5,654	15,564	566	103,338
Year 2018					
January	120,735	5,391	15,073	517	99,754
February	112,000	4,477	13,828	516	93,179
March	115,899	5,004	13,866	528	96,501
April	110,825	3,122	11,886	356	95,462
May	115,681	4,401	14,198	351	96,731
June	116,522	5,124	14,462	455	96,481
July	120,589	5,251	14,592	441	100,304
August	120,721	5,146	13,650	486	101,439
Sept	110,092	4,525	12,499	388	92,679
October	114,164	4,470	12,820	356	96,519
November	112,875	4,359	11,951	363	96,202
Year to Date					
2016	1,197,446	46,721	157,061	4,550	989,114
2017	1,275,276	48,808	159,298	4,416	1,062,754
2018	1,270,104	51,271	148,824	4,757	1,065,252
Rolling 12 Months Ending in November					
2017	1,407,653	54,073	174,658	4,859	1,174,063
2018	1,395,226	56,925	164,388	5,323	1,168,590

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 for 2017 and prior years are final. Values for 2018 are preliminary. 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 2.8.A. Consumption of Coal for Electricity Generation by State, by Sector, November 2018 and November 2017 (Thousand Tons)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	NM	7	NM	NM	6	24	1	0	0	NM	0
Connecticut	23	0	--	0	0	23	0	0	0	0	0
Maine	1	1	-29.0%	0	0	1	1	0	0	NM	0
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	NM	6	NM	NM	6	0	0	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	1,779	1,939	-8.2%	0	0	1,775	1,932	0	0	4	7
New Jersey	34	38	-11.0%	0	0	34	38	0	0	0	0
New York	1	18	-92.0%	0	0	1	14	0	0	0	4
Pennsylvania	1,744	1,883	-7.4%	0	0	1,740	1,880	0	0	4	3
East North Central	11,584	11,440	1.3%	7,039	7,051	4,481	4,336	1	1	63	52
Illinois	2,733	3,030	-9.8%	202	169	2,482	2,824	NM	1	49	37
Indiana	3,349	2,665	26.0%	3,148	2,563	201	101	0	1	0	0
Michigan	1,884	1,819	3.6%	1,866	1,797	17	20	0	0	1	1
Ohio	1,997	2,027	-1.5%	215	636	1,781	1,391	0	0	0	0
Wisconsin	1,621	1,899	-15.0%	1,607	1,886	0	0	0	0	13	14
West North Central	9,747	9,109	7.0%	9,649	9,001	0	0	2	2	95	106
Iowa	1,454	998	46.0%	1,416	956	0	0	2	2	36	40
Kansas	994	901	10.0%	994	901	0	0	0	0	0	0
Minnesota	1,341	1,306	2.6%	1,324	1,283	0	0	0	0	17	23
Missouri	2,829	2,879	-1.7%	2,828	2,879	0	0	0	0	0	0
Nebraska	1,240	1,033	20.0%	1,202	994	0	0	0	0	39	39
North Dakota	1,800	1,869	-3.7%	1,796	1,865	0	0	0	0	4	4
South Dakota	88	124	-29.0%	88	124	0	0	0	0	0	0
South Atlantic	6,415	5,675	13.0%	5,597	4,731	795	926	1	1	22	16
Delaware	0	20	-100.0%	0	0	0	20	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	987	1,068	-7.6%	986	1,067	0	0	0	0	1	1
Georgia	1,615	972	66.0%	1,611	968	0	0	0	0	4	4
Maryland	359	252	42.0%	0	0	358	251	0	0	2	2
North Carolina	768	693	11.0%	762	684	NM	5	1	1	2	2
South Carolina	659	432	53.0%	659	431	0	0	0	0	0	1
Virginia	392	315	25.0%	351	289	29	19	0	0	12	6
West Virginia	1,634	1,923	-15.0%	1,229	1,292	405	631	0	0	0	0
East South Central	4,154	4,214	-1.4%	3,854	4,029	292	174	0	0	8	12
Alabama	926	1,067	-13.0%	924	1,066	0	0	0	0	2	1
Kentucky	2,334	1,981	18.0%	2,334	1,981	0	0	0	0	0	0
Mississippi	447	328	36.0%	155	154	292	174	0	0	0	0
Tennessee	448	837	-47.0%	441	827	0	0	0	0	6	11
West South Central	9,378	10,144	-7.6%	4,864	4,252	4,505	5,878	0	0	10	14
Arkansas	1,688	1,107	52.0%	1,425	865	262	241	0	0	1	1
Louisiana	642	486	32.0%	403	250	238	236	0	0	0	0
Oklahoma	693	830	-17.0%	551	730	132	87	0	0	9	13
Texas	6,356	7,720	-18.0%	2,484	2,407	3,872	5,314	0	0	0	0
Mountain	7,804	7,689	1.5%	6,749	6,686	1,046	994	0	0	9	9
Arizona	1,370	1,491	-8.1%	1,370	1,491	0	0	0	0	0	0
Colorado	1,307	1,363	-4.1%	1,307	1,363	0	0	0	0	0	0
Idaho	NM	1	NM	0	0	0	0	0	0	NM	1
Montana	930	858	8.4%	24	0	906	858	0	0	0	0
Nevada	145	53	174.0%	81	0	64	53	0	0	0	0
New Mexico	808	840	-3.8%	808	840	0	0	0	0	0	0
Utah	1,176	1,155	1.8%	1,137	1,117	39	38	0	0	0	0
Wyoming	2,067	1,929	7.2%	2,022	1,875	37	45	0	0	8	8
Pacific Contiguous	569	560	1.6%	68	0	497	554	0	0	5	6
California	4	5	-18.0%	0	0	0	0	0	0	4	5
Oregon	68	0	--	68	0	0	0	0	0	0	0
Washington	497	555	-10.0%	0	0	497	554	0	0	1	1
Pacific Noncontiguous	129	103	25.0%	NM	22	78	78	3	3	0	0
Alaska	65	38	73.0%	NM	22	14	12	3	3	0	0
Hawaii	64	66	-3.1%	0	0	64	66	0	0	0	0
U.S. Total	51,599	50,882	1.4%	37,882	35,778	13,493	14,873	7	8	217	222

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
Notes: See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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 2.8.B. Consumption of Coal for Electricity Generation by State, by Sector, Year-to-Date through November 2018 and November 2017 (Thousand Tons)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	463	730	-37.0%	258	84	202	643	0	0	3	3
Connecticut	191	73	162.0%	0	0	191	73	0	0	0	0
Maine	13	14	-5.0%	0	0	10	11	0	0	3	3
Massachusetts	0	559	-100.0%	0	0	0	559	0	0	0	0
New Hampshire	258	84	208.0%	258	84	0	0	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	21,706	22,326	-2.8%	0	0	21,648	22,207	0	0	58	120
New Jersey	460	461	-0.2%	0	0	460	461	0	0	0	0
New York	254	264	-3.9%	0	0	250	198	0	0	4	66
Pennsylvania	20,992	21,601	-2.8%	0	0	20,938	21,548	0	0	55	53
East North Central	132,634	130,877	1.3%	79,999	80,314	51,899	49,898	21	14	715	650
Illinois	33,265	31,733	4.8%	2,024	1,977	30,704	29,251	12	7	526	497
Indiana	35,762	31,936	12.0%	33,796	30,771	1,957	1,157	9	7	0	0
Michigan	22,548	22,234	1.4%	22,319	22,022	195	198	0	0	34	14
Ohio	23,071	25,990	-11.0%	4,027	6,697	19,043	19,292	0	0	1	1
Wisconsin	17,988	18,985	-5.3%	17,833	18,847	0	0	0	0	155	138
West North Central	107,890	104,988	2.8%	106,780	103,909	0	0	20	26	1,091	1,053
Iowa	14,707	13,119	12.0%	14,230	12,664	0	0	17	20	460	435
Kansas	11,818	11,323	4.4%	11,818	11,323	0	0	0	0	0	0
Minnesota	12,187	11,940	2.1%	11,946	11,698	0	0	0	1	241	240
Missouri	33,964	35,972	-5.6%	33,962	35,967	0	0	2	5	0	0
Nebraska	13,415	11,761	14.0%	13,063	11,414	0	0	0	0	352	348
North Dakota	20,522	19,724	4.0%	20,484	19,694	0	0	0	0	38	30
South Dakota	1,277	1,149	11.0%	1,277	1,149	0	0	0	0	0	0
South Atlantic	79,053	84,054	-5.9%	69,091	74,845	9,739	8,971	10	12	213	227
Delaware	163	156	4.8%	0	0	163	156	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	12,307	15,798	-22.0%	12,288	15,726	3	48	0	0	16	24
Georgia	15,545	15,497	0.3%	15,509	15,462	0	0	0	0	36	35
Maryland	4,134	3,277	26.0%	0	0	4,120	3,260	0	0	14	17
North Carolina	11,608	12,322	-5.8%	11,543	12,235	32	47	9	10	25	30
South Carolina	7,523	6,893	9.1%	7,520	6,888	0	0	0	0	3	4
Virginia	4,258	4,720	-9.8%	3,880	4,401	258	200	1	2	119	118
West Virginia	23,515	25,392	-7.4%	18,351	20,132	5,164	5,259	0	0	0	0
East South Central	54,675	56,451	-3.1%	51,834	54,110	2,700	2,199	0	0	141	142
Alabama	15,066	14,807	1.8%	15,053	14,797	0	0	0	0	13	9
Kentucky	25,859	25,278	2.3%	25,859	25,278	0	0	0	0	0	0
Mississippi	4,093	3,576	14.0%	1,394	1,377	2,700	2,199	0	0	0	0
Tennessee	9,657	12,791	-25.0%	9,529	12,658	0	0	0	0	128	133
West South Central	101,240	117,313	-14.0%	54,547	53,920	46,583	63,236	0	0	110	157
Arkansas	15,710	13,747	14.0%	13,136	12,034	2,567	1,705	0	0	8	7
Louisiana	7,491	7,738	-3.2%	4,978	4,620	2,513	3,117	0	0	0	0
Oklahoma	8,713	10,323	-16.0%	7,542	9,214	1,069	960	0	0	102	149
Texas	69,325	85,505	-19.0%	28,891	28,051	40,435	57,453	0	0	0	0
Mountain	77,531	83,537	-7.2%	68,475	74,265	8,956	9,137	0	0	100	135
Arizona	15,321	15,580	-1.7%	15,321	15,580	0	0	0	0	0	0
Colorado	13,797	15,213	-9.3%	13,795	15,211	0	0	0	0	3	2
Idaho	5	5	7.2%	0	0	0	0	0	0	5	5
Montana	7,840	7,977	-1.7%	207	217	7,632	7,759	0	0	2	2
Nevada	1,175	1,051	12.0%	651	535	524	516	0	0	0	0
New Mexico	6,465	9,806	-34.0%	6,465	9,806	0	0	0	0	0	0
Utah	10,997	11,296	-2.7%	10,623	10,878	374	375	0	0	0	44
Wyoming	21,930	22,609	-3.0%	21,415	22,038	425	488	0	0	90	82
Pacific Contiguous	3,830	4,106	-6.7%	646	1,007	3,125	3,039	0	0	58	60
California	52	53	-1.6%	0	0	0	0	0	0	52	53
Oregon	646	1,007	-36.0%	646	1,007	0	0	0	0	0	0
Washington	3,131	3,046	2.8%	0	0	3,125	3,039	0	0	6	7
Pacific Noncontiguous	1,139	1,071	6.4%	281	204	823	834	35	33	0	0
Alaska	462	376	23.0%	281	204	145	139	35	33	0	0
Hawaii	677	695	-2.5%	0	0	677	695	0	0	0	0
U.S. Total	580,160	605,453	-4.2%	431,911	442,657	145,674	160,164	86	85	2,490	2,547

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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 2.9.A. Consumption of Petroleum Liquids for Electricity Generation by State, by Sector, November 2018 and November 2017 (Thousand Barrels)

Census Division and State	All Sectors			Electric Power Sector: Electric Utilities		Electric Power Sector: Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	72	53	34.0%	23	4	42	45	5	3	2	1
Connecticut	21	4	475.0%	1	1	19	3	1	0	0	0
Maine	11	17	-34.0%	0	0	9	15	0	1	1	1
Massachusetts	13	23	-44.0%	NM	2	8	21	2	1	0	0
New Hampshire	23	5	397.0%	18	1	3	2	2	2	0	0
Rhode Island	3	5	-36.0%	0	0	NM	5	0	0	0	0
Vermont	NM	1	NM	NM	1	0	0	0	0	0	0
Middle Atlantic	79	58	35.0%	26	7	46	45	NM	1	6	5
New Jersey	6	1	412.0%	1	0	5	1	0	0	0	0
New York	41	14	193.0%	25	7	11	3	NM	0	4	3
Pennsylvania	32	43	-26.0%	0	0	30	41	0	1	2	1
East North Central	83	107	-22.0%	45	58	36	45	0	0	2	4
Illinois	10	5	103.0%	NM	1	9	4	0	0	0	0
Indiana	27	23	16.0%	25	20	0	0	0	0	2	3
Michigan	13	22	-41.0%	12	22	0	0	0	0	0	0
Ohio	31	52	-40.0%	4	11	27	40	0	0	0	0
Wisconsin	NM	5	NM	NM	5	0	0	0	0	NM	0
West North Central	46	68	-32.0%	45	61	NM	6	0	0	0	0
Iowa	9	12	-27.0%	9	12	NM	0	0	0	0	0
Kansas	7	22	-67.0%	7	22	0	0	0	0	0	0
Minnesota	3	11	-70.0%	NM	5	NM	6	0	0	0	0
Missouri	16	15	3.7%	16	15	0	0	0	0	0	0
Nebraska	NM	3	NM	NM	3	0	0	0	0	0	0
North Dakota	7	5	46.0%	7	5	0	0	0	0	0	0
South Dakota	3	0	NM	3	0	0	0	NM	0	0	0
South Atlantic	215	218	-1.4%	142	158	50	37	14	9	9	13
Delaware	NM	3	NM	0	1	NM	1	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	27	28	-4.4%	24	26	NM	1	0	0	3	2
Georgia	19	24	-21.0%	14	13	NM	2	0	0	4	9
Maryland	12	17	-30.0%	0	2	12	15	NM	0	0	0
North Carolina	38	64	-40.0%	36	60	NM	2	NM	0	1	1
South Carolina	21	13	68.0%	20	12	0	0	NM	0	1	0
Virginia	75	50	51.0%	28	25	34	16	13	8	NM	0
West Virginia	20	19	2.8%	20	19	0	0	0	0	0	0
East South Central	46	45	0.5%	43	44	1	0	0	0	1	1
Alabama	4	2	68.0%	2	2	1	0	0	0	1	0
Kentucky	17	17	-1.1%	17	17	0	0	0	0	0	0
Mississippi	3	1	241.0%	3	1	0	0	0	0	0	0
Tennessee	22	25	-12.0%	22	25	0	0	0	0	0	0
West South Central	21	26	-18.0%	18	21	2	5	0	0	1	0
Arkansas	2	4	-39.0%	2	4	0	0	0	0	0	0
Louisiana	NM	6	NM	NM	6	0	0	0	0	0	0
Oklahoma	5	5	3.6%	5	5	0	0	0	0	0	0
Texas	11	12	-4.7%	8	6	2	5	0	0	0	0
Mountain	32	27	21.0%	31	26	1	1	0	0	0	0
Arizona	8	9	-14.0%	8	9	0	0	0	0	0	0
Colorado	5	2	183.0%	5	2	0	0	0	0	0	0
Idaho	0	0	211.0%	0	0	0	0	0	0	0	0
Montana	NM	1	NM	NM	0	1	1	0	0	0	0
Nevada	1	0	628.0%	1	0	0	0	0	0	0	0
New Mexico	4	7	-48.0%	4	7	0	0	0	0	0	0
Utah	5	4	32.0%	5	4	0	0	0	0	0	0
Wyoming	8	3	129.0%	8	3	0	0	0	0	0	0
Pacific Contiguous	10	8	27.0%	7	6	2	1	NM	0	1	1
California	6	6	-3.7%	5	5	0	0	0	0	0	0
Oregon	1	0	NM	1	0	0	0	NM	0	0	0
Washington	3	2	41.0%	NM	1	2	1	0	0	1	1
Pacific Noncontiguous	1,053	981	7.3%	830	784	202	176	2	1	19	20
Alaska	99	126	-22.0%	94	121	0	0	1	1	4	4
Hawaii	954	855	12.0%	736	663	202	176	1	0	16	16
U.S. Total	1,657	1,591	4.1%	1,210	1,170	384	362	23	15	40	45

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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 2.9.B. Consumption of Petroleum Liquids for Electricity Generation by State, by Sector, Year-to-Date through November 2018 and November 2017 (Thousand Barrels)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	2,172	547	297.0%	388	85	1,721	426	41	29	22	8
Connecticut	621	108	476.0%	NM	6	608	100	NM	1	1	0
Maine	328	116	183.0%	0	0	302	103	6	6	20	7
Massachusetts	797	250	219.0%	151	26	628	214	17	9	1	1
New Hampshire	301	50	500.0%	204	36	83	3	13	11	0	0
Rhode Island	NM	12	NM	0	5	NM	5	1	2	0	0
Vermont	NM	12	NM	NM	12	0	0	0	0	0	0
Middle Atlantic	3,830	781	391.0%	1,046	126	2,698	587	NM	16	49	52
New Jersey	392	54	631.0%	4	0	383	53	4	0	1	0
New York	2,463	300	722.0%	1,039	125	1,372	135	NM	6	31	33
Pennsylvania	975	427	128.0%	3	0	943	399	12	10	18	18
East North Central	1,008	909	11.0%	585	590	394	298	7	6	21	16
Illinois	134	96	40.0%	NM	17	110	78	0	0	0	0
Indiana	222	195	14.0%	204	181	NM	0	1	0	17	13
Michigan	225	201	12.0%	219	196	0	0	5	4	1	1
Ohio	375	347	8.1%	90	126	281	219	1	1	2	2
Wisconsin	52	71	-27.0%	49	70	2	1	0	0	1	0
West North Central	584	474	23.0%	545	455	NM	17	2	1	1	1
Iowa	114	102	12.0%	112	100	2	2	0	0	0	0
Kansas	NM	108	NM	NM	108	0	0	0	0	0	0
Minnesota	82	64	27.0%	45	47	NM	15	2	1	1	1
Missouri	182	109	66.0%	182	109	0	0	0	0	0	0
Nebraska	16	14	19.0%	16	14	0	0	0	0	0	0
North Dakota	62	63	-0.5%	62	63	0	0	0	0	0	0
South Dakota	17	14	15.0%	17	14	0	0	NM	0	0	0
South Atlantic	5,235	2,889	81.0%	3,681	2,265	1,286	453	158	94	110	77
Delaware	239	21	NM	12	2	227	20	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	961	856	12.0%	910	830	27	11	0	0	24	15
Georgia	366	200	83.0%	NM	147	NM	13	7	4	50	36
Maryland	510	216	136.0%	10	6	493	206	NM	3	3	2
North Carolina	925	416	122.0%	858	384	NM	20	NM	3	14	9
South Carolina	443	184	141.0%	387	173	44	2	NM	0	11	8
Virginia	1,531	805	90.0%	1,060	534	322	179	142	85	8	7
West Virginia	260	191	36.0%	234	189	26	2	0	0	0	0
East South Central	553	458	21.0%	480	442	59	7	0	0	14	9
Alabama	136	52	159.0%	67	40	59	6	0	0	10	7
Kentucky	157	172	-8.4%	157	172	0	0	0	0	0	0
Mississippi	50	21	141.0%	NM	19	0	0	0	0	3	1
Tennessee	211	213	-1.1%	209	211	0	1	0	0	1	1
West South Central	280	272	2.7%	NM	163	45	103	1	1	8	5
Arkansas	59	76	-22.0%	NM	33	9	41	0	0	3	2
Louisiana	NM	41	NM	NM	41	0	0	0	0	0	0
Oklahoma	31	25	23.0%	29	23	0	0	0	0	2	1
Texas	109	130	-17.0%	69	65	NM	62	1	1	3	2
Mountain	343	369	-7.1%	302	331	40	37	0	0	0	0
Arizona	92	96	-4.2%	92	96	0	0	0	0	0	0
Colorado	27	20	35.0%	27	20	0	0	0	0	0	0
Idaho	0	0	149.0%	0	0	0	0	0	0	0	0
Montana	34	29	15.0%	NM	1	33	28	0	0	0	0
Nevada	20	18	8.5%	14	12	5	7	0	0	0	0
New Mexico	38	74	-48.0%	38	74	0	0	0	0	0	0
Utah	57	61	-6.1%	55	58	2	2	0	0	0	0
Wyoming	75	71	5.6%	75	71	0	0	0	0	0	0
Pacific Contiguous	158	139	14.0%	78	88	33	27	NM	1	46	23
California	113	87	30.0%	59	63	17	8	NM	1	36	15
Oregon	NM	17	NM	8	17	0	0	NM	0	0	0
Washington	37	35	3.3%	10	8	16	19	0	0	10	8
Pacific Noncontiguous	11,391	11,442	-0.4%	9,241	9,243	1,914	1,954	13	11	223	233
Alaska	1,250	1,446	-14.0%	1,192	1,384	0	0	5	5	53	58
Hawaii	10,141	9,995	1.5%	8,048	7,859	1,914	1,954	9	7	170	175
U.S. Total	25,554	18,282	40.0%	16,572	13,788	8,227	3,910	261	160	495	424

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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 2.10.A. Consumption of Petroleum Coke for Electricity Generation by State, by Sector, November 2018 and November 2017 (Thousand Tons)

				Electric Power Sector							
Census Division and State	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	0	0	--	0	0	0	0	0	0	0	0
Connecticut	0	0	--	0	0	0	0	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	0	0	--	0	0	0	0	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	NM	2	NM	0	0	0	0	0	0	NM	2
New Jersey	1	1	-17.0%	0	0	0	0	0	0	1	1
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	NM	1	NM	0	0	0	0	0	0	NM	1
East North Central	66	83	-21.0%	37	48	24	27	0	0	5	8
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	38	49	-23.0%	33	42	0	0	0	0	5	8
Ohio	24	27	-13.0%	0	0	24	27	0	0	0	0
Wisconsin	4	7	-35.0%	4	7	0	0	0	0	0	0
West North Central	0	1	-62.0%	0	0	0	0	0	0	0	1
Iowa	0	1	-62.0%	0	0	0	0	0	0	0	1
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	0	0	--	0	0	0	0	0	0	0	0
Missouri	0	0	--	0	0	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	9	25	-64.0%	7	21	0	0	0	0	NM	3
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	7	21	-68.0%	7	21	0	0	0	0	0	0
Georgia	NM	3	NM	0	0	0	0	0	0	NM	3
Maryland	0	0	--	0	0	0	0	0	0	0	0
North Carolina	0	0	--	0	0	0	0	0	0	0	0
South Carolina	0	0	--	0	0	0	0	0	0	0	0
Virginia	0	0	--	0	0	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	0	0	--	0	0	0	0	0	0	0	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	0	0	--	0	0	0	0	0	0	0	0
West South Central	155	169	-8.3%	151	164	0	0	0	0	3	4
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	151	165	-8.3%	151	164	0	0	0	0	0	1
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	3	3	-9.1%	0	0	0	0	0	0	3	3
Mountain	15	13	12.0%	0	0	15	13	0	0	0	0
Arizona	0	0	--	0	0	0	0	0	0	0	0
Colorado	0	0	--	0	0	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	15	13	12.0%	0	0	15	13	0	0	0	0
Nevada	0	0	--	0	0	0	0	0	0	0	0
New Mexico	0	0	--	0	0	0	0	0	0	0	0
Utah	0	0	--	0	0	0	0	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	0	0	--	0	0	0	0	0	0	0	0
California	0	0	--	0	0	0	0	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	0	0	--	0	0	0	0	0	0	0	0
Pacific Noncontiguous	0	0	--	0	0	0	0	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	247	293	-16.0%	196	234	38	40	0	0	13	18

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Table 2.10.B. Consumption of Petroleum Coke for Electricity Generation by State, by Sector, Year-to-Date through November 2018 and November 2017 (Thousand Tons)

				Electric Power Sector							
Census Division and State	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	0	0	--	0	0	0	0	0	0	0	0
Connecticut	0	0	--	0	0	0	0	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	0	0	--	0	0	0	0	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	20	24	-16.0%	0	0	0	0	0	0	20	24
New Jersey	6	6	-5.3%	0	0	0	0	0	0	6	6
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	14	17	-20.0%	0	0	0	0	0	0	14	17
East North Central	773	883	-13.0%	511	466	207	351	0	0	54	67
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	523	491	6.6%	471	424	0	0	0	0	52	67
Ohio	209	351	-40.0%	0	0	207	351	0	0	1	0
Wisconsin	41	42	-2.7%	41	42	0	0	0	0	0	0
West North Central	7	6	11.0%	0	0	0	0	2	2	5	4
Iowa	7	6	11.0%	0	0	0	0	2	2	5	4
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	0	0	--	0	0	0	0	0	0	0	0
Missouri	0	0	--	0	0	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	552	338	63.0%	519	308	0	0	0	0	33	30
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	519	308	69.0%	519	308	0	0	0	0	0	0
Georgia	33	30	6.9%	0	0	0	0	0	0	33	30
Maryland	0	0	--	0	0	0	0	0	0	0	0
North Carolina	0	0	--	0	0	0	0	0	0	0	0
South Carolina	0	0	--	0	0	0	0	0	0	0	0
Virginia	0	0	--	0	0	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	0	166	-100.0%	0	166	0	0	0	0	0	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	0	166	-100.0%	0	166	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	0	0	--	0	0	0	0	0	0	0	0
West South Central	1,529	1,633	-6.3%	1,469	1,560	0	0	0	0	61	72
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	1,490	1,592	-6.4%	1,469	1,560	0	0	0	0	21	31
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	39	41	-3.8%	0	0	0	0	0	0	39	41
Mountain	139	147	-5.9%	0	0	139	147	0	0	0	0
Arizona	0	0	--	0	0	0	0	0	0	0	0
Colorado	0	0	--	0	0	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	139	147	-5.9%	0	0	139	147	0	0	0	0
Nevada	0	0	--	0	0	0	0	0	0	0	0
New Mexico	0	0	--	0	0	0	0	0	0	0	0
Utah	0	0	--	0	0	0	0	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	0	0	--	0	0	0	0	0	0	0	0
California	0	0	--	0	0	0	0	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	0	0	--	0	0	0	0	0	0	0	0
Pacific Noncontiguous	0	0	--	0	0	0	0	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	3,019	3,198	-5.6%	2,499	2,500	346	498	2	2	172	198

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
Notes: See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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 2.11.A. Consumption of Natural Gas for Electricity Generation by State, by Sector, November 2018 and November 2017 (Million Cubic Feet)

Census Division and State	All Sectors			Electric Power Sector: Electric Utilities		Electric Power Sector: Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	26,699	27,698	-3.6%	NM	241	25,535	26,398	398	424	637	635
Connecticut	12,636	10,867	16.0%	36	149	12,145	10,187	169	210	286	321
Maine	1,177	342	244.0%	0	0	1,059	260	12	12	106	70
Massachusetts	8,144	9,870	-17.0%	NM	90	7,750	9,489	195	181	113	110
New Hampshire	1,401	1,860	-25.0%	6	1	1,374	1,849	5	4	16	7
Rhode Island	3,340	4,758	-30.0%	0	0	3,208	4,614	17	18	NM	126
Vermont	1	1	45.0%	1	1	0	0	0	0	0	0
Middle Atlantic	90,356	79,152	14.0%	7,155	6,525	81,456	71,029	611	581	1,135	1,016
New Jersey	19,799	15,735	26.0%	NM	137	19,458	15,350	65	94	157	153
New York	29,284	24,316	20.0%	7,035	6,386	21,454	17,288	500	425	296	218
Pennsylvania	41,273	39,101	5.6%	1	2	40,545	38,391	46	62	682	645
East North Central	73,436	62,843	17.0%	21,272	22,074	49,581	38,030	620	538	1,963	2,201
Illinois	10,032	6,518	54.0%	585	270	8,819	5,700	226	142	403	406
Indiana	15,208	11,445	33.0%	5,415	3,770	8,890	6,409	54	74	848	1,193
Michigan	13,475	14,790	-8.9%	3,341	4,573	9,566	9,692	254	250	314	275
Ohio	26,640	21,144	26.0%	4,637	5,203	21,840	15,828	52	46	111	67
Wisconsin	8,082	8,944	-9.6%	7,294	8,258	466	400	33	27	288	259
West North Central	12,546	11,994	4.6%	9,686	9,985	2,405	1,600	122	117	333	292
Iowa	2,396	3,440	-30.0%	2,196	3,221	NM	13	32	46	168	161
Kansas	1,483	1,641	-9.6%	1,397	1,608	0	0	0	0	86	33
Minnesota	3,209	3,258	-1.5%	2,543	1,686	568	1,473	44	31	54	69
Missouri	4,152	2,326	78.0%	2,260	2,158	1,837	115	44	39	12	15
Nebraska	NM	298	NM	NM	297	0	0	2	1	0	0
North Dakota	386	554	-30.0%	NM	539	0	0	0	0	14	15
South Dakota	NM	476	NM	NM	476	0	0	0	0	0	0
South Atlantic	195,612	182,266	7.3%	160,777	149,456	31,762	30,192	698	602	2,375	2,016
Delaware	2,024	2,079	-2.6%	14	9	1,512	1,872	0	0	498	198
District of Columbia	20	25	-18.0%	0	0	0	0	20	25	0	0
Florida	91,983	86,050	6.9%	87,504	81,581	3,755	3,848	9	10	714	610
Georgia	24,605	26,946	-8.7%	18,549	20,361	5,739	6,336	0	0	317	249
Maryland	6,423	6,507	-1.3%	2,377	1,027	3,434	4,962	574	477	38	40
North Carolina	26,468	22,758	16.0%	21,797	21,251	4,521	1,374	NM	82	65	51
South Carolina	15,724	10,838	45.0%	13,555	9,032	2,095	1,739	0	0	75	67
Virginia	27,524	26,118	5.4%	16,862	16,067	10,139	9,407	11	7	513	636
West Virginia	841	945	-11.0%	120	127	567	653	0	0	155	165
East South Central	72,641	67,208	8.1%	48,653	44,834	22,712	21,384	85	72	1,190	918
Alabama	30,917	29,757	3.9%	11,683	10,138	18,649	19,134	0	0	584	484
Kentucky	9,080	7,243	25.0%	8,238	6,846	755	307	0	0	87	90
Mississippi	24,442	25,027	-2.3%	20,958	22,913	3,297	1,925	0	0	187	189
Tennessee	8,202	5,181	58.0%	7,774	4,936	10	17	85	72	332	155
West South Central	167,825	137,954	22.0%	59,512	43,064	74,232	64,403	345	262	33,736	30,224
Arkansas	6,819	5,621	21.0%	6,039	4,997	613	477	NM	19	134	127
Louisiana	29,205	28,676	1.8%	14,993	14,418	1,211	1,788	70	55	12,931	12,414
Oklahoma	21,854	13,358	64.0%	16,327	7,804	5,306	5,365	0	0	221	190
Texas	109,946	90,299	22.0%	22,153	15,845	67,102	56,773	241	188	20,450	17,493
Mountain	61,232	44,450	38.0%	47,750	34,073	12,101	8,935	176	189	1,205	1,252
Arizona	21,565	12,943	67.0%	15,715	9,420	5,809	3,477	41	46	0	0
Colorado	9,679	6,348	52.0%	8,248	5,305	1,403	1,006	0	8	28	28
Idaho	2,203	2,875	-23.0%	1,496	1,674	NM	1,141	14	15	55	45
Montana	486	316	54.0%	264	276	219	38	0	0	3	2
Nevada	13,521	13,919	-2.9%	12,032	12,420	1,320	1,297	16	22	153	181
New Mexico	7,334	4,918	49.0%	4,527	2,946	2,661	1,931	46	40	100	1
Utah	5,834	2,620	123.0%	5,264	1,923	47	44	60	59	463	594
Wyoming	611	511	20.0%	205	110	4	0	0	0	402	401
Pacific Contiguous	72,683	70,113	3.7%	25,677	27,286	41,118	36,108	762	989	5,127	5,730
California	58,130	52,325	11.0%	18,721	17,186	33,621	28,549	741	965	5,047	5,626
Oregon	11,834	10,763	10.0%	4,997	5,909	6,775	4,788	15	15	47	51
Washington	2,719	7,025	-61.0%	1,959	4,192	722	2,771	6	9	32	53
Pacific Noncontiguous	2,012	2,669	-25.0%	1,986	2,656	0	0	0	0	26	13
Alaska	2,012	2,669	-25.0%	1,986	2,656	0	0	0	0	26	13
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	775,042	686,346	13.0%	382,596	340,195	340,902	298,079	3,817	3,776	47,727	44,297

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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 2.11.B. Consumption of Nautral Gas for Electricity Generation by State, by Sector, Year-to-Date through November 2018 and November 2017 (Million Cubic Feet)

				Electric Power Sector							
Census Division and State	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	348,389	340,908	2.2%	2,815	2,942	333,614	325,785	4,525	4,916	7,435	7,264
Connecticut	127,575	103,048	24.0%	344	845	122,142	96,877	1,873	2,063	3,216	3,264
Maine	18,105	14,899	22.0%	0	0	16,427	13,433	137	140	1,541	1,327
Massachusetts	132,098	149,339	-12.0%	2,062	1,703	126,565	143,998	2,263	2,451	1,208	1,187
New Hampshire	21,273	24,756	-14.0%	398	384	20,662	24,162	29	38	183	172
Rhode Island	49,324	48,852	1.0%	0	0	47,818	47,315	219	222	1,287	1,315
Vermont	15	14	5.2%	11	11	0	0	4	3	0	0
Middle Atlantic	1,138,694	1,070,556	6.4%	93,083	81,289	1,025,167	970,423	7,174	7,287	13,270	11,557
New Jersey	258,284	243,138	6.2%	NM	1,971	253,596	238,398	962	1,041	1,834	1,728
New York	377,759	341,453	11.0%	91,135	79,259	277,160	254,422	5,593	5,621	3,872	2,152
Pennsylvania	502,651	485,965	3.4%	57	60	494,411	477,603	619	625	7,563	7,677
East North Central	946,500	708,257	34.0%	341,437	251,792	575,392	428,191	7,829	7,332	21,842	20,941
Illinois	157,900	134,814	17.0%	14,093	7,855	137,011	120,166	2,631	2,257	4,166	4,536
Indiana	174,207	119,998	45.0%	75,489	49,280	87,375	59,843	809	903	10,534	9,971
Michigan	212,845	177,354	20.0%	79,195	64,292	127,596	107,357	2,797	2,695	3,256	3,011
Ohio	278,027	182,116	53.0%	62,134	47,495	213,839	132,715	1,088	1,162	965	744
Wisconsin	123,521	93,975	31.0%	110,526	82,870	9,571	8,110	504	316	2,920	2,679
West North Central	226,953	146,062	55.0%	196,885	126,493	25,331	15,584	1,459	1,356	3,277	2,629
Iowa	48,765	27,749	76.0%	46,247	25,668	NM	23	448	428	2,067	1,629
Kansas	31,876	19,183	66.0%	31,453	18,988	0	0	0	0	423	195
Minnesota	62,324	44,136	41.0%	52,096	36,090	9,263	7,024	433	456	531	567
Missouri	59,473	37,872	57.0%	42,726	28,728	16,065	8,537	547	462	135	146
Nebraska	10,213	5,861	74.0%	10,182	5,850	0	0	31	10	0	0
North Dakota	6,436	6,025	6.8%	6,315	5,933	0	0	0	0	121	92
South Dakota	7,866	5,237	50.0%	7,866	5,237	0	0	0	0	0	0
South Atlantic	2,504,732	2,220,548	13.0%	2,000,713	1,812,710	471,108	377,801	9,347	7,114	23,564	22,923
Delaware	37,638	46,622	-19.0%	264	186	33,476	42,211	0	0	3,898	4,225
District of Columbia	558	567	-1.5%	0	0	0	0	558	567	0	0
Florida	1,193,790	1,105,351	8.0%	1,124,058	1,045,936	62,090	52,358	104	123	7,538	6,935
Georgia	354,464	340,737	4.0%	259,409	255,125	91,469	82,274	0	0	3,586	3,338
Maryland	102,088	50,403	103.0%	24,411	2,582	69,515	41,912	7,735	5,500	428	409
North Carolina	310,452	252,791	23.0%	260,742	217,301	48,187	34,138	880	874	644	477
South Carolina	163,627	122,903	33.0%	126,459	104,824	36,435	17,365	2	3	731	711
Virginia	330,165	289,276	14.0%	203,465	185,079	121,159	99,153	69	48	5,472	4,996
West Virginia	11,949	11,899	0.4%	1,905	1,678	8,776	8,389	0	0	1,268	1,832
East South Central	944,853	794,901	19.0%	651,156	543,930	280,847	239,100	947	841	11,904	11,030
Alabama	391,683	340,735	15.0%	143,135	122,976	242,207	211,925	0	0	6,341	5,834
Kentucky	108,919	73,087	49.0%	100,657	68,460	7,508	3,761	0	0	754	866
Mississippi	345,088	309,573	11.0%	312,047	284,240	31,008	23,280	39	24	1,995	2,029
Tennessee	99,163	71,505	39.0%	95,318	68,254	123	134	908	817	2,814	2,301
West South Central	2,417,556	2,035,568	19.0%	921,268	735,379	1,143,490	954,682	4,169	4,098	348,629	341,409
Arkansas	133,287	111,095	20.0%	124,916	103,532	6,590	5,925	380	377	1,401	1,261
Louisiana	411,220	387,301	6.2%	249,922	224,265	28,505	27,692	680	543	132,112	134,801
Oklahoma	298,369	210,401	42.0%	191,091	131,649	104,323	76,902	0	0	2,954	1,850
Texas	1,574,681	1,326,771	19.0%	355,339	275,933	1,004,071	844,163	3,109	3,178	212,161	203,497
Mountain	746,377	615,029	21.0%	579,660	479,038	152,252	121,932	1,997	2,040	12,468	12,019
Arizona	264,774	208,673	27.0%	187,482	146,396	76,728	61,704	564	573	0	0
Colorado	115,170	85,515	35.0%	93,654	70,117	21,217	15,081	0	8	299	310
Idaho	20,448	18,638	9.7%	10,234	10,126	9,534	7,815	154	157	526	541
Montana	4,326	4,284	1.0%	3,349	3,385	963	883	0	0	13	16
Nevada	185,892	180,680	2.9%	169,205	164,388	13,772	13,763	238	226	2,676	2,303
New Mexico	87,941	69,677	26.0%	58,427	46,961	28,755	22,169	478	531	282	15
Utah	61,756	42,575	45.0%	55,318	36,547	1,268	504	562	545	4,608	4,980
Wyoming	6,069	4,987	22.0%	1,991	1,120	15	13	0	0	4,063	3,854
Pacific Contiguous	789,640	743,028	6.3%	308,814	290,607	409,924	379,314	10,318	10,794	60,584	62,313
California	610,282	586,852	4.0%	210,428	203,587	330,091	311,248	10,052	10,578	59,710	61,439
Oregon	109,318	89,287	22.0%	54,408	46,143	54,238	42,540	195	155	477	448
Washington	70,040	66,890	4.7%	43,978	40,877	25,595	25,526	70	60	397	426
Pacific Noncontiguous	30,744	26,506	16.0%	30,494	26,247	0	0	3	22	247	237
Alaska	30,744	26,506	16.0%	30,494	26,247	0	0	3	22	247	237
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	10,094,438	8,701,365	16.0%	5,126,325	4,350,429	4,417,125	3,812,813	47,767	45,801	503,221	492,322

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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 2.12.A. Consumption of Landfill Gas for Electricity Generation by State, by Sector, November 2018 and November 2017 (Million Cubic Feet)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	886	913	-3.0%	0	0	863	890	23	23	0	0
Connecticut	NM	42	NM	0	0	NM	42	0	0	0	0
Maine	NM	62	NM	0	0	NM	62	0	0	0	0
Massachusetts	308	292	5.7%	0	0	308	292	0	0	0	0
New Hampshire	98	142	-31.0%	0	0	NM	119	23	23	0	0
Rhode Island	359	353	1.6%	0	0	359	353	0	0	0	0
Vermont	NM	22	NM	0	0	NM	22	0	0	0	0
Middle Atlantic	4,409	4,311	2.3%	0	0	4,248	4,132	NM	67	73	112
New Jersey	613	632	-2.9%	0	0	582	604	NM	28	0	0
New York	1,405	1,395	0.7%	0	0	1,405	1,395	0	0	0	0
Pennsylvania	2,391	2,285	4.6%	0	0	2,261	2,133	NM	39	73	112
East North Central	5,136	5,134	0.0%	734	637	4,364	4,452	14	23	24	22
Illinois	796	936	-15.0%	NM	34	728	901	0	0	0	0
Indiana	758	704	7.6%	666	603	92	102	0	0	0	0
Michigan	1,785	1,695	5.3%	0	0	1,785	1,695	0	0	0	0
Ohio	875	871	0.4%	0	0	875	871	0	0	0	0
Wisconsin	922	928	-0.7%	0	0	884	883	14	23	24	22
West North Central	1,001	824	22.0%	351	276	650	548	0	0	0	0
Iowa	200	201	-0.3%	0	0	200	201	0	0	0	0
Kansas	NM	96	NM	0	0	NM	96	0	0	0	0
Minnesota	314	227	38.0%	NM	53	NM	174	0	0	0	0
Missouri	NM	151	NM	NM	75	NM	77	0	0	0	0
Nebraska	NM	148	NM	NM	148	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	4,458	4,301	3.6%	423	389	3,737	3,554	142	199	156	160
Delaware	NM	105	NM	0	0	NM	95	0	0	NM	10
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	742	946	-22.0%	130	149	612	797	0	0	0	0
Georgia	587	433	35.0%	0	0	587	410	0	0	0	23
Maryland	242	250	-3.2%	0	0	NM	162	94	88	0	0
North Carolina	934	980	-4.7%	0	0	906	887	NM	94	0	0
South Carolina	471	391	20.0%	288	233	NM	32	0	0	147	127
Virginia	1,372	1,196	15.0%	5	7	1,347	1,171	NM	17	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	501	368	36.0%	NM	124	293	244	0	0	0	0
Alabama	NM	76	NM	0	0	NM	76	0	0	0	0
Kentucky	NM	137	NM	NM	124	NM	13	0	0	0	0
Mississippi	NM	18	NM	0	0	NM	18	0	0	0	0
Tennessee	NM	136	NM	0	0	NM	136	0	0	0	0
West South Central	1,134	1,328	-15.0%	0	0	1,081	1,276	53	52	0	0
Arkansas	NM	73	NM	0	0	NM	73	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	NM	44	NM	0	0	NM	44	0	0	0	0
Texas	958	1,211	-21.0%	0	0	905	1,160	53	52	0	0
Mountain	597	561	6.3%	NM	23	524	495	51	44	0	0
Arizona	NM	84	NM	0	0	NM	84	0	0	0	0
Colorado	NM	117	NM	0	0	NM	117	0	0	0	0
Idaho	NM	90	NM	NM	23	NM	48	20	20	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	NM	135	NM	0	0	NM	135	0	0	0	0
New Mexico	NM	2	NM	0	0	NM	2	0	0	0	0
Utah	NM	134	NM	0	0	NM	110	31	24	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	4,771	5,054	-5.6%	NM	656	3,317	3,125	1,285	1,246	0	28
California	4,188	4,194	-0.1%	NM	254	2,886	2,707	1,245	1,206	0	28
Oregon	475	472	0.5%	NM	118	322	315	NM	40	0	0
Washington	NM	387	NM	0	284	NM	103	0	0	0	0
Pacific Noncontiguous	58	75	-23.0%	0	0	0	0	58	75	0	0
Alaska	58	75	-23.0%	0	0	0	0	58	75	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	22,951	22,870	0.4%	1,907	2,105	19,077	18,715	1,715	1,728	252	322

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Notes: See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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 2.12.B. Consumption of Landfill Gas for Electricity Generation by State, by Sector, Year-to-Date through November 2018 and November 2017 (Million Cubic Feet)

				Electric Power Sector							
Census Division and State	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	9,666	9,777	-1.1%	0	0	9,449	9,554	216	223	0	0
Connecticut	432	405	6.7%	0	0	432	405	0	0	0	0
Maine	695	661	5.2%	0	0	695	661	0	0	0	0
Massachusetts	3,487	3,354	3.9%	0	0	3,487	3,354	0	0	0	0
New Hampshire	1,045	1,437	-27.0%	0	0	829	1,214	216	223	0	0
Rhode Island	3,768	3,682	2.3%	0	0	3,768	3,682	0	0	0	0
Vermont	239	238	0.3%	0	0	239	238	0	0	0	0
Middle Atlantic	50,900	48,910	4.1%	0	0	49,122	46,797	707	728	1,071	1,385
New Jersey	7,412	7,009	5.7%	0	0	7,130	6,710	281	298	0	0
New York	16,160	15,293	5.7%	0	0	16,160	15,293	0	0	0	0
Pennsylvania	27,328	26,608	2.7%	0	0	25,831	24,794	426	430	1,071	1,385
East North Central	58,227	58,023	0.4%	8,431	6,784	49,284	50,711	275	324	236	203
Illinois	9,310	11,615	-20.0%	767	400	8,543	11,215	0	0	0	0
Indiana	8,787	7,390	19.0%	7,664	6,346	1,123	1,044	0	0	0	0
Michigan	19,889	18,961	4.9%	0	0	19,889	18,961	0	0	0	0
Ohio	9,905	9,987	-0.8%	0	0	9,905	9,987	0	0	0	0
Wisconsin	10,336	10,070	2.6%	0	38	9,825	9,504	275	324	236	203
West North Central	11,452	10,044	14.0%	4,040	3,239	7,411	6,805	0	0	0	0
Iowa	2,331	2,360	-1.2%	0	0	2,331	2,360	0	0	0	0
Kansas	1,340	1,181	14.0%	0	0	1,340	1,181	0	0	0	0
Minnesota	3,563	2,934	21.0%	957	657	2,606	2,277	0	0	0	0
Missouri	2,526	1,951	29.0%	1,392	963	1,134	988	0	0	0	0
Nebraska	1,691	1,619	4.5%	1,691	1,619	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	50,417	49,257	2.4%	4,937	4,112	42,522	41,167	1,352	2,186	1,605	1,792
Delaware	1,261	1,152	9.4%	0	0	1,152	1,044	0	0	109	109
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	8,443	9,603	-12.0%	1,595	1,478	6,848	8,126	0	0	0	0
Georgia	7,234	6,380	13.0%	0	0	7,142	6,094	0	0	92	286
Maryland	2,772	2,656	4.4%	0	0	1,845	1,724	927	932	0	0
North Carolina	10,200	10,609	-3.9%	0	0	9,956	9,572	244	1,037	0	0
South Carolina	5,104	4,306	19.0%	3,294	2,562	406	347	0	0	1,405	1,397
Virginia	15,402	14,551	5.8%	48	72	15,173	14,262	181	217	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	5,614	5,353	4.9%	2,318	2,314	3,296	3,039	0	0	0	0
Alabama	1,020	987	3.3%	0	0	1,020	987	0	0	0	0
Kentucky	2,561	2,559	0.1%	2,318	2,314	243	245	0	0	0	0
Mississippi	239	193	24.0%	0	0	239	193	0	0	0	0
Tennessee	1,794	1,614	11.0%	0	0	1,794	1,614	0	0	0	0
West South Central	13,332	13,331	0.0%	0	0	12,787	12,857	546	474	0	0
Arkansas	1,535	1,342	14.0%	0	0	1,535	1,342	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	450	409	10.0%	0	0	450	409	0	0	0	0
Texas	11,347	11,580	-2.0%	0	0	10,802	11,105	546	474	0	0
Mountain	6,577	6,037	8.9%	251	231	5,821	5,390	505	416	0	0
Arizona	925	902	2.5%	0	0	925	902	0	0	0	0
Colorado	1,066	1,259	-15.0%	0	0	1,066	1,259	0	0	0	0
Idaho	815	913	-11.0%	251	231	382	496	182	186	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	1,754	1,452	21.0%	0	0	1,754	1,452	0	0	0	0
New Mexico	NM	19	NM	0	0	NM	19	0	0	0	0
Utah	1,917	1,492	28.0%	0	0	1,593	1,263	323	230	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	53,944	52,683	2.4%	3,729	6,245	36,833	33,035	13,382	13,250	0	153
California	46,134	43,420	6.3%	915	1,910	32,222	28,536	12,997	12,821	0	153
Oregon	5,150	5,049	2.0%	1,252	1,260	3,513	3,360	384	429	0	0
Washington	2,660	4,214	-37.0%	1,562	3,074	1,098	1,140	0	0	0	0
Pacific Noncontiguous	737	710	3.8%	0	0	0	0	737	710	0	0
Alaska	737	710	3.8%	0	0	0	0	737	710	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	260,864	254,125	2.7%	23,707	22,926	216,526	209,356	17,720	18,311	2,912	3,533

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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 2.13.A. Consumption of Biogenic Municipal Solid Waste for Electricity Generation by State, by Sector, November 2018 and November 2017 (Thousand Tons)

				Electric Power Sector							
Census Division and State	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	275	304	-9.7%	0	0	260	286	14	18	0	0
Connecticut	80	104	-23.0%	0	0	80	104	0	0	0	0
Maine	23	26	-11.0%	0	0	9	9	14	18	0	0
Massachusetts	161	164	-1.9%	0	0	161	164	0	0	0	0
New Hampshire	11	10	2.2%	0	0	11	10	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	453	464	-2.3%	0	0	362	367	91	97	0	0
New Jersey	116	116	0.1%	0	0	92	87	24	29	0	0
New York	167	180	-7.5%	0	0	124	132	42	49	0	0
Pennsylvania	170	167	1.6%	0	0	146	148	24	19	0	0
East North Central	20	18	9.3%	3	2	0	0	17	16	0	0
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	2	2	9.3%	0	0	0	0	2	2	0	0
Michigan	15	14	4.9%	0	0	0	0	15	14	0	0
Ohio	0	0	--	0	0	0	0	0	0	0	0
Wisconsin	3	2	39.0%	3	2	0	0	0	0	0	0
West North Central	59	46	29.0%	36	28	23	18	0	1	0	0
Iowa	0	0	--	0	0	0	0	0	0	0	0
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	59	46	29.0%	36	28	23	18	0	1	0	0
Missouri	0	0	--	0	0	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	458	388	18.0%	0	0	423	348	35	40	0	0
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	309	295	4.6%	0	0	309	295	0	0	0	0
Georgia	0	0	--	0	0	0	0	0	0	0	0
Maryland	51	53	-4.0%	0	0	51	53	0	0	0	0
North Carolina	0	0	--	0	0	0	0	0	0	0	0
South Carolina	0	0	--	0	0	0	0	0	0	0	0
Virginia	98	40	146.0%	0	0	63	0	35	40	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	0	0	--	0	0	0	0	0	0	0	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	0	0	--	0	0	0	0	0	0	0	0
West South Central	0	1	-100.0%	0	0	0	0	0	0	0	1
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	0	1	-100.0%	0	0	0	0	0	0	0	1
Texas	0	0	--	0	0	0	0	0	0	0	0
Mountain	0	0	--	0	0	0	0	0	0	0	0
Arizona	0	0	--	0	0	0	0	0	0	0	0
Colorado	0	0	--	0	0	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	0	0	--	0	0	0	0	0	0	0	0
New Mexico	0	0	--	0	0	0	0	0	0	0	0
Utah	0	0	--	0	0	0	0	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	52	55	-4.7%	0	0	52	55	0	0	0	0
California	33	33	-1.7%	0	0	33	33	0	0	0	0
Oregon	10	10	1.4%	0	0	10	10	0	0	0	0
Washington	10	12	-18.0%	0	0	10	12	0	0	0	0
Pacific Noncontiguous	39	36	9.6%	0	0	0	0	39	36	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	39	36	9.6%	0	0	0	0	39	36	0	0
U.S. Total	1,356	1,311	3.4%	39	30	1,120	1,074	196	207	0	1

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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 2.13.B. Consumption of Biogenic Municipal Solid Waste for Electricity Generation by State, by Sector, Year-to-Date through November 2018 and November 2017 (Thousand Tons)

				Electric Power Sector							
Census Division and State	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	3,198	3,390	-5.6%	0	0	3,039	3,202	159	188	0	0
Connecticut	1,060	1,139	-7.0%	0	0	1,060	1,139	0	0	0	0
Maine	262	291	-10.0%	0	0	102	103	159	188	0	0
Massachusetts	1,764	1,844	-4.3%	0	0	1,764	1,844	0	0	0	0
New Hampshire	113	115	-2.2%	0	0	113	115	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	4,929	5,030	-2.0%	0	0	3,926	3,956	1,004	1,074	0	0
New Jersey	1,310	1,307	0.2%	0	0	995	986	315	321	0	0
New York	1,823	1,904	-4.2%	0	0	1,363	1,380	460	523	0	0
Pennsylvania	1,797	1,820	-1.3%	0	0	1,568	1,590	229	230	0	0
East North Central	214	217	-1.4%	32	33	0	0	182	184	0	0
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	18	16	12.0%	0	0	0	0	18	16	0	0
Michigan	164	168	-2.3%	0	0	0	0	164	168	0	0
Ohio	0	0	--	0	0	0	0	0	0	0	0
Wisconsin	32	33	-2.9%	32	33	0	0	0	0	0	0
West North Central	605	582	4.0%	398	358	207	213	0	11	0	0
Iowa	0	0	--	0	0	0	0	0	0	0	0
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	605	582	4.0%	398	358	207	213	0	11	0	0
Missouri	0	0	--	0	0	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	5,151	4,685	10.0%	0	0	4,735	4,209	417	476	0	0
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	3,485	3,562	-2.2%	0	0	3,485	3,562	0	0	0	0
Georgia	0	0	--	0	0	0	0	0	0	0	0
Maryland	598	580	3.0%	0	0	598	580	0	0	0	0
North Carolina	0	0	--	0	0	0	0	0	0	0	0
South Carolina	0	0	--	0	0	0	0	0	0	0	0
Virginia	1,069	542	97.0%	0	0	652	66	417	476	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	0	0	--	0	0	0	0	0	0	0	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	0	0	--	0	0	0	0	0	0	0	0
West South Central	9	7	15.0%	0	0	0	0	0	0	9	7
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	9	7	15.0%	0	0	0	0	0	0	9	7
Texas	0	0	--	0	0	0	0	0	0	0	0
Mountain	0	0	-100.0%	0	0	0	0	0	0	0	0
Arizona	0	0	--	0	0	0	0	0	0	0	0
Colorado	0	0	--	0	0	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	0	0	--	0	0	0	0	0	0	0	0
New Mexico	0	0	--	0	0	0	0	0	0	0	0
Utah	0	0	-100.0%	0	0	0	0	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	639	669	-4.5%	0	0	639	669	0	0	0	0
California	393	423	-7.1%	0	0	393	423	0	0	0	0
Oregon	102	100	1.7%	0	0	102	100	0	0	0	0
Washington	144	146	-1.3%	0	0	144	146	0	0	0	0
Pacific Noncontiguous	413	390	5.8%	0	0	0	0	413	390	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	413	390	5.8%	0	0	0	0	413	390	0	0
U.S. Total	15,158	14,970	1.3%	430	390	12,545	12,249	2,175	2,323	9	7

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

Table 2.14.A. Consumption of Wood / Wood Waste Biomass for Electricity Generation by State, by Sector, November 2018 and November 2017 (Billion Btus)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	4,013	4,363	-8.0%	612	595	2,977	3,390	1	1	422	377
Connecticut	NM	322	NM	0	0	NM	322	0	0	0	0
Maine	1,718	1,823	-5.7%	0	0	1,296	1,445	0	0	422	377
Massachusetts	NM	202	NM	0	0	NM	202	0	0	0	0
New Hampshire	1,562	1,677	-6.8%	372	442	1,190	1,235	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	394	339	16.0%	240	152	NM	187	1	0	0	0
Middle Atlantic	802	1,081	-26.0%	0	0	529	567	0	0	273	514
New Jersey	0	0	--	0	0	0	0	0	0	0	0
New York	615	651	-5.5%	0	0	529	567	0	0	86	84
Pennsylvania	187	430	-57.0%	0	0	0	0	0	0	187	430
East North Central	1,881	2,213	-15.0%	385	494	892	1,051	0	0	603	667
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	1,179	1,357	-13.0%	0	0	880	1,041	0	0	299	316
Ohio	85	103	-17.0%	0	0	12	10	0	0	73	93
Wisconsin	616	753	-18.0%	385	494	0	0	0	0	231	259
West North Central	500	979	-49.0%	141	101	113	626	6	29	241	222
Iowa	1	0	NM	0	0	0	0	1	0	0	0
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	494	949	-48.0%	141	101	113	626	0	0	241	222
Missouri	5	29	-84.0%	0	0	0	0	5	29	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	9,736	10,740	-9.3%	2,174	1,937	2,290	3,229	13	11	5,259	5,564
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	1,919	1,749	9.7%	736	461	492	665	0	0	691	623
Georgia	2,541	3,326	-24.0%	0	0	527	1,094	0	0	2,014	2,232
Maryland	55	62	-11.0%	0	0	0	0	13	11	42	51
North Carolina	1,152	1,446	-20.0%	0	0	602	846	0	0	550	599
South Carolina	1,350	1,419	-4.8%	72	106	457	439	0	0	821	874
Virginia	2,719	2,739	-0.7%	1,366	1,369	NM	184	0	0	1,141	1,185
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	3,002	3,117	-3.7%	0	0	174	198	0	0	2,827	2,919
Alabama	1,947	2,217	-12.0%	0	0	174	198	0	0	1,772	2,019
Kentucky	141	138	2.4%	0	0	0	0	0	0	141	138
Mississippi	561	482	16.0%	0	0	0	0	0	0	561	482
Tennessee	353	280	26.0%	0	0	0	0	0	0	353	280
West South Central	2,268	2,472	-8.2%	0	0	0	0	0	0	2,268	2,472
Arkansas	514	615	-17.0%	0	0	0	0	0	0	514	615
Louisiana	1,218	1,317	-7.5%	0	0	0	0	0	0	1,218	1,317
Oklahoma	167	155	7.4%	0	0	0	0	0	0	167	155
Texas	370	385	-3.8%	0	0	0	0	0	0	370	385
Mountain	485	217	123.0%	0	0	320	128	0	0	165	89
Arizona	NM	0	--	0	0	NM	0	0	0	0	0
Colorado	112	101	11.0%	0	0	112	101	0	0	0	0
Idaho	174	95	83.0%	0	0	30	27	0	0	144	68
Montana	21	22	-2.2%	0	0	0	0	0	0	21	22
Nevada	0	0	--	0	0	0	0	0	0	0	0
New Mexico	0	0	--	0	0	0	0	0	0	0	0
Utah	0	0	--	0	0	0	0	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	4,773	5,276	-9.5%	298	482	2,817	3,410	0	0	1,658	1,385
California	3,248	3,453	-5.9%	0	0	2,646	3,095	0	0	602	359
Oregon	506	657	-23.0%	0	0	NM	316	0	0	335	342
Washington	1,019	1,166	-13.0%	298	482	0	0	0	0	721	684
Pacific Noncontiguous	0	0	--	0	0	0	0	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	27,459	30,458	-9.8%	3,610	3,608	10,113	12,600	20	41	13,716	14,210

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
Notes: See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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 2.14.B. Consumption of Wood / Wood Waste Biomass for Electricity Generation by State, by Sector, Year-to-Date through November 2018 and November 2017 (Billion Btus)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	48,025	50,907	-5.7%	7,032	7,673	36,261	38,624	19	45	4,714	4,565
Connecticut	2,285	2,247	1.7%	0	0	2,285	2,247	0	0	0	0
Maine	20,474	21,171	-3.3%	0	0	15,752	16,569	9	36	4,714	4,565
Massachusetts	1,843	2,092	-12.0%	0	0	1,843	2,092	0	0	0	0
New Hampshire	18,207	19,939	-8.7%	3,678	4,273	14,529	15,666	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	5,216	5,459	-4.5%	3,354	3,400	1,852	2,051	10	8	0	0
Middle Atlantic	10,584	11,959	-11.0%	0	0	6,295	6,177	0	0	4,289	5,781
New Jersey	0	0	--	0	0	0	0	0	0	0	0
New York	7,211	7,089	1.7%	0	0	6,293	6,176	0	0	917	913
Pennsylvania	3,374	4,869	-31.0%	0	0	2	1	0	0	3,371	4,868
East North Central	22,133	22,411	-1.2%	4,547	4,416	10,869	11,332	0	0	6,718	6,662
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	14,063	14,415	-2.4%	0	0	10,736	11,198	0	0	3,327	3,218
Ohio	1,035	1,161	-11.0%	0	0	133	134	0	0	902	1,027
Wisconsin	7,035	6,834	2.9%	4,547	4,416	0	0	0	0	2,488	2,418
West North Central	8,152	9,990	-18.0%	1,648	1,728	3,454	5,316	326	327	2,724	2,618
Iowa	3	10	-71.0%	0	0	0	0	3	10	0	0
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	7,892	9,689	-19.0%	1,648	1,728	3,454	5,316	66	26	2,724	2,618
Missouri	257	291	-11.0%	0	0	0	0	257	291	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	113,901	112,889	0.9%	24,484	20,616	29,898	33,609	124	45	59,396	58,619
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	20,763	18,434	13.0%	6,900	3,842	5,909	6,777	0	0	7,954	7,816
Georgia	30,128	30,577	-1.5%	0	0	7,246	8,513	0	0	22,882	22,064
Maryland	606	613	-1.0%	0	0	0	0	124	45	482	568
North Carolina	14,820	15,798	-6.2%	0	0	8,665	9,626	0	0	6,155	6,172
South Carolina	16,327	17,134	-4.7%	1,601	1,626	5,449	5,966	0	0	9,278	9,541
Virginia	31,257	30,334	3.0%	15,983	15,147	2,629	2,727	0	0	12,645	12,459
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	33,521	33,789	-0.8%	0	0	1,947	1,964	0	0	31,574	31,825
Alabama	21,587	21,961	-1.7%	0	0	1,947	1,964	0	0	19,640	19,997
Kentucky	1,612	1,596	1.0%	0	0	0	0	0	0	1,612	1,596
Mississippi	6,248	6,325	-1.2%	0	0	0	0	0	0	6,248	6,325
Tennessee	4,074	3,908	4.3%	0	0	0	0	0	0	4,074	3,908
West South Central	28,172	27,257	3.4%	0	0	2,191	1,218	0	0	25,980	26,039
Arkansas	6,146	6,293	-2.3%	0	0	0	0	0	0	6,146	6,293
Louisiana	14,113	14,189	-0.5%	0	0	0	0	0	0	14,113	14,189
Oklahoma	1,623	1,443	12.0%	0	0	22	0	0	0	1,601	1,443
Texas	6,289	5,331	18.0%	0	0	2,169	1,218	0	0	4,120	4,113
Mountain	5,215	5,531	-5.7%	0	0	3,591	4,082	0	0	1,625	1,448
Arizona	2,166	2,600	-17.0%	0	0	2,166	2,600	0	0	0	0
Colorado	1,132	1,202	-5.8%	0	0	1,132	1,202	0	0	0	0
Idaho	1,689	1,501	13.0%	0	0	292	280	0	0	1,397	1,221
Montana	228	227	0.3%	0	0	0	0	0	0	228	227
Nevada	0	0	--	0	0	0	0	0	0	0	0
New Mexico	0	0	--	0	0	0	0	0	0	0	0
Utah	0	0	--	0	0	0	0	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	54,760	56,020	-2.3%	3,642	3,798	33,207	36,175	0	0	17,910	16,048
California	36,964	38,298	-3.5%	0	0	31,084	34,010	0	0	5,880	4,287
Oregon	6,148	6,104	0.7%	0	0	2,123	2,164	0	0	4,025	3,939
Washington	11,647	11,619	0.2%	3,642	3,798	0	0	0	0	8,005	7,821
Pacific Noncontiguous	0	0	--	0	0	0	0	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	324,463	330,752	-1.9%	41,352	38,231	127,713	138,498	469	417	154,930	153,606

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
Notes: See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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 3

Fossil-Fuel Stocks for Electricity Generation

Table 3.1. Stocks of Coal, Petroleum Liquids, and Petroleum Coke: Electric Power Sector, 2008 - November 2018

	Electric Power Sector			Electric Utilities			Independent Power Producers		
Period	Coal (Thousand Tons)	Petroluem Liquids (Thousand Barrels)	Petroleum Coke (Thousand Tons)	Coal (Thousand Tons)	Petroluem Liquids (Thousand Barrels)	Petroleum Coke (Thousand Tons)	Coal (Thousand Tons)	Petroluem Liquids (Thousand Barrels)	Petroleum Coke (Thousand Tons)
End of Year Stocks									
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
2012	185,116	32,224	495	150,942	23,875	414	34,174	8,349	81
2013	147,884	31,673	390	120,792	22,494	303	27,092	9,179	86
2014	151,548	33,505	827	116,684	22,487	686	34,864	11,018	142
2015	195,548	32,884	1,340	153,226	21,443	1,163	42,322	11,441	177
2016	162,009	31,839	845	130,885	21,013	603	31,124	10,827	241
2017	137,687	29,294	864	114,782	20,253	692	22,905	9,041	171
Year 2016, End of Month Stocks									
January	187,203	32,307	1,320	146,300	20,894	1,089	40,903	11,412	231
February	187,064	31,644	1,323	145,895	20,651	1,064	41,168	10,994	259
March	191,553	31,569	1,240	148,648	20,642	974	42,905	10,927	266
April	193,185	31,788	1,181	150,859	20,926	901	42,327	10,863	280
May	192,417	32,139	1,071	150,639	21,202	826	41,778	10,936	246
June	182,086	31,992	905	144,309	21,133	689	37,777	10,859	216
July	168,119	31,606	858	134,344	20,906	678	33,775	10,700	180
August	158,908	31,565	780	128,256	20,846	589	30,652	10,719	191
Sept	156,567	31,637	768	127,532	20,924	566	29,035	10,713	201
October	160,932	31,831	813	131,510	21,017	606	29,422	10,813	207
November	170,277	32,503	833	138,091	21,583	606	32,185	10,921	227
December	162,009	31,839	845	130,885	21,013	603	31,124	10,827	241
Year 2017, End of Month Stocks									
January	156,214	31,761	768	125,221	20,912	540	30,994	10,849	228
February	160,502	31,500	756	128,051	20,731	544	32,451	10,769	212
March	161,815	32,174	785	128,645	21,565	558	33,170	10,609	227
April	163,937	31,969	844	130,461	21,531	622	33,475	10,438	221
May	162,542	31,578	772	129,300	21,123	562	33,242	10,455	210
June	158,014	31,208	742	126,564	21,038	535	31,450	10,171	207
July	145,811	31,033	724	117,584	20,901	544	28,228	10,132	180
August	141,204	30,750	749	114,228	20,687	569	26,976	10,064	181
Sept	139,571	30,346	798	113,247	20,516	624	26,324	9,830	173
October	141,463	30,227	862	114,939	20,336	683	26,524	9,891	179
November	143,424	30,501	859	117,758	20,626	677	25,666	9,875	182
December	137,687	29,294	864	114,782	20,253	692	22,905	9,041	171
Year 2018, End of Month Stocks									
January	123,513	26,070	967	103,912	18,126	587	19,601	7,944	380
February	120,858	26,841	934	101,745	18,582	570	19,113	8,259	364
March	126,407	26,766	953	106,644	18,678	621	19,763	8,088	332
April	128,964	26,656	947	108,127	18,659	655	20,837	7,997	292
May	128,363	26,753	948	107,433	18,722	656	20,930	8,031	292
June	121,448	26,308	817	101,778	18,316	534	19,670	7,992	283
July	110,731	25,730	884	93,357	17,791	623	17,375	7,939	261
August	104,138	24,571	809	88,189	16,950	588	15,950	7,621	221
Sept	100,717	24,402	749	84,887	16,736	564	15,829	7,666	184
October	105,193	24,305	687	87,594	16,502	519	17,599	7,803	168
November	104,423	24,359	692	86,435	16,376	548	17,988	7,983	144

Notes: See Glossary for definitions. Values for 2017 and prior years are final. Values for 2018 are preliminary.
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 3.2 Stocks of Coal, Petroleum Liquids, and Petroleum Coke: Electric Power Sector, by State, November 2018 and 2017

Census Division and State	Coal (Thousand Tons)			Petroleum Liquids (Thousand Barrels)			Petroleum Coke (Thousand Tons)		
	November 2018	November 2017	Percentage Change	November 2018	November 2017	Percentage Change	November 2018	November 2017	Percentage Change
New England	610	1,047	-41.7%	2,918	4,107	-28.9%	0	0	--
Connecticut	W	W	W	975	1,475	-33.9%	0	0	--
Maine	0	0	--	171	452	-62.3%	0	0	--
Massachusetts	W	W	W	1,275	1,626	-21.6%	0	0	--
New Hampshire	W	W	W	324	336	-3.4%	0	0	--
Rhode Island	W	W	W	136	167	-18.3%	0	0	--
Vermont	0	0	--	37	51	-27.4%	0	0	--
Middle Atlantic	3,517	4,256	-17.4%	4,507	5,573	-19.1%	0	0	--
New Jersey	W	145	W	567	641	-11.6%	0	0	--
New York	W	W	W	2,905	3,699	-21.5%	0	0	--
Pennsylvania	3,328	W	W	1,035	1,234	-16.1%	0	0	--
East North Central	21,067	30,136	-30.1%	938	1,108	-15.3%	W	203	W
Illinois	5,513	6,187	-10.9%	78	94	-16.7%	0	0	--
Indiana	6,029	8,713	-30.8%	93	104	-10.4%	W	W	W
Michigan	3,805	5,830	-34.7%	278	343	-19.1%	W	W	W
Ohio	2,808	5,625	-50.1%	309	384	-19.4%	W	W	W
Wisconsin	2,913	3,781	-23.0%	180	183	-1.5%	W	W	W
West North Central	21,496	28,380	-24.3%	722	939	-23.1%	0	0	--
Iowa	3,622	6,807	-46.8%	84	149	-43.7%	0	0	--
Kansas	3,693	4,207	-12.2%	98	118	-16.5%	0	0	--
Minnesota	2,673	3,570	-25.1%	91	127	-28.3%	0	0	--
Missouri	7,392	8,614	-14.2%	302	349	-13.4%	0	0	--
Nebraska	2,143	3,225	-33.6%	85	117	-27.0%	0	0	--
North Dakota	W	W	W	25	32	-22.3%	0	0	--
South Dakota	W	W	W	37	49	-23.2%	0	0	--
South Atlantic	17,263	25,342	-31.9%	9,746	12,074	-19.3%	W	W	W
Delaware	W	W	W	334	402	-16.8%	0	0	--
District of Columbia	0	0	--	0	0	--	0	0	--
Florida	3,135	4,356	-28.0%	4,143	5,493	-24.6%	W	W	W
Georgia	3,229	5,366	-39.8%	705	795	-11.4%	0	0	--
Maryland	1,395	1,585	-12.0%	561	762	-26.5%	0	0	--
North Carolina	3,276	4,351	-24.7%	1,109	1,208	-8.2%	0	0	--
South Carolina	1,856	4,210	-55.9%	551	667	-17.3%	0	0	--
Virginia	739	W	W	2,216	2,610	-15.1%	0	0	--
West Virginia	W	4,056	W	127	136	-6.3%	W	W	W
East South Central	9,733	13,332	-27.0%	1,416	1,902	-25.5%	0	W	W
Alabama	W	3,179	W	301	326	-7.6%	0	0	--
Kentucky	4,886	6,748	-27.6%	226	257	-12.0%	0	W	W
Mississippi	W	929	W	235	564	-58.4%	0	0	--
Tennessee	2,232	2,477	-9.9%	654	755	-13.3%	0	0	--
West South Central	13,262	20,350	-34.8%	1,522	1,716	-11.3%	W	W	W
Arkansas	2,260	3,063	-26.2%	153	186	-17.8%	0	0	--
Louisiana	1,782	2,424	-26.5%	325	380	-14.5%	W	W	W
Oklahoma	2,988	3,695	-19.1%	96	105	-8.3%	0	0	--
Texas	6,233	11,168	-44.2%	949	1,046	-9.3%	0	0	--
Mountain	16,552	19,318	-14.3%	339	407	-16.8%	W	W	W
Arizona	2,677	3,163	-15.4%	133	135	-0.9%	0	0	--
Colorado	4,122	4,550	-9.4%	119	142	-16.3%	0	0	--
Idaho	0	0	--	0	0	-28.0%	0	0	--
Montana	W	W	W	17	20	-11.6%	W	W	W
Nevada	W	W	W	2	5	-55.9%	0	0	--
New Mexico	W	W	W	11	35	-70.1%	0	0	--
Utah	3,575	4,835	-26.1%	28	34	-19.6%	0	0	--
Wyoming	3,952	4,352	-9.2%	29	36	-19.9%	0	0	--
Pacific Contiguous	W	W	W	336	334	0.5%	0	0	--
California	0	0	--	183	162	12.4%	0	0	--
Oregon	W	W	W	62	69	-11.2%	0	0	--
Washington	W	W	W	92	102	-10.6%	0	0	--
Pacific Noncontiguous	W	W	W	1,913	2,340	-18.2%	0	0	--
Alaska	0	W	W	56	292	-80.9%	0	0	--
Hawaii	W	W	W	1,858	2,048	-9.3%	0	0	--
U.S. Total	104,423	143,424	-27.2%	24,359	30,501	-20.1%	692	859	-19.4%

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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 3.3 Stocks of Coal, Petroleum Liquids, and Petroleum Coke: Electric Power Sector, by Census Divison, November 2018 and 2017

	Electric Power Sector			Electric Utilities		Independent Power Producers	
Census Division	**November 2018**	**November 2017**	**Percentage Change**	**November 2018**	**November 2017**	**November 2018**	**November 2017**
Coal (Thousand Tons)							
New England	610	1,047	-41.7%	W	W	W	W
Middle Atlantic	3,517	4,256	-17.4%	0	W	3,517	W
East North Central	21,067	30,136	-30.1%	14,015	20,078	7,052	10,058
West North Central	21,496	28,380	-24.3%	21,496	28,380	0	0
South Atlantic	17,263	25,342	-31.9%	14,957	22,739	2,306	2,603
East South Central	9,733	13,332	-27.0%	9,733	13,332	0	0
West South Central	13,262	20,350	-34.8%	9,956	13,770	3,306	6,580
Mountain	16,552	19,318	-14.3%	W	W	W	W
Pacific Contiguous	W	W	W	W	W	W	W
Pacific Noncontiguous	W	W	W	0	W	W	W
U.S. Total	**104,423**	**143,424**	**-27.2%**	**86,435**	**117,758**	**17,988**	**25,666**
Petroleum Liquids (Thousand Barrels)							
New England	2,918	4,107	-28.9%	425	646	2,493	3,461
Middle Atlantic	4,507	5,573	-19.1%	1,703	2,290	2,804	3,283
East North Central	938	1,108	-15.3%	638	764	300	344
West North Central	722	939	-23.1%	702	915	21	25
South Atlantic	9,746	12,074	-19.3%	7,993	9,944	1,753	2,130
East South Central	1,416	1,902	-25.5%	1,343	1,829	73	73
West South Central	1,522	1,716	-11.3%	1,181	1,323	341	394
Mountain	339	407	-16.8%	308	374	31	34
Pacific Contiguous	336	334	0.5%	243	230	93	104
Pacific Noncontiguous	1,913	2,340	-18.2%	1,840	2,312	73	28
U.S. Total	**24,359**	**30,501**	**-20.1%**	**16,376**	**20,626**	**7,983**	**9,875**
Petroleum Coke (Thousand Tons)							
New England	0	0	--	0	0	0	0
Middle Atlantic	0	0	--	0	0	0	0
East North Central	W	203	W	W	W	W	W
West North Central	0	0	--	0	0	0	0
South Atlantic	W	W	W	W	W	W	W
East South Central	0	W	W	0	W	0	0
West South Central	W	W	W	W	W	0	0
Mountain	W	W	W	0	0	W	W
Pacific Contiguous	0	0	--	0	0	0	0
Pacific Noncontiguous	0	0	--	0	0	0	0
U.S. Total	**692**	**859**	**-19.4%**	**548**	**677**	**144**	**182**

W = Withheld to avoid disclosure of individual company data.
Notes: See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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 3.4. Stocks of Coal by Coal Rank: Electric Power Sector, 2008 - November 2018

	Electric Power Sector			
Period	Bituminous Coal	Subbituminous Coal	Lignite Coal	Total
End of Year Stocks				
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
2012	86,437	93,833	4,846	185,116
2013	73,113	69,720	5,051	147,884
2014	72,771	72,552	6,225	151,548
2015	82,004	108,614	4,931	195,548
2016	67,241	90,376	4,393	162,009
2017	56,140	77,875	3,672	137,687
Year 2016, End of Month Stocks				
January	76,919	105,641	4,643	187,203
February	76,373	106,153	4,537	187,064
March	79,664	107,076	4,813	191,553
April	81,390	106,720	5,075	193,185
May	82,185	105,068	5,164	192,417
June	78,216	98,822	5,048	182,086
July	71,287	92,104	4,727	168,119
August	67,462	87,040	4,406	158,908
Sept	65,962	86,411	4,194	156,567
October	67,250	89,666	4,016	160,932
November	70,537	95,428	4,313	170,277
December	67,241	90,376	4,393	162,009
Year 2017, End of Month Stocks				
January	65,797	86,082	4,335	156,214
February	67,752	88,326	4,424	160,502
March	67,783	89,381	4,651	161,815
April	68,195	90,736	5,005	163,937
May	68,333	89,005	5,204	162,542
June	66,591	86,722	4,701	158,014
July	60,766	80,765	4,281	145,811
August	59,208	77,758	4,238	141,204
Sept	58,453	77,173	3,945	139,571
October	59,122	78,821	3,519	141,463
November	59,427	79,916	4,081	143,424
December	56,140	77,875	3,672	137,687
Year 2018, End of Month Stocks				
January	48,427	72,013	3,074	123,513
February	48,164	69,785	2,909	120,858
March	49,560	73,633	3,213	126,407
April	51,011	74,629	3,324	128,964
May	51,844	73,306	3,212	128,363
June	48,898	69,359	3,191	121,448
July	44,958	62,926	2,847	110,731
August	42,817	58,500	2,821	104,138
Sept	40,821	57,051	2,845	100,717
October	43,049	59,128	3,016	105,193
November	42,898	58,408	3,108	104,423

Notes: See Glossary for definitions.
Values for 2017 and prior years are final. Values for 2018 are preliminary. 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 4

Receipts and Cost of Fossil Fuels

Table 4.1. Receipts, Average Cost, and Quality of Fossil Fuels: Total (All Sectors), 2008 - November 2018

	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												
2008	21,280,258	1,069,709	2.07	41.14	0.97	100.5	375,684	61,139	15.52	95.38	0.61	99.6
2009	19,437,966	981,477	2.21	43.74	1.01	102.8	330,043	54,181	10.25	62.47	0.54	104.8
2010	19,289,661	979,918	2.27	44.64	1.16	97.9	275,058	45,472	14.02	84.80	0.51	101.1
2011	18,675,843	956,538	2.39	46.65	1.19	100.0	216,752	36,158	19.94	119.54	0.60	116.1
2012	16,265,578	841,183	2.38	46.09	1.25	99.5	116,937	19,464	21.85	131.28	0.51	75.7
2013	15,906,809	823,222	2.34	45.33	1.29	93.7	123,964	20,413	20.56	124.90	0.46	76.5
2014	16,594,722	854,560	2.37	45.96	1.32	98.0	172,421	28,514	19.87	120.26	0.46	82.3
2015	15,086,208	782,929	2.22	42.86	1.29	103.5	147,647	24,320	11.49	69.79	0.48	75.8
2016	12,516,272	650,770	2.11	40.64	1.34	93.8	101,810	16,807	9.39	56.89	0.49	68.1
2017	12,261,029	642,364	2.06	39.27	1.28	94.7	96,977	16,127	11.86	71.35	0.49	68.0
Year 2016												
January	1,035,315	54,397	2.12	40.35	1.32	85.5	9,096	1,519	7.96	47.76	0.48	56.2
February	981,062	50,919	2.11	40.62	1.40	97.9	8,023	1,323	7.00	42.51	0.47	52.0
March	896,983	45,720	2.17	42.66	1.46	110.7	6,912	1,140	6.92	41.99	0.45	68.2
April	807,001	41,015	2.16	42.44	1.45	101.8	8,592	1,414	8.37	50.85	0.42	88.7
May	871,890	44,729	2.16	42.13	1.44	96.6	9,231	1,536	9.82	59.07	0.45	82.6
June	1,022,903	53,300	2.10	40.25	1.35	82.6	7,612	1,262	10.41	62.76	0.50	67.3
July	1,155,747	60,545	2.11	40.30	1.28	80.1	9,030	1,466	11.83	72.83	0.51	59.3
August	1,254,473	65,150	2.11	40.61	1.32	86.6	9,118	1,492	9.46	57.81	0.51	62.6
Sept	1,156,705	60,441	2.12	40.58	1.30	95.0	8,154	1,342	9.40	57.14	0.51	76.1
October	1,141,983	59,814	2.07	39.59	1.28	107.2	8,387	1,390	10.01	60.48	0.54	77.1
November	1,097,110	57,377	2.08	39.83	1.29	116.3	9,715	1,599	10.09	61.31	0.50	87.0
December	1,095,100	57,362	2.08	39.64	1.32	86.4	7,939	1,323	10.78	64.72	0.48	60.9
Year 2017												
January	1,111,151	58,266	2.09	39.82	1.26	89.7	9,669	1,609	11.97	72.02	0.46	75.3
February	1,007,951	52,810	2.06	39.28	1.30	107.4	6,294	1,044	11.67	70.33	0.49	62.2
March	976,663	50,872	2.07	39.71	1.35	101.5	12,196	2,053	11.62	69.03	0.54	113.5
April	901,976	46,731	2.08	40.06	1.33	102.9	6,356	1,055	11.62	69.98	0.48	65.2
May	957,276	49,830	2.09	40.13	1.33	95.8	6,638	1,108	11.44	68.50	0.47	59.9
June	1,042,460	54,220	2.07	39.86	1.31	90.4	7,471	1,241	10.91	65.68	0.47	65.9
July	1,095,129	57,572	2.06	39.15	1.22	81.1	6,695	1,121	10.90	65.08	0.48	65.6
August	1,187,341	62,125	2.05	39.16	1.29	92.8	7,022	1,162	11.12	67.19	0.47	63.6
Sept	1,015,150	53,538	2.02	38.29	1.23	95.9	6,518	1,083	11.68	70.30	0.49	61.6
October	999,170	52,462	2.03	38.70	1.27	102.4	7,578	1,255	11.93	72.04	0.52	69.1
November	984,968	52,087	2.04	38.56	1.26	99.9	9,787	1,622	12.29	74.17	0.47	88.5
December	981,795	51,851	2.04	38.66	1.26	86.8	10,753	1,773	13.99	84.87	0.46	46.8
Year 2018												
January	951,750	50,275	2.07	39.16	1.24	76.3	29,693	4,947	13.68	82.51	0.48	50.7
February	849,609	44,615	2.07	39.43	1.26	95.1	10,931	1,797	12.60	76.84	0.47	118.5
March	940,506	48,770	2.04	39.42	1.33	106.9	7,265	1,210	13.39	80.46	0.42	76.8
April	818,670	42,632	2.07	39.74	1.32	102.3	6,423	1,060	13.73	83.20	0.41	63.2
May	892,553	46,150	2.05	39.61	1.37	95.0	8,730	1,441	14.29	86.69	0.34	74.1
June	931,118	48,533	2.05	39.26	1.35	85.0	8,103	1,346	15.01	90.40	0.32	65.8
July	991,966	52,164	2.06	39.10	1.28	80.4	6,853	1,129	14.69	89.17	0.33	60.6
August	1,075,669	56,419	2.06	39.28	1.30	87.1	5,477	902	15.16	92.04	0.36	46.5
Sept	945,615	49,944	2.05	38.87	1.25	90.8	7,457	1,240	15.31	92.07	0.38	63.7
October	1,000,696	52,323	2.05	39.19	1.35	105.7	8,675	1,435	15.61	94.37	0.42	75.5
November	948,457	49,919	2.06	39.11	1.32	94.7	7,952	1,330	15.73	94.10	0.46	72.3
Year to Date												
2016	11,421,172	593,408	2.12	40.74	1.34	94.6	93,871	15,484	9.27	56.22	0.49	68.8
2017	11,279,235	590,513	2.06	39.33	1.28	95.4	86,224	14,354	11.60	69.68	0.49	72.1
2018	10,346,608	541,743	2.06	39.28	1.31	91.4	107,559	17,837	14.29	86.32	0.41	63.7
Rolling 12 Months Ending in November												
2017	12,374,335	647,875	2.06	39.35	1.29	94.6	94,164	15,677	11.53	69.26	0.49	71.0
2018	11,328,403	593,594	2.06	39.22	1.30	91.0	118,312	19,610	14.24	86.04	0.42	61.7

Displayed values of zero may represent small values that round to zero.
NM = Not meaningful due to large relative standard error or excessive percentage change.
W = Withheld to avoid disclosure of individual company data.

Notes:
Beginning in January 2013, the threshold for reporting fuel receipts data was changed from 50 megawatts to 200 megawatts of nameplate capacity for plants primarily fueled by natural gas, petroleum coke, distillate fuel oil, and residual fuel oil. In addition, the requirement to report self-produced and minor fuels, i.e., blast furnace gas, other manufactured gases, kerosene, jet fuel, propane, and waste oils was eliminated. The threshold for coal plants remained at 50 megawatts. The following caveats for each fuel type should be noted:
COAL - includes anthracite, bituminous, subbituminous, lignite, waste coal, and coal-derived synthesis gas. Prior to 2011, synthesis gas was included in the category of Other Gases.
PETROLEUM LIQUIDS - includes distillate fuel oil and residual fuel oil. Prior to 2013, petroleum liquids included distillate fuel oil, residual fuel oil, kerosene, jet fuel, waste oil, and, beginning in 2011, propane. Prior to 2011, propane was included in the category of Other Gases.

- Values for 2017 and prior years are final. Values for 2018 are preliminary.
- See Glossary for definitions.
- Starting in January 2013, there may have been a shift in the continuity of Chapter 4 tables due to changes in the sample design of Form EIA-923 and the imputation process.
- See the EIA-923 section of the Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
- See the Technical Notes for fuel conversion factors.
- Totals may not equal the sum of components because of independent rounding.

Sources: U.S. Energy Information Administration (EIA), Form EIA-923, "Power Plant Operations Report" and predecessor forms 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 4.1. Receipts, Average Cost, and Quality of Fossil Fuels: Total (All Sectors), 2008 - November 2018 (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												
2008	199,724	7,040	2.11	59.72	4.98	111.5	8,089,467	7,879,046	9.01	9.26	102.5	4.12
2009	197,921	6,954	1.61	45.89	4.63	119.3	8,319,329	8,118,550	4.74	4.86	102.3	3.04
2010	169,508	5,963	2.28	64.85	4.79	98.5	8,867,396	8,673,070	5.09	5.20	102.0	3.26
2011	171,100	5,980	3.03	86.78	5.01	98.2	9,250,652	9,056,164	4.72	4.83	103.8	3.29
2012	119,667	4,180	2.24	64.14	5.55	83.3	9,746,691	9,531,389	3.42	3.50	91.9	2.83
2013	132,474	4,660	2.18	61.95	5.41	73.5	8,721,114	8,503,424	4.33	4.44	89.7	3.09
2014	147,310	5,195	1.98	56.23	5.56	91.2	8,679,286	8,431,423	5.00	5.14	89.6	3.31
2015	138,668	4,897	1.84	52.11	5.25	94.4	10,173,502	9,842,581	3.23	3.34	89.9	2.65
2016	116,942	4,166	1.65	46.30	5.40	77.9	10,619,105	10,271,180	2.87	2.97	90.7	2.47
2017	92,837	3,309	2.13	59.90	5.56	74.1	9,951,815	9,628,733	3.37	3.49	90.2	2.65
Year 2016												
January	9,640	341	1.38	38.93	5.68	79.8	826,179	798,251	3.02	3.13	89.9	2.52
February	11,273	408	1.30	35.80	5.53	96.1	736,278	711,506	2.70	2.79	89.6	2.36
March	10,313	363	1.41	40.14	5.33	81.1	797,607	771,918	2.23	2.30	90.4	2.21
April	10,308	369	1.35	37.75	5.56	81.0	773,337	748,523	2.42	2.50	90.9	2.31
May	8,554	307	1.32	36.76	5.35	65.8	857,644	830,896	2.39	2.47	91.1	2.31
June	6,895	240	1.41	40.48	4.67	50.1	1,020,410	988,673	2.67	2.75	91.4	2.39
July	10,032	355	1.47	41.45	5.14	70.8	1,189,145	1,151,122	2.97	3.07	91.3	2.55
August	11,033	398	1.75	48.48	5.42	76.5	1,205,876	1,163,920	2.95	3.06	91.4	2.52
Sept	10,741	381	2.07	58.30	5.17	84.6	968,648	935,630	3.07	3.18	91.1	2.55
October	8,844	317	1.98	55.43	5.69	92.5	795,915	770,111	3.13	3.23	90.3	2.51
November	9,365	333	2.26	63.59	5.69	82.0	718,522	695,273	3.02	3.12	90.4	2.47
December	9,945	355	2.07	57.94	5.43	82.3	729,545	705,358	3.96	4.10	89.9	2.82
Year 2017												
January	7,058	251	2.14	60.16	5.67	55.9	715,582	691,578	4.11	4.25	88.6	2.88
February	7,593	271	2.00	56.03	5.85	78.1	628,949	608,845	3.56	3.67	89.9	2.63
March	8,628	309	2.06	57.51	5.29	87.2	734,674	711,169	3.35	3.46	90.3	2.66
April	5,835	208	2.00	55.96	5.34	86.1	689,233	667,137	3.38	3.49	90.6	2.65
May	6,776	242	2.05	57.46	5.57	59.6	766,572	742,712	3.48	3.59	91.4	2.70
June	8,657	308	2.11	59.32	5.55	69.9	910,687	881,511	3.29	3.40	91.0	2.64
July	8,498	302	2.09	58.85	5.50	70.1	1,133,095	1,095,411	3.21	3.32	90.6	2.64
August	7,972	284	2.08	58.24	5.47	72.8	1,076,917	1,041,412	3.13	3.23	90.9	2.56
Sept	7,915	284	2.10	58.73	5.43	80.6	910,005	879,186	3.16	3.27	90.2	2.56
October	8,347	297	2.31	64.88	5.61	94.6	823,614	797,394	3.13	3.24	89.7	2.54
November	7,469	266	2.49	69.77	5.67	71.4	720,648	697,890	3.35	3.46	89.3	2.62
December	8,088	287	2.17	60.99	5.74	78.0	841,838	814,486	3.63	3.75	89.2	2.80
Year 2018												
January	7,009	248	2.38	67.41	5.31	58.8	779,006	754,166	5.02	5.19	79.6	3.50
February	7,769	277	2.43	68.09	5.49	81.9	688,539	667,072	3.61	3.72	78.8	2.79
March	7,841	281	2.54	70.89	5.54	91.6	749,405	725,132	3.18	3.29	80.0	2.57
April	6,564	232	2.56	72.38	6.09	71.7	706,952	685,216	3.13	3.23	80.1	2.58
May	4,344	152	2.41	68.58	6.09	67.7	814,786	789,317	3.04	3.14	78.8	2.56
June	7,382	260	2.73	77.61	5.97	68.7	927,153	897,864	3.11	3.21	81.3	2.61
July	8,307	293	2.71	76.81	5.73	70.2	1,156,051	1,120,081	3.29	3.40	80.4	2.73
August	8,443	298	2.79	78.94	5.67	74.3	1,136,864	1,101,523	3.27	3.38	80.8	2.69
Sept	8,158	288	2.94	83.35	5.63	74.1	1,002,649	970,676	3.11	3.21	81.0	2.62
October	5,892	208	2.48	70.32	5.77	78.8	877,637	849,980	3.39	3.50	83.4	2.71
November	6,696	235	2.21	63.10	5.87	75.3	765,844	741,855	4.16	4.29	84.3	3.01
Year to Date												
2016	106,997	3,811	1.61	45.21	5.40	77.5	9,889,561	9,565,822	2.79	2.89	90.8	2.44
2017	84,749	3,022	2.13	59.79	5.54	73.7	9,109,977	8,814,246	3.35	3.46	90.3	2.64
2018	78,404	2,772	2.58	73.01	5.72	73.4	9,604,887	9,302,882	3.46	3.57	80.8	2.76
Rolling 12 Months Ending in November												
2017	94,693	3,376	2.13	59.60	5.53	74.5	9,839,522	9,519,605	3.39	3.51	90.2	2.66
2018	86,492	3,059	2.54	71.88	5.72	73.8	10,446,725	10,117,369	3.47	3.58	81.4	2.76

Displayed values of zero may represent small values that round to zero.
NM = Not meaningful due to large relative standard error or excessive percentage change.
W = Withheld to avoid disclosure of individual company data.

Notes:
Beginning in January 2013, the threshold for reporting fuel receipts data was changed from 50 megawatts to 200 megawatts of nameplate capacity for plants primarily fueled by natural gas, petroleum coke, distillate fuel oil, and residual fuel oil. In addition, the requirement to report self-produced and minor fuels, i.e., blast furnace gas, other manufactured gases, kerosene, jet fuel, propane, and waste oils was eliminated. The threshold for coal plants remained at 50 megawatts. The following caveats for each fuel type should be noted:
PETROLEUM COKE - includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
NATURAL GAS - includes natural gas only. Prior to 2011, includes Other Gases.

- Values for 2017 and prior years are final. Values for 2018 are preliminary.
- See Glossary for definitions.
- Starting in January 2013, there may have been a shift in the continuity of Chapter 4 tables due to changes in the sample design of Form EIA-923 and the imputation process.
- See the EIA-923 section of the Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
- See the Technical Notes for fuel conversion factors.
- Totals may not equal the sum of components because of independent rounding.

Sources: U.S. Energy Information Administration (EIA), Form EIA-923, "Power Plant Operations Report" and predecessor forms 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 4.2. Receipts, Average Cost, and Quality of Fossil Fuels: Electric Utilities, 2008 - November 2018

	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												
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	13,871,559	699,353	2.40	47.67	1.16	101.5	144,255	23,859	20.30	122.72	0.53	114.5
2012	11,939,543	609,445	2.43	47.51	1.18	99.0	86,030	14,252	22.11	133.44	0.41	81.3
2013	11,595,328	592,772	2.38	46.51	1.23	92.9	78,101	12,814	21.09	128.57	0.43	76.2
2014	12,064,810	614,728	2.39	46.95	1.21	98.3	98,357	16,161	19.90	121.14	0.44	82.0
2015	11,088,631	571,707	2.25	43.71	1.17	105.8	90,041	14,747	11.32	69.13	0.46	79.2
2016	9,256,878	476,207	2.16	42.01	1.21	95.4	73,294	11,985	9.16	56.02	0.45	74.0
2017	9,011,629	467,595	2.12	40.81	1.16	96.0	70,422	11,640	11.60	70.19	0.47	74.4
Year 2016												
January	750,914	39,064	2.17	41.71	1.18	85.5	6,190	1,022	7.88	47.74	0.44	58.8
February	722,024	37,129	2.16	41.95	1.23	98.2	5,814	955	6.92	42.16	0.41	64.1
March	685,422	34,609	2.19	43.49	1.34	110.9	5,223	851	6.69	41.07	0.40	77.5
April	612,742	30,953	2.19	43.39	1.31	107.4	6,897	1,126	8.35	51.19	0.37	106.4
May	655,166	33,408	2.17	42.60	1.25	98.5	6,742	1,114	9.12	55.16	0.40	91.7
June	775,536	39,900	2.15	41.79	1.24	85.9	5,511	908	10.51	63.80	0.44	70.9
July	849,005	43,981	2.17	41.99	1.15	81.1	7,117	1,142	11.54	71.91	0.52	66.7
August	925,332	47,610	2.17	42.19	1.19	88.3	6,737	1,090	9.15	56.57	0.51	66.2
Sept	851,137	43,822	2.18	42.34	1.18	97.6	5,514	896	9.00	55.39	0.49	79.2
October	842,651	43,693	2.12	40.99	1.16	110.5	5,205	851	9.80	59.94	0.52	73.4
November	805,502	41,615	2.13	41.25	1.20	117.8	6,780	1,106	9.80	60.07	0.48	88.2
December	781,447	40,423	2.13	41.17	1.21	85.4	5,565	925	10.71	64.43	0.44	65.2
Year 2017												
January	797,433	41,477	2.14	41.15	1.14	88.2	6,680	1,100	11.15	67.71	0.44	75.9
February	737,614	38,372	2.11	40.53	1.20	107.5	4,658	770	11.60	70.11	0.46	66.9
March	706,986	36,570	2.12	41.05	1.20	101.9	10,582	1,778	11.59	68.99	0.53	132.1
April	650,562	33,339	2.14	41.82	1.22	105.4	4,760	788	11.41	68.97	0.46	68.2
May	702,581	36,058	2.16	42.07	1.21	95.9	4,694	778	11.40	68.79	0.45	60.1
June	786,845	40,393	2.13	41.51	1.20	91.9	5,771	951	10.93	66.29	0.47	72.2
July	821,488	42,591	2.11	40.78	1.11	81.6	4,826	803	10.96	65.87	0.45	68.3
August	890,849	46,092	2.11	40.79	1.18	93.7	5,210	855	11.12	67.72	0.46	67.4
Sept	741,814	38,857	2.08	39.69	1.10	98.1	4,823	792	11.80	71.87	0.48	65.9
October	733,109	38,175	2.09	40.12	1.15	104.8	5,030	825	12.05	73.47	0.49	63.2
November	726,042	38,128	2.11	40.23	1.13	105.8	7,044	1,156	12.00	73.12	0.41	98.5
December	716,306	37,543	2.11	40.20	1.11	89.5	6,345	1,043	12.93	78.67	0.42	58.0
Year 2018												
January	690,227	36,292	2.08	39.64	1.11	75.7	12,565	2,096	13.91	83.50	0.43	47.5
February	638,278	33,348	2.10	40.24	1.16	97.7	8,008	1,303	12.43	76.46	0.46	119.0
March	700,041	36,379	2.10	40.33	1.17	112.0	5,017	827	13.19	79.99	0.36	77.9
April	605,929	31,436	2.12	40.90	1.22	102.9	5,034	826	13.61	83.01	0.36	73.0
May	658,511	34,012	2.10	40.57	1.23	96.1	6,271	1,028	14.30	87.27	0.29	79.0
June	693,365	36,117	2.10	40.34	1.20	84.7	5,985	986	14.68	89.15	0.28	73.1
July	745,064	39,045	2.10	40.14	1.14	80.5	5,128	836	14.29	87.66	0.27	71.5
August	806,053	42,128	2.11	40.46	1.18	87.7	4,686	769	15.08	91.87	0.34	61.0
Sept	701,123	36,855	2.12	40.31	1.14	91.0	5,414	897	15.44	93.24	0.35	66.3
October	718,353	37,512	2.10	40.23	1.21	104.9	5,772	942	15.64	95.78	0.39	71.2
November	690,560	36,314	2.10	39.97	1.17	95.4	4,799	795	15.75	95.04	0.41	65.6
Year to Date												
2016	8,475,431	435,784	2.16	42.09	1.21	96.5	67,729	11,060	9.03	55.32	0.46	74.8
2017	8,295,323	430,052	2.12	40.87	1.17	96.6	64,077	10,597	11.47	69.35	0.47	76.6
2018	7,647,504	399,438	2.10	40.28	1.18	92.0	68,679	11,304	14.27	86.75	0.36	67.9
Rolling 12 Months Ending in November												
2017	9,076,770	470,475	2.12	40.89	1.17	95.5	69,643	11,522	11.41	68.96	0.47	75.5
2018	8,363,810	436,981	2.10	40.27	1.17	91.8	75,024	12,347	14.16	86.04	0.37	66.9

Displayed values of zero may represent small values that round to zero.
NM = Not meaningful due to large relative standard error or excessive percentage change.
W = Withheld to avoid disclosure of individual company data.

Notes:
Beginning in January 2013, the threshold for reporting fuel receipts data was changed from 50 megawatts to 200 megawatts of nameplate capacity for plants primarily fueled by natural gas, petroleum coke, distillate fuel oil, and residual fuel oil. In addition, the requirement to report self-produced and minor fuels, i.e., blast furnace gas, other manufactured gases, kerosene, jet fuel, propane, and waste oils was eliminated. The threshold for coal plants remained at 50 megawatts. The following caveats for each fuel type should be noted:
COAL - includes anthracite, bituminous, subbituminous, lignite, waste coal, and coal-derived synthesis gas. Prior to 2011, synthesis gas was included in the category of Other Gases.
PETROLEUM LIQUIDS - includes distillate fuel oil and residual fuel oil. Prior to 2013, petroleum liquids included distillate fuel oil, residual fuel oil, kerosene, jet fuel, waste oil, and, beginning in 2011, propane. Prior to 2011, propane was included in the category of Other Gases.

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Table 4.2. Receipts, Average Cost, and Quality of Fossil Fuels: Electric Utilities, 2008 - November 2018 (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												
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	5.17	99.9	3,571,348	3,507,613	5.00	5.09	101.8	3.08
2012	72,782	2,521	2.30	66.40	5.46	119.8	4,083,579	4,003,457	3.74	3.81	97.6	2.86
2013	99,088	3,463	2.11	60.30	5.34	101.6	3,939,408	3,851,241	4.49	4.59	97.0	2.99
2014	123,793	4,349	1.89	53.77	5.56	126.3	3,876,549	3,772,596	5.17	5.31	96.7	3.16
2015	115,929	4,069	1.77	50.44	5.23	130.1	4,717,748	4,565,040	3.52	3.64	96.0	2.67
2016	99,706	3,538	1.52	42.85	5.38	103.1	5,075,337	4,907,538	3.15	3.26	97.0	2.54
2017	90,481	3,224	2.15	60.31	5.55	117.6	4,794,383	4,640,827	3.62	3.74	96.8	2.68
Year 2016												
January	7,935	278	1.15	32.96	5.67	91.8	394,925	382,074	3.27	3.38	97.1	2.57
February	9,837	356	1.13	31.18	5.53	131.0	356,803	344,669	2.96	3.06	96.8	2.43
March	8,402	294	1.21	34.47	5.28	103.8	383,424	371,055	2.53	2.61	97.4	2.33
April	8,436	300	1.14	31.95	5.58	92.1	367,155	355,539	2.72	2.80	97.6	2.42
May	7,842	281	1.22	34.16	5.35	94.9	412,465	399,342	2.68	2.77	97.4	2.40
June	6,325	220	1.33	38.34	4.59	71.4	501,782	485,899	2.88	2.97	96.9	2.46
July	9,587	340	1.43	40.50	5.10	104.6	571,042	552,828	3.20	3.31	96.5	2.62
August	9,306	335	1.62	45.01	5.45	99.4	571,170	551,024	3.23	3.34	96.9	2.59
Sept	9,059	320	2.00	56.51	5.12	102.8	457,872	442,147	3.43	3.55	97.3	2.64
October	7,088	253	1.87	52.47	5.71	146.9	370,666	358,541	3.53	3.65	96.7	2.58
November	7,871	279	2.22	62.85	5.74	116.3	339,777	328,019	3.36	3.48	97.4	2.54
December	8,017	284	1.99	56.17	5.39	108.8	348,255	336,401	4.15	4.30	97.0	2.78
Year 2017												
January	7,058	251	2.14	60.16	5.67	83.3	337,596	326,324	4.31	4.46	95.7	2.82
February	7,593	271	2.00	56.03	5.85	124.3	294,616	285,401	3.80	3.92	96.7	2.62
March	8,628	309	2.06	57.51	5.29	143.9	355,096	343,820	3.53	3.64	97.0	2.67
April	5,835	208	2.00	55.96	5.34	188.7	338,000	327,213	3.52	3.63	97.7	2.65
May	6,776	242	2.05	57.46	5.57	91.5	383,433	371,812	3.68	3.80	98.5	2.73
June	8,386	298	2.14	60.07	5.55	105.5	442,214	428,256	3.55	3.66	97.6	2.67
July	8,245	292	2.11	59.61	5.49	107.5	554,383	536,001	3.45	3.57	96.5	2.68
August	7,676	273	2.11	59.17	5.45	119.8	519,749	502,748	3.42	3.53	96.7	2.62
Sept	7,658	274	2.12	59.07	5.42	130.2	435,093	420,539	3.54	3.66	96.4	2.65
October	7,454	265	2.37	66.84	5.58	154.2	389,312	377,140	3.54	3.66	97.1	2.63
November	7,084	252	2.52	70.93	5.66	107.1	342,138	331,585	3.64	3.76	96.6	2.66
December	8,088	287	2.17	60.99	5.74	123.5	402,754	389,987	3.71	3.83	95.5	2.74
Year 2018												
January	7,009	248	2.38	67.41	5.31	83.4	386,450	374,413	5.13	5.29	88.5	3.29
February	7,769	277	2.43	68.09	5.49	117.9	330,518	320,418	3.81	3.93	89.1	2.76
March	7,841	281	2.54	70.89	5.54	141.5	360,699	349,214	3.48	3.60	89.3	2.61
April	6,564	232	2.56	72.38	6.09	119.0	342,450	332,235	3.30	3.40	89.2	2.60
May	4,344	152	2.41	68.58	6.09	108.3	400,819	388,233	3.24	3.35	84.5	2.60
June	7,382	260	2.73	77.61	5.97	96.2	464,827	450,427	3.27	3.38	87.6	2.63
July	8,147	287	2.73	77.48	5.73	100.4	558,184	541,016	3.29	3.39	84.2	2.66
August	8,183	288	2.82	80.03	5.67	105.4	538,581	522,123	3.34	3.45	85.2	2.65
Sept	7,493	263	3.05	86.74	5.59	101.2	476,033	460,962	3.28	3.39	85.4	2.65
October	5,415	191	2.55	72.24	5.80	120.4	417,512	404,765	3.56	3.68	87.3	2.70
November	6,524	229	2.23	63.55	5.88	116.4	357,160	346,630	4.25	4.38	89.9	2.89
Year to Date												
2016	91,688	3,254	1.48	41.69	5.38	102.6	4,727,082	4,571,137	3.08	3.18	97.1	2.52
2017	82,393	2,937	2.15	60.25	5.53	117.0	4,391,629	4,250,839	3.61	3.73	96.9	2.67
2018	76,671	2,708	2.60	73.61	5.72	107.9	4,633,235	4,490,437	3.59	3.71	87.0	2.73
Rolling 12 Months Ending in November												
2017	90,410	3,220	2.13	59.89	5.52	116.2	4,739,884	4,587,240	3.65	3.77	96.9	2.68
2018	84,759	2,995	2.56	72.40	5.72	109.2	5,035,989	4,880,425	3.60	3.72	87.6	2.73

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Notes:
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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.
NATURAL GAS - includes natural gas only. Prior to 2011, includes Other Gases.

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Table 4.3. Receipts, Average Cost, and Quality of Fossil Fuels: Independent Power Producers, 2008 - November 2018

	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												
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
2012	4,036,436	218,341	2.21	40.92	1.42	104.9	23,922	4,073	22.34	131.28	0.44	79.8
2013	4,032,431	217,572	2.20	40.95	1.48	99.1	43,432	7,205	19.71	118.88	0.45	110.1
2014	4,243,949	226,600	2.25	42.20	1.61	100.1	71,774	11,980	19.90	119.36	0.45	101.0
2015	3,731,508	198,982	2.10	39.39	1.66	100.5	55,248	9,189	11.69	70.36	0.46	86.5
2016	3,047,358	164,648	1.93	35.69	1.73	91.8	25,975	4,410	9.93	58.56	0.48	75.1
2017	3,056,215	165,567	1.85	34.19	1.64	93.1	24,704	4,190	12.67	74.73	0.46	73.8
Year 2016												
January	264,906	14,431	1.94	35.56	1.72	87.7	2,670	459	7.86	45.79	0.42	64.8
February	241,497	12,970	1.92	35.76	1.91	101.0	1,867	313	6.94	41.57	0.47	42.4
March	192,217	10,216	2.04	38.36	1.89	117.0	1,484	256	7.49	43.48	0.47	66.8
April	178,203	9,323	1.99	38.00	1.97	90.2	1,473	252	8.28	48.34	0.50	74.9
May	200,347	10,560	2.08	39.52	2.05	94.7	2,331	396	11.84	69.75	0.48	98.3
June	228,760	12,535	1.87	34.19	1.72	74.5	1,842	312	10.09	59.54	0.47	82.9
July	288,156	15,689	1.89	34.68	1.67	78.4	1,828	310	12.96	76.40	0.45	58.9
August	309,421	16,607	1.89	35.21	1.71	83.3	2,262	383	10.26	60.58	0.48	69.4
Sept	289,363	15,859	1.91	34.96	1.65	90.6	2,478	420	10.16	59.98	0.49	92.3
October	280,681	15,236	1.88	34.66	1.62	101.0	2,885	492	10.39	61.12	0.49	111.5
November	276,435	15,051	1.91	35.16	1.53	117.1	2,652	446	10.79	64.16	0.47	115.5
December	297,372	16,171	1.91	35.08	1.60	91.6	2,202	370	10.76	64.01	0.50	65.7
Year 2017												
January	297,849	16,042	1.92	35.75	1.59	96.7	2,862	488	13.96	82.04	0.47	103.9
February	254,381	13,690	1.88	34.92	1.59	110.9	1,514	254	11.89	70.84	0.50	70.2
March	251,712	13,439	1.88	35.27	1.75	103.1	1,436	247	11.97	69.71	0.44	91.2
April	235,324	12,633	1.85	34.48	1.66	99.2	1,436	242	12.28	72.85	0.44	83.2
May	238,355	12,976	1.86	34.11	1.67	97.1	1,790	306	11.55	67.69	0.45	79.3
June	239,687	13,070	1.86	34.15	1.67	87.3	1,559	267	10.88	63.53	0.42	64.2
July	257,789	14,218	1.85	33.64	1.55	80.5	1,775	303	10.73	62.88	0.48	79.4
August	279,845	15,249	1.83	33.52	1.64	91.5	1,702	289	11.16	65.68	0.43	72.3
Sept	258,366	13,963	1.82	33.65	1.63	92.0	1,543	267	11.35	65.70	0.42	68.5
October	250,339	13,545	1.83	33.87	1.60	99.0	2,399	406	11.71	69.17	0.50	121.1
November	243,578	13,224	1.79	33.00	1.64	88.3	2,544	434	13.15	77.15	0.56	113.8
December	248,991	13,519	1.83	33.70	1.68	81.5	4,145	688	15.82	95.35	0.43	43.1
Year 2018												
January	246,150	13,243	2.00	37.16	1.60	79.5	16,721	2,787	13.51	81.73	0.48	60.0
February	197,472	10,603	1.94	36.08	1.58	91.3	2,735	465	13.30	78.46	0.44	202.6
March	225,377	11,669	1.85	35.75	1.83	97.6	2,014	345	14.02	81.94	0.43	111.2
April	199,704	10,574	1.88	35.52	1.61	105.1	1,236	210	14.27	83.89	0.44	58.2
May	219,931	11,454	1.87	36.00	1.78	94.7	2,311	389	14.24	85.04	0.48	88.7
June	223,656	11,737	1.85	35.21	1.84	87.4	2,011	344	16.11	94.38	0.43	79.1
July	232,451	12,416	1.88	35.17	1.73	80.8	1,587	270	15.97	93.81	0.45	60.1
August	256,223	13,648	1.87	35.05	1.68	87.0	656	111	15.91	93.62	0.31	24.1
Sept	232,368	12,512	1.82	33.92	1.56	92.7	1,887	318	15.00	88.95	0.39	82.8
October	270,387	14,235	1.89	35.93	1.73	111.7	2,723	464	15.61	91.70	0.40	123.8
November	244,048	12,923	1.91	36.06	1.74	95.0	2,946	502	15.83	92.98	0.42	125.3
Year to Date												
2016	2,749,986	148,477	1.93	35.76	1.74	91.8	23,773	4,040	9.85	58.05	0.47	76.1
2017	2,807,224	152,047	1.85	34.23	1.63	94.3	20,560	3,502	12.03	70.67	0.47	85.8
2018	2,547,768	135,014	1.89	35.63	1.70	92.0	36,828	6,204	14.37	85.59	0.45	73.0
Rolling 12 Months Ending in November												
2017	3,104,596	168,218	1.86	34.31	1.63	94.1	22,762	3,872	11.91	70.07	0.47	83.4
2018	2,796,759	148,534	1.88	35.45	1.70	91.0	40,973	6,892	14.46	86.25	0.45	68.3

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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:
Beginning in January 2013, the threshold for reporting fuel receipts data was changed from 50 megawatts to 200 megawatts of nameplate capacity for plants primarily fueled by natural gas, petroleum coke, distillate fuel oil, and residual fuel oil. In addition, the requirement to report self-produced and minor fuels, i.e., blast furnace gas, other manufactured gases, kerosene, jet fuel, propane, and waste oils was eliminated. The threshold for coal plants remained at 50 megawatts. The following caveats for each fuel type should be noted:
COAL - includes anthracite, bituminous, subbituminous, lignite, waste coal, and coal-derived synthesis gas. Prior to 2011, synthesis gas was included in the category of Other Gases.
PETROLEUM LIQUIDS - includes distillate fuel oil and residual fuel oil. Prior to 2013, petroleum liquids included distillate fuel oil, residual fuel oil, kerosene, jet fuel, waste oil, and, beginning in 2011, propane. Prior to 2011, propane was included in the category of Other Gases.

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- See the EIA-923 section of the Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
- See the Technical Notes for fuel conversion factors.
- Totals may not equal the sum of components because of independent rounding.

Sources: U.S. Energy Information Administration (EIA), Form EIA-923, "Power Plant Operations Report" and predecessor forms 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 4.3. Receipts, Average Cost, and Quality of Fossil Fuels: Independent Power Producers, 2008 - November 2018 (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												
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
2012	23,024	801	0.82	23.98	5.49	92.1	4,810,553	4,696,637	3.17	3.25	93.8	2.74
2013	16,150	575	W	W	5.39	65.6	4,025,263	3,917,898	4.25	4.36	92.8	W
2014	13,781	488	2.48	70.31	5.33	70.9	4,054,540	3,934,672	4.90	5.05	92.7	3.52
2015	14,550	524	2.45	68.22	5.26	67.3	4,683,291	4,530,195	2.94	3.04	93.2	2.57
2016	13,573	492	2.50	68.88	5.44	69.9	4,791,729	4,634,518	2.54	2.63	94.0	2.29
2017	0	0	--	--	--	0.0	4,346,156	4,201,573	3.08	3.19	94.0	2.54
Year 2016												
January	1,305	49	2.50	66.52	5.70	182.6	366,954	353,940	2.80	2.91	93.1	2.41
February	1,314	47	2.50	69.23	5.44	97.1	322,866	312,018	2.43	2.52	93.5	2.20
March	1,337	48	2.50	69.56	5.37	65.3	353,542	341,974	1.89	1.95	94.0	1.97
April	1,203	44	2.50	68.64	5.30	88.5	345,599	334,192	2.07	2.14	94.3	2.06
May	506	18	2.50	70.60	5.28	30.6	384,972	373,040	2.04	2.11	94.6	2.10
June	348	12	2.50	70.36	5.32	20.5	457,044	442,942	2.41	2.49	94.4	2.22
July	223	8	2.50	70.91	5.67	12.1	552,956	535,139	2.66	2.75	94.4	2.38
August	1,510	55	2.50	68.75	5.24	77.3	569,120	549,584	2.62	2.71	94.3	2.34
Sept	1,483	53	2.50	69.56	5.43	90.7	448,820	433,556	2.61	2.70	94.1	2.32
October	1,549	56	2.50	68.82	5.59	78.5	362,466	350,675	2.60	2.69	94.0	2.28
November	1,294	47	2.50	69.55	5.43	83.4	313,867	304,227	2.59	2.67	93.5	2.27
December	1,501	55	2.50	68.05	5.50	84.2	313,521	303,233	3.83	3.95	93.6	2.82
Year 2017												
January	0	0	--	--	--	0.0	308,232	297,759	3.99	4.13	93.5	2.92
February	0	0	--	--	--	0.0	266,747	257,955	3.34	3.45	94.3	2.58
March	0	0	--	--	--	0.0	308,990	298,914	3.22	3.33	94.1	2.58
April	0	0	--	--	--	0.0	284,267	275,005	3.20	3.31	94.1	2.55
May	0	0	--	--	--	0.0	315,859	305,704	3.21	3.31	94.8	2.58
June	0	0	--	--	--	0.0	401,526	388,362	2.93	3.02	94.2	2.49
July	0	0	--	--	--	0.0	510,414	493,178	2.88	2.98	93.8	2.50
August	0	0	--	--	--	0.0	490,671	474,207	2.74	2.84	94.5	2.37
Sept	0	0	--	--	--	0.0	411,228	396,942	2.66	2.75	93.8	2.30
October	0	0	--	--	--	0.0	370,640	358,457	2.60	2.69	93.3	2.29
November	0	0	--	--	--	0.0	310,865	300,737	3.03	3.13	93.2	2.47
December	0	0	--	--	--	0.0	366,717	354,352	3.64	3.77	94.0	2.91
Year 2018												
January	0	0	--	--	--	0.0	323,796	313,096	5.25	5.43	86.7	3.95
February	0	0	--	--	--	0.0	297,893	288,320	3.36	3.48	84.5	2.78
March	0	0	--	--	--	0.0	328,275	317,199	2.86	2.96	87.0	2.44
April	0	0	--	--	--	0.0	303,547	293,740	2.94	3.04	87.7	2.49
May	0	0	--	--	--	0.0	351,345	340,277	2.77	2.86	86.5	2.43
June	0	0	--	--	--	0.0	397,507	384,422	2.87	2.96	87.7	2.49
July	0	0	--	--	--	0.0	530,692	513,624	3.34	3.45	87.0	2.85
August	0	0	--	--	--	0.0	530,208	513,315	3.21	3.32	87.4	2.72
Sept	0	0	--	--	--	0.0	459,798	444,660	2.88	2.98	88.1	2.51
October	0	0	--	--	--	0.0	395,265	382,024	3.16	3.27	87.8	2.64
November	0	0	--	--	--	0.0	338,095	326,516	4.09	4.24	88.6	3.15
Year to Date												
2016	12,072	437	2.50	68.98	5.43	68.4	4,478,208	4,331,285	2.45	2.53	94.1	2.25
2017	0	0	--	--	--	0.0	3,979,439	3,847,220	3.03	3.13	94.0	2.51
2018	0	0	--	--	--	0.0	4,256,421	4,117,194	3.31	3.43	87.2	2.77
Rolling 12 Months Ending in November												
2017	1,501	55	2.50	68.05	5.50	8.2	4,292,960	4,150,453	3.08	3.19	93.9	2.53
2018	0	0	--	--	--	0.0	4,623,138	4,471,547	3.33	3.45	87.7	2.78

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Notes:
Beginning in January 2013, the threshold for reporting fuel receipts data was changed from 50 megawatts to 200 megawatts of nameplate capacity for plants primarily fueled by natural gas, petroleum coke, distillate fuel oil, and residual fuel oil. In addition, the requirement to report self-produced and minor fuels, i.e., blast furnace gas, other manufactured gases, kerosene, jet fuel, propane, and waste oils was eliminated. The threshold for coal plants remained at 50 megawatts. The following caveats for each fuel type should be noted:
PETROLEUM COKE - includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
NATURAL GAS - includes natural gas only. Prior to 2011, includes Other Gases.

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- See the Technical Notes for fuel conversion factors.
- Totals may not equal the sum of components because of independent rounding.

Sources: U.S. Energy Information Administration (EIA), Form EIA-923, "Power Plant Operations Report" and predecessor forms 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 4.4. Receipts, Average Cost, and Quality of Fossil Fuels: Commercial Sector, 2008 - November 2018

	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												
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
2012	4,427	192	3.41	78.71	2.75	13.2	247	43	W	W	0.00	11.0
2013	3,507	151	W	W	3.05	11.2	0	0	--	--	--	0.0
2014	4,096	182	3.12	70.30	2.50	17.1	0	0	--	--	--	0.0
2015	2,439	109	2.85	63.90	2.55	13.6	0	0	--	--	--	0.0
2016	1,288	57	2.69	60.89	3.03	8.3	0	0	--	--	--	0.0
2017	548	24	2.78	63.31	2.99	3.9	0	0	--	--	--	0.0
Year 2016												
January	139	6	2.70	61.16	2.87	8.1	0	0	--	--	--	0.0
February	124	5	2.70	61.18	2.84	7.2	0	0	--	--	--	0.0
March	163	7	2.70	61.02	3.03	9.7	0	0	--	--	--	0.0
April	9	0	2.65	60.00	2.98	0.9	0	0	--	--	--	0.0
May	0	0	--	--	--	0.0	0	0	--	--	--	0.0
June	0	0	--	--	--	0.0	0	0	--	--	--	0.0
July	0	0	--	--	--	0.0	0	0	--	--	--	0.0
August	92	4	2.68	60.89	3.09	8.2	0	0	--	--	--	0.0
Sept	153	7	2.68	60.94	3.14	13.5	0	0	--	--	--	0.0
October	159	7	2.68	60.76	3.15	14.1	0	0	--	--	--	0.0
November	237	10	2.68	60.68	3.04	17.6	0	0	--	--	--	0.0
December	214	9	2.68	60.81	3.05	12.5	0	0	--	--	--	0.0
Year 2017												
January	111	5	2.77	62.82	2.99	6.9	0	0	--	--	--	0.0
February	91	4	2.77	63.46	2.95	6.9	0	0	--	--	--	0.0
March	104	5	2.77	63.24	3.02	7.0	0	0	--	--	--	0.0
April	1	0	2.77	63.60	2.96	0.1	0	0	--	--	--	0.0
May	11	0	2.77	63.54	3.23	1.2	0	0	--	--	--	0.0
June	17	1	2.77	63.65	3.02	1.8	0	0	--	--	--	0.0
July	0	0	--	--	--	0.0	0	0	--	--	--	0.0
August	4	0	2.77	63.24	2.77	0.4	0	0	--	--	--	0.0
Sept	72	3	2.77	63.24	2.96	6.9	0	0	--	--	--	0.0
October	35	2	2.79	64.50	2.96	3.6	0	0	--	--	--	0.0
November	13	1	2.79	63.70	3.04	1.1	0	0	--	--	--	0.0
December	89	4	2.79	63.31	3.01	6.0	0	0	--	--	--	0.0
Year 2018												
January	95	4	2.92	66.58	3.11	6.0	0	0	--	--	--	0.0
February	31	1	2.92	66.05	3.19	2.5	0	0	--	--	--	0.0
March	5	0	2.92	66.20	3.16	0.4	0	0	--	--	--	0.0
April	0	0	--	--	--	0.0	0	0	--	--	--	0.0
May	0	0	--	--	--	0.0	0	0	--	--	--	0.0
June	0	0	--	--	--	0.0	0	0	--	--	--	0.0
July	0	0	--	--	--	0.0	0	0	--	--	--	0.0
August	0	0	--	--	--	0.0	0	0	--	--	--	0.0
Sept	0	0	--	--	--	0.0	0	0	--	--	--	0.0
October	52	2	2.94	66.53	2.87	5.4	0	0	--	--	--	0.0
November	62	3	2.94	66.44	2.99	5.6	0	0	--	--	--	0.0
Year to Date												
2016	1,074	47	2.69	60.91	3.03	7.8	0	0	--	--	--	0.0
2017	459	20	2.77	63.31	2.99	3.7	0	0	--	--	--	0.0
2018	244	11	2.93	66.46	3.04	2.0	0	0	--	--	--	0.0
Rolling 12 Months Ending in November												
2017	673	30	2.74	62.51	3.01	4.8	0	0	--	--	--	0.0
2018	333	15	2.89	65.62	3.03	2.4	0	0	--	--	--	0.0

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Notes:
Beginning in January 2013, the threshold for reporting fuel receipts data was changed from 50 megawatts to 200 megawatts of nameplate capacity for plants primarily fueled by natural gas, petroleum coke, distillate fuel oil, and residual fuel oil. In addition, the requirement to report self-produced and minor fuels, i.e., blast furnace gas, other manufactured gases, kerosene, jet fuel, propane, and waste oils was eliminated. The threshold for coal plants remained at 50 megawatts. The following caveats for each fuel type should be noted:
COAL - includes anthracite, bituminous, subbituminous, lignite, waste coal, and coal-derived synthesis gas. Prior to 2011, synthesis gas was included in the category of Other Gases.
PETROLEUM LIQUIDS - includes distillate fuel oil and residual fuel oil. Prior to 2013, petroleum liquids included distillate fuel oil, residual fuel oil, kerosene, jet fuel, waste oil, and, beginning in 2011, propane. Prior to 2011, propane was included in the category of Other Gases.

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

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Table 4.4. Receipts, Average Cost, and Quality of Fossil Fuels: Commerical Sector, 2008 - November 2018 (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												
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
2012	0	0	--	--	--	0.0	18,315	18,008	5.88	5.98	16.2	W
2013	0	0	--	--	--	0.0	5,497	5,450	W	W	4.6	W
2014	0	0	--	--	--	0.0	5,849	5,795	5.42	5.47	4.9	4.47
2015	0	0	--	--	--	0.0	6,499	6,371	4.11	4.19	5.5	3.76
2016	0	0	--	--	--	0.0	8,005	7,766	3.85	3.97	6.1	3.69
2017	0	0	--	--	--	0.0	7,841	7,593	3.82	3.95	4.9	3.75
Year 2016												
January	0	0	--	--	--	0.0	1,241	1,203	3.68	3.79	11.3	3.58
February	0	0	--	--	--	0.0	488	477	3.85	3.94	4.9	3.62
March	0	0	--	--	--	0.0	620	610	3.86	3.93	6.2	3.62
April	0	0	--	--	--	0.0	578	567	3.82	3.89	6.1	3.80
May	0	0	--	--	--	0.0	599	587	3.82	3.89	6.1	3.82
June	0	0	--	--	--	0.0	599	585	3.82	3.91	5.3	3.82
July	0	0	--	--	--	0.0	691	667	3.76	3.89	5.0	3.76
August	0	0	--	--	--	0.0	802	765	3.80	3.98	5.6	3.68
Sept	0	0	--	--	--	0.0	610	591	3.92	4.05	5.3	3.68
October	0	0	--	--	--	0.0	598	575	3.98	4.13	5.9	3.70
November	0	0	--	--	--	0.0	613	589	4.09	4.26	6.8	3.70
December	0	0	--	--	--	0.0	568	549	4.05	4.18	5.3	3.67
Year 2017												
January	0	0	--	--	--	0.0	662	639	4.02	4.17	4.5	3.84
February	0	0	--	--	--	0.0	646	624	4.01	4.15	5.2	3.86
March	0	0	--	--	--	0.0	680	662	3.96	4.06	5.4	3.80
April	0	0	--	--	--	0.0	502	490	3.90	3.99	4.7	3.89
May	0	0	--	--	--	0.0	497	483	3.92	4.04	4.4	3.90
June	0	0	--	--	--	0.0	615	595	3.82	3.95	4.6	3.79
July	0	0	--	--	--	0.0	636	613	3.64	3.77	4.1	3.64
August	0	0	--	--	--	0.0	809	778	3.70	3.85	5.3	3.70
Sept	0	0	--	--	--	0.0	707	685	3.72	3.84	5.1	3.63
October	0	0	--	--	--	0.0	605	588	3.77	3.88	4.6	3.72
November	0	0	--	--	--	0.0	749	725	3.72	3.84	6.0	3.70
December	0	0	--	--	--	0.0	734	711	3.77	3.89	5.2	3.67
Year 2018												
January	0	0	--	--	--	0.0	844	818	3.63	3.74	1.7	3.56
February	0	0	--	--	--	0.0	709	688	3.72	3.84	1.6	3.69
March	0	0	--	--	--	0.0	768	746	3.59	3.69	1.7	3.58
April	0	0	--	--	--	0.0	732	713	3.49	3.58	1.7	3.49
May	0	0	--	--	--	0.0	776	758	3.47	3.55	1.7	3.47
June	0	0	--	--	--	0.0	670	650	3.57	3.67	1.4	3.57
July	0	0	--	--	--	0.0	790	760	3.39	3.52	1.6	3.39
August	0	0	--	--	--	0.0	786	764	3.42	3.52	1.6	3.42
Sept	0	0	--	--	--	0.0	744	723	3.38	3.48	1.6	3.38
October	0	0	--	--	--	0.0	792	770	3.36	3.45	6.2	3.33
November	0	0	--	--	--	0.0	723	701	3.41	3.52	5.6	3.37
Year to Date												
2016	0	0	--	--	--	0.0	7,438	7,217	3.84	3.95	6.2	3.69
2017	0	0	--	--	--	0.0	7,107	6,881	3.83	3.95	4.9	3.76
2018	0	0	--	--	--	0.0	8,334	8,091	3.49	3.60	1.9	3.48
Rolling 12 Months Ending in November												
2017	0	0	--	--	--	0.0	7,675	7,430	3.84	3.97	4.9	3.75
2018	0	0	--	--	--	0.0	9,068	8,803	3.51	3.62	2.0	3.49

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Notes:
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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.
NATURAL GAS - includes natural gas only. Prior to 2011, includes Other Gases.

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- See the Technical Notes for fuel conversion factors.
- Totals may not equal the sum of components because of independent rounding.

Sources: U.S. Energy Information Administration (EIA), Form EIA-923, "Power Plant Operations Report" and predecessor forms 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 4.5. Receipts, Average Cost, and Quality of Fossil Fuels: Industrial Sector, 2008 - November 2018

	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												
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
2012	285,172	13,206	3.02	65.24	1.33	65.8	6,739	1,095	W	W	1.52	40.8
2013	275,543	12,727	W	W	1.32	64.4	2,431	394	18.20	112.29	1.43	15.8
2014	281,867	13,050	2.97	64.15	1.33	68.4	2,290	373	17.91	109.99	1.43	15.6
2015	263,630	12,132	2.72	59.17	1.35	71.4	2,359	385	13.45	82.47	1.42	16.9
2016	210,749	9,859	2.67	57.01	1.30	67.0	2,541	412	10.51	64.79	1.27	18.3
2017	192,637	9,178	2.49	52.29	1.35	70.7	1,850	297	11.18	69.57	1.42	15.2
Year 2016												
January	19,357	897	2.69	58.07	1.36	64.2	237	38	11.34	71.47	1.49	18.7
February	17,418	814	2.68	57.44	1.42	63.5	342	55	8.70	53.76	1.16	19.8
March	19,181	888	2.77	59.80	1.29	69.7	205	33	8.74	54.10	1.18	18.5
April	16,048	739	2.69	58.41	1.43	68.7	222	36	9.38	57.17	1.36	20.8
May	16,376	761	2.67	57.42	1.39	64.6	158	26	11.79	72.81	1.49	11.7
June	18,607	865	2.66	57.25	1.25	69.6	259	42	10.38	64.15	1.45	21.3
July	18,586	875	2.64	56.18	1.23	66.2	85	14	11.10	68.65	1.14	7.1
August	19,629	929	2.64	55.84	1.16	71.9	119	19	11.84	73.14	1.11	12.4
Sept	16,052	753	2.67	56.87	1.20	65.1	162	27	11.67	71.25	1.12	16.5
October	18,491	879	2.64	55.55	1.25	78.1	297	48	10.34	63.78	1.20	25.7
November	14,936	701	2.62	55.77	1.27	64.1	283	47	10.57	63.80	1.30	30.7
December	16,067	759	2.61	55.34	1.33	59.3	172	28	13.49	83.67	1.12	18.0
Year 2017												
January	15,758	742	2.51	53.37	1.38	58.7	128	21	11.64	72.27	1.06	12.8
February	15,865	744	2.57	54.74	1.18	69.1	121	19	11.56	72.24	1.36	15.1
March	17,861	858	2.48	51.66	1.34	75.2	178	29	10.66	66.36	1.22	18.7
April	16,089	759	2.62	55.59	1.23	75.3	160	26	11.82	74.12	1.27	16.7
May	16,329	796	2.44	50.13	1.16	76.3	155	25	11.19	69.26	1.21	17.7
June	15,911	757	2.41	50.55	1.37	72.5	142	23	10.34	64.95	1.11	17.9
July	15,852	763	2.46	51.07	1.30	73.3	95	15	10.75	66.88	1.30	12.4
August	16,644	784	2.51	53.36	1.36	74.7	110	18	10.55	65.94	1.55	14.1
Sept	14,897	715	2.52	52.38	1.17	72.2	151	24	11.07	69.03	1.51	17.3
October	15,687	741	2.52	53.40	1.36	67.5	149	24	11.43	71.09	1.58	16.1
November	15,335	734	2.46	51.43	1.43	68.2	199	32	11.67	72.03	1.71	13.2
December	16,408	785	2.40	50.09	1.89	68.9	263	42	11.14	69.14	1.79	13.5
Year 2018												
January	15,278	735	2.47	51.33	1.12	59.1	408	65	12.64	79.32	1.32	12.3
February	13,828	662	2.49	52.04	1.26	59.6	187	30	11.38	71.32	1.20	19.7
March	15,083	722	2.52	52.66	1.24	63.4	234	38	12.59	78.52	1.32	22.4
April	13,037	622	2.53	53.03	1.29	61.3	153	24	13.24	83.77	1.23	16.2
May	14,112	684	2.53	52.15	1.18	65.7	149	24	14.33	87.27	1.47	14.5
June	14,097	679	2.50	51.83	1.23	68.7	107	17	13.54	84.39	1.48	7.5
July	14,451	703	2.42	49.82	1.26	72.1	138	22	14.64	89.87	1.42	12.1
August	13,393	643	2.50	52.09	1.23	68.2	135	22	14.45	89.97	1.39	13.1
Sept	12,124	578	2.55	53.48	1.28	59.1	155	25	14.38	89.73	1.12	14.4
October	11,903	574	2.47	51.33	1.30	61.5	180	29	14.50	91.01	1.37	17.0
November	13,787	679	2.52	51.10	1.08	66.7	206	33	14.01	87.74	1.58	19.0
Year to Date												
2016	194,681	9,100	2.67	57.15	1.29	67.7	2,369	384	10.30	63.43	1.28	18.3
2017	176,229	8,394	2.50	52.49	1.30	70.9	1,587	255	11.18	69.64	1.36	15.5
2018	151,093	7,280	2.50	51.86	1.22	63.9	2,051	329	13.42	83.76	1.34	14.5
Rolling 12 Months Ending in November												
2017	192,296	9,152	2.51	52.73	1.30	69.8	1,759	283	11.41	71.02	1.34	15.7
2018	167,501	8,065	2.49	51.69	1.29	64.4	2,314	371	13.16	82.09	1.40	14.4

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Notes:
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COAL - includes anthracite, bituminous, subbituminous, lignite, waste coal, and coal-derived synthesis gas. Prior to 2011, synthesis gas was included in the category of Other Gases.
PETROLEUM LIQUIDS - includes distillate fuel oil and residual fuel oil. Prior to 2013, petroleum liquids included distillate fuel oil, residual fuel oil, kerosene, jet fuel, waste oil, and, beginning in 2011, propane. Prior to 2011, propane was included in the category of Other Gases.

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Table 4.5. Receipts, Average Cost, and Quality of Fossil Fuels: Industrial Sector, 2008 - November 2018 (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												
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
2012	23,861	858	2.62	72.96	5.86	42.2	834,245	813,288	2.97	3.05	70.8	W
2013	17,236	623	W	W	5.82	30.5	750,946	728,835	W	W	62.3	W
2014	9,736	358	2.56	69.67	5.83	23.2	742,347	718,360	4.54	4.69	62.7	4.12
2015	8,189	304	1.73	46.72	5.50	24.1	765,964	740,975	2.83	2.93	60.6	2.82
2016	3,664	135	2.00	54.12	5.84	11.2	744,034	721,358	2.65	2.74	59.6	2.68
2017	2,356	85	1.59	44.08	5.84	8.1	803,435	778,741	3.18	3.28	62.0	3.06
Year 2016												
January	400	15	2.18	59.67	5.94	15.3	63,059	61,034	2.47	2.55	59.0	2.55
February	122	4	1.77	49.53	6.10	4.3	56,120	54,342	2.28	2.35	57.2	2.40
March	574	21	1.92	52.02	5.88	23.8	60,020	58,279	1.96	2.01	58.9	2.17
April	669	25	1.97	53.48	5.81	31.0	60,005	58,224	2.21	2.28	61.3	2.33
May	206	8	2.00	52.87	5.64	7.0	59,608	57,927	2.15	2.21	59.3	2.28
June	222	8	1.89	53.54	5.94	7.0	60,985	59,247	2.43	2.50	58.7	2.50
July	222	8	1.88	53.32	5.94	7.0	64,456	62,488	2.93	3.02	58.3	2.87
August	217	8	2.04	55.00	5.81	7.2	64,784	62,548	2.87	2.97	57.7	2.83
Sept	200	8	2.11	54.50	5.64	9.6	61,346	59,335	3.01	3.11	58.7	2.95
October	207	8	2.06	54.37	5.66	7.9	62,185	60,320	3.08	3.18	60.7	3.01
November	200	8	2.10	54.36	5.47	7.0	64,265	62,438	2.81	2.89	63.4	2.80
December	427	16	2.01	54.48	5.99	15.4	67,201	65,176	3.49	3.60	62.7	3.34
Year 2017												
January	0	0	--	--	--	0.0	69,093	66,857	3.62	3.75	62.4	3.43
February	0	0	--	--	--	0.0	66,939	64,865	3.19	3.29	67.1	3.08
March	0	0	--	--	--	0.0	69,909	67,773	2.90	3.00	65.7	2.83
April	0	0	--	--	--	0.0	66,465	64,429	3.26	3.36	65.2	3.15
May	0	0	--	--	--	0.0	66,784	64,714	3.30	3.41	63.8	3.15
June	271	9	1.25	35.84	5.75	9.5	66,331	64,299	3.26	3.36	61.6	3.10
July	253	9	1.25	34.50	5.85	9.4	67,662	65,619	3.21	3.31	58.6	3.07
August	296	11	1.25	34.50	5.85	10.9	65,688	63,679	3.08	3.17	58.7	2.97
Sept	257	9	1.77	48.91	5.85	11.7	62,978	61,019	3.10	3.20	59.4	3.00
October	893	32	1.77	48.91	5.85	35.3	63,058	61,209	3.08	3.17	58.8	2.97
November	386	14	1.77	48.91	5.85	16.1	66,895	64,843	3.01	3.11	62.6	2.93
December	0	0	--	--	--	0.0	71,633	69,435	3.11	3.21	60.6	3.00
Year 2018												
January	0	0	--	--	--	0.0	67,916	65,839	3.57	3.69	57.3	3.42
February	0	0	--	--	--	0.0	59,419	57,646	3.42	3.52	56.6	3.26
March	0	0	--	--	--	0.0	59,663	57,973	2.85	2.93	54.4	2.81
April	0	0	--	--	--	0.0	60,223	58,528	2.92	3.00	56.1	2.87
May	0	0	--	--	--	0.0	61,846	60,048	2.98	3.07	57.7	2.92
June	0	0	--	--	--	0.0	64,149	62,365	3.13	3.22	58.4	3.03
July	160	6	1.70	45.10	5.83	7.3	66,384	64,680	3.02	3.10	57.7	2.93
August	260	10	1.78	46.99	5.55	12.5	67,289	65,321	3.11	3.21	57.5	3.03
Sept	664	25	1.78	47.54	6.02	30.8	66,074	64,330	3.11	3.19	59.4	3.04
October	477	17	1.76	48.96	5.45	21.3	64,068	62,421	3.40	3.49	58.2	3.27
November	172	6	1.69	46.62	5.85	9.2	69,866	68,008	3.97	4.07	59.8	3.75
Year to Date												
2016	3,237	120	2.00	54.07	5.82	10.9	676,833	656,183	2.57	2.65	59.4	2.61
2017	2,356	85	1.59	44.08	5.84	8.8	731,802	709,306	3.18	3.29	62.1	3.06
2018	1,733	64	1.76	47.52	5.76	7.8	706,898	687,160	3.24	3.33	57.6	3.13
Rolling 12 Months Ending in November												
2017	2,783	101	1.65	45.71	5.86	9.4	799,003	774,481	3.21	3.31	62.2	3.09
2018	1,733	64	1.76	47.52	5.76	7.1	778,531	756,595	3.22	3.32	57.8	3.12

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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.
NATURAL GAS - includes natural gas only. Prior to 2011, includes Other Gases.

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Sources: U.S. Energy Information Administration (EIA), Form EIA-923, "Power Plant Operations Report" and predecessor forms 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 4.6.A. Receipts of Coal Delivered for Electricity Generation by State, November 2018 and 2017
(Thousand Tons)

Census Division and State	All Sectors			Electric Power Sector							
				Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	4	6	-25.0%	0	0	4	6	0	0	0	0
Connecticut	0	0	--	0	0	0	0	0	0	0	0
Maine	4	6	-25.0%	0	0	4	6	0	0	0	0
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	0	0	--	0	0	0	0	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	1,728	1,330	30.0%	0	0	1,728	1,322	0	0	0	8
New Jersey	52	49	4.5%	0	0	52	49	0	0	0	0
New York	14	8	71.0%	0	0	14	0	0	0	0	8
Pennsylvania	1,662	1,272	31.0%	0	0	1,662	1,272	0	0	0	0
East North Central	11,546	11,658	-1.0%	6,636	7,297	4,741	4,153	0	0	169	207
Illinois	3,547	3,226	9.9%	600	653	2,792	2,379	0	0	155	194
Indiana	2,382	2,554	-6.7%	2,205	2,403	177	151	0	0	0	0
Michigan	2,173	1,847	18.0%	2,158	1,816	13	30	0	0	1	0
Ohio	1,930	2,171	-11.0%	171	577	1,759	1,593	0	0	0	0
Wisconsin	1,515	1,861	-19.0%	1,501	1,848	0	0	0	0	13	13
West North Central	9,818	10,359	-5.2%	9,523	10,109	0	0	3	1	292	250
Iowa	1,402	1,459	-3.9%	1,242	1,273	0	0	0	0	161	186
Kansas	1,123	1,125	-0.2%	1,123	1,125	0	0	0	0	0	0
Minnesota	1,261	1,303	-3.2%	1,201	1,303	0	0	0	0	59	0
Missouri	2,816	3,182	-12.0%	2,813	3,182	0	0	3	1	0	0
Nebraska	1,139	1,069	6.5%	1,067	1,006	0	0	0	0	72	64
North Dakota	1,980	2,052	-3.5%	1,980	2,052	0	0	0	0	0	0
South Dakota	97	169	-42.0%	97	169	0	0	0	0	0	0
South Atlantic	6,296	6,481	-2.9%	5,346	5,541	872	857	0	0	78	82
Delaware	12	0	--	0	0	12	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	943	1,156	-18.0%	936	1,145	0	0	0	0	8	11
Georgia	1,319	1,242	6.2%	1,304	1,232	0	0	0	0	14	10
Maryland	463	326	42.0%	0	0	443	308	0	0	20	18
North Carolina	580	837	-31.0%	559	810	2	6	0	0	19	20
South Carolina	583	515	13.0%	583	515	0	0	0	0	0	0
Virginia	342	406	-16.0%	302	326	23	57	0	0	17	23
West Virginia	2,054	2,000	2.7%	1,663	1,514	391	486	0	0	0	0
East South Central	4,773	4,002	19.0%	4,423	3,748	291	173	0	0	58	80
Alabama	958	1,161	-17.0%	958	1,161	0	0	0	0	0	0
Kentucky	2,856	2,032	41.0%	2,856	2,032	0	0	0	0	0	0
Mississippi	419	306	37.0%	128	133	291	173	0	0	0	0
Tennessee	540	503	7.3%	481	423	0	0	0	0	58	80
West South Central	8,296	10,221	-19.0%	4,003	4,799	4,255	5,370	0	0	37	52
Arkansas	1,364	1,436	-5.0%	1,127	1,134	230	296	0	0	7	6
Louisiana	665	597	11.0%	452	432	213	165	0	0	0	0
Oklahoma	538	628	-14.0%	422	493	86	90	0	0	30	45
Texas	5,729	7,560	-24.0%	2,003	2,741	3,727	4,819	0	0	0	0
Mountain	6,706	7,411	-9.5%	6,163	6,451	543	960	0	0	0	0
Arizona	1,212	1,419	-15.0%	1,212	1,419	0	0	0	0	0	0
Colorado	1,357	1,511	-10.0%	1,357	1,511	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	415	831	-50.0%	24	0	391	831	0	0	0	0
Nevada	149	45	227.0%	73	0	76	45	0	0	0	0
New Mexico	777	812	-4.3%	777	812	0	0	0	0	0	0
Utah	788	999	-21.0%	749	961	39	38	0	0	0	0
Wyoming	2,008	1,794	12.0%	1,970	1,748	37	45	0	0	0	0
Pacific Contiguous	708	541	31.0%	177	164	488	322	0	0	44	55
California	44	55	-21.0%	0	0	0	0	0	0	44	55
Oregon	177	164	7.4%	177	164	0	0	0	0	0	0
Washington	488	322	52.0%	0	0	488	322	0	0	0	0
Pacific Noncontiguous	43	78	-44.0%	43	17	0	61	0	0	0	0
Alaska	43	17	151.0%	43	17	0	0	0	0	0	0
Hawaii	0	61	-100.0%	0	0	0	61	0	0	0	0
U.S. Total	49,919	52,087	-4.2%	36,314	38,128	12,923	13,224	3	1	679	734

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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.
Coal includes anthracite, bituminous, subbituminous, lignite, waste coal, and coal-derived synthesis gas.

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

Table 4.6.B. Receipts of Coal Delivered for Electricity Generation by State, (Year-to-Date) November 2018 and 2017 (Thousand Tons)

Census Division and State	All Sectors			Electric Power Sector							
				Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	219	190	15.0%	45	45	173	146	0	0	0	0
Connecticut	105	0	--	0	0	105	0	0	0	0	0
Maine	53	59	-9.7%	0	0	53	59	0	0	0	0
Massachusetts	0	87	-100.0%	0	0	0	87	0	0	0	0
New Hampshire	45	45	0.7%	45	45	0	0	0	0	0	0
Rhode Island	15	0	--	0	0	15	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	17,758	21,067	-16.0%	0	119	17,673	20,685	0	0	85	262
New Jersey	527	587	-10.0%	0	0	527	587	0	0	0	0
New York	285	260	9.5%	0	0	276	97	0	0	9	163
Pennsylvania	16,946	20,220	-16.0%	0	119	16,870	20,002	0	0	76	99
East North Central	122,845	127,131	-3.4%	72,023	77,795	49,038	47,095	0	0	1,784	2,241
Illinois	38,639	36,899	4.7%	7,134	7,190	29,805	27,681	0	0	1,699	2,028
Indiana	27,195	26,349	3.2%	25,336	24,965	1,859	1,385	0	0	0	0
Michigan	19,572	22,050	-11.0%	19,344	21,803	223	239	0	0	5	8
Ohio	20,713	23,885	-13.0%	3,562	6,095	17,151	17,790	0	0	0	0
Wisconsin	16,726	17,947	-6.8%	16,646	17,742	0	0	0	0	80	205
West North Central	104,453	106,570	-2.0%	101,492	103,566	0	0	11	20	2,950	2,984
Iowa	13,876	13,987	-0.8%	11,832	12,008	0	0	0	0	2,044	1,979
Kansas	11,375	11,139	2.1%	11,375	11,139	0	0	0	0	0	0
Minnesota	11,411	11,778	-3.1%	11,232	11,468	0	0	0	0	178	310
Missouri	32,478	34,387	-5.6%	32,467	34,367	0	0	11	20	0	0
Nebraska	11,741	12,521	-6.2%	11,013	11,826	0	0	0	0	728	695
North Dakota	22,207	21,517	3.2%	22,207	21,517	0	0	0	0	0	0
South Dakota	1,366	1,241	10.0%	1,366	1,241	0	0	0	0	0	0
South Atlantic	71,624	81,886	-13.0%	61,203	71,293	9,598	9,655	0	0	823	937
Delaware	35	200	-82.0%	0	0	35	200	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	10,672	14,151	-25.0%	10,595	13,979	0	26	0	0	77	147
Georgia	13,546	15,846	-15.0%	13,421	15,742	0	0	0	0	125	104
Maryland	4,205	3,503	20.0%	0	0	4,035	3,323	0	0	170	180
North Carolina	10,159	12,324	-18.0%	9,874	11,973	58	81	0	0	228	269
South Carolina	5,442	6,060	-10.0%	5,432	6,034	0	0	0	0	11	26
Virginia	4,160	5,140	-19.0%	3,473	4,390	475	539	0	0	212	211
West Virginia	23,404	24,662	-5.1%	18,408	19,175	4,995	5,487	0	0	0	0
East South Central	51,916	54,894	-5.4%	48,420	51,819	2,697	2,197	0	0	799	878
Alabama	13,499	14,466	-6.7%	13,499	14,466	0	0	0	0	0	0
Kentucky	29,056	29,248	-0.7%	29,056	29,248	0	0	0	0	0	0
Mississippi	4,175	3,569	17.0%	1,478	1,372	2,697	2,197	0	0	0	0
Tennessee	5,186	7,611	-32.0%	4,386	6,733	0	0	0	0	799	878
West South Central	94,910	111,231	-15.0%	50,476	51,267	44,151	59,554	0	0	282	410
Arkansas	15,077	12,866	17.0%	12,489	11,309	2,517	1,496	0	0	72	61
Louisiana	6,615	7,460	-11.0%	4,263	4,655	2,352	2,805	0	0	0	0
Oklahoma	8,042	9,696	-17.0%	6,841	8,391	991	955	0	0	211	349
Texas	65,175	81,210	-20.0%	26,884	26,912	38,292	54,297	0	0	0	0
Mountain	73,155	82,392	-11.0%	64,973	73,237	8,182	9,045	0	0	0	111
Arizona	14,819	15,199	-2.5%	14,819	15,199	0	0	0	0	0	0
Colorado	13,237	15,140	-13.0%	13,237	15,140	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	7,056	7,866	-10.0%	213	215	6,843	7,651	0	0	0	0
Nevada	1,040	713	46.0%	500	182	540	531	0	0	0	0
New Mexico	6,685	9,873	-32.0%	6,685	9,873	0	0	0	0	0	0
Utah	9,963	11,041	-9.8%	9,588	10,556	374	375	0	0	0	111
Wyoming	20,355	22,560	-9.8%	19,930	22,072	425	488	0	0	0	0
Pacific Contiguous	4,022	4,389	-8.4%	573	756	2,892	3,063	0	0	556	571
California	556	571	-2.5%	0	0	0	0	0	0	556	571
Oregon	573	756	-24.0%	573	756	0	0	0	0	0	0
Washington	2,892	3,063	-5.6%	0	0	2,892	3,063	0	0	0	0
Pacific Noncontiguous	842	764	10.0%	233	157	609	607	0	0	0	0
Alaska	233	157	49.0%	233	157	0	0	0	0	0	0
Hawaii	609	607	0.3%	0	0	609	607	0	0	0	0
U.S. Total	541,743	590,513	-8.3%	399,438	430,052	135,014	152,047	11	20	7,280	8,394

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Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Coal includes anthracite, bituminous, subbituminous, lignite, waste coal, and coal-derived synthesis gas.

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

Table 4.7.A. Receipts of Petroleum Liquids Delivered for Electricity Generation by State, November 2018 and 2017
(Thousand Barrels)

Census Division and State	All Sectors			Electric Power Sector							
				Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	123	136	-9.0%	50	4	73	132	0	0	0	0
Connecticut	3	2	61.0%	0	0	3	2	0	0	0	0
Maine	3	84	-97.0%	0	0	3	84	0	0	0	0
Massachusetts	7	41	-83.0%	0	3	7	39	0	0	0	0
New Hampshire	110	1	NM	50	1	60	0	0	0	0	0
Rhode Island	0	7	-100.0%	0	0	0	7	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	124	67	85.0%	1	1	115	59	0	0	8	6
New Jersey	2	1	110.0%	0	0	2	1	0	0	0	0
New York	32	33	-2.1%	1	1	30	31	0	0	2	1
Pennsylvania	90	34	169.0%	0	0	84	28	0	0	7	6
East North Central	57	95	-40.0%	38	44	18	50	0	0	2	1
Illinois	10	4	168.0%	2	0	8	4	0	0	0	0
Indiana	23	14	64.0%	23	14	0	0	0	0	0	0
Michigan	12	15	-22.0%	10	15	0	0	0	0	2	0
Ohio	11	58	-81.0%	1	11	10	47	0	0	0	1
Wisconsin	2	5	-68.0%	2	5	0	0	0	0	0	0
West North Central	48	46	2.9%	48	46	0	0	0	0	0	0
Iowa	7	9	-18.0%	7	9	0	0	0	0	0	0
Kansas	7	18	-63.0%	7	18	0	0	0	0	0	0
Minnesota	2	4	-40.0%	2	4	0	0	0	0	0	0
Missouri	14	10	50.0%	14	10	0	0	0	0	0	0
Nebraska	0	0	-100.0%	0	0	0	0	0	0	0	0
North Dakota	11	6	93.0%	11	6	0	0	0	0	0	0
South Dakota	6	0	--	6	0	0	0	0	0	0	0
South Atlantic	246	369	-33.0%	116	291	108	54	0	0	22	24
Delaware	0	0	-100.0%	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	43	63	-32.0%	42	58	0	0	0	0	1	6
Georgia	28	26	4.7%	16	9	0	2	0	0	12	15
Maryland	29	34	-13.0%	0	0	29	34	0	0	0	0
North Carolina	38	44	-15.0%	34	40	0	2	0	0	4	2
South Carolina	12	9	29.0%	8	9	0	0	0	0	4	0
Virginia	80	187	-57.0%	8	170	71	16	0	0	1	1
West Virginia	16	5	227.0%	9	5	8	0	0	0	0	0
East South Central	33	25	31.0%	31	25	1	0	0	0	1	1
Alabama	4	2	98.0%	3	2	1	0	0	0	0	0
Kentucky	12	18	-32.0%	12	18	0	0	0	0	0	0
Mississippi	3	1	303.0%	3	1	0	0	0	0	0	0
Tennessee	15	5	195.0%	14	4	0	0	0	0	1	1
West South Central	19	35	-46.0%	16	31	3	3	0	0	0	0
Arkansas	2	7	-71.0%	0	7	2	0	0	0	0	0
Louisiana	0	4	-100.0%	0	4	0	0	0	0	0	0
Oklahoma	7	12	-40.0%	7	12	0	0	0	0	0	0
Texas	10	12	-20.0%	9	9	1	3	0	0	0	0
Mountain	35	34	1.4%	32	31	2	3	0	0	0	0
Arizona	12	11	10.0%	12	11	0	0	0	0	0	0
Colorado	3	1	221.0%	3	1	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	2	3	-46.0%	0	0	2	3	0	0	0	0
Nevada	2	0	--	2	0	0	0	0	0	0	0
New Mexico	3	7	-58.0%	3	7	0	0	0	0	0	0
Utah	3	9	-69.0%	3	9	0	0	0	0	0	0
Wyoming	10	3	230.0%	10	3	0	0	0	0	0	0
Pacific Contiguous	7	5	33.0%	5	4	2	1	0	0	0	0
California	0	0	--	0	0	0	0	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	7	5	33.0%	5	4	2	1	0	0	0	0
Pacific Noncontiguous	638	808	-21.0%	458	678	180	130	0	0	0	0
Alaska	0	0	NM	0	0	0	0	0	0	0	0
Hawaii	637	808	-21.0%	458	678	180	130	0	0	0	0
U.S. Total	1,330	1,622	-18.0%	795	1,156	502	434	0	0	33	32

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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.
See the Technical Notes for fuel conversion factors.

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

Table 4.7.B. Receipts of Petroleum Liquids Delivered for Electricity Generation by State, (Year-to-Date) November 2018 and 2017 (Thousand Barrels)

Census Division and State	All Sectors			Electric Power Sector							
				Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	1,300	411	216.0%	172	19	1,128	392	0	0	0	0
Connecticut	190	25	660.0%	0	0	190	25	0	0	0	0
Maine	263	176	49.0%	0	0	263	176	0	0	0	0
Massachusetts	433	177	145.0%	17	8	416	169	0	0	0	0
New Hampshire	315	11	NM	155	11	160	0	0	0	0	0
Rhode Island	100	22	361.0%	0	0	100	22	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	3,152	742	325.0%	840	187	2,226	474	0	0	87	81
New Jersey	219	13	NM	0	0	219	13	0	0	0	0
New York	2,052	349	487.0%	840	187	1,194	142	0	0	18	21
Pennsylvania	881	379	132.0%	0	0	813	318	0	0	68	61
East North Central	740	799	-7.4%	406	454	306	322	0	0	27	23
Illinois	83	105	-21.0%	5	4	78	102	0	0	0	0
Indiana	194	182	6.3%	193	182	1	0	0	0	0	0
Michigan	137	132	3.7%	128	123	0	0	0	0	8	9
Ohio	275	330	-16.0%	40	97	216	220	0	0	19	13
Wisconsin	51	49	2.2%	40	49	11	0	0	0	0	0
West North Central	448	388	16.0%	448	388	0	0	0	0	0	0
Iowa	109	89	22.0%	109	89	0	0	0	0	0	0
Kansas	86	99	-13.0%	86	99	0	0	0	0	0	0
Minnesota	30	42	-29.0%	30	42	0	0	0	0	0	0
Missouri	142	84	69.0%	142	84	0	0	0	0	0	0
Nebraska	5	4	8.3%	5	4	0	0	0	0	0	0
North Dakota	65	64	1.8%	65	64	0	0	0	0	0	0
South Dakota	11	5	133.0%	11	5	0	0	0	0	0	0
South Atlantic	3,452	3,056	13.0%	2,350	2,521	891	390	0	0	210	144
Delaware	85	15	464.0%	0	0	85	15	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	432	1,430	-70.0%	392	1,395	0	0	0	0	40	35
Georgia	245	206	19.0%	169	141	25	16	0	0	51	49
Maryland	475	224	112.0%	0	0	475	224	0	0	0	0
North Carolina	762	307	148.0%	711	261	0	16	0	0	51	30
South Carolina	307	133	132.0%	221	117	43	0	0	0	43	16
Virginia	888	571	55.0%	635	438	228	119	0	0	26	14
West Virginia	257	169	52.0%	222	169	35	0	0	0	0	0
East South Central	456	328	39.0%	393	315	59	6	0	0	5	6
Alabama	123	42	195.0%	64	36	59	6	0	0	0	0
Kentucky	124	156	-21.0%	124	156	0	0	0	0	0	0
Mississippi	32	13	148.0%	32	13	0	0	0	0	0	0
Tennessee	177	117	52.0%	172	110	0	0	0	0	5	6
West South Central	160	219	-27.0%	125	121	35	98	0	0	0	0
Arkansas	46	80	-42.0%	33	35	13	45	0	0	0	0
Louisiana	7	4	104.0%	7	4	0	0	0	0	0	0
Oklahoma	30	17	75.0%	30	17	0	0	0	0	0	0
Texas	76	118	-36.0%	55	65	21	53	0	0	0	0
Mountain	272	314	-13.0%	241	285	32	28	0	0	0	0
Arizona	89	75	19.0%	89	75	0	0	0	0	0	0
Colorado	8	4	98.0%	8	4	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	25	19	29.0%	0	0	25	19	0	0	0	0
Nevada	19	17	14.0%	14	11	5	6	0	0	0	0
New Mexico	28	66	-58.0%	28	66	0	0	0	0	0	0
Utah	52	62	-16.0%	51	59	2	3	0	0	0	0
Wyoming	51	71	-27.0%	51	71	0	0	0	0	0	0
Pacific Contiguous	18	34	-47.0%	5	18	13	16	0	0	0	0
California	0	0	--	0	0	0	0	0	0	0	0
Oregon	0	14	-100.0%	0	14	0	0	0	0	0	0
Washington	18	21	-13.0%	5	4	13	16	0	0	0	0
Pacific Noncontiguous	7,838	8,065	-2.8%	6,323	6,289	1,515	1,776	0	0	0	0
Alaska	11	1	900.0%	11	1	0	0	0	0	0	0
Hawaii	7,826	8,064	-2.9%	6,312	6,288	1,515	1,776	0	0	0	0
U.S. Total	17,837	14,354	24.0%	11,304	10,597	6,204	3,502	0	0	329	255

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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.
See the Technical Notes for fuel conversion factors.

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

Table 4.8.A. Receipts of Petroleum Coke Delivered for Electricity Generation by State, November 2018 and 2017 (Thousand Tons)

Census Division and State	All Sectors			Electric Power Sector							
				Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	0	0	--	0	0	0	0	0	0	0	0
Connecticut	0	0	--	0	0	0	0	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	0	0	--	0	0	0	0	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	0	0	--	0	0	0	0	0	0	0	0
New Jersey	0	0	--	0	0	0	0	0	0	0	0
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	0	0	--	0	0	0	0	0	0	0	0
East North Central	49	38	31.0%	49	38	0	0	0	0	0	0
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	45	29	55.0%	45	29	0	0	0	0	0	0
Ohio	0	0	--	0	0	0	0	0	0	0	0
Wisconsin	4	8	-54.0%	4	8	0	0	0	0	0	0
West North Central	6	14	-55.0%	0	0	0	0	0	0	6	14
Iowa	6	14	-55.0%	0	0	0	0	0	0	6	14
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	0	0	--	0	0	0	0	0	0	0	0
Missouri	0	0	--	0	0	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	51	69	-27.0%	51	69	0	0	0	0	0	0
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	51	69	-27.0%	51	69	0	0	0	0	0	0
Georgia	0	0	--	0	0	0	0	0	0	0	0
Maryland	0	0	--	0	0	0	0	0	0	0	0
North Carolina	0	0	--	0	0	0	0	0	0	0	0
South Carolina	0	0	--	0	0	0	0	0	0	0	0
Virginia	0	0	--	0	0	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	0	0	--	0	0	0	0	0	0	0	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	0	0	--	0	0	0	0	0	0	0	0
West South Central	128	145	-12.0%	128	145	0	0	0	0	0	0
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	128	145	-12.0%	128	145	0	0	0	0	0	0
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	0	0	--	0	0	0	0	0	0	0	0
Mountain	0	0	--	0	0	0	0	0	0	0	0
Arizona	0	0	--	0	0	0	0	0	0	0	0
Colorado	0	0	--	0	0	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	0	0	--	0	0	0	0	0	0	0	0
New Mexico	0	0	--	0	0	0	0	0	0	0	0
Utah	0	0	--	0	0	0	0	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	0	0	--	0	0	0	0	0	0	0	0
California	0	0	--	0	0	0	0	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	0	0	--	0	0	0	0	0	0	0	0
Pacific Noncontiguous	0	0	--	0	0	0	0	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	235	266	-12.0%	229	252	0	0	0	0	6	14

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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.
See the Technical Notes for fuel conversion factors.

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

Table 4.8.B. Receipts of Petroleum Coke Delivered for Electricity Generation by State, (Year-to-Date) November 2018 and 2017 (Thousand Tons)

Census Division and State	All Sectors			Electric Power Sector							
				Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	0	0	--	0	0	0	0	0	0	0	0
Connecticut	0	0	--	0	0	0	0	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	0	0	--	0	0	0	0	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	0	0	--	0	0	0	0	0	0	0	0
New Jersey	0	0	--	0	0	0	0	0	0	0	0
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	0	0	--	0	0	0	0	0	0	0	0
East North Central	526	493	6.8%	526	493	0	0	0	0	0	0
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	471	442	6.5%	471	442	0	0	0	0	0	0
Ohio	0	0	--	0	0	0	0	0	0	0	0
Wisconsin	55	50	9.1%	55	50	0	0	0	0	0	0
West North Central	64	85	-25.0%	0	0	0	0	0	0	64	85
Iowa	64	85	-25.0%	0	0	0	0	0	0	64	85
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	0	0	--	0	0	0	0	0	0	0	0
Missouri	0	0	--	0	0	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	746	624	19.0%	746	624	0	0	0	0	0	0
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	746	624	19.0%	746	624	0	0	0	0	0	0
Georgia	0	0	--	0	0	0	0	0	0	0	0
Maryland	0	0	--	0	0	0	0	0	0	0	0
North Carolina	0	0	--	0	0	0	0	0	0	0	0
South Carolina	0	0	--	0	0	0	0	0	0	0	0
Virginia	0	0	--	0	0	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	0	117	-100.0%	0	117	0	0	0	0	0	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	0	117	-100.0%	0	117	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	0	0	--	0	0	0	0	0	0	0	0
West South Central	1,436	1,702	-16.0%	1,436	1,702	0	0	0	0	0	0
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	1,436	1,702	-16.0%	1,436	1,702	0	0	0	0	0	0
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	0	0	--	0	0	0	0	0	0	0	0
Mountain	0	0	--	0	0	0	0	0	0	0	0
Arizona	0	0	--	0	0	0	0	0	0	0	0
Colorado	0	0	--	0	0	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	0	0	--	0	0	0	0	0	0	0	0
New Mexico	0	0	--	0	0	0	0	0	0	0	0
Utah	0	0	--	0	0	0	0	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	0	0	--	0	0	0	0	0	0	0	0
California	0	0	--	0	0	0	0	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	0	0	--	0	0	0	0	0	0	0	0
Pacific Noncontiguous	0	0	--	0	0	0	0	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	2,772	3,022	-8.3%	2,708	2,937	0	0	0	0	64	85

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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.
See the Technical Notes for fuel conversion factors.

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

Table 4.9.A. Receipts of Natural Gas Delivered for Electricity Generation by State, November 2018 and 2017
(Million Cubic Feet)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	22,609	26,134	-13.0%	6	19	22,603	26,115	0	0	0	0
Connecticut	11,779	9,851	20.0%	0	0	11,779	9,851	0	0	0	0
Maine	743	258	188.0%	0	0	743	258	0	0	0	0
Massachusetts	6,685	9,514	-30.0%	0	19	6,685	9,496	0	0	0	0
New Hampshire	1,383	1,901	-27.0%	6	1	1,377	1,900	0	0	0	0
Rhode Island	2,019	4,610	-56.0%	0	0	2,019	4,610	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	84,158	75,965	11.0%	6,661	5,963	76,699	69,449	0	0	798	553
New Jersey	18,577	16,401	13.0%	0	0	18,577	16,401	0	0	0	0
New York	26,372	22,485	17.0%	6,661	5,963	19,121	16,209	0	0	591	313
Pennsylvania	39,208	37,080	5.7%	0	0	39,001	36,839	0	0	207	241
East North Central	64,434	59,041	9.1%	17,804	20,162	44,746	37,085	514	581	1,370	1,213
Illinois	4,056	5,169	-22.0%	264	246	3,785	4,918	0	0	7	5
Indiana	13,603	9,857	38.0%	4,582	3,583	9,021	6,274	0	0	0	0
Michigan	14,256	14,819	-3.8%	2,545	3,109	10,647	10,604	514	581	551	526
Ohio	25,382	20,419	24.0%	4,038	5,184	20,777	14,847	0	0	568	388
Wisconsin	7,136	8,776	-19.0%	6,375	8,040	516	442	0	0	245	294
West North Central	9,699	13,087	-26.0%	7,563	11,400	1,598	1,155	187	144	351	387
Iowa	3,463	5,405	-36.0%	3,117	5,043	0	0	0	0	346	362
Kansas	854	1,416	-40.0%	854	1,416	0	0	0	0	0	0
Minnesota	1,648	2,631	-37.0%	1,601	1,527	42	1,077	1	1	5	25
Missouri	3,437	2,351	46.0%	1,694	2,129	1,557	78	186	143	0	0
Nebraska	258	293	-12.0%	258	293	0	0	0	0	0	0
North Dakota	39	591	-93.0%	39	591	0	0	0	0	0	0
South Dakota	0	400	-100.0%	0	400	0	0	0	0	0	0
South Atlantic	184,287	179,354	2.8%	153,022	148,252	27,935	28,148	0	0	3,330	2,954
Delaware	1,252	1,772	-29.0%	0	0	1,252	1,772	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	87,565	83,603	4.7%	84,707	81,033	2,413	2,432	0	0	445	138
Georgia	22,845	27,287	-16.0%	17,082	20,314	4,955	6,260	0	0	808	712
Maryland	5,694	5,114	11.0%	2,471	0	3,001	4,881	0	0	223	232
North Carolina	25,725	22,847	13.0%	21,433	21,250	4,042	1,340	0	0	249	257
South Carolina	15,430	10,651	45.0%	13,430	8,962	1,924	1,584	0	0	77	104
Virginia	24,613	26,641	-7.6%	13,793	16,560	9,908	9,229	0	0	912	852
West Virginia	1,163	1,440	-19.0%	106	133	440	648	0	0	617	658
East South Central	71,423	68,227	4.7%	45,969	45,612	23,032	21,427	0	0	2,421	1,187
Alabama	29,367	28,863	1.7%	10,394	9,679	18,973	19,184	0	0	0	0
Kentucky	8,544	7,180	19.0%	7,789	6,874	755	307	0	0	0	0
Mississippi	23,820	25,901	-8.0%	20,515	23,965	3,305	1,936	0	0	0	0
Tennessee	9,692	6,282	54.0%	7,271	5,095	0	0	0	0	2,421	1,187
West South Central	189,431	173,987	8.9%	49,969	42,099	82,050	76,313	0	0	57,411	55,575
Arkansas	6,750	6,045	12.0%	5,241	4,971	1,167	861	0	0	343	213
Louisiana	31,807	38,352	-17.0%	12,952	13,914	1,434	2,176	0	0	17,422	22,262
Oklahoma	20,048	13,261	51.0%	14,629	7,739	5,094	5,315	0	0	324	206
Texas	130,825	116,329	12.0%	17,148	15,474	74,355	67,961	0	0	39,322	32,893
Mountain	54,916	41,001	34.0%	45,604	33,178	9,265	7,357	0	0	47	466
Arizona	20,892	12,796	63.0%	15,122	9,324	5,770	3,472	0	0	0	0
Colorado	9,053	6,109	48.0%	8,100	5,227	953	881	0	0	0	0
Idaho	1,327	2,586	-49.0%	1,327	1,445	0	1,141	0	0	0	0
Montana	226	241	-6.0%	226	238	0	2	0	0	0	0
Nevada	11,896	12,420	-4.2%	11,896	12,420	0	0	0	0	0	0
New Mexico	6,447	4,452	45.0%	3,909	2,592	2,538	1,860	0	0	0	0
Utah	4,878	2,291	113.0%	4,832	1,825	0	0	0	0	47	466
Wyoming	196	107	84.0%	192	107	4	0	0	0	0	0
Pacific Contiguous	60,888	59,688	2.0%	20,020	23,492	38,587	33,688	0	0	2,280	2,508
California	49,840	43,946	13.0%	15,699	15,007	31,861	26,432	0	0	2,280	2,508
Oregon	10,402	9,523	9.2%	3,677	4,796	6,726	4,727	0	0	0	0
Washington	645	6,218	-90.0%	645	3,690	0	2,529	0	0	0	0
Pacific Noncontiguous	11	1,407	-99.0%	11	1,407	0	0	0	0	0	0
Alaska	11	1,407	-99.0%	11	1,407	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	741,855	697,890	6.3%	346,630	331,585	326,516	300,737	701	725	68,008	64,843

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

Table 4.9.B. Receipts of Natural Gas Delivered for Electricity Generation by State, (Year-to-Date) November 2018 and 2017 (Million Cubic Feet)

Census Division and State	All Sectors			Electric Power Sector							
				Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	285,981	325,446	-12.0%	929	1,417	285,052	324,030	0	0	0	0
Connecticut	114,800	93,842	22.0%	0	0	114,800	93,842	0	0	0	0
Maine	10,272	13,450	-24.0%	0	0	10,272	13,450	0	0	0	0
Massachusetts	108,955	146,317	-26.0%	531	1,033	108,424	145,284	0	0	0	0
New Hampshire	21,092	24,627	-14.0%	398	384	20,694	24,243	0	0	0	0
Rhode Island	30,863	47,211	-35.0%	0	0	30,863	47,211	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	1,026,499	1,035,856	-0.9%	82,213	76,037	934,748	955,830	0	0	9,537	3,989
New Jersey	234,902	248,187	-5.4%	0	0	234,902	248,187	0	0	0	0
New York	324,277	323,335	0.3%	82,213	76,037	235,149	245,325	0	0	6,914	1,974
Pennsylvania	467,320	464,334	0.6%	0	0	464,697	462,318	0	0	2,623	2,016
East North Central	777,362	657,593	18.0%	268,580	231,658	489,291	407,644	6,131	5,391	13,361	12,900
Illinois	67,527	97,409	-31.0%	6,483	7,326	61,008	90,035	0	0	37	48
Indiana	146,811	108,232	36.0%	61,065	47,332	85,745	60,901	0	0	0	0
Michigan	213,107	180,144	18.0%	61,892	51,215	139,366	118,159	6,131	5,391	5,718	5,379
Ohio	249,915	181,247	38.0%	51,878	47,177	192,857	129,710	0	0	5,180	4,360
Wisconsin	100,004	90,561	10.0%	87,261	78,609	10,315	8,839	0	0	2,427	3,113
West North Central	154,041	154,997	-0.6%	132,038	134,164	15,319	15,535	1,960	1,490	4,724	3,808
Iowa	59,049	43,330	36.0%	54,401	39,659	0	0	0	0	4,648	3,671
Kansas	18,826	16,577	14.0%	18,826	16,577	0	0	0	0	0	0
Minnesota	31,680	41,767	-24.0%	30,477	33,803	1,118	7,820	9	6	76	137
Missouri	41,388	36,575	13.0%	25,236	27,376	14,201	7,715	1,951	1,484	0	0
Nebraska	2,353	5,721	-59.0%	2,353	5,721	0	0	0	0	0	0
North Dakota	745	6,663	-89.0%	745	6,663	0	0	0	0	0	0
South Dakota	0	4,365	-100.0%	0	4,365	0	0	0	0	0	0
South Atlantic	2,310,612	2,184,632	5.8%	1,877,179	1,797,604	400,383	355,533	0	0	33,050	31,496
Delaware	29,312	40,033	-27.0%	0	0	29,312	40,033	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	1,125,021	1,073,730	4.8%	1,077,345	1,034,210	43,767	37,562	0	0	3,909	1,958
Georgia	304,813	345,160	-12.0%	228,766	255,196	67,985	81,779	0	0	8,061	8,185
Maryland	83,271	41,975	98.0%	20,361	0	60,319	39,785	0	0	2,590	2,189
North Carolina	289,837	252,058	15.0%	251,198	215,996	36,137	34,261	0	0	2,503	1,801
South Carolina	158,178	121,225	30.0%	119,840	104,246	37,506	15,909	0	0	832	1,070
Virginia	305,333	292,890	4.2%	177,832	186,270	118,228	97,817	0	0	9,272	8,803
West Virginia	14,847	17,562	-15.0%	1,836	1,686	7,129	8,388	0	0	5,883	7,489
East South Central	896,029	807,216	11.0%	595,943	550,210	281,867	240,926	0	0	18,219	16,079
Alabama	362,097	336,002	7.8%	118,806	122,305	243,291	213,698	0	0	0	0
Kentucky	100,256	72,327	39.0%	92,748	68,466	7,508	3,861	0	0	0	0
Mississippi	331,381	314,064	5.5%	300,315	290,696	31,067	23,368	0	0	0	0
Tennessee	102,294	84,823	21.0%	84,075	68,743	0	0	0	0	18,219	16,079
West South Central	2,550,773	2,412,243	5.7%	756,286	716,284	1,212,818	1,084,042	0	0	581,669	611,917
Arkansas	121,323	113,599	6.8%	106,726	100,874	12,230	10,892	0	0	2,367	1,833
Louisiana	428,659	491,307	-13.0%	214,645	217,348	30,756	32,297	0	0	183,259	241,661
Oklahoma	273,022	209,709	30.0%	166,312	130,903	102,526	76,776	0	0	4,183	2,031
Texas	1,727,769	1,597,628	8.1%	268,603	267,160	1,067,305	964,077	0	0	391,861	366,391
Mountain	664,669	572,365	16.0%	544,639	468,068	119,470	103,198	0	0	560	1,099
Arizona	253,089	208,193	22.0%	176,701	146,543	76,387	61,650	0	0	0	0
Colorado	107,239	82,042	31.0%	91,206	69,504	16,032	12,538	0	0	0	0
Idaho	6,152	16,431	-63.0%	6,152	8,617	0	7,815	0	0	0	0
Montana	2,400	2,895	-17.0%	2,400	2,878	0	17	0	0	0	0
Nevada	168,475	164,981	2.1%	168,475	164,981	0	0	0	0	0	0
New Mexico	75,229	62,956	19.0%	48,193	41,792	27,036	21,165	0	0	0	0
Utah	50,674	33,767	50.0%	50,113	32,668	0	0	0	0	560	1,099
Wyoming	1,412	1,099	28.0%	1,397	1,086	15	13	0	0	0	0
Pacific Contiguous	636,010	649,998	-2.2%	231,723	261,497	378,247	360,482	0	0	26,040	28,018
California	507,002	509,889	-0.6%	173,049	186,380	307,913	295,492	0	0	26,040	28,018
Oregon	87,454	81,704	7.0%	33,959	39,312	53,495	42,392	0	0	0	0
Washington	41,554	58,404	-29.0%	24,715	35,805	16,839	22,599	0	0	0	0
Pacific Noncontiguous	907	13,900	-93.0%	907	13,900	0	0	0	0	0	0
Alaska	907	13,900	-93.0%	907	13,900	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	9,302,882	8,814,246	5.5%	4,490,437	4,250,839	4,117,194	3,847,220	8,091	6,881	687,160	709,306

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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 4.10.A. Average Cost of Coal Delivered for Electricity Generation by State, November 2018 and 2017
(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017
New England	W	W	W	--	--	W	W
Connecticut	--	--	--	--	--	--	--
Maine	W	W	W	--	--	W	W
Massachusetts	--	--	--	--	--	--	--
New Hampshire	--	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--
Middle Atlantic	2.22	2.01	10.0%	--	--	2.22	2.01
New Jersey	W	W	W	--	--	W	W
New York	W	--	W	--	--	W	--
Pennsylvania	W	W	W	--	--	W	W
East North Central	2.01	1.99	1.0%	2.13	2.09	1.85	1.82
Illinois	1.80	W	W	1.94	1.89	1.77	W
Indiana	W	W	W	2.12	2.09	W	W
Michigan	W	W	W	2.13	2.26	W	W
Ohio	W	1.87	W	1.70	1.75	W	1.91
Wisconsin	2.30	2.14	7.5%	2.30	2.14	--	--
West North Central	1.71	1.75	-2.3%	1.71	1.75	--	--
Iowa	1.51	1.62	-6.8%	1.51	1.62	--	--
Kansas	1.73	1.83	-5.5%	1.73	1.83	--	--
Minnesota	2.25	2.06	9.2%	2.25	2.06	--	--
Missouri	1.73	1.87	-7.5%	1.73	1.87	--	--
Nebraska	1.27	1.36	-6.6%	1.27	1.36	--	--
North Dakota	1.71	1.49	15.0%	1.71	1.49	--	--
South Dakota	1.59	1.99	-20.0%	1.59	1.99	--	--
South Atlantic	2.63	2.69	-2.2%	2.68	2.73	2.33	2.42
Delaware	W	--	W	--	--	W	--
District of Columbia	--	--	--	--	--	--	--
Florida	2.88	2.94	-2.0%	2.88	2.94	--	--
Georgia	2.69	2.79	-3.6%	2.69	2.79	--	--
Maryland	2.49	W	W	--	--	2.49	W
North Carolina	W	3.02	W	3.25	3.01	W	3.88
South Carolina	3.40	3.40	0.0%	3.40	3.40	--	--
Virginia	W	W	W	2.53	2.44	W	W
West Virginia	W	2.22	W	2.15	2.22	W	2.20
East South Central	W	W	W	2.02	2.06	W	W
Alabama	2.09	2.05	2.0%	2.09	2.05	--	--
Kentucky	1.96	1.99	-1.5%	1.96	1.99	--	--
Mississippi	W	W	W	2.57	2.44	W	W
Tennessee	2.14	2.28	-6.1%	2.14	2.28	--	--
West South Central	1.92	1.88	2.1%	2.18	2.20	1.66	1.58
Arkansas	W	W	W	2.05	1.94	W	W
Louisiana	W	W	W	3.70	4.76	W	W
Oklahoma	W	W	W	1.76	1.80	W	W
Texas	1.73	1.70	1.8%	1.97	1.97	1.60	1.55
Mountain	W	W	W	2.00	1.96	W	W
Arizona	2.28	2.19	4.1%	2.28	2.19	--	--
Colorado	1.57	1.78	-12.0%	1.57	1.78	--	--
Idaho	--	--	--	--	--	--	--
Montana	W	W	W	1.92	--	W	W
Nevada	W	W	W	3.26	--	W	W
New Mexico	2.63	2.08	26.0%	2.63	2.08	--	--
Utah	2.00	2.04	-2.0%	2.00	2.04	--	--
Wyoming	W	W	W	1.81	1.80	W	W
Pacific Contiguous	W	W	W	2.21	2.37	W	W
California	--	--	--	--	--	--	--
Oregon	2.21	2.37	-6.8%	2.21	2.37	--	--
Washington	W	W	W	--	--	W	W
Pacific Noncontiguous	3.13	W	W	3.13	3.12	--	W
Alaska	3.13	3.12	0.3%	3.13	3.12	--	--
Hawaii	--	W	W	--	--	--	W
U.S. Total	2.05	2.03	1.0%	2.10	2.11	1.91	1.79

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Coal includes anthracite, bituminous, subbituminous, lignite, waste coal, and coal-derived synthesis gas.

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

Table 4.10.B. Average Cost of Coal Delivered for Electricity Generation by State, (Year-to-Date) November 2018 and 2017
(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	4.35	W	W	3.61	4.34	4.56	W
Connecticut	W	--	W	--	--	W	--
Maine	W	W	W	--	--	W	W
Massachusetts	--	W	W	--	--	--	W
New Hampshire	3.61	4.34	-17.0%	3.61	4.34	--	--
Rhode Island	W	--	W	--	--	W	--
Vermont	--	--	--	--	--	--	--
Middle Atlantic	2.22	1.93	15.0%	--	1.66	2.22	1.93
New Jersey	W	W	W	--	--	W	W
New York	W	W	W	--	--	W	W
Pennsylvania	2.16	1.87	16.0%	--	1.66	2.16	1.87
East North Central	1.99	2.02	-1.5%	2.11	2.11	1.81	1.88
Illinois	1.76	W	W	1.88	1.85	1.73	W
Indiana	W	W	W	2.11	2.15	W	W
Michigan	W	W	W	2.12	2.17	W	W
Ohio	W	1.92	W	1.76	1.73	W	1.98
Wisconsin	2.28	2.23	2.2%	2.28	2.23	--	--
West North Central	1.71	1.75	-2.3%	1.71	1.75	--	--
Iowa	1.64	1.66	-1.2%	1.64	1.66	--	--
Kansas	1.71	1.72	-0.6%	1.71	1.72	--	--
Minnesota	2.18	2.09	4.3%	2.18	2.09	--	--
Missouri	1.80	1.87	-3.7%	1.80	1.87	--	--
Nebraska	1.25	1.37	-8.8%	1.25	1.37	--	--
North Dakota	1.54	1.59	-3.1%	1.54	1.59	--	--
South Dakota	1.88	2.21	-15.0%	1.88	2.21	--	--
South Atlantic	2.63	2.69	-2.2%	2.69	2.72	2.30	2.47
Delaware	W	W	W	--	--	W	W
District of Columbia	--	--	--	--	--	--	--
Florida	2.86	W	W	2.86	2.95	--	W
Georgia	2.75	2.77	-0.7%	2.75	2.77	--	--
Maryland	2.53	2.68	-5.6%	--	--	2.53	2.68
North Carolina	W	2.97	W	3.13	2.97	W	3.71
South Carolina	3.33	3.30	0.9%	3.33	3.30	--	--
Virginia	W	W	W	2.67	2.74	W	W
West Virginia	W	2.20	W	2.14	2.21	W	2.17
East South Central	W	W	W	2.07	2.09	W	W
Alabama	2.27	2.17	4.6%	2.27	2.17	--	--
Kentucky	1.96	1.99	-1.5%	1.96	1.99	--	--
Mississippi	W	W	W	2.66	2.66	W	W
Tennessee	2.15	2.29	-6.1%	2.15	2.29	--	--
West South Central	1.87	1.84	1.6%	2.04	2.08	1.65	1.62
Arkansas	W	W	W	1.97	2.04	W	W
Louisiana	W	W	W	2.82	2.64	W	W
Oklahoma	W	W	W	1.77	1.83	W	W
Texas	1.77	1.75	1.1%	2.02	2.08	1.59	1.58
Mountain	W	W	W	2.02	1.90	W	W
Arizona	2.43	2.23	9.0%	2.43	2.23	--	--
Colorado	1.64	1.78	-7.9%	1.64	1.78	--	--
Idaho	--	--	--	--	--	--	--
Montana	W	W	W	2.02	1.76	W	W
Nevada	W	W	W	3.03	3.08	W	W
New Mexico	2.49	1.98	26.0%	2.49	1.98	--	--
Utah	2.03	1.96	3.6%	2.03	1.96	--	--
Wyoming	W	W	W	1.75	1.66	W	W
Pacific Contiguous	W	W	W	2.27	2.32	W	W
California	--	--	--	--	--	--	--
Oregon	2.27	2.32	-2.2%	2.27	2.32	--	--
Washington	W	W	W	--	--	W	W
Pacific Noncontiguous	W	W	W	3.28	3.05	W	W
Alaska	3.28	3.05	7.5%	3.28	3.05	--	--
Hawaii	W	W	W	--	--	W	W
U.S. Total	2.05	2.05	0.0%	2.10	2.12	1.89	1.85

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Coal includes anthracite, bituminous, subbituminous, lignite, waste coal, and coal-derived synthesis gas.

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

Table 4.11.A. Average Cost of Petroleum Liquids Delivered for Electricity Generation by State, November 2018 and 2017
(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017
New England	W	W	W	11.97	16.51	W	W
Connecticut	W	16.14	W	--	--	W	16.14
Maine	W	W	W	--	--	W	W
Massachusetts	W	W	W	--	16.36	W	W
New Hampshire	W	16.80	W	11.97	16.80	W	--
Rhode Island	--	W	W	--	--	--	W
Vermont	--	--	--	--	--	--	--
Middle Atlantic	W	W	W	17.50	11.37	W	W
New Jersey	W	--	W	--	--	W	--
New York	W	W	W	17.50	11.37	W	W
Pennsylvania	14.84	14.74	0.7%	--	--	14.84	14.74
East North Central	16.61	15.59	6.5%	16.49	15.17	16.85	15.96
Illinois	17.05	W	W	16.84	--	17.09	W
Indiana	16.61	W	W	16.61	15.12	--	W
Michigan	16.07	14.64	9.8%	16.07	14.64	--	--
Ohio	16.61	15.94	4.2%	16.24	16.09	16.66	15.91
Wisconsin	17.28	14.93	16.0%	17.28	14.93	--	--
West North Central	16.00	14.90	7.4%	16.00	14.90	--	--
Iowa	16.65	14.70	13.0%	16.65	14.70	--	--
Kansas	16.85	14.84	14.0%	16.85	14.84	--	--
Minnesota	16.42	14.85	11.0%	16.42	14.85	--	--
Missouri	15.64	14.88	5.1%	15.64	14.88	--	--
Nebraska	--	14.29	--	--	14.29	--	--
North Dakota	15.04	15.49	-2.9%	15.04	15.49	--	--
South Dakota	16.87	--	--	16.87	--	--	--
South Atlantic	15.74	11.10	42.0%	16.43	10.82	15.00	12.67
Delaware	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--
Florida	17.40	15.02	16.0%	17.40	15.02	--	--
Georgia	15.48	13.43	15.0%	15.48	14.02	--	10.07
Maryland	16.25	W	W	--	--	16.25	W
North Carolina	16.03	W	W	16.03	14.41	--	W
South Carolina	14.90	15.22	-2.1%	14.90	15.22	--	--
Virginia	W	W	W	15.41	8.15	W	W
West Virginia	W	16.04	W	17.44	16.04	W	--
East South Central	W	15.03	W	15.47	15.03	W	--
Alabama	W	16.07	W	15.63	16.07	W	--
Kentucky	15.81	14.98	5.5%	15.81	14.98	--	--
Mississippi	15.25	13.74	11.0%	15.25	13.74	--	--
Tennessee	15.18	15.04	0.9%	15.18	15.04	--	--
West South Central	W	W	W	15.55	14.51	W	W
Arkansas	W	14.26	W	--	14.26	W	--
Louisiana	--	13.95	--	--	13.95	--	--
Oklahoma	16.43	15.19	8.2%	16.43	15.19	--	--
Texas	W	W	W	14.82	14.00	W	W
Mountain	W	W	W	18.96	16.67	W	W
Arizona	19.30	15.22	27.0%	19.30	15.22	--	--
Colorado	17.64	16.77	5.2%	17.64	16.77	--	--
Idaho	--	--	--	--	--	--	--
Montana	W	W	W	--	--	W	W
Nevada	W	--	W	19.48	--	W	--
New Mexico	21.07	16.36	29.0%	21.07	16.36	--	--
Utah	21.85	17.92	22.0%	21.85	17.92	--	--
Wyoming	17.48	18.77	-6.9%	17.48	18.77	--	--
Pacific Contiguous	W	W	W	17.24	17.51	W	W
California	--	--	--	--	--	--	--
Oregon	--	--	--	--	--	--	--
Washington	W	W	W	17.24	17.51	W	W
Pacific Noncontiguous	W	W	W	15.72	11.64	W	W
Alaska	18.21	13.05	40.0%	18.21	13.05	--	--
Hawaii	W	W	W	15.72	11.64	W	W
U.S. Total	15.78	12.30	28.0%	15.75	12.00	15.83	13.15

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Petroleum Liquids includes distillate and residual fuel oils.
See the Technical Notes for fuel conversion factors.

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

Table 4.11.B. Average Cost of Petroleum Liquids Delivered for Electricity Generation by State, (Year-to-Date) November 2018 and 2017 (Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	W	W	W	11.73	14.52	W	W
Connecticut	16.96	13.65	24.0%	--	--	16.96	13.65
Maine	W	W	W	--	--	W	W
Massachusetts	W	W	W	15.43	14.79	W	W
New Hampshire	W	14.33	W	11.35	14.33	W	--
Rhode Island	W	W	W	--	--	W	W
Vermont	--	--	--	--	--	--	--
Middle Atlantic	13.76	12.90	6.7%	12.28	9.42	14.46	14.38
New Jersey	15.08	W	W	--	--	15.08	W
New York	13.18	W	W	12.28	9.42	13.87	W
Pennsylvania	15.52	12.82	21.0%	--	--	15.52	12.82
East North Central	16.58	13.23	25.0%	16.53	12.99	16.64	13.60
Illinois	W	W	W	16.65	12.77	W	W
Indiana	W	W	W	16.53	12.80	W	W
Michigan	16.09	12.72	26.0%	16.09	12.72	--	--
Ohio	16.59	13.55	22.0%	16.54	13.91	16.60	13.39
Wisconsin	17.88	12.56	42.0%	17.88	12.56	--	--
West North Central	16.39	12.85	28.0%	16.39	12.85	--	--
Iowa	16.44	12.91	27.0%	16.44	12.91	--	--
Kansas	16.64	13.02	28.0%	16.64	13.02	--	--
Minnesota	16.58	12.85	29.0%	16.58	12.85	--	--
Missouri	16.24	12.98	25.0%	16.24	12.98	--	--
Nebraska	16.38	12.47	31.0%	16.38	12.47	--	--
North Dakota	16.05	12.45	29.0%	16.05	12.45	--	--
South Dakota	17.17	11.98	43.0%	17.17	11.98	--	--
South Atlantic	14.63	12.14	21.0%	14.74	12.18	14.30	11.94
Delaware	W	W	W	--	--	W	W
District of Columbia	--	--	--	--	--	--	--
Florida	16.45	12.47	32.0%	16.45	12.47	--	--
Georgia	W	11.90	W	15.69	12.11	W	9.61
Maryland	14.62	11.58	26.0%	--	--	14.62	11.58
North Carolina	16.97	W	W	16.97	12.68	--	W
South Carolina	16.79	12.79	31.0%	16.79	12.79	--	--
Virginia	W	W	W	10.04	10.49	W	W
West Virginia	W	13.08	W	16.89	13.08	W	--
East South Central	W	W	W	16.20	12.43	W	W
Alabama	W	W	W	16.33	12.99	W	W
Kentucky	16.06	12.63	27.0%	16.06	12.63	--	--
Mississippi	15.96	11.91	34.0%	15.96	11.91	--	--
Tennessee	16.31	12.03	36.0%	16.31	12.03	--	--
West South Central	W	12.71	W	16.14	12.75	W	12.65
Arkansas	W	W	W	16.52	12.72	W	W
Louisiana	15.04	13.95	7.8%	15.04	13.95	--	--
Oklahoma	16.20	14.67	10.0%	16.20	14.67	--	--
Texas	W	W	W	16.02	12.20	W	W
Mountain	W	14.03	W	18.29	14.06	W	13.80
Arizona	17.13	13.69	25.0%	17.13	13.69	--	--
Colorado	17.50	14.28	23.0%	17.50	14.28	--	--
Idaho	--	--	--	--	--	--	--
Montana	W	W	W	--	--	W	W
Nevada	W	W	W	18.71	12.34	W	W
New Mexico	19.54	13.95	40.0%	19.54	13.95	--	--
Utah	W	W	W	19.43	14.85	W	W
Wyoming	18.47	14.13	31.0%	18.47	14.13	--	--
Pacific Contiguous	W	W	W	17.24	13.87	W	W
California	--	--	--	--	--	--	--
Oregon	--	12.71	--	--	12.71	--	--
Washington	W	W	W	17.24	17.51	W	W
Pacific Noncontiguous	W	W	W	13.88	10.89	W	W
Alaska	17.70	15.42	15.0%	17.70	15.42	--	--
Hawaii	W	W	W	13.88	10.89	W	W
U.S. Total	14.31	11.61	23.0%	14.27	11.47	14.37	12.03

Displayed values of zero may represent small values that round to zero.
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. Percentage change is calculated before rounding.
Petroleum Liquids includes distillate and residual fuel oils.
See the Technical Notes for fuel conversion factors.

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

Table 4.12.A. Average Cost of Petroleum Coke Delivered for Electricity Generation by State, November 2018 and 2017
(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017
New England	--	--	--	--	--	--	--
Connecticut	--	--	--	--	--	--	--
Maine	--	--	--	--	--	--	--
Massachusetts	--	--	--	--	--	--	--
New Hampshire	--	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--
Middle Atlantic	--	--	--	--	--	--	--
New Jersey	--	--	--	--	--	--	--
New York	--	--	--	--	--	--	--
Pennsylvania	--	--	--	--	--	--	--
East North Central	1.50	1.54	-2.6%	1.50	1.54	--	--
Illinois	--	--	--	--	--	--	--
Indiana	--	--	--	--	--	--	--
Michigan	1.47	1.47	0.0%	1.47	1.47	--	--
Ohio	--	--	--	--	--	--	--
Wisconsin	1.83	1.78	2.8%	1.83	1.78	--	--
West North Central	--	--	--	--	--	--	--
Iowa	--	--	--	--	--	--	--
Kansas	--	--	--	--	--	--	--
Minnesota	--	--	--	--	--	--	--
Missouri	--	--	--	--	--	--	--
Nebraska	--	--	--	--	--	--	--
North Dakota	--	--	--	--	--	--	--
South Dakota	--	--	--	--	--	--	--
South Atlantic	2.71	2.92	-7.2%	2.71	2.92	--	--
Delaware	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--
Florida	2.71	2.92	-7.2%	2.71	2.92	--	--
Georgia	--	--	--	--	--	--	--
Maryland	--	--	--	--	--	--	--
North Carolina	--	--	--	--	--	--	--
South Carolina	--	--	--	--	--	--	--
Virginia	--	--	--	--	--	--	--
West Virginia	--	--	--	--	--	--	--
East South Central	--	--	--	--	--	--	--
Alabama	--	--	--	--	--	--	--
Kentucky	--	--	--	--	--	--	--
Mississippi	--	--	--	--	--	--	--
Tennessee	--	--	--	--	--	--	--
West South Central	2.30	2.58	-11.0%	2.30	2.58	--	--
Arkansas	--	--	--	--	--	--	--
Louisiana	2.30	2.58	-11.0%	2.30	2.58	--	--
Oklahoma	--	--	--	--	--	--	--
Texas	--	--	--	--	--	--	--
Mountain	--	--	--	--	--	--	--
Arizona	--	--	--	--	--	--	--
Colorado	--	--	--	--	--	--	--
Idaho	--	--	--	--	--	--	--
Montana	--	--	--	--	--	--	--
Nevada	--	--	--	--	--	--	--
New Mexico	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--
Wyoming	--	--	--	--	--	--	--
Pacific Contiguous	--	--	--	--	--	--	--
California	--	--	--	--	--	--	--
Oregon	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--
Pacific Noncontiguous	--	--	--	--	--	--	--
Alaska	--	--	--	--	--	--	--
Hawaii	--	--	--	--	--	--	--
U.S. Total	2.23	2.52	-12.0%	2.23	2.52	--	--

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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.
Petroleum Coke includes petroleum coke-derived synthesis gas.
See the Technical Notes for fuel conversion factors.

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

Table 4.12.B. Average Cost of Petroleum Coke Delivered for Electricity Generation by State, (Year-to-Date) November 2018 and 2017 (Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	--	--	--	--	--	--	--
Connecticut	--	--	--	--	--	--	--
Maine	--	--	--	--	--	--	--
Massachusetts	--	--	--	--	--	--	--
New Hampshire	--	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--
Middle Atlantic	--	--	--	--	--	--	--
New Jersey	--	--	--	--	--	--	--
New York	--	--	--	--	--	--	--
Pennsylvania	--	--	--	--	--	--	--
East North Central	1.51	1.49	1.3%	1.51	1.49	--	--
Illinois	--	--	--	--	--	--	--
Indiana	--	--	--	--	--	--	--
Michigan	1.48	1.46	1.4%	1.48	1.46	--	--
Ohio	--	--	--	--	--	--	--
Wisconsin	1.78	1.79	-0.6%	1.78	1.79	--	--
West North Central	--	--	--	--	--	--	--
Iowa	--	--	--	--	--	--	--
Kansas	--	--	--	--	--	--	--
Minnesota	--	--	--	--	--	--	--
Missouri	--	--	--	--	--	--	--
Nebraska	--	--	--	--	--	--	--
North Dakota	--	--	--	--	--	--	--
South Dakota	--	--	--	--	--	--	--
South Atlantic	3.17	2.62	21.0%	3.17	2.62	--	--
Delaware	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--
Florida	3.17	2.62	21.0%	3.17	2.62	--	--
Georgia	--	--	--	--	--	--	--
Maryland	--	--	--	--	--	--	--
North Carolina	--	--	--	--	--	--	--
South Carolina	--	--	--	--	--	--	--
Virginia	--	--	--	--	--	--	--
West Virginia	--	--	--	--	--	--	--
East South Central	--	1.50	--	--	1.50	--	--
Alabama	--	--	--	--	--	--	--
Kentucky	--	1.50	--	--	1.50	--	--
Mississippi	--	--	--	--	--	--	--
Tennessee	--	--	--	--	--	--	--
West South Central	2.69	2.20	22.0%	2.69	2.20	--	--
Arkansas	--	--	--	--	--	--	--
Louisiana	2.69	2.20	22.0%	2.69	2.20	--	--
Oklahoma	--	--	--	--	--	--	--
Texas	--	--	--	--	--	--	--
Mountain	--	--	--	--	--	--	--
Arizona	--	--	--	--	--	--	--
Colorado	--	--	--	--	--	--	--
Idaho	--	--	--	--	--	--	--
Montana	--	--	--	--	--	--	--
Nevada	--	--	--	--	--	--	--
New Mexico	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--
Wyoming	--	--	--	--	--	--	--
Pacific Contiguous	--	--	--	--	--	--	--
California	--	--	--	--	--	--	--
Oregon	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--
Pacific Noncontiguous	--	--	--	--	--	--	--
Alaska	--	--	--	--	--	--	--
Hawaii	--	--	--	--	--	--	--
U.S. Total	2.60	2.15	21.0%	2.60	2.15	--	--

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Petroleum Coke includes petroleum coke-derived synthesis gas.
See the Technical Notes for fuel conversion factors.

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

Table 4.13.A. Average Cost of Natural Gas Delivered for Electricity Generation by State, November 2018 and 2017
(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	November 2018	November 2017	Percentage Change	November 2018	November 2017	November 2018	November 2017
New England	W	3.89	W	11.56	4.59	W	3.89
Connecticut	5.22	4.09	28.0%	--	--	5.22	4.09
Maine	W	W	W	--	--	W	W
Massachusetts	5.58	3.68	52.0%	--	4.34	5.58	3.67
New Hampshire	W	W	W	11.56	11.53	W	W
Rhode Island	W	3.67	W	--	--	W	3.67
Vermont	--	--	--	--	--	--	--
Middle Atlantic	3.87	2.70	43.0%	4.67	3.19	3.79	2.65
New Jersey	3.66	2.72	35.0%	--	--	3.66	2.72
New York	4.30	3.33	29.0%	4.67	3.19	4.14	3.39
Pennsylvania	3.70	2.33	59.0%	--	--	3.70	2.33
East North Central	4.02	3.05	32.0%	4.14	3.24	3.98	2.95
Illinois	W	W	W	4.40	4.06	W	W
Indiana	W	W	W	4.35	3.40	W	W
Michigan	4.13	3.20	29.0%	4.48	3.46	4.04	3.12
Ohio	3.93	2.79	41.0%	4.15	2.98	3.89	2.73
Wisconsin	3.83	3.22	19.0%	3.83	3.22	--	--
West North Central	W	3.26	W	3.92	3.24	W	3.85
Iowa	3.33	2.97	12.0%	3.33	2.97	--	--
Kansas	4.09	3.42	20.0%	4.09	3.42	--	--
Minnesota	W	W	W	4.71	3.96	W	W
Missouri	W	W	W	4.00	2.94	W	W
Nebraska	4.57	4.77	-4.2%	4.57	4.77	--	--
North Dakota	8.92	3.80	135.0%	8.92	3.80	--	--
South Dakota	--	2.98	--	--	2.98	--	--
South Atlantic	4.54	3.93	16.0%	4.58	4.04	4.28	3.13
Delaware	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--
Florida	W	4.30	W	4.72	4.31	W	3.40
Georgia	W	3.57	W	4.82	3.68	W	3.20
Maryland	4.27	3.23	32.0%	4.04	--	4.46	3.23
North Carolina	W	W	W	4.17	3.91	W	W
South Carolina	W	W	W	4.19	3.60	W	W
Virginia	4.38	W	W	4.50	3.60	4.15	W
West Virginia	W	2.41	W	4.39	3.07	W	2.27
East South Central	4.13	3.17	30.0%	4.09	3.15	4.24	3.23
Alabama	W	W	W	4.21	3.31	W	W
Kentucky	W	W	W	4.22	3.21	W	W
Mississippi	W	W	W	4.05	3.12	W	W
Tennessee	3.88	2.92	33.0%	3.88	2.92	--	--
West South Central	3.76	3.08	22.0%	3.68	3.21	3.82	2.99
Arkansas	W	W	W	4.25	3.35	W	W
Louisiana	W	W	W	4.07	3.25	W	W
Oklahoma	W	W	W	3.51	3.19	W	W
Texas	3.71	3.03	22.0%	3.35	3.13	3.81	3.00
Mountain	3.56	3.45	3.2%	3.60	3.47	3.20	3.28
Arizona	W	W	W	2.97	3.62	W	W
Colorado	W	W	W	4.45	3.64	W	W
Idaho	4.93	3.28	50.0%	4.93	3.28	--	--
Montana	1.50	W	W	1.50	1.83	--	W
Nevada	3.90	3.29	19.0%	3.90	3.29	--	--
New Mexico	2.40	3.52	-32.0%	2.40	3.52	--	--
Utah	3.99	3.60	11.0%	3.99	3.60	--	--
Wyoming	W	3.89	W	4.29	3.89	W	--
Pacific Contiguous	4.92	3.38	46.0%	5.17	3.57	4.74	3.15
California	W	3.58	W	5.31	3.94	W	3.23
Oregon	W	W	W	4.38	2.41	W	W
Washington	W	W	W	6.72	3.65	W	W
Pacific Noncontiguous	7.72	7.13	8.3%	7.72	7.13	--	--
Alaska	7.72	7.13	8.3%	7.72	7.13	--	--
Hawaii	--	--	--	--	--	--	--
U.S. Total	4.18	3.38	24.0%	4.25	3.64	4.09	3.03

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

Table 4.13.B. Average Cost of Natural Gas Delivered for Electricity Generation by State, (Year-to-Date) November 2018 and 2017
(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	November 2018 YTD	November 2017 YTD	Percentage Change	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	W	3.57	W	4.52	3.45	W	3.57
Connecticut	4.33	4.06	6.7%	--	--	4.33	4.06
Maine	W	W	W	--	--	W	W
Massachusetts	W	3.29	W	3.45	3.31	W	3.29
New Hampshire	W	W	W	5.92	3.81	W	W
Rhode Island	W	3.34	W	--	--	W	3.34
Vermont	--	--	--	--	--	--	--
Middle Atlantic	3.19	2.72	17.0%	3.95	3.35	3.11	2.67
New Jersey	3.09	2.57	20.0%	--	--	3.09	2.57
New York	3.62	3.22	12.0%	3.95	3.35	3.48	3.17
Pennsylvania	2.94	2.46	20.0%	--	--	2.94	2.46
East North Central	3.13	3.11	0.6%	3.25	3.21	3.06	3.06
Illinois	3.22	3.25	-0.9%	3.24	3.66	3.22	3.22
Indiana	3.21	W	W	3.36	3.24	3.10	W
Michigan	3.19	3.20	-0.3%	3.44	3.39	3.09	3.12
Ohio	2.99	2.91	2.7%	3.03	2.88	2.98	2.92
Wisconsin	3.16	W	W	3.16	3.24	--	W
West North Central	W	W	W	2.99	3.35	W	W
Iowa	2.73	2.79	-2.2%	2.73	2.79	--	--
Kansas	3.10	3.69	-16.0%	3.10	3.69	--	--
Minnesota	W	W	W	3.40	3.84	W	W
Missouri	W	W	W	2.85	3.26	W	W
Nebraska	3.70	3.86	-4.1%	3.70	3.86	--	--
North Dakota	5.37	3.70	45.0%	5.37	3.70	--	--
South Dakota	--	2.96	--	--	2.96	--	--
South Atlantic	4.11	3.86	6.5%	4.20	3.96	3.53	3.11
Delaware	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--
Florida	W	4.18	W	4.26	4.19	W	3.78
Georgia	W	3.48	W	3.72	3.56	W	3.19
Maryland	3.74	3.35	12.0%	3.41	--	3.85	3.35
North Carolina	W	W	W	4.34	3.98	W	W
South Carolina	W	W	W	3.75	3.51	W	W
Virginia	4.13	3.24	27.0%	4.62	3.49	3.04	2.48
West Virginia	W	W	W	3.21	2.97	W	W
East South Central	3.23	3.25	-0.6%	3.22	3.24	3.27	3.27
Alabama	W	W	W	3.30	3.35	W	W
Kentucky	W	W	W	3.48	3.60	W	W
Mississippi	W	W	W	3.15	3.16	W	W
Tennessee	3.05	3.04	0.3%	3.05	3.04	--	--
West South Central	3.02	3.14	-3.8%	2.98	3.24	3.05	3.06
Arkansas	W	W	W	3.12	3.32	W	W
Louisiana	W	W	W	3.24	3.27	W	W
Oklahoma	W	W	W	2.63	3.20	W	W
Texas	3.04	3.10	-1.9%	2.94	3.21	3.07	3.07
Mountain	2.98	W	W	2.96	3.45	3.20	W
Arizona	W	W	W	2.85	3.63	W	W
Colorado	W	W	W	3.56	3.44	W	W
Idaho	3.18	3.34	-4.8%	3.18	3.34	--	--
Montana	1.32	W	W	1.32	1.77	--	W
Nevada	2.95	3.37	-12.0%	2.95	3.37	--	--
New Mexico	2.43	3.40	-29.0%	2.43	3.40	--	--
Utah	2.84	3.33	-15.0%	2.84	3.33	--	--
Wyoming	W	W	W	3.10	4.00	W	W
Pacific Contiguous	4.06	3.44	18.0%	3.81	3.64	4.27	3.23
California	4.48	3.65	23.0%	4.25	4.02	4.67	3.31
Oregon	W	W	W	2.30	2.45	W	W
Washington	W	W	W	3.14	3.37	W	W
Pacific Noncontiguous	8.04	7.04	14.0%	8.04	7.04	--	--
Alaska	8.04	7.04	14.0%	8.04	7.04	--	--
Hawaii	--	--	--	--	--	--	--
U.S. Total	3.48	3.37	3.3%	3.59	3.61	3.31	3.03

Displayed values of zero may represent small values that round to zero.
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 2017 are final. Values for 2018 are preliminary.
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 4.14. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Total (All Sectors) by State, November 2018

	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	4	0.76	8.8	0	--	--	0	--	--
Connecticut	0	--	--	0	--	--	0	--	--
Maine	4	0.76	8.8	0	--	--	0	--	--
Massachusetts	0	--	--	0	--	--	0	--	--
New Hampshire	0	--	--	0	--	--	0	--	--
Rhode Island	0	--	--	0	--	--	0	--	--
Vermont	0	--	--	0	--	--	0	--	--
Middle Atlantic	1,329	2.96	8.7	0	--	--	0	--	--
New Jersey	52	1.70	9.4	0	--	--	0	--	--
New York	14	3.41	7.2	0	--	--	0	--	--
Pennsylvania	1,263	3.00	8.7	0	--	--	0	--	--
East North Central	5,106	3.28	10.2	6,440	0.24	4.6	0	--	--
Illinois	755	3.67	19.8	2,792	0.21	4.5	0	--	--
Indiana	2,170	2.94	8.9	212	0.22	4.3	0	--	--
Michigan	237	2.53	7.7	1,936	0.26	4.6	0	--	--
Ohio	1,899	3.66	9.2	31	0.20	4.5	0	--	--
Wisconsin	45	1.95	8.6	1,470	0.24	4.8	0	--	--
West North Central	80	2.98	9.9	7,759	0.27	5.0	1,980	0.68	10.2
Iowa	11	2.70	8.3	1,392	0.23	4.6	0	--	--
Kansas	17	3.45	13.5	1,106	0.30	4.9	0	--	--
Minnesota	0	--	--	1,261	0.32	6.0	0	--	--
Missouri	52	2.88	9.1	2,764	0.23	4.6	0	--	--
Nebraska	0	--	--	1,139	0.31	5.2	0	--	--
North Dakota	0	--	--	0	--	--	1,980	0.68	10.2
South Dakota	0	--	--	97	0.27	5.2	0	--	--
South Atlantic	5,384	2.51	10.1	875	0.31	4.7	0	--	--
Delaware	12	2.58	7.9	0	--	--	0	--	--
District of Columbia	0	--	--	0	--	--	0	--	--
Florida	943	2.46	8.5	0	--	--	0	--	--
Georgia	443	2.57	8.5	875	0.31	4.7	0	--	--
Maryland	463	2.45	9.7	0	--	--	0	--	--
North Carolina	580	1.80	9.6	0	--	--	0	--	--
South Carolina	583	1.79	9.5	0	--	--	0	--	--
Virginia	342	0.84	21.6	0	--	--	0	--	--
West Virginia	2,017	3.16	9.9	0	--	--	0	--	--
East South Central	2,936	2.85	9.0	1,545	0.26	5.2	291	0.59	13.9
Alabama	219	2.16	8.9	738	0.27	5.4	0	--	--
Kentucky	2,203	3.06	9.1	653	0.24	5.0	0	--	--
Mississippi	32	2.03	7.7	96	0.30	5.1	291	0.59	13.9
Tennessee	482	2.25	8.5	58	0.29	5.1	0	--	--
West South Central	61	2.18	14.1	6,114	0.27	5.2	2,121	1.11	17.5
Arkansas	7	0.39	5.2	1,357	0.21	4.7	0	--	--
Louisiana	38	2.76	8.9	564	0.27	5.1	63	0.56	14.4
Oklahoma	16	1.05	48.0	522	0.22	4.7	0	--	--
Texas	0	--	--	3,671	0.30	5.5	2,058	1.12	17.6
Mountain	1,606	0.53	12.9	5,037	0.49	9.1	24	0.65	9.7
Arizona	503	0.57	10.9	710	0.64	11.8	0	--	--
Colorado	122	0.45	11.3	1,235	0.31	5.6	0	--	--
Idaho	0	--	--	0	--	--	0	--	--
Montana	0	--	--	391	0.65	9.2	24	0.65	9.7
Nevada	0	--	--	149	0.37	7.2	0	--	--
New Mexico	249	0.66	24.2	527	0.71	21.4	0	--	--
Utah	732	0.49	11.1	17	0.85	9.9	0	--	--
Wyoming	0	--	--	2,008	0.46	7.1	0	--	--
Pacific Contiguous	44	0.38	10.0	662	0.31	8.1	0	--	--
California	44	0.38	10.0	0	--	--	0	--	--
Oregon	0	--	--	177	0.26	4.9	0	--	--
Washington	0	--	--	486	0.33	9.2	0	--	--
Pacific Noncontiguous	0	--	--	0	--	--	23	0.13	9.0
Alaska	0	--	--	0	--	--	23	0.13	9.0
Hawaii	0	--	--	0	--	--	0	--	--
U.S. Total	16,550	2.66	10.1	28,433	0.30	5.7	4,439	0.88	13.9

Displayed values of zero may represent small values that round to zero.
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 coal and coal-derived synthesis gas.
See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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 4.15. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Electric Utilties by State, November 2018

	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	0	--	--	0	--	--	0	--	--
Connecticut	0	--	--	0	--	--	0	--	--
Maine	0	--	--	0	--	--	0	--	--
Massachusetts	0	--	--	0	--	--	0	--	--
New Hampshire	0	--	--	0	--	--	0	--	--
Rhode Island	0	--	--	0	--	--	0	--	--
Vermont	0	--	--	0	--	--	0	--	--
Middle Atlantic	0	--	--	0	--	--	0	--	--
New Jersey	0	--	--	0	--	--	0	--	--
New York	0	--	--	0	--	--	0	--	--
Pennsylvania	0	--	--	0	--	--	0	--	--
East North Central	2,527	2.96	8.7	4,109	0.25	4.6	0	--	--
Illinois	140	3.14	9.8	460	0.20	4.5	0	--	--
Indiana	1,993	2.89	8.8	212	0.22	4.3	0	--	--
Michigan	223	2.55	7.7	1,936	0.26	4.6	0	--	--
Ohio	140	4.52	8.9	31	0.20	4.5	0	--	--
Wisconsin	31	2.49	7.6	1,470	0.24	4.8	0	--	--
West North Central	66	3.02	10.3	7,477	0.27	5.0	1,980	0.68	10.2
Iowa	0	--	--	1,242	0.24	4.7	0	--	--
Kansas	17	3.45	13.5	1,106	0.30	4.9	0	--	--
Minnesota	0	--	--	1,201	0.32	6.0	0	--	--
Missouri	49	2.87	9.2	2,764	0.23	4.6	0	--	--
Nebraska	0	--	--	1,067	0.31	5.2	0	--	--
North Dakota	0	--	--	0	--	--	1,980	0.68	10.2
South Dakota	0	--	--	97	0.27	5.2	0	--	--
South Atlantic	4,471	2.49	10.3	875	0.31	4.7	0	--	--
Delaware	0	--	--	0	--	--	0	--	--
District of Columbia	0	--	--	0	--	--	0	--	--
Florida	936	2.48	8.6	0	--	--	0	--	--
Georgia	429	2.62	8.4	875	0.31	4.7	0	--	--
Maryland	0	--	--	0	--	--	0	--	--
North Carolina	559	1.84	9.7	0	--	--	0	--	--
South Carolina	583	1.79	9.5	0	--	--	0	--	--
Virginia	302	0.85	23.8	0	--	--	0	--	--
West Virginia	1,663	3.15	10.2	0	--	--	0	--	--
East South Central	2,878	2.89	9.0	1,545	0.26	5.2	0	--	--
Alabama	219	2.16	8.9	738	0.27	5.4	0	--	--
Kentucky	2,203	3.06	9.1	653	0.24	5.0	0	--	--
Mississippi	32	2.03	7.7	96	0.30	5.1	0	--	--
Tennessee	424	2.46	8.7	58	0.29	5.1	0	--	--
West South Central	38	2.76	8.9	3,325	0.25	4.9	640	1.73	20.8
Arkansas	0	--	--	1,127	0.21	4.7	0	--	--
Louisiana	38	2.76	8.9	351	0.26	5.2	63	0.56	14.4
Oklahoma	0	--	--	422	0.23	4.7	0	--	--
Texas	0	--	--	1,425	0.27	5.2	577	1.89	21.6
Mountain	1,606	0.53	12.9	4,532	0.48	9.1	24	0.65	9.7
Arizona	503	0.57	10.9	710	0.64	11.8	0	--	--
Colorado	122	0.45	11.3	1,235	0.31	5.6	0	--	--
Idaho	0	--	--	0	--	--	0	--	--
Montana	0	--	--	0	--	--	24	0.65	9.7
Nevada	0	--	--	73	0.43	9.6	0	--	--
New Mexico	249	0.66	24.2	527	0.71	21.4	0	--	--
Utah	732	0.49	11.1	17	0.85	9.9	0	--	--
Wyoming	0	--	--	1,970	0.46	7.2	0	--	--
Pacific Contiguous	0	--	--	177	0.26	4.9	0	--	--
California	0	--	--	0	--	--	0	--	--
Oregon	0	--	--	177	0.26	4.9	0	--	--
Washington	0	--	--	0	--	--	0	--	--
Pacific Noncontiguous	0	--	--	0	--	--	23	0.13	9.0
Alaska	0	--	--	0	--	--	23	0.13	9.0
Hawaii	0	--	--	0	--	--	0	--	--
U.S. Total	11,587	2.45	10.0	22,039	0.31	5.8	2,667	0.91	12.5

Displayed values of zero may represent small values that round to zero.
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 coal and coal-derived synthesis gas.
See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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 4.16. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Independent Power Producers by State, November 2018

	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	4	0.76	8.8	0	--	--	0	--	--
Connecticut	0	--	--	0	--	--	0	--	--
Maine	4	0.76	8.8	0	--	--	0	--	--
Massachusetts	0	--	--	0	--	--	0	--	--
New Hampshire	0	--	--	0	--	--	0	--	--
Rhode Island	0	--	--	0	--	--	0	--	--
Vermont	0	--	--	0	--	--	0	--	--
Middle Atlantic	1,329	2.96	8.7	0	--	--	0	--	--
New Jersey	52	1.70	9.4	0	--	--	0	--	--
New York	14	3.41	7.2	0	--	--	0	--	--
Pennsylvania	1,263	3.00	8.7	0	--	--	0	--	--
East North Central	2,457	3.61	11.9	2,284	0.21	4.5	0	--	--
Illinois	508	3.85	26.3	2,284	0.21	4.5	0	--	--
Indiana	177	3.42	9.5	0	--	--	0	--	--
Michigan	13	2.35	8.1	0	--	--	0	--	--
Ohio	1,759	3.59	9.3	0	--	--	0	--	--
Wisconsin	0	--	--	0	--	--	0	--	--
West North Central	0	--	--	0	--	--	0	--	--
Iowa	0	--	--	0	--	--	0	--	--
Kansas	0	--	--	0	--	--	0	--	--
Minnesota	0	--	--	0	--	--	0	--	--
Missouri	0	--	--	0	--	--	0	--	--
Nebraska	0	--	--	0	--	--	0	--	--
North Dakota	0	--	--	0	--	--	0	--	--
South Dakota	0	--	--	0	--	--	0	--	--
South Atlantic	835	2.74	8.9	0	--	--	0	--	--
Delaware	12	2.58	7.9	0	--	--	0	--	--
District of Columbia	0	--	--	0	--	--	0	--	--
Florida	0	--	--	0	--	--	0	--	--
Georgia	0	--	--	0	--	--	0	--	--
Maryland	443	2.47	9.2	0	--	--	0	--	--
North Carolina	2	0.70	5.9	0	--	--	0	--	--
South Carolina	0	--	--	0	--	--	0	--	--
Virginia	23	0.75	9.9	0	--	--	0	--	--
West Virginia	355	3.23	8.5	0	--	--	0	--	--
East South Central	0	--	--	0	--	--	291	0.59	13.9
Alabama	0	--	--	0	--	--	0	--	--
Kentucky	0	--	--	0	--	--	0	--	--
Mississippi	0	--	--	0	--	--	291	0.59	13.9
Tennessee	0	--	--	0	--	--	0	--	--
West South Central	16	1.05	48.0	2,759	0.30	5.5	1,481	0.87	16.3
Arkansas	0	--	--	230	0.21	5.0	0	--	--
Louisiana	0	--	--	213	0.29	5.1	0	--	--
Oklahoma	16	1.05	48.0	70	0.21	4.8	0	--	--
Texas	0	--	--	2,246	0.31	5.6	1,481	0.87	16.3
Mountain	0	--	--	505	0.58	8.3	0	--	--
Arizona	0	--	--	0	--	--	0	--	--
Colorado	0	--	--	0	--	--	0	--	--
Idaho	0	--	--	0	--	--	0	--	--
Montana	0	--	--	391	0.65	9.2	0	--	--
Nevada	0	--	--	76	0.30	4.6	0	--	--
New Mexico	0	--	--	0	--	--	0	--	--
Utah	0	--	--	0	--	--	0	--	--
Wyoming	0	--	--	37	0.38	5.5	0	--	--
Pacific Contiguous	0	--	--	486	0.33	9.2	0	--	--
California	0	--	--	0	--	--	0	--	--
Oregon	0	--	--	0	--	--	0	--	--
Washington	0	--	--	486	0.33	9.2	0	--	--
Pacific Noncontiguous	0	--	--	0	--	--	0	--	--
Alaska	0	--	--	0	--	--	0	--	--
Hawaii	0	--	--	0	--	--	0	--	--
U.S. Total	4,641	3.24	10.4	6,033	0.29	5.6	1,772	0.83	16.0

Displayed values of zero may represent small values that round to zero.
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 coal and coal-derived synthesis gas.
See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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 4.17. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Commercial Sector by State, November 2018

	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	0	--	--	0	--	--	0	--	--
Connecticut	0	--	--	0	--	--	0	--	--
Maine	0	--	--	0	--	--	0	--	--
Massachusetts	0	--	--	0	--	--	0	--	--
New Hampshire	0	--	--	0	--	--	0	--	--
Rhode Island	0	--	--	0	--	--	0	--	--
Vermont	0	--	--	0	--	--	0	--	--
Middle Atlantic	0	--	--	0	--	--	0	--	--
New Jersey	0	--	--	0	--	--	0	--	--
New York	0	--	--	0	--	--	0	--	--
Pennsylvania	0	--	--	0	--	--	0	--	--
East North Central	0	--	--	0	--	--	0	--	--
Illinois	0	--	--	0	--	--	0	--	--
Indiana	0	--	--	0	--	--	0	--	--
Michigan	0	--	--	0	--	--	0	--	--
Ohio	0	--	--	0	--	--	0	--	--
Wisconsin	0	--	--	0	--	--	0	--	--
West North Central	3	2.99	8.5	0	--	--	0	--	--
Iowa	0	--	--	0	--	--	0	--	--
Kansas	0	--	--	0	--	--	0	--	--
Minnesota	0	--	--	0	--	--	0	--	--
Missouri	3	2.99	8.5	0	--	--	0	--	--
Nebraska	0	--	--	0	--	--	0	--	--
North Dakota	0	--	--	0	--	--	0	--	--
South Dakota	0	--	--	0	--	--	0	--	--
South Atlantic	0	--	--	0	--	--	0	--	--
Delaware	0	--	--	0	--	--	0	--	--
District of Columbia	0	--	--	0	--	--	0	--	--
Florida	0	--	--	0	--	--	0	--	--
Georgia	0	--	--	0	--	--	0	--	--
Maryland	0	--	--	0	--	--	0	--	--
North Carolina	0	--	--	0	--	--	0	--	--
South Carolina	0	--	--	0	--	--	0	--	--
Virginia	0	--	--	0	--	--	0	--	--
West Virginia	0	--	--	0	--	--	0	--	--
East South Central	0	--	--	0	--	--	0	--	--
Alabama	0	--	--	0	--	--	0	--	--
Kentucky	0	--	--	0	--	--	0	--	--
Mississippi	0	--	--	0	--	--	0	--	--
Tennessee	0	--	--	0	--	--	0	--	--
West South Central	0	--	--	0	--	--	0	--	--
Arkansas	0	--	--	0	--	--	0	--	--
Louisiana	0	--	--	0	--	--	0	--	--
Oklahoma	0	--	--	0	--	--	0	--	--
Texas	0	--	--	0	--	--	0	--	--
Mountain	0	--	--	0	--	--	0	--	--
Arizona	0	--	--	0	--	--	0	--	--
Colorado	0	--	--	0	--	--	0	--	--
Idaho	0	--	--	0	--	--	0	--	--
Montana	0	--	--	0	--	--	0	--	--
Nevada	0	--	--	0	--	--	0	--	--
New Mexico	0	--	--	0	--	--	0	--	--
Utah	0	--	--	0	--	--	0	--	--
Wyoming	0	--	--	0	--	--	0	--	--
Pacific Contiguous	0	--	--	0	--	--	0	--	--
California	0	--	--	0	--	--	0	--	--
Oregon	0	--	--	0	--	--	0	--	--
Washington	0	--	--	0	--	--	0	--	--
Pacific Noncontiguous	0	--	--	0	--	--	0	--	--
Alaska	0	--	--	0	--	--	0	--	--
Hawaii	0	--	--	0	--	--	0	--	--
U.S. Total	3	2.99	8.5	0	--	--	0	--	--

Displayed values of zero may represent small values that round to zero.
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 coal and coal-derived synthesis gas.
See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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 4.18. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Industrial Sector by State, November 2018

	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	0	--	--	0	--	--	0	--	--
Connecticut	0	--	--	0	--	--	0	--	--
Maine	0	--	--	0	--	--	0	--	--
Massachusetts	0	--	--	0	--	--	0	--	--
New Hampshire	0	--	--	0	--	--	0	--	--
Rhode Island	0	--	--	0	--	--	0	--	--
Vermont	0	--	--	0	--	--	0	--	--
Middle Atlantic	0	--	--	0	--	--	0	--	--
New Jersey	0	--	--	0	--	--	0	--	--
New York	0	--	--	0	--	--	0	--	--
Pennsylvania	0	--	--	0	--	--	0	--	--
East North Central	122	3.31	8.8	48	0.44	5.2	0	--	--
Illinois	107	3.70	8.5	48	0.44	5.2	0	--	--
Indiana	0	--	--	0	--	--	0	--	--
Michigan	1	0.82	6.5	0	--	--	0	--	--
Ohio	0	--	--	0	--	--	0	--	--
Wisconsin	13	0.50	11.2	0	--	--	0	--	--
West North Central	11	2.70	8.3	282	0.21	4.7	0	--	--
Iowa	11	2.70	8.3	150	0.20	4.4	0	--	--
Kansas	0	--	--	0	--	--	0	--	--
Minnesota	0	--	--	59	0.22	5.5	0	--	--
Missouri	0	--	--	0	--	--	0	--	--
Nebraska	0	--	--	72	0.21	4.4	0	--	--
North Dakota	0	--	--	0	--	--	0	--	--
South Dakota	0	--	--	0	--	--	0	--	--
South Atlantic	78	1.10	10.5	0	--	--	0	--	--
Delaware	0	--	--	0	--	--	0	--	--
District of Columbia	0	--	--	0	--	--	0	--	--
Florida	8	0.62	3.3	0	--	--	0	--	--
Georgia	14	1.16	10.5	0	--	--	0	--	--
Maryland	20	2.04	22.3	0	--	--	0	--	--
North Carolina	19	0.81	7.0	0	--	--	0	--	--
South Carolina	0	--	--	0	--	--	0	--	--
Virginia	17	0.75	7.1	0	--	--	0	--	--
West Virginia	0	--	--	0	--	--	0	--	--
East South Central	58	0.91	6.9	0	--	--	0	--	--
Alabama	0	--	--	0	--	--	0	--	--
Kentucky	0	--	--	0	--	--	0	--	--
Mississippi	0	--	--	0	--	--	0	--	--
Tennessee	58	0.91	6.9	0	--	--	0	--	--
West South Central	7	0.39	5.2	30	0.19	4.3	0	--	--
Arkansas	7	0.39	5.2	0	--	--	0	--	--
Louisiana	0	--	--	0	--	--	0	--	--
Oklahoma	0	--	--	30	0.19	4.3	0	--	--
Texas	0	--	--	0	--	--	0	--	--
Mountain	0	--	--	0	--	--	0	--	--
Arizona	0	--	--	0	--	--	0	--	--
Colorado	0	--	--	0	--	--	0	--	--
Idaho	0	--	--	0	--	--	0	--	--
Montana	0	--	--	0	--	--	0	--	--
Nevada	0	--	--	0	--	--	0	--	--
New Mexico	0	--	--	0	--	--	0	--	--
Utah	0	--	--	0	--	--	0	--	--
Wyoming	0	--	--	0	--	--	0	--	--
Pacific Contiguous	44	0.38	10.0	0	--	--	0	--	--
California	44	0.38	10.0	0	--	--	0	--	--
Oregon	0	--	--	0	--	--	0	--	--
Washington	0	--	--	0	--	--	0	--	--
Pacific Noncontiguous	0	--	--	0	--	--	0	--	--
Alaska	0	--	--	0	--	--	0	--	--
Hawaii	0	--	--	0	--	--	0	--	--
U.S. Total	319	1.78	8.9	360	0.24	4.7	0	--	--

Displayed values of zero may represent small values that round to zero.
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 coal and coal-derived synthesis gas.
See Glossary for definitions. Values for 2018 are preliminary. Values for 2017 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 5

Sales to Ultimate Consumers, Revenue and Average Price of Electricity to Ultimate Consumers

Table 5.1. Sales of Electricity to Ultimate Customers: Total by End-Use Sector, 2008 - November 2018 (Thousand Megawatthours)

Period	Residential	Commercial	Industrial	Transportation	All Sectors
Annual Totals					
2008	1,380,662	1,336,133	1,009,516	7,653	3,733,965
2009	1,364,758	1,306,853	917,416	7,768	3,596,795
2010	1,445,708	1,330,199	971,221	7,712	3,754,841
2011	1,422,801	1,328,057	991,316	7,672	3,749,846
2012	1,374,515	1,327,101	985,714	7,320	3,694,650
2013	1,394,812	1,337,079	985,352	7,625	3,724,868
2014	1,407,208	1,352,158	997,576	7,758	3,764,700
2015	1,404,096	1,360,752	986,508	7,637	3,758,992
2016	1,411,058	1,367,191	976,715	7,497	3,762,462
2017	1,378,648	1,352,888	984,298	7,523	3,723,356
Year 2016					
January	130,972	110,410	78,848	660	320,890
February	115,959	103,452	76,748	646	296,806
March	100,227	105,739	79,237	609	285,812
April	88,244	102,045	78,647	595	269,531
May	94,198	108,437	81,491	581	284,708
June	125,211	120,363	83,672	631	329,878
July	154,409	130,038	87,076	648	372,172
August	156,442	135,019	89,101	631	381,192
Sept	129,363	123,493	83,259	637	336,752
October	101,508	112,963	81,597	613	296,681
November	93,244	105,060	78,421	592	277,317
December	121,281	110,172	78,616	653	310,722
Year 2017					
January	129,212	109,488	78,809	667	318,177
February	100,968	99,640	74,534	635	275,777
March	103,096	107,173	80,530	645	291,444
April	90,725	102,589	78,899	589	272,801
May	98,281	109,872	83,134	583	291,871
June	122,543	120,013	85,399	628	328,583
July	149,900	129,277	87,806	630	367,613
August	142,007	128,481	89,134	640	360,263
Sept	118,779	118,789	83,540	618	321,726
October	102,811	113,287	82,815	626	299,539
November	98,321	104,973	79,456	598	283,347
December	122,005	109,306	80,242	664	312,216
Year 2018					
January	148,978	114,634	76,059	751	340,422
February	113,383	102,018	71,946	643	287,990
March	106,939	107,902	76,810	625	292,276
April	95,128	102,940	75,241	608	273,917
May	103,453	112,622	81,461	591	298,126
June	129,478	121,597	81,528	628	333,231
July	153,071	130,955	85,094	640	369,759
August	152,636	134,333	88,761	686	376,416
Sept	128,458	121,600	81,216	648	331,923
October	106,633	115,863	81,020	635	304,151
November	103,372	104,629	76,927	622	285,550
Year to Date					
2016	1,289,777	1,257,019	898,099	6,844	3,451,739
2017	1,256,643	1,243,582	904,056	6,859	3,411,140
2018	1,341,528	1,269,093	876,062	7,077	3,493,760
Rolling 12 Months Ending in November					
2017	1,377,924	1,353,754	982,672	7,512	3,721,862
2018	1,463,533	1,378,399	956,304	7,741	3,805,976

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 for 2017 and prior years are final. Values for 2018 are preliminary estimates based on a cutoff model sample. 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. 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 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-861M (formerly EIA-826), Monthly Electric Industry Power Report.
Form EIA-826, Monthly Electric Sales and Revenue Report with State Distributions Report;
Form EIA-861, Annual Electric Power Industry Report; and Form EIA-861S, Annual Electric Power Industry Report (Short Form).

Table 5.2. Revenue from Sales of Electricity to Ultimate Customers: Total by End-Use Sector, 2008 - November 2018 (Million Dollars)

Period	Residential	Commercial	Industrial	Transportation	All Sectors
Annual Totals					
2008	155,496	137,036	70,231	820	363,583
2009	157,044	132,747	62,670	828	353,289
2010	166,778	135,554	65,772	814	368,918
2011	166,714	135,927	67,606	803	371,049
2012	163,280	133,898	65,761	747	363,687
2013	169,131	137,188	67,934	805	375,058
2014	176,178	145,253	70,855	810	393,096
2015	177,624	144,781	68,166	771	391,341
2016	177,077	142,643	66,068	722	386,509
2017	177,661	144,242	67,691	728	390,322
Year 2016					
January	15,704	11,133	5,080	63	31,980
February	14,076	10,605	4,927	62	29,670
March	12,593	10,815	5,122	58	28,587
April	10,967	10,398	5,065	57	26,486
May	12,048	11,184	5,357	54	28,643
June	15,942	12,828	5,879	62	34,710
July	19,575	13,891	6,294	64	39,823
August	20,157	14,530	6,440	63	41,191
Sept	16,652	13,298	5,947	64	35,961
October	12,648	11,914	5,491	59	30,111
November	11,886	10,840	5,225	55	28,007
December	14,830	11,206	5,242	62	31,339
Year 2017					
January	15,781	11,183	5,190	63	32,216
February	12,911	10,442	4,941	60	28,354
March	13,289	11,208	5,407	61	29,965
April	11,536	10,669	5,209	56	27,470
May	12,843	11,638	5,639	56	30,176
June	16,171	13,209	6,141	64	35,585
July	19,606	14,184	6,416	64	40,269
August	18,679	14,141	6,435	64	39,320
Sept	15,772	13,104	5,992	62	34,930
October	13,164	12,208	5,725	60	31,157
November	12,721	11,016	5,345	57	29,139
December	15,189	11,239	5,249	62	31,739
Year 2018					
January	18,254	12,020	5,288	71	35,633
February	14,354	10,857	4,896	63	30,170
March	13,892	11,315	5,114	59	30,380
April	12,256	10,744	4,951	57	28,009
May	13,604	11,819	5,553	56	31,033
June	16,891	13,155	5,854	64	35,964
July	20,096	14,370	6,247	65	40,778
August	20,306	14,792	6,430	66	41,594
Sept	16,709	12,985	5,756	67	35,516
October	13,719	12,448	5,594	62	31,823
November	13,382	11,051	5,292	60	29,785
Year to Date					
2016	162,247	131,437	60,827	660	355,170
2017	162,473	133,003	62,441	666	358,583
2018	173,464	135,556	60,975	690	370,684
Rolling 12 Months Ending in November					
2017	177,303	144,209	67,683	728	389,923
2018	188,652	146,795	66,224	752	402,424

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 for 2017 and prior years are final. Values for 2018 are preliminary estimates based on a cutoff model sample. 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. 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 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-861M (formerly EIA-826), Monthly Electric Industry Power Report.
Form EIA-826, Monthly Electric Sales and Revenue Report with State Distributions Report;
Form EIA-861, Annual Electric Power Industry Report; and Form EIA-861S, Annual Electric Power Industry Report (Short Form).

Table 5.3. Average Price of Electricity to Ultimate Customers: Total by End-Use Sector, 2008 - November 2018 (Cents per Kilowatthour)

Period	Residential	Commercial	Industrial	Transportation	All Sectors
Annual Totals					
2008	11.26	10.26	6.96	10.71	9.74
2009	11.51	10.16	6.83	10.66	9.82
2010	11.54	10.19	6.77	10.56	9.83
2011	11.72	10.24	6.82	10.46	9.90
2012	11.88	10.09	6.67	10.21	9.84
2013	12.13	10.26	6.89	10.55	10.07
2014	12.52	10.74	7.10	10.45	10.44
2015	12.65	10.64	6.91	10.09	10.41
2016	12.55	10.43	6.76	9.63	10.27
2017	12.89	10.66	6.88	9.68	10.48
Year 2016					
January	11.99	10.08	6.44	9.52	9.97
February	12.14	10.25	6.42	9.61	10.00
March	12.56	10.23	6.46	9.56	10.00
April	12.43	10.19	6.44	9.53	9.83
May	12.79	10.31	6.57	9.28	10.06
June	12.73	10.66	7.03	9.75	10.52
July	12.68	10.68	7.23	9.84	10.70
August	12.88	10.76	7.23	10.04	10.81
Sept	12.87	10.77	7.14	10.00	10.68
October	12.46	10.55	6.73	9.62	10.15
November	12.75	10.32	6.66	9.22	10.10
December	12.23	10.17	6.67	9.49	10.09
Year 2017					
January	12.21	10.21	6.59	9.39	10.13
February	12.79	10.48	6.63	9.50	10.28
March	12.89	10.46	6.71	9.49	10.28
April	12.72	10.40	6.60	9.46	10.07
May	13.07	10.59	6.78	9.61	10.34
June	13.20	11.01	7.19	10.18	10.83
July	13.08	10.97	7.31	10.12	10.95
August	13.15	11.01	7.22	10.06	10.91
Sept	13.28	11.03	7.17	9.99	10.86
October	12.80	10.78	6.91	9.57	10.40
November	12.94	10.49	6.73	9.50	10.28
December	12.45	10.28	6.54	9.35	10.17
Year 2018					
January	12.25	10.49	6.95	9.40	10.47
February	12.66	10.64	6.81	9.80	10.48
March	12.99	10.49	6.66	9.40	10.39
April	12.88	10.44	6.58	9.45	10.23
May	13.15	10.49	6.82	9.46	10.41
June	13.05	10.82	7.18	10.15	10.79
July	13.13	10.97	7.34	10.14	11.03
August	13.30	11.01	7.24	9.68	11.05
Sept	13.01	10.68	7.09	10.28	10.70
October	12.87	10.74	6.91	9.81	10.46
November	12.95	10.56	6.88	9.72	10.43
Year to Date					
2016	12.58	10.46	6.77	9.64	10.29
2017	12.93	10.70	6.91	9.72	10.51
2018	12.93	10.68	6.96	9.75	10.61
Rolling 12 Months Ending in November					
2017	12.87	10.65	6.89	9.70	10.48
2018	12.89	10.65	6.93	9.72	10.57

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 for 2017 and prior years are final. Values for 2018 are preliminary estimates based on a cutoff model sample. 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. 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 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-861M (formerly EIA-826), Monthly Electric Industry Power Report.
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Form EIA-861, Annual Electric Power Industry Report; and Form EIA-861S, Annual Electric Power Industry Report (Short Form).

Table 5.4.A. Sales of Electricity to Ultimate Customers by End-Use Sector, by State, November 2018 and 2017 (Thousand Megawatthours)

	Residential		Commercial		Industrial		Transportation		All Sectors	
Census Division and State	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	3,645	3,440	4,065	4,126	1,302	1,362	43	44	9,056	8,972
Connecticut	992	916	944	979	251	276	12	14	2,199	2,184
Maine	388	387	323	281	242	198	0	0	953	866
Massachusetts	1,507	1,413	2,001	2,083	489	555	29	28	4,027	4,078
New Hampshire	353	341	348	346	150	157	0	0	851	844
Rhode Island	232	224	294	284	56	56	2	2	584	566
Vermont	174	160	155	154	114	121	0	0	443	434
Middle Atlantic	9,686	9,188	11,985	12,218	5,733	6,050	315	301	27,719	27,756
New Jersey	1,918	1,847	2,865	2,868	597	572	24	24	5,404	5,311
New York	3,711	3,603	5,827	6,027	1,435	1,544	236	228	11,209	11,403
Pennsylvania	4,057	3,738	3,292	3,322	3,702	3,933	55	48	11,106	11,041
East North Central	14,540	13,748	14,183	14,218	14,938	15,417	48	43	43,709	43,427
Illinois	3,439	3,316	3,912	3,902	3,461	3,385	43	39	10,855	10,641
Indiana	2,528	2,348	1,846	1,853	3,302	3,525	2	2	7,678	7,727
Michigan	2,625	2,516	2,959	2,933	2,427	2,540	1	1	8,011	7,990
Ohio	4,121	3,804	3,629	3,687	3,864	4,090	2	2	11,616	11,584
Wisconsin	1,826	1,765	1,839	1,843	1,885	1,876	0	0	5,550	5,484
West North Central	8,086	7,431	8,177	7,984	7,333	7,663	4	4	23,600	23,081
Iowa	1,033	1,011	1,008	995	2,026	1,928	0	0	4,067	3,934
Kansas	972	847	1,196	1,210	868	922	0	0	3,037	2,979
Minnesota	1,730	1,733	1,795	1,839	1,699	1,842	2	2	5,227	5,416
Missouri	2,728	2,292	2,417	2,234	955	1,119	2	2	6,102	5,646
Nebraska	756	705	778	753	838	892	0	0	2,372	2,350
North Dakota	474	463	581	572	724	732	0	0	1,778	1,767
South Dakota	393	381	402	380	222	229	0	0	1,016	989
South Atlantic	26,821	24,950	24,644	24,149	11,269	11,451	113	104	62,848	60,654
Delaware	338	314	339	322	183	191	0	0	861	827
District of Columbia	188	173	671	605	6	15	31	30	896	823
Florida	9,148	8,652	7,562	7,465	1,323	1,315	7	6	18,040	17,437
Georgia	4,123	3,758	3,603	3,496	2,572	2,615	12	13	10,311	9,881
Maryland	2,105	1,933	2,280	2,206	318	316	46	42	4,750	4,496
North Carolina	4,331	4,077	3,787	3,714	2,279	2,289	1	0	10,399	10,080
South Carolina	2,184	2,040	1,622	1,611	1,976	2,192	0	0	5,782	5,843
Virginia	3,487	3,140	4,192	4,129	1,424	1,332	15	14	9,119	8,615
West Virginia	917	862	588	603	1,186	1,187	0	0	2,691	2,652
East South Central	8,542	7,759	6,982	6,875	7,878	8,210	0	0	23,403	22,844
Alabama	2,350	2,072	1,705	1,710	2,690	2,701	0	0	6,745	6,483
Kentucky	2,014	1,811	1,501	1,494	2,263	2,320	0	0	5,778	5,625
Mississippi	1,260	1,185	1,027	1,096	1,388	1,343	0	0	3,676	3,624
Tennessee	2,918	2,691	2,750	2,575	1,537	1,845	0	0	7,205	7,111
West South Central	14,376	13,679	14,835	14,717	14,575	15,758	18	18	43,803	44,172
Arkansas	1,198	1,132	903	919	1,442	1,408	0	0	3,543	3,459
Louisiana	2,087	2,057	1,942	1,964	2,640	3,046	1	1	6,671	7,068
Oklahoma	1,561	1,355	1,631	1,578	1,569	1,478	0	0	4,760	4,411
Texas	9,529	9,134	10,360	10,257	8,924	9,826	16	16	28,829	29,233
Mountain	6,697	6,408	7,434	7,353	6,687	6,317	13	13	20,830	20,092
Arizona	1,891	1,920	2,103	2,170	1,124	1,025	1	1	5,119	5,116
Colorado	1,454	1,342	1,617	1,592	1,329	1,252	7	8	4,408	4,193
Idaho	745	705	527	512	498	502	0	0	1,770	1,720
Montana	421	423	397	394	415	358	0	0	1,233	1,175
Nevada	753	705	841	790	1,064	982	1	1	2,659	2,477
New Mexico	492	433	706	664	667	628	0	0	1,865	1,725
Utah	695	647	938	924	727	723	4	4	2,364	2,299
Wyoming	246	233	305	307	863	847	0	0	1,414	1,387
Pacific Contiguous	10,579	11,314	11,852	12,856	6,802	6,817	67	72	29,300	31,059
California	5,960	6,418	8,197	9,085	3,889	3,846	65	69	18,110	19,418
Oregon	1,642	1,678	1,314	1,356	930	1,037	2	2	3,889	4,073
Washington	2,977	3,218	2,341	2,415	1,983	1,933	1	1	7,301	7,567
Pacific Noncontiguous	401	403	471	478	409	410	0	0	1,281	1,292
Alaska	174	186	224	230	109	121	0	0	507	536
Hawaii	226	218	247	248	300	289	0	0	774	755
U.S. Total	103,372	98,321	104,629	104,973	76,927	79,456	622	598	285,550	283,347

See Technical notes for additional information on the Commercial, Industrial, and Transportation sectors.
Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
Notes: - See Glossary for definitions. - Values for 2017 are final. Values for 2018 are preliminary estimates based on a cutoff model sample.
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.
Totals may not equal sum of components because of independent rounding.
Source: U.S. Energy Information Administration, Form EIA-861M (formerly EIA-826), Monthly Electric Power Industry Report.

Table 5.4.B. Sales of Electricity to Ultimate Customers by End-Use Sector, by State, Year-to-Date through November 2018 and 2017 (Thousand Megawatthours)

	Residential		Commercial		Industrial		Transportation		All Sectors	
Census Division and State	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	43,722	41,436	48,097	47,818	14,751	15,508	520	502	107,090	105,264
Connecticut	11,882	11,141	11,391	11,313	2,836	2,993	178	162	26,287	25,609
Maine	4,240	4,217	3,674	3,623	2,576	2,456	0	0	10,490	10,296
Massachusetts	18,604	17,528	23,723	23,759	5,594	6,287	317	315	48,238	47,888
New Hampshire	4,203	3,998	4,067	4,012	1,800	1,806	0	0	10,069	9,817
Rhode Island	2,874	2,734	3,398	3,303	676	671	25	25	6,972	6,733
Vermont	1,920	1,819	1,844	1,807	1,270	1,296	0	0	5,034	4,922
Middle Atlantic	125,834	116,853	145,286	142,939	66,698	66,985	3,638	3,501	341,456	330,277
New Jersey	27,312	25,394	35,474	34,736	6,471	6,734	284	280	69,542	67,144
New York	47,731	44,859	70,135	69,153	15,763	16,297	2,714	2,533	136,343	132,841
Pennsylvania	50,792	46,600	39,676	39,050	44,464	43,954	640	688	135,572	130,292
East North Central	176,574	161,599	171,199	166,734	171,245	176,591	559	523	519,577	505,447
Illinois	43,486	39,670	46,857	45,722	39,037	39,351	501	465	129,881	125,209
Indiana	31,032	28,318	22,547	21,798	38,039	40,326	19	18	91,637	90,460
Michigan	31,965	29,827	36,018	35,209	27,489	28,067	6	5	95,477	93,109
Ohio	49,679	44,645	43,700	42,367	44,093	46,595	33	35	137,504	133,641
Wisconsin	20,413	19,138	22,077	21,638	22,588	22,252	0	0	65,078	63,028
West North Central	98,751	90,790	95,892	93,224	81,350	85,540	45	42	276,038	269,596
Iowa	13,205	12,397	11,379	11,059	21,446	21,144	0	0	46,030	44,600
Kansas	13,017	11,910	14,684	14,483	10,071	10,595	0	0	37,772	36,988
Minnesota	20,325	19,446	21,314	21,285	19,181	20,410	23	22	60,843	61,163
Missouri	33,845	29,843	29,063	27,678	10,675	12,191	21	21	73,605	69,733
Nebraska	9,392	8,730	8,861	8,502	9,735	10,503	0	0	27,989	27,736
North Dakota	4,520	4,283	5,987	5,902	7,697	7,997	0	0	18,203	18,181
South Dakota	4,447	4,182	4,603	4,314	2,546	2,700	0	0	11,596	11,196
South Atlantic	341,709	318,692	292,168	285,027	128,652	128,894	1,213	1,185	763,742	733,797
Delaware	4,648	4,239	4,016	3,832	2,003	2,099	0	0	10,667	10,170
District of Columbia	2,378	2,206	7,600	7,332	156	163	307	307	10,441	10,008
Florida	115,337	112,759	88,326	87,728	15,170	15,246	76	80	218,909	215,813
Georgia	54,963	50,027	44,033	42,636	29,391	29,609	155	154	128,542	122,425
Maryland	25,564	23,403	27,170	26,449	3,486	3,482	480	478	56,699	53,812
North Carolina	55,850	50,720	45,649	44,097	24,761	25,203	11	3	126,272	120,023
South Carolina	29,335	26,627	20,347	20,096	24,994	24,973	0	0	74,676	71,697
Virginia	43,169	39,401	47,873	45,954	15,696	15,728	183	163	106,921	101,246
West Virginia	10,465	9,309	7,155	6,903	12,994	12,391	0	0	30,614	28,604
East South Central	114,492	101,665	86,943	83,036	89,435	93,888	0	0	290,870	278,589
Alabama	30,500	27,416	21,317	20,982	31,079	30,529	0	0	82,897	78,927
Kentucky	25,287	22,379	18,173	17,732	24,486	26,151	0	0	67,947	66,262
Mississippi	18,022	16,033	13,103	13,193	15,577	14,785	0	0	46,702	44,010
Tennessee	40,683	35,837	34,349	31,129	18,293	22,423	0	0	93,324	89,390
West South Central	213,666	196,482	186,309	179,444	164,744	176,235	185	180	564,904	552,341
Arkansas	17,572	15,639	11,350	11,015	16,406	15,760	0	0	45,328	42,415
Louisiana	29,891	27,234	23,305	22,606	31,535	34,009	12	12	84,743	83,862
Oklahoma	22,280	19,986	19,338	18,802	16,927	16,645	0	0	58,545	55,433
Texas	143,924	133,623	132,316	127,020	99,876	109,821	173	168	376,289	370,631
Mountain	91,994	90,648	90,885	89,424	76,132	75,644	147	132	259,158	255,849
Arizona	32,330	32,063	27,650	27,520	12,566	12,553	7	7	72,555	72,142
Colorado	17,652	16,982	18,935	18,930	14,728	14,218	84	65	51,399	50,195
Idaho	7,445	7,769	5,833	5,852	8,298	8,133	0	0	21,576	21,754
Montana	4,605	4,686	4,538	4,529	4,146	4,157	0	0	13,289	13,372
Nevada	12,510	12,045	11,165	10,279	11,056	11,609	8	8	34,739	33,940
New Mexico	6,302	5,947	8,497	8,099	7,348	7,084	0	0	22,146	21,130
Utah	8,712	8,685	10,882	10,787	8,529	8,518	47	52	28,170	28,041
Wyoming	2,438	2,472	3,385	3,429	9,460	9,373	0	0	15,283	15,274
Pacific Contiguous	130,505	134,215	147,091	150,630	78,547	80,131	770	795	356,912	365,771
California	81,789	83,236	105,044	108,402	45,113	44,981	739	765	232,685	237,383
Oregon	17,034	17,829	15,096	15,104	10,892	12,332	24	23	43,046	45,288
Washington	31,681	33,149	26,952	27,125	22,541	22,819	7	6	81,181	83,099
Pacific Noncontiguous	4,281	4,263	5,224	5,307	4,507	4,640	0	0	14,012	14,210
Alaska	1,788	1,849	2,452	2,463	1,213	1,300	0	0	5,453	5,613
Hawaii	2,493	2,414	2,773	2,844	3,294	3,339	0	0	8,560	8,597
U.S. Total	1,341,528	1,256,643	1,269,093	1,243,582	876,062	904,056	7,077	6,859	3,493,760	3,411,140

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-861M (formerly EIA-826), Monthly Electric Power Industry Report.

Table 5.5.A. Revenue from Sales of Electricity to Ultimate Customers by End-Use Sector, by State, November 2018 and 2017 (Million Dollars)

Census Division and State	Residential		Commercial		Industrial		Transportation		All Sectors	
	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	748	681	662	643	170	171	4	4	1,584	1,499
Connecticut	210	189	162	157	35	37	2	2	408	385
Maine	64	61	46	36	24	18	0	0	133	114
Massachusetts	321	289	326	331	70	77	2	2	719	699
New Hampshire	71	68	55	51	20	19	0	0	146	138
Rhode Island	50	46	51	45	9	8	0	0	110	99
Vermont	32	29	24	23	12	12	0	0	67	64
Middle Atlantic	1,528	1,462	1,437	1,466	389	404	35	33	3,388	3,366
New Jersey	289	283	339	331	58	53	2	2	688	669
New York	674	641	803	838	83	89	28	28	1,588	1,597
Pennsylvania	565	538	295	296	248	262	4	3	1,112	1,100
East North Central	1,936	1,866	1,446	1,444	1,047	1,085	3	3	4,432	4,398
Illinois	456	453	353	348	233	215	3	3	1,044	1,019
Indiana	313	298	196	199	242	269	0	0	751	766
Michigan	397	381	330	325	171	181	0	0	898	887
Ohio	510	483	364	372	256	282	0	0	1,130	1,138
Wisconsin	261	250	203	200	145	139	0	0	608	588
West North Central	924	863	752	738	508	519	0	0	2,184	2,121
Iowa	126	119	92	88	116	104	0	0	334	310
Kansas	126	114	120	124	62	71	0	0	308	308
Minnesota	227	221	183	182	131	131	0	0	542	534
Missouri	275	248	199	195	62	77	0	0	536	520
Nebraska	80	74	68	63	59	63	0	0	207	199
North Dakota	47	44	52	50	61	55	0	0	160	149
South Dakota	44	44	37	37	17	18	0	0	98	100
South Atlantic	3,171	2,920	2,352	2,260	751	724	9	8	6,283	5,912
Delaware	44	43	35	32	14	14	0	0	93	89
District of Columbia	26	24	84	74	0	1	3	2	114	101
Florida	1,111	1,017	741	709	105	105	1	1	1,957	1,831
Georgia	446	417	360	349	161	150	1	1	967	916
Maryland	276	258	235	235	26	26	4	3	540	521
North Carolina	489	438	319	303	131	129	0	0	939	870
South Carolina	270	262	170	169	141	131	0	0	580	562
Virginia	406	360	352	331	98	89	1	1	857	781
West Virginia	103	101	57	59	76	79	0	0	236	239
East South Central	970	891	749	736	472	482	0	0	2,192	2,108
Alabama	285	259	196	199	165	165	0	0	646	623
Kentucky	216	203	148	150	129	133	0	0	493	486
Mississippi	146	134	112	114	88	78	0	0	346	326
Tennessee	323	295	293	272	90	107	0	0	706	675
West South Central	1,584	1,486	1,204	1,228	785	837	1	1	3,574	3,553
Arkansas	115	117	66	78	75	83	0	0	257	278
Louisiana	190	196	168	176	143	169	0	0	501	540
Oklahoma	155	148	118	123	78	77	0	0	351	348
Texas	1,124	1,026	852	852	488	508	1	1	2,466	2,387
Mountain	782	752	690	682	395	386	1	1	1,868	1,822
Arizona	239	234	208	213	67	62	0	0	515	510
Colorado	176	162	165	155	95	92	1	1	437	410
Idaho	71	70	40	40	27	29	0	0	139	140
Montana	47	46	40	40	23	19	0	0	109	105
Nevada	91	91	64	65	51	49	0	0	206	205
New Mexico	60	54	70	65	37	37	0	0	168	156
Utah	70	68	74	75	38	41	0	0	182	184
Wyoming	27	26	29	29	56	57	0	0	112	112
Pacific Contiguous	1,626	1,693	1,636	1,705	676	647	6	6	3,943	4,051
California	1,164	1,201	1,310	1,375	516	491	6	6	2,996	3,073
Oregon	180	178	120	121	61	64	0	0	361	364
Washington	282	314	206	209	100	92	0	0	587	615
Pacific Noncontiguous	115	107	122	113	99	90	0	0	335	310
Alaska	38	40	44	43	16	20	0	0	97	103
Hawaii	77	67	78	70	83	71	0	0	238	207
U.S. Total	13,382	12,721	11,051	11,016	5,292	5,345	60	57	29,785	29,139

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Source: U.S. Energy Information Administration, Form EIA-861M (formerly EIA-826), Monthly Electric Power Industry Report.

Table 5.5.B. Revenue from Sales of Electricity to Ultimate Customers by End-Use Sector, by State, Year-to-Date through November 2018 and 2017 (Million Dollars)

	Residential		Commercial		Industrial		Transportation		All Sectors	
Census Division and State	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	8,970	8,051	7,818	7,400	1,909	1,939	46	41	18,744	17,431
Connecticut	2,524	2,269	1,907	1,817	395	393	22	18	4,847	4,497
Maine	683	675	453	437	233	225	0	0	1,370	1,337
Massachusetts	4,008	3,516	3,980	3,787	811	870	20	19	8,818	8,193
New Hampshire	825	767	642	593	234	222	0	0	1,701	1,581
Rhode Island	586	502	557	501	103	97	4	4	1,250	1,105
Vermont	345	322	280	264	134	132	0	0	758	719
Middle Atlantic	20,215	18,749	18,119	18,078	4,617	4,628	406	396	43,357	41,852
New Jersey	4,226	3,976	4,334	4,287	654	686	26	25	9,240	8,974
New York	8,894	8,132	10,256	10,280	959	967	332	322	20,442	19,700
Pennsylvania	7,094	6,642	3,529	3,511	3,004	2,976	47	49	13,674	13,178
East North Central	23,290	21,671	17,339	16,974	12,019	12,515	39	35	52,687	51,194
Illinois	5,465	5,153	4,205	4,168	2,595	2,553	34	30	12,299	11,903
Indiana	3,733	3,504	2,337	2,301	2,725	3,046	2	2	8,797	8,852
Michigan	4,985	4,602	4,028	3,877	2,003	2,022	1	1	11,017	10,502
Ohio	6,151	5,657	4,349	4,270	2,959	3,224	2	3	13,462	13,153
Wisconsin	2,956	2,755	2,418	2,358	1,738	1,670	0	0	7,112	6,783
West North Central	11,968	11,109	9,388	9,218	6,021	6,194	4	4	27,380	26,525
Iowa	1,695	1,544	1,127	1,057	1,435	1,328	0	0	4,257	3,930
Kansas	1,721	1,593	1,539	1,540	752	806	0	0	4,013	3,939
Minnesota	2,730	2,552	2,238	2,253	1,493	1,528	2	2	6,464	6,334
Missouri	3,806	3,516	2,706	2,647	750	898	2	2	7,264	7,063
Nebraska	1,024	964	795	754	738	811	0	0	2,557	2,529
North Dakota	472	446	547	546	653	612	0	0	1,672	1,604
South Dakota	519	494	436	420	199	212	0	0	1,154	1,126
South Atlantic	40,322	37,986	27,368	26,777	8,362	8,404	95	94	76,147	73,260
Delaware	588	568	389	380	154	163	0	0	1,131	1,111
District of Columbia	305	285	905	854	13	13	29	28	1,251	1,180
Florida	13,370	13,091	8,236	8,198	1,177	1,196	6	7	22,788	22,491
Georgia	6,364	6,010	4,283	4,305	1,729	1,772	9	8	12,385	12,094
Maryland	3,409	3,286	2,827	2,841	286	291	36	37	6,557	6,456
North Carolina	6,322	5,590	3,970	3,732	1,544	1,569	1	0	11,837	10,892
South Carolina	3,654	3,484	2,077	2,126	1,540	1,544	0	0	7,271	7,154
Virginia	5,122	4,586	4,011	3,677	1,076	1,030	15	13	10,224	9,306
West Virginia	1,189	1,087	670	663	842	825	0	0	2,701	2,575
East South Central	12,770	11,522	9,086	8,808	5,235	5,580	0	0	27,092	25,909
Alabama	3,757	3,461	2,408	2,436	1,893	1,889	0	0	8,058	7,785
Kentucky	2,646	2,435	1,735	1,749	1,350	1,498	0	0	5,731	5,681
Mississippi	2,029	1,781	1,375	1,340	950	887	0	0	4,354	4,008
Tennessee	4,338	3,845	3,569	3,283	1,042	1,306	0	0	8,949	8,435
West South Central	23,240	21,151	15,224	15,005	9,009	9,641	15	15	47,488	45,813
Arkansas	1,731	1,615	873	940	898	960	0	0	3,503	3,515
Louisiana	2,792	2,665	2,032	2,025	1,667	1,872	1	1	6,492	6,564
Oklahoma	2,303	2,141	1,532	1,534	873	904	0	0	4,708	4,579
Texas	16,413	14,730	10,787	10,507	5,571	5,905	14	14	32,785	31,155
Mountain	11,085	10,807	8,818	8,632	4,917	4,995	14	13	24,834	24,446
Arizona	4,164	3,993	2,983	2,903	837	818	1	1	7,985	7,715
Colorado	2,147	2,072	1,920	1,880	1,071	1,072	8	6	5,146	5,030
Idaho	763	780	465	468	543	547	0	0	1,771	1,795
Montana	516	514	462	459	216	218	0	0	1,194	1,191
Nevada	1,485	1,440	878	818	686	724	1	1	3,050	2,983
New Mexico	808	769	863	830	422	439	0	0	2,093	2,037
Utah	924	957	919	941	506	527	5	5	2,353	2,431
Wyoming	278	282	327	333	636	649	0	0	1,242	1,265
Pacific Contiguous	20,404	20,324	21,104	20,887	7,823	7,574	71	69	49,401	48,855
California	15,478	15,219	17,412	17,226	6,080	5,781	68	66	39,037	38,292
Oregon	1,866	1,903	1,346	1,339	677	740	2	2	3,891	3,985
Washington	3,060	3,202	2,346	2,322	1,066	1,053	1	1	6,473	6,578
Pacific Noncontiguous	1,200	1,103	1,292	1,223	1,063	972	0	0	3,555	3,297
Alaska	395	393	465	466	210	212	0	0	1,071	1,071
Hawaii	805	709	826	756	853	760	0	0	2,484	2,226
U.S. Total	173,464	162,473	135,556	133,003	60,975	62,441	690	666	370,684	358,583

See Technical notes for additional information on the Commercial, Industrial, and Transportation sectors.
Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
Notes: - See Glossary for definitions. - Values for 2017 are final. Values for 2018 are preliminary estimates based on a cutoff model sample.
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.
Totals may not equal sum of components because of independent rounding.
Source: U.S. Energy Information Administration, Form EIA-861M (formerly EIA-826), Monthly Electric Power Industry Report.

Table 5.6.A. Average Price of Electricity to Ultimate Customers by End-Use Sector, by State, November 2018 and 2017 (Cents per Kilowatthour)

Census Division and State	Residential		Commercial		Industrial		Transportation		All Sectors	
	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	20.51	19.80	16.30	15.59	13.06	12.55	9.37	8.36	17.49	16.71
Connecticut	21.17	20.67	17.13	16.04	13.92	13.32	15.27	12.53	18.58	17.62
Maine	16.38	15.72	14.09	12.75	9.79	8.84	--	--	13.93	13.19
Massachusetts	21.30	20.44	16.27	15.91	14.40	13.96	6.51	5.59	17.86	17.15
New Hampshire	20.08	19.87	15.83	14.80	13.41	12.18	--	--	17.16	16.35
Rhode Island	21.74	20.50	17.32	15.85	15.82	14.60	16.71	16.93	18.93	17.57
Vermont	18.22	17.90	15.27	14.91	10.51	10.00	--	--	15.20	14.65
Middle Atlantic	15.77	15.91	11.99	12.00	6.78	6.68	11.01	11.06	12.22	12.13
New Jersey	15.04	15.30	11.83	11.56	9.72	9.26	8.82	8.18	12.72	12.60
New York	18.17	17.80	13.77	13.91	5.76	5.76	12.03	12.21	14.17	14.00
Pennsylvania	13.93	14.40	8.97	8.92	6.70	6.66	7.61	7.02	10.02	9.96
East North Central	13.31	13.57	10.20	10.16	7.01	7.04	7.27	6.87	10.14	10.13
Illinois	13.25	13.67	9.02	8.92	6.73	6.34	7.06	6.59	9.62	9.57
Indiana	12.38	12.71	10.63	10.73	7.33	7.63	10.93	11.61	9.79	9.92
Michigan	15.12	15.16	11.16	11.08	7.06	7.11	10.48	11.18	11.21	11.10
Ohio	12.37	12.71	10.04	10.10	6.64	6.89	7.46	7.35	9.73	9.82
Wisconsin	14.29	14.14	11.02	10.84	7.67	7.39	13.49	14.50	10.96	10.72
West North Central	11.43	11.62	9.20	9.25	6.93	6.77	8.16	8.41	9.26	9.19
Iowa	12.15	11.73	9.16	8.82	5.74	5.39	--	--	8.22	7.89
Kansas	12.97	13.42	10.03	10.22	7.16	7.67	--	--	10.15	10.34
Minnesota	13.10	12.73	10.21	9.89	7.74	7.13	9.19	9.44	10.36	9.86
Missouri	10.06	10.81	8.25	8.74	6.45	6.87	6.97	7.17	8.78	9.21
Nebraska	10.60	10.49	8.76	8.35	6.98	7.02	--	--	8.72	8.49
North Dakota	9.89	9.60	8.97	8.68	8.43	7.52	--	--	9.00	8.44
South Dakota	11.28	11.67	9.10	9.77	7.58	7.96	--	--	9.61	10.09
South Atlantic	11.82	11.70	9.54	9.36	6.67	6.32	8.16	7.23	10.00	9.75
Delaware	12.87	13.72	10.25	9.94	7.80	7.52	--	--	10.76	10.82
District of Columbia	13.84	14.00	12.51	12.18	7.79	8.20	9.93	7.81	12.66	12.33
Florida	12.14	11.76	9.79	9.50	7.93	7.95	8.80	8.89	10.85	10.50
Georgia	10.82	11.09	9.99	9.99	6.25	5.73	5.10	4.76	9.38	9.27
Maryland	13.11	13.32	10.32	10.64	8.04	8.33	7.61	6.90	11.38	11.60
North Carolina	11.29	10.75	8.43	8.15	5.75	5.64	8.17	8.08	9.03	8.63
South Carolina	12.36	12.86	10.46	10.48	7.12	5.99	--	--	10.04	9.62
Virginia	11.65	11.47	8.39	8.01	6.88	6.68	8.29	8.54	9.40	9.07
West Virginia	11.24	11.68	9.68	9.83	6.38	6.64	--	--	8.75	9.00
East South Central	11.36	11.48	10.73	10.70	6.00	5.87	--	--	9.36	9.23
Alabama	12.14	12.48	11.50	11.65	6.13	6.10	--	--	9.58	9.60
Kentucky	10.73	11.19	9.87	10.07	5.71	5.71	--	--	8.54	8.63
Mississippi	11.58	11.33	10.90	10.37	6.33	5.78	--	--	9.41	8.98
Tennessee	11.06	10.96	10.65	10.58	5.89	5.81	--	--	9.80	9.49
West South Central	11.02	10.87	8.12	8.35	5.38	5.31	7.97	8.18	8.16	8.04
Arkansas	9.64	10.34	7.35	8.46	5.21	5.88	10.29	12.27	7.25	8.03
Louisiana	9.09	9.51	8.66	8.94	5.41	5.53	8.04	10.23	7.51	7.64
Oklahoma	9.92	10.90	7.22	7.79	4.99	5.24	--	--	7.37	7.89
Texas	11.80	11.23	8.23	8.31	5.47	5.17	7.96	8.04	8.55	8.17
Mountain	11.68	11.73	9.29	9.28	5.90	6.12	9.50	9.43	8.97	9.07
Arizona	12.65	12.20	9.89	9.84	6.00	6.09	8.77	8.62	10.06	9.97
Colorado	12.12	12.11	10.18	9.71	7.16	7.37	9.18	8.96	9.91	9.78
Idaho	9.58	10.00	7.63	7.86	5.46	5.82	--	--	7.84	8.14
Montana	11.07	10.90	10.11	10.16	5.48	5.16	--	--	8.88	8.90
Nevada	12.12	12.88	7.59	8.23	4.79	5.02	7.15	8.16	7.75	8.28
New Mexico	12.30	12.48	9.89	9.78	5.60	5.84	--	--	8.99	9.02
Utah	10.03	10.48	7.93	8.06	5.23	5.67	10.49	10.60	7.72	7.99
Wyoming	11.05	11.13	9.63	9.58	6.46	6.74	--	--	7.94	8.11
Pacific Contiguous	15.37	14.96	13.80	13.26	9.94	9.49	8.85	8.91	13.46	13.04
California	19.53	18.71	15.98	15.14	13.27	12.76	8.84	8.88	16.54	15.82
Oregon	10.95	10.62	9.15	8.92	6.51	6.20	9.13	9.48	9.28	8.93
Washington	9.46	9.76	8.78	8.65	5.02	4.74	9.65	9.84	8.04	8.12
Pacific Noncontiguous	28.59	26.47	25.87	23.61	24.12	22.02	--	--	26.16	24.00
Alaska	21.81	21.64	19.44	18.59	14.56	16.21	--	--	19.21	19.11
Hawaii	33.82	30.58	31.69	28.27	27.58	24.44	--	--	30.72	27.47
U.S. Total	12.95	12.94	10.56	10.49	6.88	6.73	9.72	9.50	10.43	10.28

See Technical notes for additional information on the Commercial, Industrial, and Transportation sectors.
Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
Notes: - See Glossary for definitions. - Values for 2017 are final. Values for 2018 are preliminary estimates based on a cutoff model sample.
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.
Totals may not equal sum of components because of independent rounding.
Source: U.S. Energy Information Administration, Form EIA-861M (formerly EIA-826), Monthly Electric Power Industry Report.

Table 5.6.B. Average Price of Electricity to Ultimate Customers by End-Use Sector, by State, Year-to-Date through November 2018 and 2017 (Cents per Kilowatthour)

	Residential		Commercial		Industrial		Transportation		All Sectors	
Census Division and State	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD	November 2018 YTD	November 2017 YTD
New England	20.52	19.43	16.26	15.48	12.94	12.51	8.87	8.16	17.50	16.56
Connecticut	21.24	20.37	16.74	16.06	13.92	13.12	12.19	10.91	18.44	17.56
Maine	16.12	16.00	12.34	12.07	9.05	9.15	--	--	13.06	12.98
Massachusetts	21.54	20.06	16.78	15.94	14.49	13.85	6.36	6.03	18.28	17.11
New Hampshire	19.63	19.18	15.78	14.77	13.03	12.27	--	--	16.90	16.11
Rhode Island	20.38	18.35	16.39	15.18	15.22	14.52	17.06	17.11	17.92	16.41
Vermont	17.97	17.71	15.17	14.63	10.53	10.21	--	--	15.07	14.60
Middle Atlantic	16.06	16.05	12.47	12.65	6.92	6.91	11.15	11.32	12.70	12.67
New Jersey	15.47	15.66	12.22	12.34	10.11	10.18	9.11	8.87	13.29	13.37
New York	18.63	18.13	14.62	14.86	6.09	5.93	12.25	12.71	14.99	14.83
Pennsylvania	13.97	14.25	8.89	8.99	6.76	6.77	7.41	7.18	10.09	10.11
East North Central	13.19	13.41	10.13	10.18	7.02	7.09	6.97	6.68	10.14	10.13
Illinois	12.57	12.99	8.97	9.11	6.65	6.49	6.76	6.37	9.47	9.51
Indiana	12.03	12.37	10.37	10.56	7.16	7.55	10.47	11.22	9.60	9.79
Michigan	15.60	15.43	11.18	11.01	7.29	7.20	10.79	12.04	11.54	11.28
Ohio	12.38	12.67	9.95	10.08	6.71	6.92	7.36	7.57	9.79	9.84
Wisconsin	14.48	14.40	10.95	10.90	7.69	7.50	13.87	14.29	10.93	10.76
West North Central	12.12	12.24	9.79	9.89	7.40	7.24	9.18	9.10	9.92	9.84
Iowa	12.83	12.46	9.90	9.56	6.69	6.28	--	--	9.25	8.81
Kansas	13.23	13.37	10.48	10.63	7.47	7.61	--	--	10.62	10.65
Minnesota	13.43	13.12	10.50	10.58	7.79	7.48	9.63	9.58	10.62	10.36
Missouri	11.25	11.78	9.31	9.56	7.03	7.37	8.69	8.60	9.87	10.13
Nebraska	10.90	11.04	8.97	8.87	7.58	7.72	--	--	9.13	9.12
North Dakota	10.44	10.42	9.13	9.24	8.48	7.66	--	--	9.18	8.82
South Dakota	11.68	11.82	9.48	9.75	7.80	7.84	--	--	9.96	10.06
South Atlantic	11.80	11.92	9.37	9.39	6.50	6.52	7.86	7.90	9.97	9.98
Delaware	12.64	13.39	9.68	9.92	7.70	7.77	--	--	10.60	10.92
District of Columbia	12.81	12.91	11.91	11.65	8.21	8.25	9.41	9.00	11.99	11.79
Florida	11.59	11.61	9.32	9.34	7.76	7.84	7.93	8.62	10.41	10.42
Georgia	11.58	12.01	9.73	10.10	5.88	5.98	5.59	5.40	9.64	9.88
Maryland	13.33	14.04	10.40	10.74	8.22	8.36	7.43	7.82	11.57	12.00
North Carolina	11.32	11.02	8.70	8.46	6.24	6.23	8.03	8.54	9.37	9.07
South Carolina	12.45	13.08	10.21	10.58	6.16	6.18	--	--	9.74	9.98
Virginia	11.87	11.64	8.38	8.00	6.85	6.55	8.27	8.07	9.56	9.19
West Virginia	11.36	11.68	9.37	9.61	6.48	6.66	--	--	8.82	9.00
East South Central	11.15	11.33	10.45	10.61	5.85	5.94	--	--	9.31	9.30
Alabama	12.32	12.62	11.30	11.61	6.09	6.19	--	--	9.72	9.86
Kentucky	10.46	10.88	9.55	9.86	5.51	5.73	--	--	8.43	8.57
Mississippi	11.26	11.11	10.49	10.16	6.10	6.00	--	--	9.32	9.11
Tennessee	10.66	10.73	10.39	10.55	5.70	5.83	--	--	9.59	9.44
West South Central	10.88	10.77	8.17	8.36	5.47	5.47	8.30	8.27	8.41	8.29
Arkansas	9.85	10.33	7.70	8.53	5.47	6.09	11.40	12.20	7.73	8.29
Louisiana	9.34	9.79	8.72	8.96	5.29	5.50	9.30	9.97	7.66	7.83
Oklahoma	10.34	10.72	7.92	8.16	5.16	5.43	--	--	8.04	8.26
Texas	11.40	11.02	8.15	8.27	5.58	5.38	8.23	8.14	8.71	8.41
Mountain	12.05	11.92	9.70	9.65	6.46	6.60	9.54	9.92	9.58	9.56
Arizona	12.88	12.45	10.79	10.55	6.66	6.52	10.14	9.73	11.01	10.69
Colorado	12.16	12.20	10.14	9.93	7.27	7.54	9.00	9.85	10.01	10.02
Idaho	10.25	10.04	7.97	8.00	6.54	6.73	--	--	8.21	8.25
Montana	11.21	10.97	10.17	10.13	5.22	5.25	--	--	8.98	8.91
Nevada	11.87	11.96	7.86	7.96	6.20	6.23	8.40	8.61	8.78	8.79
New Mexico	12.82	12.92	10.16	10.24	5.74	6.20	--	--	9.45	9.64
Utah	10.60	11.02	8.45	8.73	5.93	6.19	10.59	10.23	8.35	8.67
Wyoming	11.42	11.40	9.66	9.72	6.72	6.93	--	--	8.12	8.28
Pacific Contiguous	15.63	15.14	14.35	13.87	9.96	9.45	9.16	8.68	13.84	13.36
California	18.92	18.28	16.58	15.89	13.48	12.85	9.16	8.66	16.78	16.13
Oregon	10.95	10.68	8.92	8.87	6.21	6.00	9.18	9.35	9.04	8.80
Washington	9.66	9.66	8.70	8.56	4.73	4.62	9.32	9.15	7.97	7.92
Pacific Noncontiguous	28.03	25.86	24.72	23.04	23.59	20.94	--	--	25.37	23.20
Alaska	22.07	21.26	18.99	18.92	17.35	16.30	--	--	19.64	19.09
Hawaii	32.31	29.39	29.79	26.60	25.89	22.75	--	--	29.02	25.89
U.S. Total	12.93	12.93	10.68	10.70	6.96	6.91	9.75	9.72	10.61	10.51

See Technical notes for additional information on the Commercial, Industrial, and Transportation sectors.
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Notes: - See Glossary for definitions. - Values for 2017 are final. Values for 2018 are preliminary estimates based on a cutoff model sample.
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.
Totals may not equal sum of components because of independent rounding.
Source: U.S. Energy Information Administration, Form EIA-861M (formerly EIA-826), Monthly Electric Power Industry Report.

Table 5.7. Number of Ultimate Customers Served by Sector: 2008 - November 2018

Period	Residential	Commercial	Industrial	Transportation	All Sectors
Annual Totals					
2008	125,037,837	17,582,382	774,808	726	143,395,753
2009	125,208,829	17,562,235	757,537	704	143,529,305
2010	125,717,935	17,674,338	747,747	239	144,140,259
2011	126,143,072	17,638,062	727,920	92	144,509,146
2012	126,832,343	17,729,029	732,385	83	145,293,840
2013	127,777,153	17,679,562	831,790	75	146,288,580
2014	128,680,416	17,853,995	839,212	79	147,373,702
2015	129,811,718	17,985,690	835,536	78	148,633,022
2016	131,068,760	18,148,353	838,059	86	150,055,258
2017	132,579,747	18,359,427	840,329	86	151,779,589
Year 2016					
January	130,327,243	18,001,806	829,287	78	149,158,414
February	130,114,828	18,022,657	825,209	81	148,962,775
March	131,333,340	18,185,531	835,990	86	150,354,947
April	130,452,160	18,064,005	823,879	82	149,340,126
May	131,002,108	18,133,949	840,080	85	149,976,222
June	131,282,771	18,174,804	853,646	86	150,311,307
July	131,086,905	18,130,289	847,849	83	150,065,126
August	131,346,501	18,227,261	859,607	83	150,433,452
Sept	131,374,997	18,207,555	846,336	83	150,428,971
October	131,318,899	18,203,386	838,393	84	150,360,762
November	131,325,418	18,183,746	824,510	84	150,333,758
December	131,859,453	18,244,491	832,403	84	150,936,431
Year 2017					
January	131,977,307	18,289,356	828,464	84	151,095,211
February	131,437,253	18,199,541	817,642	84	150,454,520
March	132,851,616	18,384,031	836,953	84	152,072,684
April	131,902,166	18,225,046	821,828	86	150,949,126
May	132,559,481	18,375,746	847,817	86	151,783,130
June	132,866,506	18,402,963	856,760	85	152,126,314
July	132,345,053	18,354,033	851,042	85	151,550,213
August	133,013,535	18,437,269	867,301	85	152,318,190
Sept	132,461,398	18,354,295	845,776	85	151,661,554
October	133,126,174	18,435,264	846,549	85	152,408,072
November	133,093,866	18,430,836	830,580	85	152,355,367
December	133,321,574	18,423,574	833,004	85	152,578,237
Year 2018					
January	133,342,216	18,484,700	794,303	84	152,621,303
February	132,948,450	18,361,911	771,363	84	152,081,808
March	133,911,047	18,498,366	782,306	84	153,191,803
April	133,452,691	18,455,876	782,458	84	152,691,109
May	134,218,437	18,535,301	805,945	84	153,559,767
June	134,051,924	18,569,074	816,626	84	153,437,708
July	133,973,114	18,549,619	819,029	87	153,341,849
August	134,540,638	18,617,835	825,157	95	153,983,725
Sept	133,920,754	18,593,944	802,443	89	153,317,230
October	134,464,346	18,650,639	806,702	88	153,921,775
November	134,279,887	18,572,551	788,374	86	153,640,898
Rolling 12 Months Ending in November					
2017	132,457,817	18,344,406	840,260	85	151,642,568
2018	133,868,757	18,526,116	802,309	86	153,197,268

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 for 2017 and prior years are final. Values for 2018 are preliminary estimates based on a cutoff model sample. 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. 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 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-861M (formerly EIA-826), Monthly Electric Industry Power Report.Form EIA-826, Monthly Electric Sales and Revenue Report with State Distributions Report;
Form EIA-861, Annual Electric Power Industry Report; and Form EIA-861S, Annual Electric Power Industry Report (Short Form).

Table 5.8. Number of Ultimate Customers Served by Sector by State: November 2018 and 2017

Census Division and State	Residential		Commercial		Industrial		Transportation		All Sectors	
	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	6,386,587	6,369,795	898,513	893,910	20,109	23,029	6	6	7,305,215	7,286,740
Connecticut	1,506,698	1,498,387	154,093	153,526	4,234	4,406	3	3	1,665,028	1,656,322
Maine	701,495	713,127	98,606	100,360	3,024	3,146	0	0	803,125	816,633
Massachusetts	2,791,243	2,780,013	420,016	415,749	7,771	10,322	2	2	3,219,032	3,206,086
New Hampshire	623,084	618,749	108,014	107,228	3,162	3,187	0	0	734,260	729,164
Rhode Island	447,934	445,561	60,874	60,488	1,780	1,782	1	1	510,589	507,832
Vermont	316,133	313,958	56,910	56,559	138	186	0	0	373,181	370,703
Middle Atlantic	16,206,145	16,085,574	2,345,400	2,316,099	29,657	41,383	20	20	18,581,222	18,443,076
New Jersey	3,583,657	3,556,186	523,177	518,252	11,835	11,830	6	6	4,118,675	4,086,274
New York	7,213,171	7,158,852	1,106,862	1,096,992	6,604	6,975	8	8	8,326,645	8,262,827
Pennsylvania	5,409,317	5,370,536	715,361	700,855	11,218	22,578	6	6	6,135,902	6,093,975
East North Central	20,317,754	20,109,537	2,502,798	2,490,354	46,476	53,715	9	9	22,867,037	22,653,615
Illinois	5,315,046	5,274,484	615,981	613,406	3,958	5,651	3	3	5,934,988	5,893,544
Indiana	2,870,270	2,842,821	354,021	352,995	15,184	17,923	1	1	3,239,476	3,213,740
Michigan	4,405,120	4,349,455	551,254	541,660	NM	6,015	2	2	4,961,880	4,897,132
Ohio	4,994,436	4,951,406	622,310	629,261	16,920	18,577	2	2	5,633,668	5,599,246
Wisconsin	2,732,882	2,691,371	359,232	353,032	NM	5,549	1	1	3,097,025	3,049,953
West North Central	9,573,324	9,459,850	1,467,718	1,447,168	109,282	119,526	3	3	11,150,327	11,026,547
Iowa	1,401,036	1,380,350	244,852	238,613	NM	7,547	0	0	1,652,584	1,626,510
Kansas	1,277,725	1,263,419	236,697	233,138	25,072	24,062	0	0	1,539,494	1,520,619
Minnesota	2,420,862	2,411,131	292,112	293,983	NM	8,678	1	1	2,720,922	2,713,793
Missouri	2,822,483	2,778,326	384,045	383,078	6,686	8,185	2	2	3,213,216	3,169,591
Nebraska	864,236	846,963	161,655	152,098	51,769	58,526	0	0	1,077,660	1,057,587
North Dakota	381,571	381,362	74,195	74,708	8,118	8,731	0	0	463,884	464,801
South Dakota	405,411	398,299	74,162	71,550	NM	3,797	0	0	482,567	473,646
South Atlantic	28,166,819	27,772,591	3,826,110	3,766,920	78,199	83,126	13	13	32,071,141	31,622,650
Delaware	431,661	427,768	54,832	54,249	587	850	0	0	487,080	482,867
District of Columbia	277,376	269,477	26,445	26,164	1	1	3	3	303,825	295,645
Florida	9,485,120	9,394,157	1,244,220	1,230,836	20,324	21,140	2	2	10,749,666	10,646,135
Georgia	4,411,521	4,316,738	587,601	575,389	19,336	22,897	1	1	5,018,459	4,915,025
Maryland	2,342,162	2,320,864	254,281	253,153	8,756	8,738	5	5	2,605,204	2,582,760
North Carolina	4,593,165	4,512,579	711,409	684,384	9,795	10,004	1	1	5,314,370	5,206,968
South Carolina	2,314,621	2,262,511	370,525	375,620	4,282	4,336	0	0	2,689,428	2,642,467
Virginia	3,452,500	3,409,557	431,934	422,612	3,756	3,675	1	1	3,888,191	3,835,845
West Virginia	858,693	858,940	144,863	144,513	11,362	11,485	0	0	1,014,918	1,014,938
East South Central	8,495,778	8,343,750	1,406,402	1,400,065	22,458	27,510	0	0	9,924,638	9,771,325
Alabama	2,264,449	2,220,193	371,563	371,186	8,196	8,041	0	0	2,644,208	2,599,420
Kentucky	2,008,642	1,977,371	305,001	305,738	5,819	6,956	0	0	2,319,462	2,290,065
Mississippi	1,320,150	1,287,027	240,342	236,365	7,600	11,341	0	0	1,568,092	1,534,733
Tennessee	2,902,537	2,859,159	489,496	486,776	843	1,172	0	0	3,392,876	3,347,107
West South Central	16,238,951	16,066,308	2,314,316	2,283,692	195,899	188,524	6	6	18,749,172	18,538,530
Arkansas	1,399,739	1,384,028	193,668	192,747	35,768	36,335	2	2	1,629,177	1,613,112
Louisiana	2,103,732	2,076,567	293,863	292,554	18,378	19,525	1	1	2,415,974	2,388,647
Oklahoma	1,792,983	1,756,250	287,098	282,004	17,869	18,646	0	0	2,097,950	2,056,900
Texas	10,942,497	10,849,463	1,539,687	1,516,387	123,884	114,018	3	3	12,606,071	12,479,871
Mountain	9,880,908	9,817,635	1,398,053	1,401,992	86,562	93,680	5	5	11,365,528	11,313,312
Arizona	2,820,207	2,784,395	322,649	321,356	6,204	7,979	2	2	3,149,062	3,113,732
Colorado	2,340,388	2,302,263	364,003	370,709	14,225	15,960	1	1	2,718,617	2,688,933
Idaho	749,344	733,847	111,106	109,572	28,364	28,022	0	0	888,814	871,441
Montana	514,903	505,947	110,911	107,758	NM	8,689	0	0	632,550	622,394
Nevada	1,190,041	1,265,658	165,011	163,618	NM	3,282	1	1	1,358,247	1,432,559
New Mexico	906,680	883,327	139,902	143,284	8,485	9,339	0	0	1,055,067	1,035,950
Utah	1,083,938	1,071,490	125,512	127,739	9,571	9,575	1	1	1,219,022	1,208,805
Wyoming	275,407	270,708	58,959	57,956	9,783	10,834	0	0	344,149	339,498
Pacific Contiguous	18,287,255	18,347,799	2,299,446	2,316,417	197,539	197,952	24	23	20,784,264	20,862,191
California	13,443,677	13,565,835	1,661,545	1,698,332	143,879	147,696	16	15	15,249,117	15,411,878
Oregon	1,767,322	1,732,586	241,013	234,864	25,942	23,283	2	2	2,034,279	1,990,735
Washington	3,076,256	3,049,378	396,888	383,221	27,718	26,973	6	6	3,500,868	3,459,578
Pacific Noncontiguous	726,366	721,027	113,795	114,219	NM	NM	0	0	842,354	837,381
Alaska	289,996	286,674	54,069	53,592	NM	NM	0	0	345,444	341,618
Hawaii	436,370	434,353	59,726	60,627	814	783	0	0	496,910	495,763
U.S. Total	134,279,887	133,093,866	18,572,551	18,430,836	788,374	830,580	86	85	153,640,898	152,355,367

See Technical notes for additional information on the Commercial, Industrial, and Transportation sectors.
Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
Notes: - See Glossary for definitions. - Values for 2017 are final. Values for 2018 are preliminary estimates based on a cutoff model sample.
NM = Not Meaningful due to large relative standard error or excessive percentage change.
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.
Totals may not equal sum of components because of independent rounding.
Source: U.S. Energy Information Administration, Form EIA-861M (formerly EIA-826), Monthly Electric Power Industry Report.

Chapter 6

Capacity

Table 6.1. Electric Generating Summer Capacity Changes (MW), October 2018 to November 2018

		As of End of October 2018	Activity During November 2018 as Reported to EIA		As of End of November 2018	Net Change in Capacity - Current Month and Prior Periods			Changes in and Total Net Summer Capacity -- Outlook Based on Reports to EIA							
									Planned Capacity Additions		Planned Capacity Reductions		Planned Net Change		Planned Total Net Summer	
Technology	Capacity Source	Total In-Service Capacity	Actual Capacity Additions	Actual Capacity Reductions	Total In-Service Capacity	Current Month	Year to Date	Past 12 Months	Next Month	Next 12 Months	Next Month	Next 12 Months	Next Month	Next 12 Months	At End of Next Month	At End of Next 12 Months
..... Onshore Wind (Summer Capacity)	Utility Scale Facilities	89,772.5	589.4	8.5	90,353.4	580.9	2,785.2	4,935.5	4,649.5	9,461.6	0.0	0.0	4,649.5	9,461.6	95,002.9	99,815.0
..... Offshore Wind (Summer Capacity)	Utility Scale Facilities	29.3	0.0	0.0	29.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.3	29.3
..... Wind (Summer Capacity)	Utility Scale Facilities	89,801.8	589.4	8.5	90,382.7	580.9	2,785.2	4,935.5	4,649.5	9,461.6	0.0	0.0	4,649.5	9,461.6	95,032.2	99,844.3
..... Solar Photovoltaic	Utility Scale Facilities	28,044.3	563.8	0.0	28,608.1	563.8	3,399.1	4,948.1	1,924.9	4,082.4	0.0	1.2	1,924.9	4,081.2	30,533.0	32,689.3
..... Solar Thermal without Energy Storage	Utility Scale Facilities	1,352.5	0.0	0.0	1,352.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,352.5	1,352.5
..... Solar Thermal with Energy Storage	Utility Scale Facilities	405.4	0.0	0.0	405.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	405.4	405.4
..... Solar Subtotal	Utility Scale Facilities	29,802.2	563.8	0.0	30,366.0	563.8	3,399.1	4,948.1	1,924.9	4,082.4	0.0	1.2	1,924.9	4,081.2	32,290.9	34,447.2
..... Conventional Hydroelectric	Utility Scale Facilities	79,769.0	124.2	0.0	79,893.2	124.2	98.7	96.0	1.8	95.5	4.8	114.7	-3.0	-19.2	79,890.2	79,874.0
..... Wood/Wood Waste Biomass	Utility Scale Facilities	8,789.6	0.9	55.0	8,735.5	-54.1	-95.4	-120.9	8.5	167.0	0.0	24.8	8.5	142.2	8,744.0	8,877.7
..... Landfill Gas	Utility Scale Facilities	2,068.3	0.2	0.0	2,068.5	0.2	-30.9	-37.6	1.6	6.2	0.0	6.6	1.6	-0.4	2,070.1	2,068.1
..... Municipal Solid Waste	Utility Scale Facilities	2,235.0	0.0	0.0	2,235.0	0.0	-10.0	-10.0	0.0	0.0	0.0	0.0	0.0	0.0	2,235.0	2,235.0
..... Other Waste Biomass	Utility Scale Facilities	773.5	0.0	0.0	773.5	0.0	-11.6	-22.6	32.0	48.0	0.4	0.4	31.6	47.6	805.1	821.1
..... Biomass Sources Subtotal	Utility Scale Facilities	13,866.4	1.1	55.0	13,812.5	-53.9	-147.9	-191.1	42.1	221.2	0.4	31.8	41.7	189.4	13,854.2	14,001.9
..... Geothermal	Utility Scale Facilities	2,499.3	0.0	0.0	2,499.3	0.0	16.0	48.2	37.0	44.9	0.0	0.0	37.0	44.9	2,536.3	2,544.2
... Renewable Sources Subtotal	**Utility Scale Facilities**	**215,738.7**	**1,278.5**	**63.5**	**216,953.7**	**1,215.0**	**6,151.1**	**9,836.7**	**6,655.3**	**13,905.6**	**5.2**	**147.7**	**6,650.1**	**13,757.9**	**223,603.8**	**230,711.6**
..... Natural Gas Fired Combined Cycle	Utility Scale Facilities	260,044.2	824.7	17.7	260,851.2	807.0	14,179.2	15,328.3	2,539.0	9,214.0	0.0	171.0	2,539.0	9,043.0	263,390.2	269,894.2
..... Natural Gas Fired Combustion Turbine	Utility Scale Facilities	127,032.1	231.0	2.9	127,260.2	228.1	999.4	1,087.4	533.1	2,057.6	14.0	84.0	519.1	1,973.6	127,779.3	129,233.8
..... Natural Gas Steam Turbine	Utility Scale Facilities	75,697.4	0.0	291.0	75,406.4	-291.0	-3,141.3	-3,145.2	1.0	1.0	844.0	1,327.8	-843.0	-1,326.8	74,563.4	74,079.6
..... Natural Gas Internal Combustion Engine	Utility Scale Facilities	4,647.9	0.0	6.1	4,641.8	-6.1	342.8	344.8	2.0	309.3	0.0	2.1	2.0	307.2	4,643.8	4,949.0
..... Natural Gas with Compressed Air Storage	Utility Scale Facilities	110.0	0.0	0.0	110.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	110.0	110.0
..... Other Natural Gas	Utility Scale Facilities	122.3	0.0	0.3	122.0	-0.3	-0.1	-0.1	0.0	44.4	0.0	0.0	0.0	44.4	122.0	166.4
..... Natural Gas Subtotal	Utility Scale Facilities	467,653.9	1,055.7	318.0	468,391.6	737.7	12,380.0	13,615.2	3,075.1	11,626.3	858.0	1,584.9	2,217.1	10,041.4	470,608.7	478,433.0
..... Conventional Steam Coal	Utility Scale Facilities	244,585.0	3.0	63.4	244,524.6	-60.4	-11,266.7	-13,014.7	17.0	17.0	1,640.9	3,800.1	-1,623.9	-3,783.1	242,900.7	240,741.5
..... Coal Integrated Gasification Combined Cycle	Utility Scale Facilities	756.0	0.0	0.0	756.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	756.0	756.0
..... Coal Subtotal	Utility Scale Facilities	245,341.0	3.0	63.4	245,280.6	-60.4	-11,266.7	-13,014.7	17.0	17.0	1,640.9	3,800.1	-1,623.9	-3,783.1	243,656.7	241,497.5
..... Petroleum Coke	Utility Scale Facilities	1,527.9	0.0	0.0	1,527.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,527.9	1,527.9
..... Petroleum Liquids	Utility Scale Facilities	31,611.3	21.6	6.9	31,626.0	14.7	-152.8	-193.0	4.8	27.3	0.0	12.0	4.8	15.3	31,630.8	31,641.3
..... Other Gases	Utility Scale Facilities	2,375.8	0.0	0.0	2,375.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,375.8	2,375.8
... Fossil Fuels Subtotal	**Utility Scale Facilities**	**748,509.9**	**1,080.3**	**388.3**	**749,201.9**	**692.0**	**960.5**	**407.5**	**3,096.9**	**11,670.6**	**2,498.9**	**5,397.0**	**598.0**	**6,273.6**	**749,799.9**	**755,475.5**
..... Hydroelectric Pumped Storage	Utility Scale Facilities	22,855.4	0.0	0.0	22,855.4	0.0	45.0	45.0	0.0	57.0	0.0	0.0	0.0	57.0	22,855.4	22,912.4
..... Flywheels	Utility Scale Facilities	47.0	0.0	0.0	47.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	47.0
..... Batteries	Utility Scale Facilities	788.9	3.8	0.0	792.7	3.8	127.8	109.3	66.1	135.6	0.0	0.0	66.1	135.6	858.8	928.3
... Energy Storage Subtotal	**Utility Scale Facilities**	**23,691.3**	**3.8**	**0.0**	**23,695.1**	**3.8**	**172.8**	**154.3**	**66.1**	**192.6**	**0.0**	**0.0**	**66.1**	**192.6**	**23,761.2**	**23,887.7**
... Nuclear	**Utility Scale Facilities**	**99,176.2**	**155.0**	**0.0**	**99,331.2**	**155.0**	**-297.7**	**-297.7**	**0.0**	**155.0**	**0.0**	**1,480.0**	**0.0**	**-1,325.0**	**99,331.2**	**98,006.2**
... All Other	**Utility Scale Facilities**	**2,185.8**	**0.0**	**0.0**	**2,185.8**	**0.0**	**11.4**	**11.4**	**0.0**	**47.9**	**0.0**	**0.0**	**0.0**	**47.9**	**2,185.8**	**2,233.7**
TOTAL	**UTILITY SCALE FACILITIES**	**1,089,301.9**	**2,517.6**	**451.8**	**1,091,367.7**	**2,065.8**	**6,998.1**	**10,112.2**	**9,818.3**	**25,971.7**	**2,504.1**	**7,024.7**	**7,314.2**	**18,947.0**	**1,098,681.9**	**1,110,314.7**
..... Estimated Small Scale Solar Photovoltaic	Small Scale Facilities	18,992.5			19,264.4	271.9	3,116.7	3,544.5								
..... Estimated Total Solar Photovoltaic	All Facilities	47,036.8			47,872.5	835.7	6,515.8	8,492.6								
... Estimated Total Solar	**All Facilities**	**48,794.7**			**49,630.4**	**835.7**	**6,515.8**	**8,492.6**								

NOTES:
Planned Capacity Additions reflect plans to begin operating new units and plans to uprate existing units.
Planned Capacity Reductions reflect plans to retire or derate existing units.
Actual Capacity Additions reflect new units, uprates to existing units, corrections to previously reported capacities, and additions not previously reported.
Actual Capacity Reductions reflect retirements of and derates to existing units, corrections to previously reported capacities, and reductions not previously reported.
Capacity from facilities with a total generator nameplate capacity less than 1 MW are excluded from this table.

Sources: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report' and Form EIA-860M, 'Monthly Update to the Annual Electric Generator Report.'
Estimated small scale solar photovoltaic capacity is based on data from Form EIA-861M, Form EIA-861 and from estimation methods described in the technical notes.

Table 6.1.A. Estimated Net Summer Solar Photovoltaic Capacity From Utility and Small Scale Facilities (Megawatts)
2008 - November 2018

Period	Utility Solar Photovoltaic	Estimated Small Scale Solar Photovoltaic	Estimated Total Solar Photovoltaic
Annual Totals			
2008	70.8	N/A	N/A
2009	145.5	N/A	N/A
2010	393.4	N/A	N/A
2011	1,052.0	N/A	N/A
2012	2,694.1	N/A	N/A
2013	5,336.1	N/A	N/A
2014	8,656.6	7,326.6	15,983.2
2015	11,905.4	9,778.5	21,683.9
2016	20,192.9	12,765.1	32,958.0
2017	25,209.0	16,147.8	41,356.8
Year 2016			
January	12,470.5	9,865.6	22,336.1
February	12,615.2	10,123.1	22,738.3
March	12,822.0	10,440.2	23,262.2
April	13,298.0	10,687.8	23,985.8
May	13,419.8	10,927.9	24,347.7
June	13,635.3	11,185.2	24,820.5
July	14,360.4	11,385.3	25,745.7
August	15,297.1	11,670.6	26,967.7
Sept	16,064.3	11,913.3	27,977.6
October	16,477.2	12,156.4	28,633.6
November	17,192.0	12,446.4	29,638.4
December	20,192.9	12,765.1	32,958.0
Year 2017			
January	20,603.7	12,970.1	33,573.8
February	20,792.6	13,272.0	34,064.6
March	21,177.9	13,558.9	34,736.8
April	21,700.6	13,815.1	35,515.7
May	22,006.1	14,115.3	36,121.4
June	22,242.6	14,401.8	36,644.4
July	22,356.4	14,670.8	37,027.2
August	22,547.7	15,018.7	37,566.4
Sept	22,762.8	15,216.3	37,979.1
October	23,095.3	15,456.6	38,551.9
November	23,660.0	15,719.9	39,379.9
December	25,209.0	16,147.8	41,356.8
Year 2018			
January	25,958.5	16,489.5	42,448.0
February	26,048.3	16,742.2	42,790.5
March	26,546.5	17,029.2	43,575.7
April	26,822.9	17,293.9	44,116.8
May	27,243.0	17,581.1	44,824.1
June	27,393.6	17,862.9	45,256.5
July	27,505.1	18,110.9	45,616.0
August	27,569.7	18,412.4	45,982.1
Sept	27,891.7	18,708.4	46,600.1
October	28,044.3	18,992.5	47,036.8
November	28,608.1	19,264.4	47,872.5

Values for 2017 are final. Values for 2018 are preliminary.
Sources: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report' and Form EIA-860M, 'Monthly Update to the Annual Electric Generator Report.'
Estimated small scale solar photovoltaic capacity is based on data from Form EIA-861M, Form EIA-861, and from estimation methods described in the technical notes.

Table 6.1.B. Estimated Net Summer Solar Photovoltaic Capacity From Small Scale Facilities by Sector (Megawatts):
2014 - November 2018

Period	Residential	Commercial	Industrial	Total
Annual Totals				
2014	3,346.3	3,279.7	700.6	7,326.6
2015	5,191.5	3,706.7	880.3	9,778.5
2016	7,527.0	4,022.8	1,215.3	12,765.1
2017	9,626.8	5,155.8	1,365.1	16,147.8
Year 2016				
January	5,428.5	3,419.8	1,017.3	9,865.6
February	5,627.1	3,458.3	1,037.7	10,123.1
March	5,852.7	3,521.8	1,065.8	10,440.2
April	6,051.1	3,552.6	1,084.1	10,687.8
May	6,238.7	3,589.1	1,100.0	10,927.9
June	6,432.3	3,640.4	1,112.5	11,185.2
July	6,592.9	3,660.7	1,131.7	11,385.3
August	6,785.8	3,734.2	1,150.5	11,670.6
Sept	6,957.7	3,794.2	1,161.5	11,913.3
October	7,147.1	3,837.6	1,171.8	12,156.4
November	7,332.8	3,930.7	1,182.9	12,446.4
December	7,527.0	4,022.8	1,215.3	12,765.1
Year 2017				
January	7,754.9	4,071.5	1,143.7	12,970.1
February	7,946.3	4,110.9	1,214.8	13,272.0
March	8,115.3	4,203.6	1,240.0	13,558.9
April	8,269.3	4,293.6	1,252.2	13,815.1
May	8,453.2	4,381.8	1,280.4	14,115.3
June	8,618.2	4,481.8	1,301.9	14,401.8
July	8,778.3	4,565.3	1,327.2	14,670.8
August	8,961.3	4,711.5	1,346.0	15,018.7
Sept	9,113.0	4,738.4	1,364.9	15,216.3
October	9,265.2	4,826.7	1,364.7	15,456.6
November	9,429.8	4,924.9	1,365.1	15,719.9
December	9,626.8	5,155.8	1,365.1	16,147.8
Year 2018				
January	9,820.2	5,308.4	1,360.8	16,489.5
February	9,985.3	5,389.1	1,367.9	16,742.2
March	10,154.5	5,489.6	1,385.1	17,029.2
April	10,314.3	5,572.4	1,407.3	17,293.9
May	10,491.8	5,661.6	1,427.7	17,581.1
June	10,657.4	5,760.7	1,444.8	17,862.9
July	10,826.0	5,832.1	1,452.8	18,110.9
August	11,008.8	5,934.5	1,469.0	18,412.4
Sept	11,179.9	6,019.6	1,508.9	18,708.4
October	11,372.9	6,095.7	1,523.9	18,992.5
November	11,551.5	6,172.4	1,540.5	19,264.4

Values for 2017 are final. Values for 2018 are preliminary.
Improved renewable data reporting has resulted in realignment of the commercial and industrial sectors.
Estimated small scale solar photovoltaic capacity is based on data from Form EIA-861M, Form EIA-861, and from estimation methods described in the technical notes.

Table 6.2.A. Net Summer Capacity of Utility Scale Units by Technology and by State, November 2018 and 2017 (Megawatts)

Census Division and State	Renewable Sources		Fossil Fuels		Hydroelectric Pumped Storage		Other Energy Storage		Nuclear		All Other Sources		All Sources	
	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	5,746.6	5,610.2	22,840.2	21,205.7	1,797.4	1,797.4	30.8	24.2	4,014.1	4,014.1	320.9	320.9	34,750.0	32,972.5
Connecticut	390.3	361.2	6,999.8	6,100.4	29.4	29.4	1.6	1.6	2,087.8	2,087.8	298.9	298.9	9,807.8	8,879.3
Maine	2,345.6	2,345.6	2,540.5	2,536.5	0.0	0.0	16.2	16.2	0.0	0.0	22.0	22.0	4,924.3	4,920.3
Massachusetts	1,333.7	1,272.0	9,108.0	8,376.9	1,768.0	1,768.0	11.0	4.4	677.2	677.2	0.0	0.0	12,897.9	12,098.5
New Hampshire	928.9	928.9	2,262.9	2,262.9	0.0	0.0	0.0	0.0	1,249.1	1,249.1	0.0	0.0	4,440.9	4,440.9
Rhode Island	113.3	104.8	1,831.1	1,831.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,944.4	1,935.9
Vermont	634.8	597.7	97.9	97.9	0.0	0.0	2.0	2.0	0.0	0.0	0.0	0.0	734.7	697.6
Middle Atlantic	11,043.5	10,824.1	71,766.0	68,003.5	3,409.8	3,409.8	73.9	72.4	18,687.9	19,295.6	425.4	420.9	105,406.5	102,026.3
New Jersey	962.3	906.2	12,410.9	12,366.4	420.0	420.0	2.5	1.0	3,500.2	4,107.9	15.7	11.2	17,311.6	17,812.7
New York	7,226.4	7,041.3	26,783.4	26,023.8	1,406.8	1,406.8	21.0	21.0	5,390.7	5,390.7	221.7	221.7	41,050.0	40,105.3
Pennsylvania	2,854.8	2,876.6	32,571.7	29,613.3	1,583.0	1,583.0	50.4	50.4	9,797.0	9,797.0	188.0	188.0	47,044.9	44,108.3
East North Central	12,246.6	11,148.0	112,490.7	113,646.2	2,179.0	2,134.0	168.7	187.4	19,024.4	19,024.4	188.1	188.1	146,297.5	146,328.1
Illinois	4,549.9	4,172.4	28,983.1	28,931.1	0.0	0.0	112.7	112.4	11,577.4	11,577.4	78.0	78.0	45,301.1	44,871.3
Indiana	2,647.2	2,312.2	23,890.4	23,159.4	0.0	0.0	22.0	22.0	0.0	0.0	89.0	89.0	26,648.6	25,582.6
Michigan	2,659.0	2,581.7	20,782.5	20,790.1	2,179.0	2,134.0	1.0	0.0	4,119.8	4,119.8	0.0	0.0	29,741.3	29,625.6
Ohio	1,149.4	855.2	25,999.6	26,227.7	0.0	0.0	33.0	53.0	2,134.0	2,134.0	0.0	0.0	29,316.0	29,269.9
Wisconsin	1,241.1	1,226.5	12,835.1	14,537.9	0.0	0.0	0.0	0.0	1,193.2	1,193.2	21.1	21.1	15,290.5	16,978.7
West North Central	27,143.6	26,070.3	59,978.6	60,651.2	657.0	657.0	4.0	3.2	5,443.4	5,443.4	24.5	24.5	93,251.1	92,849.6
Iowa	7,489.3	6,977.7	9,802.0	9,921.7	0.0	0.0	0.0	0.0	601.4	601.4	0.0	0.0	17,892.7	17,500.8
Kansas	5,136.2	5,136.2	9,000.8	9,776.5	0.0	0.0	0.0	0.0	1,225.0	1,225.0	0.8	0.8	15,362.8	16,138.5
Minnesota	5,049.1	4,641.8	10,306.3	10,002.7	0.0	0.0	1.0	1.0	1,657.0	1,657.0	18.4	18.4	17,031.8	16,320.9
Missouri	1,581.4	1,567.9	18,386.9	18,474.5	657.0	657.0	2.2	2.2	1,190.0	1,190.0	0.0	0.0	21,817.5	21,891.6
Nebraska	1,761.5	1,717.1	6,157.7	6,148.4	0.0	0.0	0.0	0.0	770.0	770.0	0.0	0.0	8,689.2	8,635.5
North Dakota	3,640.8	3,592.8	4,633.6	4,635.6	0.0	0.0	0.0	0.0	0.0	0.0	5.3	5.3	8,279.7	8,233.7
South Dakota	2,485.3	2,436.8	1,691.3	1,691.8	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	4,177.4	4,128.6
South Atlantic	19,523.1	17,729.5	162,614.1	159,758.2	7,905.2	7,905.2	94.5	80.5	24,602.6	24,602.6	452.7	446.7	215,192.2	210,522.7
Delaware	48.3	46.1	3,331.4	3,331.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,379.7	3,377.5
District of Columbia	23.0	23.0	9.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.0	32.0
Florida	2,547.2	1,856.2	53,374.1	53,176.0	0.0	0.0	14.0	0.0	3,572.0	3,572.0	348.7	348.7	59,856.0	58,952.9
Georgia	3,963.5	3,926.0	26,973.7	26,974.3	1,862.2	1,862.2	1.0	1.0	4,061.0	4,061.0	44.0	44.0	36,905.4	36,868.5
Maryland	1,161.8	1,090.1	11,837.3	10,278.7	0.0	0.0	13.0	13.0	1,707.8	1,707.8	6.0	0.0	14,725.9	13,089.6
North Carolina	6,469.6	5,751.8	22,130.3	21,644.3	86.0	86.0	1.0	1.0	5,117.6	5,117.6	54.0	54.0	33,858.5	32,654.7
South Carolina	2,149.7	1,966.1	12,134.7	11,435.2	2,716.0	2,716.0	0.0	0.0	6,576.2	6,576.2	0.0	0.0	23,576.6	22,693.5
Virginia	2,132.9	2,043.1	19,042.3	18,746.0	3,241.0	3,241.0	0.0	0.0	3,568.0	3,568.0	0.0	0.0	27,984.2	27,598.1
West Virginia	1,027.1	1,027.1	13,781.3	14,163.3	0.0	0.0	65.5	65.5	0.0	0.0	0.0	0.0	14,873.9	15,255.9
East South Central	8,762.9	8,621.8	64,821.3	65,678.8	1,616.3	1,616.3	1.0	0.0	11,294.1	10,984.1	1.4	1.4	86,497.0	86,902.4
Alabama	4,156.0	4,069.6	20,482.4	20,507.4	0.0	0.0	1.0	0.0	5,370.4	5,060.4	0.0	0.0	30,009.8	29,637.4
Kentucky	1,245.4	1,238.7	18,874.3	18,874.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20,119.7	20,113.0
Mississippi	435.3	383.3	13,274.3	13,989.9	0.0	0.0	0.0	0.0	1,401.0	1,401.0	1.4	1.4	15,112.0	15,775.6
Tennessee	2,926.2	2,930.2	12,190.3	12,307.2	1,616.3	1,616.3	0.0	0.0	4,522.7	4,522.7	0.0	0.0	21,255.5	21,376.4
West South Central	37,162.4	34,085.9	140,096.9	143,068.4	286.0	286.0	99.8	78.5	8,910.7	8,910.7	512.7	512.7	187,068.5	186,942.2
Arkansas	1,695.2	1,608.3	11,193.0	11,183.0	28.0	28.0	0.0	0.0	1,817.8	1,817.8	0.0	0.0	14,734.0	14,637.1
Louisiana	683.2	683.2	20,596.7	20,600.7	0.0	0.0	0.5	0.5	2,132.9	2,132.9	288.7	288.7	23,702.0	23,706.0
Oklahoma	8,663.7	7,701.5	18,577.0	17,946.9	258.0	258.0	0.0	0.0	0.0	0.0	0.0	0.0	27,498.7	25,906.4
Texas	26,120.3	24,092.9	89,730.2	93,337.8	0.0	0.0	99.3	78.0	4,960.0	4,960.0	224.0	224.0	121,133.8	122,692.7
Mountain	26,391.2	25,669.7	62,321.3	63,168.3	778.8	778.8	36.6	23.6	3,937.0	3,937.0	127.2	126.3	93,592.1	93,703.7
Arizona	5,090.8	5,011.6	19,407.3	19,407.3	216.3	216.3	32.0	20.0	3,937.0	3,937.0	0.0	0.0	28,683.4	28,592.2
Colorado	4,287.6	4,201.0	11,119.2	11,161.2	562.5	562.5	1.0	1.0	0.0	0.0	9.3	9.3	15,979.6	15,935.0
Idaho	4,011.9	4,014.6	1,127.6	1,127.6	0.0	0.0	0.0	0.0	0.0	0.0	14.8	14.8	5,154.3	5,157.0
Montana	3,552.8	3,446.3	2,740.4	2,740.4	0.0	0.0	0.0	0.0	0.0	0.0	44.0	44.0	6,337.2	6,230.7
Nevada	3,595.6	3,535.5	7,821.6	7,791.6	0.0	0.0	0.0	0.0	0.0	0.0	6.5	6.5	11,423.7	11,333.6
New Mexico	2,457.6	2,065.8	5,966.8	6,813.8	0.0	0.0	3.6	2.6	0.0	0.0	0.0	0.0	8,428.0	8,882.2
Utah	1,600.5	1,600.5	7,360.2	7,348.2	0.0	0.0	0.0	0.0	0.0	0.0	40.2	40.2	9,000.9	8,988.9
Wyoming	1,794.4	1,794.4	6,778.2	6,778.2	0.0	0.0	0.0	0.0	0.0	0.0	12.4	11.5	8,585.0	8,584.1
Pacific Contiguous	67,749.3	66,229.2	48,052.9	49,391.9	4,225.9	4,225.9	243.2	171.9	3,417.0	3,417.0	106.3	106.3	123,794.6	123,542.2
California	30,646.9	29,406.9	38,975.0	40,314.0	3,911.9	3,911.9	230.8	159.5	2,240.0	2,240.0	106.3	106.3	76,110.9	76,138.6
Oregon	12,259.7	12,123.5	4,318.1	4,318.1	0.0	0.0	5.0	5.0	0.0	0.0	0.0	0.0	16,582.8	16,446.6
Washington	24,842.7	24,698.8	4,759.8	4,759.8	314.0	314.0	7.4	7.4	1,177.0	1,177.0	0.0	0.0	31,100.9	30,957.0
Pacific Noncontiguous	1,184.5	1,128.3	4,219.9	4,222.2	0.0	0.0	87.2	88.7	0.0	0.0	26.6	26.6	5,518.2	5,465.8
Alaska	538.2	538.2	2,161.6	2,163.9	0.0	0.0	46.2	46.2	0.0	0.0	0.0	0.0	2,746.0	2,748.3
Hawaii	646.3	590.1	2,058.3	2,058.3	0.0	0.0	41.0	42.5	0.0	0.0	26.6	26.6	2,772.2	2,717.5
U.S. Total	216,953.7	207,117.0	749,201.9	748,794.4	22,855.4	22,810.4	839.7	730.4	99,331.2	99,628.9	2,185.8	2,174.4	1,091,367.7	1,081,255.5

NM = Not meaningful due to large relative standard error.
Values for 2017 are final. Values for 2018 are preliminary.

NOTES:
Capacity from facilities with a total generator nameplate capacity less than 1 MW are excluded from this report. This exclusion may represent a significant portion of capacity for some technologies such as solar photovoltaic generation.
Concentrated Solar Power Energy Storage is included in 'Renewable sources'; it is not included in 'Other Energy Storage'

Sources: 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 6.2.B. Net Summer Capacity Using Primarily Renewable Energy Sources and by State, November 2018 and 2017 (Megawatts)

Census Division and State	Summer Capacity at Utility Scale Facilities														Small Scale Capacity		Capacity From Utility and Small Scale Facilities			
	Wind		Solar Photovoltaic		Solar Thermal		Conventional Hydroelectric		Biomass Sources		Geothermal		Total Renewable Sources		Estimated Solar Photovoltaic		Estimated Total Solar Photovoltaic		Estimated Total Solar	
	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	1,402.1	1,370.6	853.6	747.9	0.0	0.0	1,960.7	1,960.7	1,530.2	1,531.0	0.0	0.0	5,746.6	5,610.2	2,146.4	1,734.3	3,000.0	2,482.2	3,000.0	2,482.2
Connecticut	1.0	1.0	63.6	34.5	0.0	0.0	122.2	122.2	203.5	203.5	0.0	0.0	390.3	361.2	400.6	320.6	464.2	355.1	464.2	355.1
Maine	921.6	921.6	5.6	5.6	0.0	0.0	732.4	732.4	686.0	686.0	0.0	0.0	2,345.6	2,345.6	39.9	31.9	45.5	37.5	45.5	37.5
Massachusetts	94.4	92.9	686.6	625.6	0.0	0.0	267.4	267.4	285.3	286.1	0.0	0.0	1,333.7	1,272.0	1,434.9	1,181.1	2,121.5	1,806.7	2,121.5	1,806.7
New Hampshire	183.1	183.1	0.0	0.0	0.0	0.0	504.8	504.8	241.0	241.0	0.0	0.0	928.9	928.9	81.7	69.0	81.7	69.0	81.7	69.0
Rhode Island	51.8	51.8	18.7	10.2	0.0	0.0	2.7	2.7	40.1	40.1	0.0	0.0	113.3	104.8	88.4	43.3	107.1	53.5	107.1	53.5
Vermont	150.2	120.2	79.1	72.0	0.0	0.0	331.2	331.2	74.3	74.3	0.0	0.0	634.8	597.7	100.8	88.6	179.9	160.6	179.9	160.6
Middle Atlantic	3,284.0	3,205.6	1,013.3	847.5	0.0	0.0	5,466.2	5,466.2	1,280.0	1,304.8	0.0	0.0	11,043.5	10,824.1	2,961.7	2,471.8	3,975.0	3,319.3	3,975.0	3,319.3
New Jersey	7.6	7.6	715.1	659.0	0.0	0.0	12.3	12.3	227.3	227.3	0.0	0.0	962.3	906.2	1,452.7	1,246.3	2,167.8	1,905.3	2,167.8	1,905.3
New York	1,904.6	1,826.2	243.4	136.7	0.0	0.0	4,554.3	4,554.3	524.1	524.1	0.0	0.0	7,226.4	7,041.3	1,191.3	954.9	1,434.7	1,091.6	1,434.7	1,091.6
Pennsylvania	1,371.8	1,371.8	54.8	51.8	0.0	0.0	899.6	899.6	528.6	553.4	0.0	0.0	2,854.8	2,876.6	317.7	270.6	372.5	322.4	372.5	322.4
East North Central	9,684.1	8,633.0	436.6	367.0	0.0	0.0	857.3	857.3	1,268.6	1,290.7	0.0	0.0	12,246.6	11,148.0	381.0	269.1	817.6	636.1	817.6	636.1
Illinois	4,380.9	3,983.8	34.9	32.8	0.0	0.0	34.1	34.1	100.0	121.7	0.0	0.0	4,549.9	4,172.4	74.3	48.6	109.2	81.4	109.2	81.4
Indiana	2,309.8	1,989.7	200.7	185.8	0.0	0.0	60.4	60.4	76.3	76.3	0.0	0.0	2,647.2	2,312.2	73.5	30.6	274.2	216.4	274.2	216.4
Michigan	1,735.8	1,691.8	97.2	62.5	0.0	0.0	266.9	266.9	559.1	560.5	0.0	0.0	2,659.0	2,581.7	61.3	50.2	158.5	112.7	158.5	112.7
Ohio	818.4	538.4	81.7	67.5	0.0	0.0	101.9	101.9	147.4	147.4	0.0	0.0	1,149.4	855.2	116.2	97.3	197.9	164.8	197.9	164.8
Wisconsin	439.2	429.3	22.1	18.4	0.0	0.0	394.0	394.0	385.8	384.8	0.0	0.0	1,241.1	1,226.5	55.7	42.3	77.8	60.7	77.8	60.7
West North Central	22,545.1	21,706.9	804.4	514.3	0.0	0.0	3,291.7	3,291.7	502.4	557.4	0.0	0.0	27,143.6	26,070.3	324.0	254.5	1,128.4	768.8	1,128.4	768.8
Iowa	7,313.8	6,802.2	7.7	7.7	0.0	0.0	146.4	146.4	21.4	21.4	0.0	0.0	7,489.3	6,977.7	90.4	66.2	98.1	73.9	98.1	73.9
Kansas	5,116.0	5,116.0	4.2	4.2	0.0	0.0	7.0	7.0	9.0	9.0	0.0	0.0	5,136.2	5,136.2	18.2	11.0	22.4	15.2	22.4	15.2
Minnesota	3,699.4	3,507.9	713.8	443.0	0.0	0.0	205.9	205.9	430.0	485.0	0.0	0.0	5,049.1	4,641.8	60.9	44.2	774.7	487.2	774.7	487.2
Missouri	954.3	954.3	62.1	48.6	0.0	0.0	548.5	548.5	16.5	16.5	0.0	0.0	1,581.4	1,567.9	146.4	128.7	208.5	177.3	208.5	177.3
Nebraska	1,454.3	1,415.7	15.6	9.8	0.0	0.0	275.9	275.9	15.7	15.7	0.0	0.0	1,761.5	1,717.1	7.2	3.7	22.8	13.5	22.8	13.5
North Dakota	3,121.0	3,073.0	0.0	0.0	0.0	0.0	510.0	510.0	9.8	9.8	0.0	0.0	3,640.8	3,592.8	0.3	0.2	0.3	0.2	0.3	0.2
South Dakota	886.3	837.8	1.0	1.0	0.0	0.0	1,598.0	1,598.0	0.0	0.0	0.0	0.0	2,485.3	2,436.8	0.6	0.5	1.6	1.5	1.6	1.5
South Atlantic	1,086.3	1,086.3	6,904.5	4,992.9	0.0	0.0	7,229.2	7,268.2	4,303.1	4,382.1	0.0	0.0	19,523.1	17,729.5	1,673.2	1,329.9	8,577.7	6,322.8	8,577.7	6,322.8
Delaware	2.0	2.0	34.1	31.9	0.0	0.0	0.0	0.0	12.2	12.2	0.0	0.0	48.3	46.1	78.1	67.2	112.2	99.1	112.2	99.1
District of Columbia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0	23.0	0.0	0.0	23.0	23.0	49.9	36.9	49.9	36.9	49.9	36.9
Florida	0.0	0.0	1,261.9	493.9	0.0	0.0	54.5	54.5	1,230.8	1,307.8	0.0	0.0	2,547.2	1,856.2	274.9	187.3	1,536.8	681.2	1,536.8	681.2
Georgia	0.0	0.0	1,010.9	973.4	0.0	0.0	2,047.2	2,047.2	905.4	905.4	0.0	0.0	3,963.5	3,926.0	160.9	NM	1,171.8	NM	1,171.8	NM
Maryland	190.0	190.0	241.8	168.1	0.0	0.0	590.0	590.0	140.0	142.0	0.0	0.0	1,161.8	1,090.1	708.8	609.8	950.6	777.9	950.6	777.9
North Carolina	208.0	208.0	3,691.3	2,973.5	0.0	0.0	2,002.0	2,002.0	568.3	568.3	0.0	0.0	6,469.6	5,751.8	137.2	113.9	3,828.5	3,087.4	3,828.5	3,087.4
South Carolina	0.0	0.0	290.0	67.4	0.0	0.0	1,328.7	1,367.7	531.0	531.0	0.0	0.0	2,149.7	1,966.1	191.7	117.7	481.7	185.1	481.7	185.1
Virginia	0.0	0.0	374.5	284.7	0.0	0.0	866.0	866.0	892.4	892.4	0.0	0.0	2,132.9	2,043.1	64.9	45.5	439.4	330.2	439.4	330.2
West Virginia	686.3	686.3	0.0	0.0	0.0	0.0	340.8	340.8	0.0	0.0	0.0	0.0	1,027.1	1,027.1	6.8	5.7	6.8	5.7	6.8	5.7
East South Central	29.1	29.1	455.5	307.4	0.0	0.0	7,049.3	7,056.3	1,229.0	1,229.0	0.0	0.0	8,762.9	8,621.8	94.1	82.2	549.6	389.6	549.6	389.6
Alabama	0.0	0.0	179.3	92.9	0.0	0.0	3,290.8	3,290.8	685.9	685.9	0.0	0.0	4,156.0	4,069.6	NM	NM	NM	NM	NM	NM
Kentucky	0.0	0.0	26.3	19.6	0.0	0.0	1,146.9	1,146.9	72.2	72.2	0.0	0.0	1,245.4	1,238.7	23.0	16.3	49.3	35.9	49.3	35.9
Mississippi	0.0	0.0	160.6	108.6	0.0	0.0	0.0	0.0	274.7	274.7	0.0	0.0	435.3	383.3	7.4	6.4	168.0	115.0	168.0	115.0
Tennessee	29.1	29.1	89.3	86.3	0.0	0.0	2,611.6	2,618.6	196.2	196.2	0.0	0.0	2,926.2	2,930.2	56.6	54.4	145.9	140.7	145.9	140.7
West South Central	30,998.9	28,697.9	1,863.4	1,078.9	0.0	0.0	2,989.5	2,987.5	1,310.6	1,321.6	0.0	0.0	37,162.4	34,085.9	629.4	434.9	2,492.8	1,513.8	2,492.8	1,513.8
Arkansas	0.0	0.0	100.0	14.0	0.0	0.0	1,263.9	1,263.9	331.3	330.4	0.0	0.0	1,695.2	1,608.3	15.2	6.9	115.2	20.9	115.2	20.9
Louisiana	0.0	0.0	1.1	1.1	0.0	0.0	192.0	192.0	490.1	490.1	0.0	0.0	683.2	683.2	142.8	120.0	143.9	121.1	143.9	121.1
Oklahoma	7,693.4	6,743.2	30.5	20.5	0.0	0.0	863.6	861.6	76.2	76.2	0.0	0.0	8,663.7	7,701.5	7.2	3.7	37.7	24.2	37.7	24.2
Texas	23,305.5	21,954.7	1,731.8	1,043.3	0.0	0.0	670.0	670.0	413.0	424.9	0.0	0.0	26,120.3	24,092.9	464.2	304.2	2,196.0	1,347.5	2,196.0	1,347.5
Mountain	8,965.4	8,439.5	5,618.9	5,459.1	473.9	473.9	10,575.9	10,577.1	174.3	174.3	582.8	545.8	26,391.2	25,669.7	2,319.5	1,922.2	7,938.4	7,381.3	8,412.3	7,855.2
Arizona	267.3	267.3	1,776.5	1,697.3	295.4	295.4	2,720.9	2,720.9	30.7	30.7	0.0	0.0	5,090.8	5,011.6	1,262.0	1,049.6	3,038.5	2,746.9	3,333.9	3,042.3
Colorado	3,103.2	3,031.2	468.3	453.7	0.0	0.0	687.4	687.4	28.7	28.7	0.0	0.0	4,287.6	4,201.0	350.5	323.2	818.8	776.9	818.8	776.9
Idaho	970.5	970.5	240.0	240.0	0.0	0.0	2,707.5	2,710.2	83.9	83.9	10.0	10.0	4,011.9	4,014.6	25.1	12.5	265.1	252.5	265.1	252.5
Montana	783.5	678.5	17.0	17.0	0.0	0.0	2,749.3	2,747.8	3.0	3.0	0.0	0.0	3,552.8	3,446.3	13.7	11.0	30.7	28.0	30.7	28.0
Nevada	150.0	150.0	1,707.7	1,684.6	178.5	178.5	1,051.4	1,051.4	9.8	9.8	498.2	461.2	3,595.6	3,535.5	290.3	225.0	1,998.0	1,909.6	2,176.5	2,088.1
New Mexico	1,815.4	1,466.5	552.3	509.4	0.0	0.0	82.9	82.9	5.4	5.4	1.6	1.6	2,457.6	2,065.8	140.4	113.6	692.7	623.0	692.7	623.0
Utah	388.2	388.2	857.1	857.1	0.0	0.0	269.4	269.4	12.8	12.8	73.0	73.0	1,600.5	1,600.5	233.4	184.3	1,090.5	1,041.4	1,090.5	1,041.4
Wyoming	1,487.3	1,487.3	0.0	0.0	0.0	0.0	307.1	307.1	0.0	0.0	0.0	0.0	1,794.4	1,794.4	4.2	NM	4.2	NM	4.2	NM
Pacific Contiguous	12,121.5	12,012.1	10,553.8	9,246.7	1,284.0	1,284.0	39,976.9	39,835.7	1,939.6	1,988.4	1,873.5	1,862.3	67,749.3	66,229.2	8,125.2	6,650.7	18,679.0	15,897.4	19,963.0	17,181.4
California	5,838.2	5,728.8	10,242.0	9,090.3	1,284.0	1,284.0	10,198.2	10,198.0	1,230.5	1,263.0	1,854.0	1,842.8	30,646.9	29,406.9	7,843.6	6,420.4	18,085.6	15,510.7	19,369.6	16,794.7
Oregon	3,210.2	3,210.2	292.1	155.9	0.0	0.0	8,423.2	8,423.2	314.7	314.7	19.5	19.5	12,259.7	12,123.5	153.3	133.7	445.4	289.6	445.4	289.6
Washington	3,073.1	3,073.1	19.7	0.5	0.0	0.0	21,355.5	21,214.5	394.4	410.7	0.0	0.0	24,842.7	24,698.8	128.2	96.6	147.9	97.1	147.9	97.1
Pacific Noncontiguous	266.2	266.2	104.1	98.3	0.0	0.0	496.5	496.5	274.7	224.3	43.0	43.0	1,184.5	1,128.3	610.0	570.2	714.1	668.5	714.1	668.5
Alaska	60.6	60.6	0.0	0.0	0.0	0.0	470.6	470.6	7.0	7.0	0.0	0.0	538.2	538.2	3.2	2.1	3.2	2.1	3.2	2.1
Hawaii	205.6	205.6	104.1	98.3	0.0	0.0	25.9	25.9	267.7	217.3	43.0	43.0	646.3	590.1	606.9	568.2	711.0	666.5	711.0	666.5
U.S. Total	90,382.7	85,447.2	28,608.1	23,660.0	1,757.9	1,757.9	79,893.2	79,797.2	13,812.5	14,003.6	2,499.3	2,451.1	216,953.7	207,117.0	19,264.4	15,719.9	47,872.5	39,379.9	49,630.4	41,137.8

NM = Not meaningful due to large relative standard error.
Values for 2017 are final. Values for 2018 are preliminary.

Sources: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report' and Form EIA-860M, 'Monthly Update to the Annual Electric Generator Report.'
Estimated small scale solar photovoltaic capacity is based on data from Form EIA-861M, Form EIA-861, and from estimation methods described in the technical notes.

Table 6.2.C. Net Summer Capacity of Utility Scale Units Using Primarily Fossil Fuels and by State, November 2018 and 2017 (Megawatts)

Census Division and State	Natural Gas Fired Combined Cycle		Natural Gas Fired Combustion Turbine		Other Natural Gas		Coal		Petroleum Coke		Petroleum Liquids		Other Gases		Total Fossil Fuels	
	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017	November 2018	November 2017
New England	13,394.8	11,859.4	1,212.8	1,118.8	1,606.8	1,605.7	917.3	917.3	0.0	0.0	5,708.5	5,704.5	0.0	0.0	22,840.2	21,205.7
Connecticut	3,140.2	2,331.9	567.6	477.6	873.5	872.4	383.4	383.4	0.0	0.0	2,035.1	2,035.1	0.0	0.0	6,999.8	6,100.4
Maine	1,250.0	1,250.0	301.1	297.1	108.5	108.5	0.0	0.0	0.0	0.0	880.9	880.9	0.0	0.0	2,540.5	2,536.5
Massachusetts	5,986.4	5,259.3	333.5	333.5	199.7	199.7	0.0	0.0	0.0	0.0	2,588.4	2,584.4	0.0	0.0	9,108.0	8,376.9
New Hampshire	1,231.0	1,231.0	3.8	3.8	400.2	400.2	533.9	533.9	0.0	0.0	94.0	94.0	0.0	0.0	2,262.9	2,262.9
Rhode Island	1,787.2	1,787.2	6.8	6.8	24.9	24.9	0.0	0.0	0.0	0.0	12.2	12.2	0.0	0.0	1,831.1	1,831.1
Vermont	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	97.9	97.9	0.0	0.0	97.9	97.9
Middle Atlantic	30,166.2	26,068.9	7,798.1	7,682.3	14,674.0	15,118.6	13,478.2	13,530.2	78.6	78.6	5,441.7	5,395.7	129.2	129.2	71,766.0	68,003.5
New Jersey	8,530.4	8,158.0	2,959.9	2,845.0	42.6	493.2	609.0	609.0	11.6	11.6	234.0	226.2	23.4	23.4	12,410.9	12,366.4
New York	8,698.7	7,977.3	3,157.0	3,157.0	9,688.5	9,688.5	1,640.2	1,640.2	0.0	0.0	3,599.0	3,560.8	0.0	0.0	26,783.4	26,023.8
Pennsylvania	12,937.1	9,933.6	1,681.2	1,680.3	4,942.9	4,936.9	11,229.0	11,281.0	67.0	67.0	1,608.7	1,608.7	105.8	105.8	32,571.7	29,613.3
East North Central	21,597.0	18,179.4	26,701.2	26,591.8	4,206.4	4,212.9	56,173.0	60,678.3	247.6	247.6	2,472.6	2,643.3	1,092.9	1,092.9	112,490.7	113,646.2
Illinois	3,580.2	3,580.2	10,436.3	10,385.3	289.9	288.9	13,966.0	13,966.0	0.0	0.0	674.2	674.2	36.5	36.5	28,983.1	28,931.1
Indiana	3,807.0	2,406.0	3,355.8	3,405.8	729.1	729.1	15,279.4	15,761.4	0.0	0.0	99.8	237.8	619.3	619.3	23,890.4	23,159.4
Michigan	4,421.0	4,421.0	3,977.6	3,970.8	2,383.5	2,394.0	9,216.7	9,216.7	47.2	47.2	486.5	490.4	250.0	250.0	20,782.5	20,790.1
Ohio	7,038.0	5,021.4	5,559.2	5,446.1	189.2	189.2	12,274.4	14,605.4	142.0	142.0	609.7	636.5	187.1	187.1	25,999.6	26,227.7
Wisconsin	2,750.8	2,750.8	3,372.3	3,383.8	614.7	611.7	5,436.5	7,128.8	58.4	58.4	602.4	604.4	0.0	0.0	12,835.1	14,537.9
West North Central	6,633.1	6,633.1	11,730.9	11,523.4	3,642.5	4,380.2	34,055.0	34,199.0	32.0	32.0	3,876.7	3,875.1	8.4	8.4	59,978.6	60,651.2
Iowa	1,772.6	1,772.6	1,258.2	1,265.7	420.5	532.8	5,497.9	5,497.9	32.0	32.0	820.8	820.7	0.0	0.0	9,802.0	9,921.7
Kansas	266.0	266.0	2,148.3	2,148.3	1,376.7	2,096.7	4,653.2	4,714.2	0.0	0.0	556.6	551.3	0.0	0.0	9,000.8	9,776.5
Minnesota	2,172.0	2,172.0	2,671.4	2,456.4	363.1	277.8	4,309.4	4,309.4	0.0	0.0	790.4	787.1	0.0	0.0	10,306.3	10,002.7
Missouri	1,789.9	1,789.9	3,399.6	3,399.6	836.1	836.1	11,260.8	11,343.8	0.0	0.0	1,100.5	1,105.1	0.0	0.0	18,386.9	18,474.5
Nebraska	342.6	342.6	1,150.8	1,150.8	525.8	516.5	3,817.3	3,817.3	0.0	0.0	321.2	321.2	0.0	0.0	6,157.7	6,148.4
North Dakota	0.0	0.0	408.0	408.0	111.6	111.6	4,042.4	4,042.4	0.0	0.0	63.2	65.2	8.4	8.4	4,633.6	4,635.6
South Dakota	290.0	290.0	694.6	694.6	8.7	8.7	474.0	474.0	0.0	0.0	224.0	224.5	0.0	0.0	1,691.3	1,691.8
South Atlantic	57,932.0	53,188.3	31,932.1	31,786.6	7,329.6	7,308.6	54,752.3	56,789.3	142.8	142.8	10,390.3	10,407.6	135.0	135.0	162,614.1	159,758.2
Delaware	1,512.0	1,512.0	317.2	317.2	843.1	843.1	410.0	410.0	0.0	0.0	114.1	114.1	135.0	135.0	3,331.4	3,331.4
District of Columbia	0.0	0.0	9.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	9.0
Florida	29,589.8	27,953.7	7,763.1	7,890.1	2,422.2	2,481.2	8,570.0	9,822.0	59.0	59.0	4,970.0	4,970.0	0.0	0.0	53,374.1	53,176.0
Georgia	7,963.9	7,963.9	7,787.2	7,787.2	832.9	832.9	9,360.5	9,360.5	83.8	83.8	945.4	946.0	0.0	0.0	26,973.7	26,974.3
Maryland	2,844.6	976.0	1,965.6	1,957.6	1,494.2	1,414.2	4,327.0	4,712.0	0.0	0.0	1,205.9	1,218.9	0.0	0.0	11,837.3	10,278.7
North Carolina	5,210.8	4,724.8	6,045.1	6,045.1	0.0	0.0	10,536.8	10,536.8	0.0	0.0	337.6	337.6	0.0	0.0	22,130.3	21,644.3
South Carolina	3,152.0	2,399.0	2,761.3	2,814.8	546.0	546.0	5,212.0	5,212.0	0.0	0.0	463.4	463.4	0.0	0.0	12,134.7	11,435.2
Virginia	7,658.9	7,658.9	4,194.3	3,894.3	1,068.2	1,068.2	3,778.0	3,778.0	0.0	0.0	2,342.9	2,346.6	0.0	0.0	19,042.3	18,746.0
West Virginia	0.0	0.0	1,089.3	1,071.3	123.0	123.0	12,558.0	12,958.0	0.0	0.0	11.0	11.0	0.0	0.0	13,781.3	14,163.3
East South Central	21,684.2	20,632.1	12,640.1	12,646.9	5,329.0	6,053.8	25,015.2	26,184.2	0.0	0.0	133.0	142.0	19.8	19.8	64,821.3	65,678.8
Alabama	9,618.4	9,618.4	2,532.2	2,532.2	2,766.3	2,791.3	5,503.1	5,503.1	0.0	0.0	42.6	42.6	19.8	19.8	20,482.4	20,507.4
Kentucky	1,763.0	1,763.0	4,976.6	4,976.6	260.0	260.0	11,862.8	11,862.8	0.0	0.0	11.9	11.9	0.0	0.0	18,874.3	18,874.3
Mississippi	7,847.7	7,847.7	1,350.8	1,357.6	2,236.5	2,936.3	1,804.0	1,804.0	0.0	0.0	35.3	44.3	0.0	0.0	13,274.3	13,989.9
Tennessee	2,455.1	1,403.0	3,780.5	3,780.5	66.2	66.2	5,845.3	7,014.3	0.0	0.0	43.2	43.2	0.0	0.0	12,190.3	12,307.2
West South Central	60,418.6	59,942.6	14,418.4	13,806.4	31,886.1	31,670.9	31,585.8	35,856.2	957.9	957.9	174.8	179.1	655.3	655.3	140,096.9	143,068.4
Arkansas	4,566.0	4,566.0	702.8	702.8	802.0	802.0	5,110.0	5,100.0	0.0	0.0	12.2	12.2	0.0	0.0	11,193.0	11,183.0
Louisiana	7,533.0	7,537.0	2,357.9	2,357.9	6,528.4	6,528.4	2,832.6	2,832.6	894.1	894.1	43.3	43.3	407.4	407.4	20,596.7	20,600.7
Oklahoma	7,247.6	6,780.1	1,684.9	1,513.9	5,235.5	5,243.9	4,334.6	4,334.6	0.0	0.0	74.4	74.4	0.0	0.0	18,577.0	17,946.9
Texas	41,072.0	41,059.5	9,672.8	9,231.8	19,320.2	19,096.6	19,308.6	23,589.0	63.8	63.8	44.9	49.2	247.9	247.9	89,730.2	93,337.8
Mountain	22,513.8	22,483.8	8,638.9	8,648.9	3,663.9	3,693.9	26,989.0	27,826.0	52.0	52.0	356.3	356.3	107.4	107.4	62,321.3	63,168.3
Arizona	9,891.6	9,891.6	2,367.6	2,367.6	1,303.6	1,303.6	5,754.0	5,754.0	0.0	0.0	90.5	90.5	0.0	0.0	19,407.3	19,407.3
Colorado	3,240.5	3,240.5	2,572.3	2,572.3	639.0	681.0	4,499.0	4,499.0	0.0	0.0	168.4	168.4	0.0	0.0	11,119.2	11,161.2
Idaho	547.7	547.7	552.0	552.0	14.0	14.0	8.5	8.5	0.0	0.0	5.4	5.4	0.0	0.0	1,127.6	1,127.6
Montana	0.0	0.0	321.6	321.6	72.2	72.2	2,293.1	2,293.1	52.0	52.0	0.0	0.0	1.5	1.5	2,740.4	2,740.4
Nevada	5,445.0	5,415.0	1,185.6	1,185.6	444.6	444.6	740.4	740.4	0.0	0.0	6.0	6.0	0.0	0.0	7,821.6	7,791.6
New Mexico	1,465.0	1,465.0	966.0	976.0	849.4	849.4	2,634.0	3,471.0	0.0	0.0	52.4	52.4	0.0	0.0	5,966.8	6,813.8
Utah	1,830.0	1,830.0	520.2	520.2	328.2	316.2	4,654.0	4,654.0	0.0	0.0	27.8	27.8	0.0	0.0	7,360.2	7,348.2
Wyoming	94.0	94.0	153.6	153.6	12.9	12.9	6,406.0	6,406.0	0.0	0.0	5.8	5.8	105.9	105.9	6,778.2	6,778.2
Pacific Contiguous	26,032.3	26,056.1	11,561.4	11,741.4	7,766.9	8,861.1	1,982.0	1,982.0	17.0	17.0	471.9	512.9	221.4	221.4	48,052.9	49,391.9
California	20,003.8	20,027.6	10,708.2	10,888.2	7,510.9	8,605.1	57.0	57.0	17.0	17.0	456.7	497.7	221.4	221.4	38,975.0	40,314.0
Oregon	3,374.9	3,374.9	133.8	133.8	224.4	224.4	585.0	585.0	0.0	0.0	0.0	0.0	0.0	0.0	4,318.1	4,318.1
Washington	2,653.6	2,653.6	719.4	719.4	31.6	31.6	1,340.0	1,340.0	0.0	0.0	15.2	15.2	0.0	0.0	4,759.8	4,759.8
Pacific Noncontiguous	479.2	479.2	626.3	626.3	175.0	175.0	332.8	332.8	0.0	0.0	2,600.2	2,602.5	6.4	6.4	4,219.9	4,222.2
Alaska	479.2	479.2	626.3	626.3	175.0	175.0	152.8	152.8	0.0	0.0	728.3	730.6	0.0	0.0	2,161.6	2,163.9
Hawaii	0.0	0.0	0.0	0.0	0.0	0.0	180.0	180.0	0.0	0.0	1,871.9	1,871.9	6.4	6.4	2,058.3	2,058.3
U.S. Total	260,851.2	245,522.9	127,260.2	126,172.8	80,280.2	83,080.7	245,280.6	258,295.3	1,527.9	1,527.9	31,626.0	31,819.0	2,375.8	2,375.8	749,201.9	748,794.4

NM = Not meaningful due to large relative standard error.
Values for 2017 are final. Values for 2018 are preliminary.

NOTES:
Capacity from facilities with a total generator nameplate capacity less than 1 MW are excluded from this report. This exclusion may represent a significant portion of existing or planned capacity for some technologies such as solar photovoltaic generation.

Sources: 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 6.3. New Utility Scale Generating Units by Operating Company, Plant, and Month, 2018

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code
2018	1	60118	83WI 8ME, LLC	IPP	Midway Solar Farm 1	CA	60336	MSF1	50.0	Solar Photovoltaic	SUN	PV
2018	1	221	Alaska Village Elec Coop, Inc	Electric Utility	Brevig Mission	AK	60260	3A	0.4	Petroleum Liquids	DFO	IC
2018	1	56769	Consolidated Edison Development Inc.	IPP	Panoche Valley Solar Farm	CA	57340	1	240.0	Solar Photovoltaic	SUN	PV
2018	1	4254	Consumers Energy Co	Electric Utility	Cross Winds Energy Park	MI	58830	CWEP2	44.0	Onshore Wind Turbine	WND	WT
2018	1	61060	Cypress Creek Renewables	IPP	LeSun CSG, LLC	MN	61544	GEN1	5.0	Solar Photovoltaic	SUN	PV
2018	1	61060	Cypress Creek Renewables	IPP	WrightSun CSG, LLC	MN	61547	GEN1	5.0	Solar Photovoltaic	SUN	PV
2018	1	60370	DG AMP Solar, LLC	IPP	DG AMP Solar Versailles	OH	61437	AMPVS	1.8	Solar Photovoltaic	SUN	PV
2018	1	61187	DG Minnesota CSG, LLC	IPP	Scandia CSG	MN	61585	40802	1.0	Solar Photovoltaic	SUN	PV
2018	1	61187	DG Minnesota CSG, LLC	IPP	Scandia CSG	MN	61585	40803	1.0	Solar Photovoltaic	SUN	PV
2018	1	61187	DG Minnesota CSG, LLC	IPP	Scandia CSG	MN	61585	40804	1.0	Solar Photovoltaic	SUN	PV
2018	1	61187	DG Minnesota CSG, LLC	IPP	Scandia CSG	MN	61585	40805	1.0	Solar Photovoltaic	SUN	PV
2018	1	61187	DG Minnesota CSG, LLC	IPP	Scandia CSG	MN	61585	40806	1.0	Solar Photovoltaic	SUN	PV
2018	1	61111	DG New Jersey Solar, LLC	IPP	DG New Jersey Solar RLS Logistics	NJ	61507	RLSNJ	4.0	Solar Photovoltaic	SUN	PV
2018	1	56215	E ON Climate Renewables N America LLC	IPP	Inadale Wind Farm LLC	TX	56984	INABT	9.9	Batteries	MWH	BA
2018	1	56215	E ON Climate Renewables N America LLC	IPP	Pyron Wind Farm LLC	TX	56981	PYRBT	9.9	Batteries	MWH	BA
2018	1	57249	EPP Renewable Energy	IPP	Haworth Water Treatment Plant	NJ	56701	GEN5	3.9	Petroleum Liquids	DFO	IC
2018	1	57249	EPP Renewable Energy	IPP	Haworth Water Treatment Plant	NJ	56701	GEN6	3.9	Petroleum Liquids	DFO	IC
2018	1	60853	ET CAP OR HOLDINGS LLC	IPP	OR Solar 5, LLC	OR	61423	PV1	8.0	Solar Photovoltaic	SUN	PV
2018	1	61015	ETCAP NES CS MN 08 LLC	IPP	Johnson Solar CSG	MN	61380	JOHN1	1.0	Solar Photovoltaic	SUN	PV
2018	1	61015	ETCAP NES CS MN 08 LLC	IPP	Johnson Solar CSG	MN	61380	JOHN2	1.0	Solar Photovoltaic	SUN	PV
2018	1	61015	ETCAP NES CS MN 08 LLC	IPP	Johnson Solar CSG	MN	61380	JOHN3	1.0	Solar Photovoltaic	SUN	PV
2018	1	61015	ETCAP NES CS MN 08 LLC	IPP	Johnson Solar CSG	MN	61380	JOHN4	1.0	Solar Photovoltaic	SUN	PV
2018	1	61015	ETCAP NES CS MN 08 LLC	IPP	Johnson Solar CSG	MN	61380	JOHN5	1.0	Solar Photovoltaic	SUN	PV
2018	1	59218	East. Michigan Univ. Heating Plant	Commercial	East. Michigan Univ. Heating Plant	MI	59452	COGN2	6.8	Natural Gas Fired Combustion Turbine	NG	GT
2018	1	58135	Ecos Energy LLC	IPP	Jefferson Solar	CT	62024	JEFRS	1.0	Solar Photovoltaic	SUN	PV
2018	1	6452	Florida Power & Light Co	Electric Utility	Coral Farms Solar Energy Center	FL	61022	1	74.5	Solar Photovoltaic	SUN	PV
2018	1	6452	Florida Power & Light Co	Electric Utility	Horizon Solar Energy Center	FL	61021	1	74.5	Solar Photovoltaic	SUN	PV
2018	1	6452	Florida Power & Light Co	Electric Utility	Indian River Solar Center	FL	61020	1	74.5	Solar Photovoltaic	SUN	PV
2018	1	6452	Florida Power & Light Co	Electric Utility	Wildflower Solar Energy Center	FL	61050	1	74.5	Solar Photovoltaic	SUN	PV
2018	1	7140	Georgia Power Co	Electric Utility	Comer Solar	GA	61554	1	2.0	Solar Photovoltaic	SUN	PV
2018	1	59462	Heelstone Energy Holdings, LLC	IPP	Chiloquin Solar, LLC	OR	61631	CHILO	9.9	Solar Photovoltaic	SUN	PV
2018	1	12341	MidAmerican Energy Co	IPP	Prairie Wind Farm	IA	60873	PWE	168.0	Onshore Wind Turbine	WND	WT
2018	1	61227	Nautilus Solar Solutions	IPP	Kilroy Solar	CA	61628	KILRO	1.1	Solar Photovoltaic	SUN	PV
2018	1	60644	OEE XXIV LLC	Industrial	Whirlpool Corporation - Ottawa Wind Farm	OH	61004	W1	1.5	Onshore Wind Turbine	WND	WT
2018	1	49748	ORCAL Geothermal, Inc	IPP	Heber Geothermal	CA	54689	4	16.0	Geothermal	GEO	BT
2018	1	60882	Red Dirt Wind Project, LLC	IPP	Red Dirt Wind Project	OK	61270	RDDRT	299.3	Onshore Wind Turbine	WND	WT
2018	1	60520	SoCore Energy LLC	IPP	Gopher CSG	MN	61426	PV1	5.0	Solar Photovoltaic	SUN	PV
2018	1	60520	SoCore Energy LLC	IPP	Lahr 1, LLC	MN	61203	PV1	5.0	Solar Photovoltaic	SUN	PV
2018	1	60520	SoCore Energy LLC	IPP	Nesvold Watertown Solar	MN	60958	PV1	1.0	Solar Photovoltaic	SUN	PV
2018	1	60520	SoCore Energy LLC	IPP	Nesvold Watertown Solar	MN	60958	PV2	1.0	Solar Photovoltaic	SUN	PV
2018	1	60520	SoCore Energy LLC	IPP	Nesvold Watertown Solar	MN	60958	PV3	1.0	Solar Photovoltaic	SUN	PV
2018	1	60520	SoCore Energy LLC	IPP	Nesvold Watertown Solar	MN	60958	PV4	1.0	Solar Photovoltaic	SUN	PV
2018	1	60520	SoCore Energy LLC	IPP	Nesvold Watertown Solar	MN	60958	PV5	1.0	Solar Photovoltaic	SUN	PV
2018	1	60520	SoCore Energy LLC	IPP	New Auburn DPC Solar	WI	60936	PV1	2.5	Solar Photovoltaic	SUN	PV
2018	1	60520	SoCore Energy LLC	IPP	Taylors Falls CSG	MN	61428	PV1	5.0	Solar Photovoltaic	SUN	PV
2018	1	60871	Stuttgart Solar, LLC	IPP	Stuttgart Solar	AR	61262	STGRT	81.0	Solar Photovoltaic	SUN	PV
2018	1	60881	Thunder Ranch Wind Project, LLC	IPP	Thunder Ranch Wind Project	OK	61269	WT1	297.8	Onshore Wind Turbine	WND	WT
2018	1	24431	Utah Municipal Power Agency	Electric Utility	Provo Power Plant	UT	61508	1	2.4	Natural Gas Internal Combustion Engine	NG	IC
2018	1	24431	Utah Municipal Power Agency	Electric Utility	Provo Power Plant	UT	61508	2	2.4	Natural Gas Internal Combustion Engine	NG	IC
2018	1	24431	Utah Municipal Power Agency	Electric Utility	Provo Power Plant	UT	61508	3	2.4	Natural Gas Internal Combustion Engine	NG	IC
2018	1	24431	Utah Municipal Power Agency	Electric Utility	Provo Power Plant	UT	61508	4	2.4	Natural Gas Internal Combustion Engine	NG	IC
2018	1	24431	Utah Municipal Power Agency	Electric Utility	Provo Power Plant	UT	61508	5	2.4	Natural Gas Internal Combustion Engine	NG	IC
2018	1	61361	Walton Solar	IPP	Gratis Road Solar Facility	GA	61740	GR01	3.0	Solar Photovoltaic	SUN	PV
2018	2	61105	ABEC #2 LLC	IPP	ABEC #2 dba West-Star Dairy	CA	61501	GEN1	1.0	Other Waste Biomass	OBG	IC
2018	2	61106	ABEC #3 LLC	IPP	ABEC #3 dba Lakeview Dairy	CA	61502	GEN1	1.0	Other Waste Biomass	OBG	IC
2018	2	61107	ABEC #4 LLC	IPP	ABEC #4 dba CE&S Dairy	CA	61503	GEN1	1.0	Other Waste Biomass	OBG	IC
2018	2	60571	AEP Onsite Partners	IPP	Porter Way Community Solar Garden	MN	61500	PV1	3.0	Solar Photovoltaic	SUN	PV
2018	2	61344	Advanced Microgrid Solutions	IPP	HEBT Irvine 2	CA	61723	IRV2W	3.3	Batteries	MWH	BA
2018	2	59247	Bearford Solar II, LLC	IPP	Bearford Solar II	NC	59488	BEARF	4.9	Solar Photovoltaic	SUN	PV
2018	2	61006	Bearkat TE Partnership LLC	IPP	Bearkat	TX	59972	BRKAT	196.7	Onshore Wind Turbine	WND	WT
2018	2	60827	Carina Community Solar	IPP	Carina Community Solar	MN	61179	JCCS1	0.9	Solar Photovoltaic	SUN	PV
2018	2	60827	Carina Community Solar	IPP	Carina Community Solar	MN	61179	JCCS2	0.9	Solar Photovoltaic	SUN	PV
2018	2	60827	Carina Community Solar	IPP	Carina Community Solar	MN	61179	JCCS3	0.9	Solar Photovoltaic	SUN	PV
2018	2	60827	Carina Community Solar	IPP	Carina Community Solar	MN	61179	JCCS4	0.9	Solar Photovoltaic	SUN	PV
2018	2	56769	Consolidated Edison Development Inc.	IPP	Big Timber Wind Farm	MT	61155	BT-MT	25.0	Onshore Wind Turbine	WND	WT
2018	2	60370	DG AMP Solar, LLC	IPP	DG AMP Solar Coldwater	MI	61435	AMPCW	1.3	Solar Photovoltaic	SUN	PV
2018	2	60370	DG AMP Solar, LLC	IPP	DG AMP Solar Jackson Center	OH	61438	AMPJC	1.6	Solar Photovoltaic	SUN	PV

Table 6.3. New Utility Scale Generating Units by Operating Company, Plant, and Month, 2018

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code
2018	2	60370	DG AMP Solar, LLC	IPP	DG AMP Solar Orrville 3	OH	61436	AMPO3	2.3	Solar Photovoltaic	SUN	PV
2018	2	57249	EPP Renewable Energy	IPP	Pennsauken Solar	NJ	56883	GEN10	2.4	Solar Photovoltaic	SUN	PV
2018	2	7140	Georgia Power Co	Electric Utility	Marine Corps Logistics Base Solar	GA	59876	1	31.0	Solar Photovoltaic	SUN	PV
2018	2	61171	Lake Waconia Solar IV LLC	IPP	Lake Waconia IV Community Solar Garden	MN	61573	40926	1.0	Solar Photovoltaic	SUN	PV
2018	2	61170	Lake Waconia Solar LLC	IPP	Lake Waconia Community Solar Garden	MN	61572	38610	1.0	Solar Photovoltaic	SUN	PV
2018	2	60830	Lyra Community Solar	IPP	Lyra Community Solar	MN	61182	RLCS1	0.9	Solar Photovoltaic	SUN	PV
2018	2	60830	Lyra Community Solar	IPP	Lyra Community Solar	MN	61182	RLCS2	0.9	Solar Photovoltaic	SUN	PV
2018	2	60830	Lyra Community Solar	IPP	Lyra Community Solar	MN	61182	RLCS3	0.9	Solar Photovoltaic	SUN	PV
2018	2	61156	NMRD Data Center, LLC	IPP	Facebook 2 Solar Energy Center	NM	61557	FB2	10.0	Solar Photovoltaic	SUN	PV
2018	2	14063	Oklahoma Gas & Electric Co	Electric Utility	Covington Solar Farm	OK	61759	CVS1	10.0	Solar Photovoltaic	SUN	PV
2018	2	17470	PUD 1 of Snohomish County	Electric Utility	Calligan Creek Hydroelectric Project	WA	60418	CC6MW	6.0	Conventional Hydroelectric	WAT	HY
2018	2	17470	PUD 1 of Snohomish County	Electric Utility	Hancock Creek Hydroelectric Project	WA	60517	HY1	6.0	Conventional Hydroelectric	WAT	HY
2018	2	60755	Phelps 158 Solar Farm, LLC	IPP	Phelps 158 Solar Farm	NC	61134	15800	5.0	Solar Photovoltaic	SUN	PV
2018	2	60947	Tesla Inc.	IPP	Greene County Meter #1	NY	60463	PV1	1.6	Solar Photovoltaic	SUN	PV
2018	2	61168	Veseli Solar I LLC	IPP	Veseli Community Solar Garden	MN	61570	40921	1.0	Solar Photovoltaic	SUN	PV
2018	2	61144	WasecaSun, LLC	IPP	WasecaSun	MN	61142	0000H	3.4	Solar Photovoltaic	SUN	PV
2018	2	61144	WasecaSun, LLC	IPP	WasecaSun	MN	61142	WASE2	1.0	Solar Photovoltaic	SUN	PV
2018	2	61144	WasecaSun, LLC	IPP	WasecaSun	MN	61142	WASE3	1.0	Solar Photovoltaic	SUN	PV
2018	2	61144	WasecaSun, LLC	IPP	WasecaSun	MN	61142	WASE4	1.0	Solar Photovoltaic	SUN	PV
2018	2	61144	WasecaSun, LLC	IPP	WasecaSun	MN	61142	WASE5	1.0	Solar Photovoltaic	SUN	PV
2018	3	60571	AEP Onsite Partners	IPP	Sherburne Community Solar	MN	61672	PV1	5.0	Solar Photovoltaic	SUN	PV
2018	3	60831	Argo Navis Community Solar	IPP	Argo Navis Community Solar	MN	61183	UACS1	0.9	Solar Photovoltaic	SUN	PV
2018	3	60922	Belchertown Renewables, LLC	IPP	Belchertown Renewables Community Solar	MA	61295	02675	4.0	Solar Photovoltaic	SUN	PV
2018	3	61060	Cypress Creek Renewables	IPP	Gaston Solar I - SC	SC	61530	GEN1	10.2	Solar Photovoltaic	SUN	PV
2018	3	60968	Delphinus Community Solar	IPP	Delphinus Community Solar	MN	61329	QDCS1	0.9	Solar Photovoltaic	SUN	PV
2018	3	60968	Delphinus Community Solar	IPP	Delphinus Community Solar	MN	61329	QDCS2	0.9	Solar Photovoltaic	SUN	PV
2018	3	5310	Doswell Ltd Partnership	IPP	Doswell Energy Center	VA	52019	GEN8	150.0	Natural Gas Fired Combustion Turbine	NG	GT
2018	3	61228	Dundas Solar Holdings LLC	IPP	Dundas Solar Holdings LLC CSG	MN	61626	DU	5.0	Solar Photovoltaic	SUN	PV
2018	3	60853	ET CAP OR HOLDINGS LLC	IPP	OR Solar 8, LLC	OR	61424	PV1	10.0	Solar Photovoltaic	SUN	PV
2018	3	60904	ETCAP NES CS MN 06 LLC	IPP	Armstrong Solar	MN	61138	0000A	3.0	Solar Photovoltaic	SUN	PV
2018	3	58970	Ecoplexus, Inc	IPP	Cottage Grove CSG, LLC	MN	61483	CTGR1	1.0	Solar Photovoltaic	SUN	PV
2018	3	58970	Ecoplexus, Inc	IPP	Cottage Grove CSG, LLC	MN	61483	CTGR2	1.0	Solar Photovoltaic	SUN	PV
2018	3	58970	Ecoplexus, Inc	IPP	Cottage Grove CSG, LLC	MN	61483	CTGR3	1.0	Solar Photovoltaic	SUN	PV
2018	3	58970	Ecoplexus, Inc	IPP	Cottage Grove CSG, LLC	MN	61483	CTGR4	1.0	Solar Photovoltaic	SUN	PV
2018	3	58970	Ecoplexus, Inc	IPP	Cottage Grove CSG, LLC	MN	61483	CTGR5	1.0	Solar Photovoltaic	SUN	PV
2018	3	58970	Ecoplexus, Inc	IPP	Fox CSG, LLC	MN	61484	FOX1	1.0	Solar Photovoltaic	SUN	PV
2018	3	58970	Ecoplexus, Inc	IPP	Fox CSG, LLC	MN	61484	FOX2	1.0	Solar Photovoltaic	SUN	PV
2018	3	58970	Ecoplexus, Inc	IPP	Fox CSG, LLC	MN	61484	FOX3	1.0	Solar Photovoltaic	SUN	PV
2018	3	58970	Ecoplexus, Inc	IPP	Fox CSG, LLC	MN	61484	FOX4	1.0	Solar Photovoltaic	SUN	PV
2018	3	58970	Ecoplexus, Inc	IPP	Fox CSG, LLC	MN	61484	FOX5	1.0	Solar Photovoltaic	SUN	PV
2018	3	58970	Ecoplexus, Inc	IPP	SunE Stolee CSG, LLC	MN	61485	STOL1	1.0	Solar Photovoltaic	SUN	PV
2018	3	58970	Ecoplexus, Inc	IPP	SunE Stolee CSG, LLC	MN	61485	STOL2	1.0	Solar Photovoltaic	SUN	PV
2018	3	58970	Ecoplexus, Inc	IPP	SunE Stolee CSG, LLC	MN	61485	STOL3	1.0	Solar Photovoltaic	SUN	PV
2018	3	58970	Ecoplexus, Inc	IPP	Wyoming 2 CSG, LLC	MN	61486	WY01	1.0	Solar Photovoltaic	SUN	PV
2018	3	58970	Ecoplexus, Inc	IPP	Wyoming 2 CSG, LLC	MN	61486	WY02	1.0	Solar Photovoltaic	SUN	PV
2018	3	58970	Ecoplexus, Inc	IPP	Wyoming 2 CSG, LLC	MN	61486	WY03	1.0	Solar Photovoltaic	SUN	PV
2018	3	58970	Ecoplexus, Inc	IPP	Wyoming 2 CSG, LLC	MN	61486	WY04	1.0	Solar Photovoltaic	SUN	PV
2018	3	58970	Ecoplexus, Inc	IPP	Wyoming 2 CSG, LLC	MN	61486	WY05	1.0	Solar Photovoltaic	SUN	PV
2018	3	58135	Ecos Energy LLC	IPP	Adams Solar	CT	62026	ADAMS	1.0	Solar Photovoltaic	SUN	PV
2018	3	58135	Ecos Energy LLC	IPP	Franklin Solar	CT	62021	FRANK	1.0	Solar Photovoltaic	SUN	PV
2018	3	58135	Ecos Energy LLC	IPP	Hamilton Solar	CT	62025	HAMLT	1.0	Solar Photovoltaic	SUN	PV
2018	3	58135	Ecos Energy LLC	IPP	Wilson Solar	CT	62023	WILSN	1.0	Solar Photovoltaic	SUN	PV
2018	3	6452	Florida Power & Light Co	Electric Utility	Babcock Solar Energy Center	FL	59993	BA	10.0	Batteries	MWH	BA
2018	3	6452	Florida Power & Light Co	Electric Utility	Barefoot Bay Solar Energy Center	FL	61051	1	74.5	Solar Photovoltaic	SUN	PV
2018	3	6452	Florida Power & Light Co	Electric Utility	Blue Cypress Solar Energy Center	FL	61029	1	74.5	Solar Photovoltaic	SUN	PV
2018	3	6452	Florida Power & Light Co	Electric Utility	Citrus Solar Energy Center	FL	60061	BA	4.0	Batteries	MWH	BA
2018	3	6452	Florida Power & Light Co	Electric Utility	Hammock Solar	FL	61024	1	74.5	Solar Photovoltaic	SUN	PV
2018	3	6452	Florida Power & Light Co	Electric Utility	Loggerhead Solar Energy Center	FL	61052	1	74.5	Solar Photovoltaic	SUN	PV
2018	3	60556	Fusion Solar Centre, L.L.C	IPP	Fusion Solar Center LLC	CT	58876	PV	20.0	Solar Photovoltaic	SUN	PV
2018	3	59633	Great Bay Solar I LLC	IPP	Great Bay Solar 1	MD	59851	GBS01	57.0	Solar Photovoltaic	SUN	PV
2018	3	49893	Invenergy Services LLC	IPP	Lackawanna Energy Center	PA	60357	GEN1	465.0	Natural Gas Fired Combined Cycle	NG	CS
2018	3	58764	Origis Energy USA, Inc	IPP	MA Solar Storage 1	MA	61730	SCSS1	1.1	Solar Photovoltaic	SUN	PV
2018	3	58764	Origis Energy USA, Inc	IPP	MA Solar Storage 1	MA	61730	SCSS2	1.1	Solar Photovoltaic	SUN	PV
2018	3	58764	Origis Energy USA, Inc	IPP	MA Solar Storage 1	MA	61730	SCSS3	1.1	Solar Photovoltaic	SUN	PV
2018	3	61323	PowerFin ASL 1, LLC	IPP	PowerFin Kingsbery	TX	61700	PFPKB	2.6	Solar Photovoltaic	SUN	PV
2018	3	61069	RE Gaskell West LLC	IPP	RE Gaskell West 1 LLC	CA	61445	PV1	20.0	Solar Photovoltaic	SUN	PV
2018	3	61491	ReNew Petra Integrators, LLC	IPP	Bartow Solar Energy LLC	FL	61879	PV	7.3	Solar Photovoltaic	SUN	PV

Table 6.3. New Utility Scale Generating Units by Operating Company, Plant, and Month, 2018

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code
2018	3	16181	Rochester Public Utilities	Electric Utility	Westside Energy Station	MN	60564	WES1	9.3	Natural Gas Internal Combustion Engine	NG	IC
2018	3	16181	Rochester Public Utilities	Electric Utility	Westside Energy Station	MN	60564	WES2	9.3	Natural Gas Internal Combustion Engine	NG	IC
2018	3	16181	Rochester Public Utilities	Electric Utility	Westside Energy Station	MN	60564	WES3	9.3	Natural Gas Internal Combustion Engine	NG	IC
2018	3	16181	Rochester Public Utilities	Electric Utility	Westside Energy Station	MN	60564	WES4	9.3	Natural Gas Internal Combustion Engine	NG	IC
2018	3	16181	Rochester Public Utilities	Electric Utility	Westside Energy Station	MN	60564	WES5	9.3	Natural Gas Internal Combustion Engine	NG	IC
2018	3	60520	SoCore Energy LLC	IPP	Carrizozo Solar	NM	61662	PV1	3.0	Solar Photovoltaic	SUN	PV
2018	3	40580	Southern Minnesota Mun P Agny	Electric Utility	Owatonna Energy Station	MN	60254	UNIT1	9.7	Natural Gas Internal Combustion Engine	NG	IC
2018	3	40580	Southern Minnesota Mun P Agny	Electric Utility	Owatonna Energy Station	MN	60254	UNIT2	9.7	Natural Gas Internal Combustion Engine	NG	IC
2018	3	40580	Southern Minnesota Mun P Agny	Electric Utility	Owatonna Energy Station	MN	60254	UNIT3	9.7	Natural Gas Internal Combustion Engine	NG	IC
2018	3	40580	Southern Minnesota Mun P Agny	Electric Utility	Owatonna Energy Station	MN	60254	UNIT4	9.7	Natural Gas Internal Combustion Engine	NG	IC
2018	3	60822	Taurus Community Solar	IPP	Taurus Community Solar	MN	61174	ETCS3	0.9	Solar Photovoltaic	SUN	PV
2018	3	60822	Taurus Community Solar	IPP	Taurus Community Solar	MN	61174	ETCS4	0.9	Solar Photovoltaic	SUN	PV
2018	3	60947	Tesla Inc.	IPP	Intel - Ocotillo Campus Solar	AZ	60822	PV2	1.4	Solar Photovoltaic	SUN	PV
2018	3	60947	Tesla Inc.	IPP	Onondaga County- Jamesville	NY	60232	PV1	2.0	Solar Photovoltaic	SUN	PV
2018	3	60947	Tesla Inc.	IPP	Town of Rocky Hill	CT	61541	PV1	1.0	Solar Photovoltaic	SUN	PV
2018	3	60947	Tesla Inc.	IPP	Town of Rocky Hill	CT	61541	PV2	1.0	Solar Photovoltaic	SUN	PV
2018	3	60947	Tesla Inc.	IPP	Town of Rocky Hill	CT	61541	PV3	1.0	Solar Photovoltaic	SUN	PV
2018	3	60947	Tesla Inc.	IPP	US GSA - Sacramento	CA	60846	PV1	1.1	Solar Photovoltaic	SUN	PV
2018	3	60923	Theodore Drive Solar, LLC	IPP	Theodore Drive Community Solar	MA	61296	02529	1.5	Solar Photovoltaic	SUN	PV
2018	3	61397	Town of Otis	Commercial	Town of Otis Wind Energy Project	MA	61775	OT196	1.5	Onshore Wind Turbine	WND	WT
2018	3	57081	WGL Energy Systems, Inc	IPP	Bowie State Solar	MD	61915	SO285	1.3	Solar Photovoltaic	SUN	PV
2018	3	57081	WGL Energy Systems, Inc	IPP	Danville	VA	61849	SO291	6.0	Solar Photovoltaic	SUN	PV
2018	3	61229	Waterville Solar Holdings LLC	IPP	Waterville Solar Holdings LLC	MN	61627	WA	5.0	Solar Photovoltaic	SUN	PV
2018	4	221	Alaska Village Elec Coop, Inc	Electric Utility	Hooper Bay	AK	6319	3B	0.4	Petroleum Liquids	DFO	IC
2018	4	221	Alaska Village Elec Coop, Inc	Electric Utility	Pilot Station	AK	57058	1	0.5	Petroleum Liquids	DFO	IC
2018	4	58889	Dominion Cove Point LNG, LP	Commercial	Cove Point LNG Terminal	MD	59073	5501	3.0	All Other	OTH	OT
2018	4	58889	Dominion Cove Point LNG, LP	Commercial	Cove Point LNG Terminal	MD	59073	5502	1.3	All Other	OTH	OT
2018	4	58889	Dominion Cove Point LNG, LP	Commercial	Cove Point LNG Terminal	MD	59073	5511	1.7	All Other	OTH	OT
2018	4	58889	Dominion Cove Point LNG, LP	Commercial	Cove Point LNG Terminal	MD	59073	5EG	1.0	Petroleum Liquids	DFO	IC
2018	4	58889	Dominion Cove Point LNG, LP	Commercial	Cove Point LNG Terminal	MD	59073	5STA	40.0	Natural Gas Fired Combined Cycle	NG	CA
2018	4	58889	Dominion Cove Point LNG, LP	Commercial	Cove Point LNG Terminal	MD	59073	5STB	40.0	Natural Gas Fired Combined Cycle	NG	CA
2018	4	5310	Doswell Ltd Partnership	IPP	Doswell Energy Center	VA	52019	GEN9	150.0	Natural Gas Fired Combustion Turbine	NG	GT
2018	4	5416	Duke Energy Carolinas, LLC	Electric Utility	W S Lee	SC	3264	CT11	216.0	Natural Gas Fired Combined Cycle	NG	CT
2018	4	5416	Duke Energy Carolinas, LLC	Electric Utility	W S Lee	SC	3264	CT12	216.0	Natural Gas Fired Combined Cycle	NG	CT
2018	4	5416	Duke Energy Carolinas, LLC	Electric Utility	W S Lee	SC	3264	ST10	321.0	Natural Gas Fired Combined Cycle	NG	CA
2018	4	60905	ETCAP NES CS MN 03 LLC	IPP	Marmas Solar CSG	MN	61139	0000C	5.0	Solar Photovoltaic	SUN	PV
2018	4	60905	ETCAP NES CS MN 03 LLC	IPP	Marmas Solar CSG	MN	61139	MARM2	1.0	Solar Photovoltaic	SUN	PV
2018	4	60905	ETCAP NES CS MN 03 LLC	IPP	Marmas Solar CSG	MN	61139	MARM3	1.0	Solar Photovoltaic	SUN	PV
2018	4	60905	ETCAP NES CS MN 03 LLC	IPP	Marmas Solar CSG	MN	61139	MARM4	1.0	Solar Photovoltaic	SUN	PV
2018	4	60905	ETCAP NES CS MN 03 LLC	IPP	Marmas Solar CSG	MN	61139	MARM5	1.0	Solar Photovoltaic	SUN	PV
2018	4	61124	Great Valley Solar Portfolio Holdings, LLC	IPP	Great Valley Solar Portfolio Holdings, LLC	CA	59940	TQ8	200.0	Solar Photovoltaic	SUN	PV
2018	4	9273	Indianapolis Power & Light Co	Electric Utility	Eagle Valley (IN)	IN	991	GT1	207.0	Natural Gas Fired Combined Cycle	NG	CT
2018	4	9273	Indianapolis Power & Light Co	Electric Utility	Eagle Valley (IN)	IN	991	GT2	207.0	Natural Gas Fired Combined Cycle	NG	CT
2018	4	9273	Indianapolis Power & Light Co	Electric Utility	Eagle Valley (IN)	IN	991	STG1	230.0	Natural Gas Fired Combined Cycle	NG	CA
2018	4	61417	Lavio Solar, LLC	IPP	Lavio Solar	CA	61792	5002	1.0	Solar Photovoltaic	SUN	PV
2018	4	61017	Lindstrom CSG 1, LLC	IPP	Lindstrom Solar CSG	MN	61382	LIND1	1.0	Solar Photovoltaic	SUN	PV
2018	4	61017	Lindstrom CSG 1, LLC	IPP	Lindstrom Solar CSG	MN	61382	LIND2	1.0	Solar Photovoltaic	SUN	PV
2018	4	61017	Lindstrom CSG 1, LLC	IPP	Lindstrom Solar CSG	MN	61382	LIND3	1.0	Solar Photovoltaic	SUN	PV
2018	4	61102	Minnesota Solar CSG 8, LLC	IPP	Carver Gladden CSG	MN	61495	42254	1.0	Solar Photovoltaic	SUN	PV
2018	4	61102	Minnesota Solar CSG 8, LLC	IPP	Carver Gladden CSG	MN	61495	42255	1.0	Solar Photovoltaic	SUN	PV
2018	4	61102	Minnesota Solar CSG 8, LLC	IPP	Carver Gladden CSG	MN	61495	42256	1.0	Solar Photovoltaic	SUN	PV
2018	4	61156	NMRD Data Center, LLC	IPP	Facebook 3 Solar Energy Center	NM	61558	FB3	10.0	Solar Photovoltaic	SUN	PV
2018	4	61169	New Germany Solar I LLC	IPP	New Germany Community Solar Garden	MN	61571	39062	1.0	Solar Photovoltaic	SUN	PV
2018	4	13781	Northern States Power Co - Minnesota	Electric Utility	Black Dog	MN	1904	6-1	215.0	Natural Gas Fired Combustion Turbine	NG	GT
2018	4	40229	Old Dominion Electric Coop	Electric Utility	Wildcat Point Generation Facility	MD	59220	CT1	310.3	Natural Gas Fired Combined Cycle	NG	CT
2018	4	40229	Old Dominion Electric Coop	Electric Utility	Wildcat Point Generation Facility	MD	59220	CT2	310.3	Natural Gas Fired Combined Cycle	NG	CT
2018	4	40229	Old Dominion Electric Coop	Electric Utility	Wildcat Point Generation Facility	MD	59220	ST1	493.0	Natural Gas Fired Combined Cycle	NG	CA
2018	4	60584	Onyx Asset Services Group	IPP	Amsterdam North	NY	61904	10044	2.0	Solar Photovoltaic	SUN	PV
2018	4	60584	Onyx Asset Services Group	IPP	Amsterdam South	NY	61905	10045	2.0	Solar Photovoltaic	SUN	PV
2018	4	60584	Onyx Asset Services Group	IPP	Broadalbin	NY	61847	10046	2.0	Solar Photovoltaic	SUN	PV
2018	4	60584	Onyx Asset Services Group	IPP	Duanesburg	NY	61863	10048	2.0	Solar Photovoltaic	SUN	PV
2018	4	60584	Onyx Asset Services Group	IPP	Johnstown	NY	61888	10049	2.0	Solar Photovoltaic	SUN	PV
2018	4	58764	Origis Energy USA, Inc	IPP	MA Solar Storage 1	MA	61730	61730	1.0	Batteries	MWH	BA
2018	4	61295	Pinal Central Energy Center, LLC	IPP	Pinal Central Energy Center	AZ	61678	BA1	10.0	Batteries	MWH	BA
2018	4	61295	Pinal Central Energy Center, LLC	IPP	Pinal Central Energy Center	AZ	61678	PCEC	20.0	Solar Photovoltaic	SUN	PV
2018	4	61494	Radian Generation	IPP	Hanover Solar, LLC	NC	61877	HAN01	5.0	Solar Photovoltaic	SUN	PV
2018	4	17164	Sierra Pacific Industries Inc	Industrial	Sierra Pacific Sonora	CA	54517	GEN3	6.0	Wood/Wood Waste Biomass	WDS	ST

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Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code
2018	4	57109	St Joseph Energy Center LLC	IPP	St Joseph Energy Center	IN	57794	CT1	229.0	Natural Gas Fired Combined Cycle	NG	CT
2018	4	57109	St Joseph Energy Center LLC	IPP	St Joseph Energy Center	IN	57794	CT2	229.0	Natural Gas Fired Combined Cycle	NG	CT
2018	4	57109	St Joseph Energy Center LLC	IPP	St Joseph Energy Center	IN	57794	ST1	245.0	Natural Gas Fired Combined Cycle	NG	CA
2018	4	61418	Stage Gulch Solar, LLC	IPP	Stage Gulch Solar	CA	61791	5001	0.8	Solar Photovoltaic	SUN	PV
2018	4	61019	SunE St. Cloud 1, LLC	IPP	St. Cloud Solar CSG	MN	61384	STCL1	1.0	Solar Photovoltaic	SUN	PV
2018	4	61019	SunE St. Cloud 1, LLC	IPP	St. Cloud Solar CSG	MN	61384	STCL2	1.0	Solar Photovoltaic	SUN	PV
2018	4	61019	SunE St. Cloud 1, LLC	IPP	St. Cloud Solar CSG	MN	61384	STCL3	1.0	Solar Photovoltaic	SUN	PV
2018	4	61019	SunE St. Cloud 1, LLC	IPP	St. Cloud Solar CSG	MN	61384	STCL4	1.0	Solar Photovoltaic	SUN	PV
2018	4	61019	SunE St. Cloud 1, LLC	IPP	St. Cloud Solar CSG	MN	61384	STCL5	1.0	Solar Photovoltaic	SUN	PV
2018	4	18642	Tennessee Valley Authority	Electric Utility	Allen	TN	3393	CTG1	311.9	Natural Gas Fired Combined Cycle	NG	CT
2018	4	18642	Tennessee Valley Authority	Electric Utility	Allen	TN	3393	CTG2	311.9	Natural Gas Fired Combined Cycle	NG	CT
2018	4	18642	Tennessee Valley Authority	Electric Utility	Allen	TN	3393	STG1	428.3	Natural Gas Fired Combined Cycle	NG	CA
2018	4	60059	ZGlobal Inc	IPP	Merced 1 PV	CA	61420	MRCD1	3.0	Solar Photovoltaic	SUN	PV
2018	4	61172	Zumbro Solar LLC	IPP	Zumbro Community Solar Garden	MN	61574	38674	1.0	Solar Photovoltaic	SUN	PV
2018	5	60571	AEP Onsite Partners	IPP	Imboden Solar Garden	CO	61753	PV1	1.5	Solar Photovoltaic	SUN	PV
2018	5	60571	AEP Onsite Partners	IPP	Imboden Solar Garden	CO	61753	PV2	1.5	Solar Photovoltaic	SUN	PV
2018	5	60571	AEP Onsite Partners	IPP	Ohio Northern University Solar Site	OH	60913	PV2	1.0	Solar Photovoltaic	SUN	PV
2018	5	60571	AEP Onsite Partners	IPP	Quincy II Solar Garden	CO	61752	PV1	1.5	Solar Photovoltaic	SUN	PV
2018	5	61344	Advanced Microgrid Solutions	IPP	HEBT Irvine 1	CA	61722	IRV01	1.0	Batteries	MWH	BA
2018	5	61344	Advanced Microgrid Solutions	IPP	HEBT Irvine 1	CA	61722	IRV1W	4.5	Batteries	MWH	BA
2018	5	60831	Argo Navis Community Solar	IPP	Argo Navis Community Solar	MN	61183	UACS2	0.9	Solar Photovoltaic	SUN	PV
2018	5	56267	Bayonne Energy Center LLC	IPP	Bayonne Energy Center	NJ	56964	GT10	59.5	Natural Gas Fired Combustion Turbine	NG	GT
2018	5	56267	Bayonne Energy Center LLC	IPP	Bayonne Energy Center	NJ	56964	GT9	59.5	Natural Gas Fired Combustion Turbine	NG	GT
2018	5	59777	Buckthorn Westex, LLC	IPP	Buckthorn Solar 1	TX	60044	BKTH1	202.0	Solar Photovoltaic	SUN	PV
2018	5	19002	CPV Towantic, LLC	IPP	CPV Towantic Energy Center	CT	56047	CTG1	233.6	Natural Gas Fired Combined Cycle	NG	CT
2018	5	19002	CPV Towantic, LLC	IPP	CPV Towantic Energy Center	CT	56047	CTG2	233.6	Natural Gas Fired Combined Cycle	NG	CT
2018	5	19002	CPV Towantic, LLC	IPP	CPV Towantic Energy Center	CT	56047	STG	277.8	Natural Gas Fired Combined Cycle	NG	CA
2018	5	56204	CPV Valley, LLC	IPP	CPV Valley Energy Center	NY	56940	CTG1	198.2	Natural Gas Fired Combined Cycle	NG	CT
2018	5	56204	CPV Valley, LLC	IPP	CPV Valley Energy Center	NY	56940	CTG2	198.2	Natural Gas Fired Combined Cycle	NG	CT
2018	5	56204	CPV Valley, LLC	IPP	CPV Valley Energy Center	NY	56940	STG	308.7	Natural Gas Fired Combined Cycle	NG	CA
2018	5	14203	City of Osawatomie - (KS)	Electric Utility	Osawatomie Power Plant North Sub	KS	60751	CAT1	2.0	Petroleum Liquids	DFO	IC
2018	5	14203	City of Osawatomie - (KS)	Electric Utility	Osawatomie Power Plant North Sub	KS	60751	CAT2	2.0	Petroleum Liquids	DFO	IC
2018	5	14203	City of Osawatomie - (KS)	Electric Utility	Osawatomie Power Plant North Sub	KS	60751	CAT3	2.0	Petroleum Liquids	DFO	IC
2018	5	61481	Dignity - San Martin	IPP	Dignity - San Martin	NV	61862	PV1	1.7	Solar Photovoltaic	SUN	PV
2018	5	61442	Dignity - Siena Campus	IPP	Dignity - Siena Campus	NV	61825	PV1	1.4	Solar Photovoltaic	SUN	PV
2018	5	59928	Footprint Salem Harbor Development LP	IPP	Salem Harbor Station NGCC	MA	60903	1	147.5	Natural Gas Fired Combined Cycle	NG	CA
2018	5	59928	Footprint Salem Harbor Development LP	IPP	Salem Harbor Station NGCC	MA	60903	2	147.5	Natural Gas Fired Combined Cycle	NG	CA
2018	5	59928	Footprint Salem Harbor Development LP	IPP	Salem Harbor Station NGCC	MA	60903	3	217.5	Natural Gas Fired Combined Cycle	NG	CT
2018	5	59928	Footprint Salem Harbor Development LP	IPP	Salem Harbor Station NGCC	MA	60903	4	217.5	Natural Gas Fired Combined Cycle	NG	CT
2018	5	61303	Grimm CSG LLC	IPP	Grimm Community Solar	MN	61689	PV1	1.0	Solar Photovoltaic	SUN	PV
2018	5	61109	Huneke I CSG LLC	IPP	Huneke I CSG	MN	61505	HUNE1	1.0	Solar Photovoltaic	SUN	PV
2018	5	61110	Krause CSG LLC	IPP	Krause CSG	MN	61506	KRAUS	1.0	Solar Photovoltaic	SUN	PV
2018	5	56990	NJR Clean Energy Ventures Corporation	IPP	Raritan Solar - 53 Highway	NJ	61601	RARIT	8.4	Solar Photovoltaic	SUN	PV
2018	5	59124	NTE Ohio LLC	IPP	Middletown Energy Center	OH	59326	MEC1	257.0	Natural Gas Fired Combined Cycle	NG	CT
2018	5	59124	NTE Ohio LLC	IPP	Middletown Energy Center	OH	59326	MEC2	227.0	Natural Gas Fired Combined Cycle	NG	CA
2018	5	60584	Onyx Asset Services Group	IPP	SeaWorld Aquatica	CA	61843	10276	1.0	Solar Photovoltaic	SUN	PV
2018	5	60584	Onyx Asset Services Group	IPP	Sharon Springs	NY	61903	10116	2.0	Solar Photovoltaic	SUN	PV
2018	5	61114	School Sisters CSG LLC	IPP	School Sisters CSG	MN	61516	SCHOO	1.0	Solar Photovoltaic	SUN	PV
2018	5	60712	South Maui Renewable Resources LLC	IPP	Kihei Solar Farm	HI	61099	KIHEI	2.9	Solar Photovoltaic	SUN	PV
2018	5	60653	Stafford St Solar 2, LLC	IPP	Stafford St 2 Community Solar	MA	61017	STAF2	2.0	Solar Photovoltaic	SUN	PV
2018	5	61210	Stenner Creek Solar LLC	Commercial	Stenner Creek Solar	CA	61607	CPOLY	4.5	Solar Photovoltaic	SUN	PV
2018	5	60822	Taurus Community Solar	IPP	Taurus Community Solar	MN	61174	ETCS1	0.9	Solar Photovoltaic	SUN	PV
2018	5	60822	Taurus Community Solar	IPP	Taurus Community Solar	MN	61174	ETCS2	0.9	Solar Photovoltaic	SUN	PV
2018	5	60947	Tesla Inc.	IPP	Time Warner Cable - Knowles	NY	60904	PV1	2.0	Solar Photovoltaic	SUN	PV
2018	5	61123	Upton County Solar 2 LLC	IPP	Castle Gap Solar	TX	60123	CGAP	180.0	Solar Photovoltaic	SUN	PV
2018	5	56927	Wallingford Energy LLC	IPP	Wallingford Energy	CT	55517	CTG6	45.0	Natural Gas Fired Combustion Turbine	NG	GT
2018	5	56927	Wallingford Energy LLC	IPP	Wallingford Energy	CT	55517	CTG7	45.0	Natural Gas Fired Combustion Turbine	NG	GT
2018	6	60824	Antares Community Solar	IPP	Antares Community Solar	MN	61176	FACS1	0.9	Solar Photovoltaic	SUN	PV
2018	6	60824	Antares Community Solar	IPP	Antares Community Solar	MN	61176	FACS2	0.9	Solar Photovoltaic	SUN	PV
2018	6	60824	Antares Community Solar	IPP	Antares Community Solar	MN	61176	FACS3	0.9	Solar Photovoltaic	SUN	PV
2018	6	803	Arizona Public Service Co	Electric Utility	Punkin Center Battery Storage	AZ	61913	B1	2.0	Batteries	MWH	BA
2018	6	58519	Clean Energy Collective LLC	IPP	SCE&G Nimitz CSG	SC	61433	SCNM1	8.0	Solar Photovoltaic	SUN	PV
2018	6	58519	Clean Energy Collective LLC	IPP	SCE&G Springfield CSG	SC	61434	SCSP1	6.1	Solar Photovoltaic	SUN	PV
2018	6	61187	DG Minnesota CSG, LLC	IPP	Big Lake Project	MN	61817	BIGLA	5.0	Solar Photovoltaic	SUN	PV
2018	6	61406	Delta Solar Power I, LLC	IPP	Delta Solar Power I	MI	61954	DSPI	7.7	Solar Photovoltaic	SUN	PV
2018	6	61435	EGP Stillwater Solar PV II, LLC	IPP	EGP Stillwater Solar PV II, LLC	NV	61809	STWII	20.0	Solar Photovoltaic	SUN	PV
2018	6	61538	Ecogy Delaware II LLC.	IPP	WHA Southbridge Solar Park	DE	61934	2	1.0	Solar Photovoltaic	SUN	PV

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Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code
2018	6	61443	Good Fellow Solar 1 PH1, LLC	IPP	RPUWD Scheuer Well Solar PV Project	CA	61824	RPU2	3.0	Solar Photovoltaic	SUN	PV
2018	6	60886	Gray Hawk Solar, LLC	IPP	Gray Hawk Solar	AZ	61272	GHS	55.0	Solar Photovoltaic	SUN	PV
2018	6	19547	Hawaiian Electric Co Inc	Electric Utility	Schofield Generating Station	HI	60328	S1	8.4	Other Waste Biomass	OBL	IC
2018	6	19547	Hawaiian Electric Co Inc	Electric Utility	Schofield Generating Station	HI	60328	S2	8.4	Other Waste Biomass	OBL	IC
2018	6	19547	Hawaiian Electric Co Inc	Electric Utility	Schofield Generating Station	HI	60328	S3	8.4	Other Waste Biomass	OBL	IC
2018	6	19547	Hawaiian Electric Co Inc	Electric Utility	Schofield Generating Station	HI	60328	S4	8.4	Other Waste Biomass	OBL	IC
2018	6	19547	Hawaiian Electric Co Inc	Electric Utility	Schofield Generating Station	HI	60328	S5	8.4	Other Waste Biomass	OBL	IC
2018	6	19547	Hawaiian Electric Co Inc	Electric Utility	Schofield Generating Station	HI	60328	S6	8.4	Other Waste Biomass	OBL	IC
2018	6	61409	Heyer CSG LLC	IPP	Heyer CSG	MN	61793	HEYER	1.0	Solar Photovoltaic	SUN	PV
2018	6	57389	IKEA Property Inc	Commercial	IKEA Oak Creek Rooftop PV System	WI	61816	PV1	1.2	Solar Photovoltaic	SUN	PV
2018	6	49893	Invenergy Services LLC	IPP	Bishop Hill III	IL	61787	BHIII	119.0	Onshore Wind Turbine	WND	WT
2018	6	61369	Kimball Wind, LLC	Electric Utility	Kimball Wind	NE	56106	KIM01	30.0	Onshore Wind Turbine	WND	WT
2018	6	58822	MC Power Companies Inc	IPP	El Dorado Springs Solar Farm	MO	61566	EDSF1	2.5	Solar Photovoltaic	SUN	PV
2018	6	58822	MC Power Companies Inc	IPP	Independence II Solar Farm	MO	61588	1	4.1	Solar Photovoltaic	SUN	PV
2018	6	58822	MC Power Companies Inc	IPP	Independence II Solar Farm	MO	61588	2	4.4	Solar Photovoltaic	SUN	PV
2018	6	61211	Montgomery County Solar	Commercial	Montgomery County Solar	MD	61608	1	1.9	Solar Photovoltaic	SUN	PV
2018	6	56990	NJR Clean Energy Ventures Corporation	IPP	New Road Solar, LLC	NJ	61599	NEWRD	10.0	Solar Photovoltaic	SUN	PV
2018	6	60635	Northern Cardinal Solar LLC	IPP	Northern Cardinal Solar	NC	60992	NCARD	2.0	Solar Photovoltaic	SUN	PV
2018	6	15147	PSEG Fossil LLC	IPP	PSEG Sewaren Generating Station	NJ	2411	701	328.0	Natural Gas Fired Combined Cycle	NG	CT
2018	6	15147	PSEG Fossil LLC	IPP	PSEG Sewaren Generating Station	NJ	2411	702	196.5	Natural Gas Fired Combined Cycle	NG	CA
2018	6	60162	Panda Hummel Station LLC	IPP	Panda Hummel Station LLC	PA	60368	CTG1	226.3	Natural Gas Fired Combined Cycle	NG	CT
2018	6	60162	Panda Hummel Station LLC	IPP	Panda Hummel Station LLC	PA	60368	CTG2	226.3	Natural Gas Fired Combined Cycle	NG	CT
2018	6	60162	Panda Hummel Station LLC	IPP	Panda Hummel Station LLC	PA	60368	CTG3	226.3	Natural Gas Fired Combined Cycle	NG	CT
2018	6	60162	Panda Hummel Station LLC	IPP	Panda Hummel Station LLC	PA	60368	STG	417.6	Natural Gas Fired Combined Cycle	NG	CA
2018	6	61298	Pine Gate Renewables	IPP	Sadiebrook Solar, LLC	SC	60719	SADIE	5.0	Solar Photovoltaic	SUN	PV
2018	6	61285	RJC II CSG LLC	IPP	RJC II Community Solar Garden	MN	61670	RJCII	1.0	Solar Photovoltaic	SUN	PV
2018	6	60520	SoCore Energy LLC	IPP	Red Maple Solar	MN	60962	PV1	1.0	Solar Photovoltaic	SUN	PV
2018	6	60520	SoCore Energy LLC	IPP	Red Maple Solar	MN	60962	PV2	1.0	Solar Photovoltaic	SUN	PV
2018	6	60520	SoCore Energy LLC	IPP	Red Maple Solar	MN	60962	PV3	1.0	Solar Photovoltaic	SUN	PV
2018	6	61376	SunSelect 1	Industrial	SunSelect1	CA	61754	1	2.0	Natural Gas Internal Combustion Engine	NG	IC
2018	6	60947	Tesla Inc.	IPP	Broome County	NY	60507	NORTH	2.0	Solar Photovoltaic	SUN	PV
2018	6	60947	Tesla Inc.	IPP	Broome County	NY	60507	SOUTH	2.0	Solar Photovoltaic	SUN	PV
2018	6	60947	Tesla Inc.	IPP	Oswego County - Fulton Solar	NY	60818	PV1	2.0	Solar Photovoltaic	SUN	PV
2018	6	61522	Viridity Energy Solutions, Inc.	IPP	Viridity Energy Solutions ACUA	NJ	61923	VACUA	1.0	Batteries	MWH	BA
2018	6	61277	Vista Energy Storage, LLC	IPP	Vista Energy Storage System	CA	61661	VISTA	40.0	Batteries	MWH	BA
2018	7	61012	AES Distributed Energy	IPP	Anheuser-Busch Baldwinsville	NY	61575	BAL01	2.0	Solar Photovoltaic	SUN	PV
2018	7	61012	AES Distributed Energy	IPP	Call Farms 1	NY	61470	CFM11	2.0	Solar Photovoltaic	SUN	PV
2018	7	61012	AES Distributed Energy	IPP	Call Farms 3	NY	61471	CFM31	2.0	Solar Photovoltaic	SUN	PV
2018	7	61012	AES Distributed Energy	IPP	Columbia University - Johnson Farms	NY	61576	JF01	2.0	Solar Photovoltaic	SUN	PV
2018	7	61012	AES Distributed Energy	IPP	Columbia University - Minisink	NY	61578	MIN01	2.0	Solar Photovoltaic	SUN	PV
2018	7	61012	AES Distributed Energy	IPP	Lichtenthal	NY	61469	LIC01	2.0	Solar Photovoltaic	SUN	PV
2018	7	61012	AES Distributed Energy	IPP	St. Lawerence University - Sutton	NY	61579	SUT01	2.0	Solar Photovoltaic	SUN	PV
2018	7	61012	AES Distributed Energy	IPP	Time Warner Cable Enterprises - Martino	NY	61577	MRT01	2.0	Solar Photovoltaic	SUN	PV
2018	7	61103	Adams Solar Center LLC	IPP	Adams Solar Center	OR	61496	ADAMS	10.0	Solar Photovoltaic	SUN	PV
2018	7	60146	Ameresco Federal Solutions	IPP	Fort Bliss (DEA EPIC)	TX	61887	DEPIC	2.0	Solar Photovoltaic	SUN	PV
2018	7	60831	Argo Navis Community Solar	IPP	Argo Navis Community Solar	MN	61183	UACS3	0.9	Solar Photovoltaic	SUN	PV
2018	7	59474	BQ Energy LLC	IPP	Sunlight Beacon	NY	61922	BEACO	2.0	Solar Photovoltaic	SUN	PV
2018	7	60655	Bullock Road Solar 1, LLC	IPP	Bullock Road Solar 1	MA	61010	BULLO	3.9	Solar Photovoltaic	SUN	PV
2018	7	5063	City of Denton - (TX)	Electric Utility	Denton Energy Center	TX	61643	DEC1	18.8	Natural Gas Internal Combustion Engine	NG	IC
2018	7	5063	City of Denton - (TX)	Electric Utility	Denton Energy Center	TX	61643	DEC10	18.8	Natural Gas Internal Combustion Engine	NG	IC
2018	7	5063	City of Denton - (TX)	Electric Utility	Denton Energy Center	TX	61643	DEC11	18.8	Natural Gas Internal Combustion Engine	NG	IC
2018	7	5063	City of Denton - (TX)	Electric Utility	Denton Energy Center	TX	61643	DEC12	18.8	Natural Gas Internal Combustion Engine	NG	IC
2018	7	5063	City of Denton - (TX)	Electric Utility	Denton Energy Center	TX	61643	DEC2	18.8	Natural Gas Internal Combustion Engine	NG	IC
2018	7	5063	City of Denton - (TX)	Electric Utility	Denton Energy Center	TX	61643	DEC3	18.8	Natural Gas Internal Combustion Engine	NG	IC
2018	7	5063	City of Denton - (TX)	Electric Utility	Denton Energy Center	TX	61643	DEC4	18.8	Natural Gas Internal Combustion Engine	NG	IC
2018	7	5063	City of Denton - (TX)	Electric Utility	Denton Energy Center	TX	61643	DEC5	18.8	Natural Gas Internal Combustion Engine	NG	IC
2018	7	5063	City of Denton - (TX)	Electric Utility	Denton Energy Center	TX	61643	DEC6	18.8	Natural Gas Internal Combustion Engine	NG	IC
2018	7	5063	City of Denton - (TX)	Electric Utility	Denton Energy Center	TX	61643	DEC7	18.8	Natural Gas Internal Combustion Engine	NG	IC
2018	7	5063	City of Denton - (TX)	Electric Utility	Denton Energy Center	TX	61643	DEC8	18.8	Natural Gas Internal Combustion Engine	NG	IC
2018	7	5063	City of Denton - (TX)	Electric Utility	Denton Energy Center	TX	61643	DEC9	18.8	Natural Gas Internal Combustion Engine	NG	IC
2018	7	61060	Cypress Creek Renewables	IPP	Old Caroleen Solar Farm	NC	61534	GEN1	2.0	Solar Photovoltaic	SUN	PV
2018	7	60370	DG AMP Solar, LLC	IPP	DG AMP Solar Smyrna	DE	61800	AMPSM	1.2	Solar Photovoltaic	SUN	PV
2018	7	61407	Delta Solar Power II, LLC	IPP	Delta Solar Power II	MI	61955	DSPII	15.2	Solar Photovoltaic	SUN	PV
2018	7	61304	Foreman's Hill CSG LLC	IPP	Foreman's Hill Community Solar	MN	61690	FOREM	5.0	Solar Photovoltaic	SUN	PV
2018	7	61499	Georgia-Pacific Wood Products LLC	Industrial	Georgia-Pacific Taylorsville Plywood	MS	61927	CTG1	6.2	Natural Gas Fired Combustion Turbine	NG	GT
2018	7	49893	Invenergy Services LLC	IPP	Shoreham Solar Commons	NY	60045	GEN1	24.9	Solar Photovoltaic	SUN	PV
2018	7	61520	Kearsarge Oppenheim LLC	IPP	Kearsarge Oppenheim	NY	61917	OPPEN	1.4	Solar Photovoltaic	SUN	PV

Table 6.3. New Utility Scale Generating Units by Operating Company, Plant, and Month, 2018

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code
2018	7	11161	Loma Linda University	Commercial	Loma Linda University Cogen	CA	10206	GEN5	1.0	Petroleum Liquids	DFO	IC
2018	7	61383	MN Solar Community, LLC	IPP	Sherburne North Project	MN	61762	SHERB	5.0	Solar Photovoltaic	SUN	PV
2018	7	61461	Mustang Solar LLC	IPP	Mustang Solar	NC	61533	GEN1	5.0	Solar Photovoltaic	SUN	PV
2018	7	54888	NRG Texas Power LLC	IPP	Bacliff	TX	60264	BCGT1	54.0	Natural Gas Fired Combustion Turbine	NG	GT
2018	7	54888	NRG Texas Power LLC	IPP	Bacliff	TX	60264	BCGT2	54.0	Natural Gas Fired Combustion Turbine	NG	GT
2018	7	54888	NRG Texas Power LLC	IPP	Bacliff	TX	60264	BCGT3	54.0	Natural Gas Fired Combustion Turbine	NG	GT
2018	7	54888	NRG Texas Power LLC	IPP	Bacliff	TX	60264	BCGT4	54.0	Natural Gas Fired Combustion Turbine	NG	GT
2018	7	54888	NRG Texas Power LLC	IPP	Bacliff	TX	60264	BCGT5	54.0	Natural Gas Fired Combustion Turbine	NG	GT
2018	7	54888	NRG Texas Power LLC	IPP	Bacliff	TX	60264	BCGT6	54.0	Natural Gas Fired Combustion Turbine	NG	GT
2018	7	60685	Novel Energy Solutions	IPP	Novel - OYA of Mapleton	MN	61060	0000I	3.5	Solar Photovoltaic	SUN	PV
2018	7	60685	Novel Energy Solutions	IPP	Novel OYA of Osakis	MN	61059	0000G	5.0	Solar Photovoltaic	SUN	PV
2018	7	60100	PSEG Keys Energy Center, LLC	IPP	Keys Energy Center	MD	60302	10	327.0	Natural Gas Fired Combined Cycle	NG	CA
2018	7	60100	PSEG Keys Energy Center, LLC	IPP	Keys Energy Center	MD	60302	11	214.0	Natural Gas Fired Combined Cycle	NG	CT
2018	7	60100	PSEG Keys Energy Center, LLC	IPP	Keys Energy Center	MD	60302	12	214.0	Natural Gas Fired Combined Cycle	NG	CT
2018	7	61288	Perennial Wind, LLC	IPP	Perennial Windfarm	NE	61677	T-1	2.3	Onshore Wind Turbine	WND	WT
2018	7	61288	Perennial Wind, LLC	IPP	Perennial Windfarm	NE	61677	T-2	2.3	Onshore Wind Turbine	WND	WT
2018	7	61288	Perennial Wind, LLC	IPP	Perennial Windfarm	NE	61677	T-3	2.3	Onshore Wind Turbine	WND	WT
2018	7	61108	RJC I CSG LLC	IPP	RJC I CSG	MN	61504	RCJ1	1.0	Solar Photovoltaic	SUN	PV
2018	7	61284	Scandia CSG LLC	IPP	Scandia Community Solar Garden	MN	61669	SCAND	2.5	Solar Photovoltaic	SUN	PV
2018	7	60163	Soltage LLC	IPP	Kelly Solar, LLC	NC	61219	KELLY	5.0	Solar Photovoltaic	SUN	PV
2018	7	17650	Southern Power Co	IPP	Cactus Flats Wind Energy Project	TX	61001	WT1	150.0	Onshore Wind Turbine	WND	WT
2018	7	61188	West Texas A&M University	Commercial	UL Advanced Wind Turbine Test Facility	TX	61589	UT-1	3.4	Onshore Wind Turbine	WND	WT
2018	8	61344	Advanced Microgrid Solutions	IPP	HEBT Irvine 2	CA	61723	IRV06	2.5	Batteries	MWH	BA
2018	8	58261	Arkwright Summit Wind Farm LLC	IPP	Arkwright Summit Wind Farm LLC	NY	61673	WT	78.4	Onshore Wind Turbine	WND	WT
2018	8	15399	Avangrid Renewables LLC	IPP	WyEast Solar	OR	61345	PV1	10.0	Solar Photovoltaic	SUN	PV
2018	8	59474	BQ Energy LLC	IPP	Annapolis Solar Park, LLC	MD	60681	ASP12	12.0	Solar Photovoltaic	SUN	PV
2018	8	61256	Betcher CSG LLC	IPP	Betcher Community Solar Garden	MN	61671	BETCH	1.0	Solar Photovoltaic	SUN	PV
2018	8	61410	Broad Street Fuel Cell, LLC	IPP	Trinity College Fuel Cell	CT	61786	MB-22	1.4	Other Natural Gas	NG	FC
2018	8	6175	City of Falls City - (NE)	Electric Utility	Falls City	NE	2237	9	9.3	Natural Gas Internal Combustion Engine	NG	IC
2018	8	60609	Clean Focus Renewables, Inc.	IPP	BHE Pueblo 2 Community Solar Array	CO	60801	PUEB2	1.5	Solar Photovoltaic	SUN	PV
2018	8	61060	Cypress Creek Renewables	IPP	Antanavica Solar	MA	61526	GEN1	1.0	Solar Photovoltaic	SUN	PV
2018	8	61104	Elbe Solar Center LLC	IPP	Elbe Solar Center	OR	61497	ELBE	10.0	Solar Photovoltaic	SUN	PV
2018	8	61070	Foundation CA Fund IX Manager, LLC	IPP	Foundation California Training Facility	CA	61442	WTG1	1.8	Onshore Wind Turbine	WND	WT
2018	8	61070	Foundation CA Fund IX Manager, LLC	IPP	Foundation Salinas Valley State Prison	CA	61444	WTG1	1.8	Onshore Wind Turbine	WND	WT
2018	8	60849	Green Beanworks C, LLC	IPP	Green Beanworks C PV	CA	61215	GBWXC	3.0	Solar Photovoltaic	SUN	PV
2018	8	60850	Green Beanworks D, LLC	IPP	Green Beanworks D PV	CA	61216	GBWXD	3.0	Solar Photovoltaic	SUN	PV
2018	8	61287	Johnson I CSG LLC	IPP	Johnson 1 Community Solar	MN	61686	PV1	1.0	Solar Photovoltaic	SUN	PV
2018	8	61346	Lisbon East	IPP	COU Solar I, LLC	NY	61720	LECOU	1.5	Solar Photovoltaic	SUN	PV
2018	8	61345	Lisbon West	IPP	CJ Solar I, LLC	NY	61719	LWCJ1	2.0	Solar Photovoltaic	SUN	PV
2018	8	59675	Moxie Freedom LLC	IPP	Moxie Freedom Generation Plant	PA	59906	GEN1	490.0	Natural Gas Fired Combined Cycle	NG	CS
2018	8	56990	NJR Clean Energy Ventures Corporation	IPP	Old Bridge Solar Farm	NJ	61600	OLDBR	8.8	Solar Photovoltaic	SUN	PV
2018	8	59123	NTE Carolinas, LLC	IPP	Kings Mountain Energy Center	NC	59325	KMEC1	259.0	Natural Gas Fired Combined Cycle	NG	CT
2018	8	59123	NTE Carolinas, LLC	IPP	Kings Mountain Energy Center	NC	59325	KMEC2	227.0	Natural Gas Fired Combined Cycle	NG	CA
2018	8	61348	PCS Energy, LLC	Industrial	Aerolease	CA	61718	APLEX	1.1	Solar Photovoltaic	SUN	PV
2018	8	61575	Pacific Ethanol Madera	Industrial	Pacific Ethanol Madera Solar Array	CA	61989	PV	3.9	Solar Photovoltaic	SUN	PV
2018	8	60748	Salisbury Solar, LLC	IPP	Salisbury Solar	NC	61128	12349	3.8	Solar Photovoltaic	SUN	PV
2018	8	57081	WGL Energy Systems, Inc	IPP	Cornillie	MN	61977	SO334	1.0	Solar Photovoltaic	SUN	PV
2018	9	61012	AES Distributed Energy	IPP	Broadalbin-Perth Solar	NY	61958	BAP1	1.5	Solar Photovoltaic	SUN	PV
2018	9	60281	Altus Power America Management, LLC	IPP	Big George PV CSG	MA	61429	12344	1.0	Solar Photovoltaic	SUN	PV
2018	9	60146	Ameresco Federal Solutions	IPP	MCRD Parris Island PV	SC	61956	GRDMT	4.4	Solar Photovoltaic	SUN	PV
2018	9	1015	Austin Energy	Electric Utility	Kingsberry Energy Storage System	TX	61741	KBESS	1.5	Batteries	MWH	BA
2018	9	60899	Bear Creek Solar Center, LLC	IPP	Bear Creek Solar Center	OR	61281	BCRSC	10.0	Solar Photovoltaic	SUN	PV
2018	9	4254	Consumers Energy Co	Electric Utility	Parkview Battery	MI	61909	PKVWB	1.0	Batteries	MWH	BA
2018	9	60370	DG AMP Solar, LLC	IPP	DG AMP Solar Piqua Staunton	OH	61805	AMPPS	1.8	Solar Photovoltaic	SUN	PV
2018	9	58970	Ecoplexus, Inc	IPP	SunE Feely 1 CSG, LLC	MN	61478	FELY1	1.0	Solar Photovoltaic	SUN	PV
2018	9	58970	Ecoplexus, Inc	IPP	SunE Feely 1 CSG, LLC	MN	61478	FELY2	1.0	Solar Photovoltaic	SUN	PV
2018	9	58970	Ecoplexus, Inc	IPP	SunE Feely 1 CSG, LLC	MN	61478	FELY3	1.0	Solar Photovoltaic	SUN	PV
2018	9	58970	Ecoplexus, Inc	IPP	SunE Feely 1 CSG, LLC	MN	61478	FELY4	1.0	Solar Photovoltaic	SUN	PV
2018	9	58970	Ecoplexus, Inc	IPP	SunE Feely 1 CSG, LLC	MN	61478	FELY5	1.0	Solar Photovoltaic	SUN	PV
2018	9	60844	Flat Top Wind I, LLC	IPP	Flat Top Wind I	TX	61212	FTWI	200.0	Onshore Wind Turbine	WND	WT
2018	9	57484	Foundation CA Fund V Manager, LLC	IPP	Foundation NWNA	CA	58114	WTG3	1.9	Onshore Wind Turbine	WND	WT
2018	9	60025	Greenbacker Renewable Energy Corporation	IPP	Midway Solar Farm III	CA	60315	MSF3	20.0	Solar Photovoltaic	SUN	PV
2018	9	61620	IOS II LLC	IPP	Cuyahoga County Landfill	OH	62041	CCBO1	3.7	Solar Photovoltaic	SUN	PV
2018	9	61309	Johnson II CSG LLC	IPP	Johnson II Community Solar	MN	61695	PV1	1.0	Solar Photovoltaic	SUN	PV
2018	9	61642	Lane Solar Farm LLC	IPP	Lane Solar	NC	62104	PGRF2	5.0	Solar Photovoltaic	SUN	PV
2018	9	58822	MC Power Companies Inc	IPP	Farmington Solar Farm	MO	61450	FSF1	2.5	Solar Photovoltaic	SUN	PV
2018	9	59675	Moxie Freedom LLC	IPP	Moxie Freedom Generation Plant	PA	59906	GEN2	490.0	Natural Gas Fired Combined Cycle	NG	CS

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Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code
2018	9	60471	Mt. Tom Solar, LLC	IPP	Mt. Tom Solar Project	MA	60906	BA1	3.1	Batteries	MWH	BA
2018	9	61209	NC 102 Project LLC	IPP	NC 102 Project LLC	NC	61610	NC102	74.8	Solar Photovoltaic	SUN	PV
2018	9	59098	Northwest Ohio Wind, LLC	IPP	Trishe Wind Ohio LLC	OH	59296	NWOH1	100.0	Onshore Wind Turbine	WND	WT
2018	9	61598	Novel Solar Three, LLC	IPP	Gibbon Solar	MN	62010	PGRK1	3.3	Solar Photovoltaic	SUN	PV
2018	9	60996	OEE XXV LLC	Industrial	Valfilm Wind Project	OH	61356	W1	1.5	Onshore Wind Turbine	WND	WT
2018	9	60996	OEE XXV LLC	Industrial	Valfilm Wind Project	OH	61356	W2	1.5	Onshore Wind Turbine	WND	WT
2018	9	61278	OEE XXVI LLC	IPP	Whirlpool Corp-Greenville Wind Farm	OH	61660	WTG1	1.5	Onshore Wind Turbine	WND	WT
2018	9	61278	OEE XXVI LLC	IPP	Whirlpool Corp-Greenville Wind Farm	OH	61660	WTG2	1.5	Onshore Wind Turbine	WND	WT
2018	9	61278	OEE XXVI LLC	IPP	Whirlpool Corp-Greenville Wind Farm	OH	61660	WTG3	1.5	Onshore Wind Turbine	WND	WT
2018	9	61495	Persimmon Creek Wind Farm 1, LLC	IPP	Persimmon Creek Wind Farm 1, LLC	OK	61876	PCWF1	198.6	Onshore Wind Turbine	WND	WT
2018	9	61298	Pine Gate Renewables	IPP	Soluga Farms IV	NC	59934	SFIV	4.9	Solar Photovoltaic	SUN	PV
2018	9	60443	Rattlesnake Power, LLC	IPP	Rattlesnake Power, LLC	TX	60743	WT1	160.0	Onshore Wind Turbine	WND	WT
2018	9	18454	Tampa Electric Co	Electric Utility	Balm Solar	FL	61654	PV1	74.4	Solar Photovoltaic	SUN	PV
2018	9	18454	Tampa Electric Co	Electric Utility	Payne Creek Solar	FL	61665	GEN1	70.3	Solar Photovoltaic	SUN	PV
2018	9	19876	Virginia Electric & Power Co	Electric Utility	Hollyfield	VA	61023	1	6.8	Solar Photovoltaic	SUN	PV
2018	9	57081	WGL Energy Systems, Inc	IPP	Eichtens II CSG	MN	62137	SO340	1.0	Solar Photovoltaic	SUN	PV
2018	9	57081	WGL Energy Systems, Inc	IPP	Huneke II CSG	MN	62139	SO346	1.1	Solar Photovoltaic	SUN	PV
2018	9	57081	WGL Energy Systems, Inc	IPP	Susquehanna University Solar	PA	61914	SO829	3.0	Solar Photovoltaic	SUN	PV
2018	10	60146	Ameresco Federal Solutions	IPP	MCRD Parris Island PV	SC	61956	CARPT	1.6	Solar Photovoltaic	SUN	PV
2018	10	60533	Carl Friedrich Gauss Solar LLC	IPP	Carl Friedrich Gauss Solar	NC	60882	GAUSS	5.0	Solar Photovoltaic	SUN	PV
2018	10	18445	City of Tallahassee - (FL)	Electric Utility	Sub 12	FL	61080	IC1	9.3	Natural Gas Internal Combustion Engine	NG	IC
2018	10	18445	City of Tallahassee - (FL)	Electric Utility	Sub 12	FL	61080	IC2	9.3	Natural Gas Internal Combustion Engine	NG	IC
2018	10	60170	Clean Energy Future-Lordstown, LLC	IPP	Clean Energy Future-Lordstown, LLC	OH	60376	CTG1	263.0	Natural Gas Fired Combined Cycle	NG	CT
2018	10	60170	Clean Energy Future-Lordstown, LLC	IPP	Clean Energy Future-Lordstown, LLC	OH	60376	CTG2	263.0	Natural Gas Fired Combined Cycle	NG	CT
2018	10	60170	Clean Energy Future-Lordstown, LLC	IPP	Clean Energy Future-Lordstown, LLC	OH	60376	STG1	324.0	Natural Gas Fired Combined Cycle	NG	CA
2018	10	56769	Consolidated Edison Development Inc.	IPP	Aurora County Wind	SD	61745	ACSD	20.0	Onshore Wind Turbine	WND	WT
2018	10	56769	Consolidated Edison Development Inc.	IPP	Brule County Wind	SD	61746	BCSD	20.0	Onshore Wind Turbine	WND	WT
2018	10	60825	Corvus Community Solar	IPP	Corvus Community Solar	MN	61177	GCCS1	0.9	Solar Photovoltaic	SUN	PV
2018	10	60825	Corvus Community Solar	IPP	Corvus Community Solar	MN	61177	GCCS2	0.9	Solar Photovoltaic	SUN	PV
2018	10	60825	Corvus Community Solar	IPP	Corvus Community Solar	MN	61177	GCCS3	0.9	Solar Photovoltaic	SUN	PV
2018	10	60825	Corvus Community Solar	IPP	Corvus Community Solar	MN	61177	GCCS4	0.9	Solar Photovoltaic	SUN	PV
2018	10	60825	Corvus Community Solar	IPP	Corvus Community Solar	MN	61177	GCCS5	0.9	Solar Photovoltaic	SUN	PV
2018	10	61060	Cypress Creek Renewables	IPP	Brantley Solar	NC	60623	PV1	50.2	Solar Photovoltaic	SUN	PV
2018	10	61060	Cypress Creek Renewables	IPP	Saint Albans Solar	VT	61928	GEN1	4.9	Solar Photovoltaic	SUN	PV
2018	10	61187	DG Minnesota CSG, LLC	IPP	Cottage Grove Project CSG	MN	61983	COTG	4.9	Solar Photovoltaic	SUN	PV
2018	10	5199	Devon Energy Production Co	Industrial	Beaver Creek Gas Plant	WY	55278	STG-1	0.9	All Other	WH	ST
2018	10	58468	Dominion Renewable Energy	IPP	Puller Solar	VA	62140	PULL	15.0	Solar Photovoltaic	SUN	PV
2018	10	6455	Duke Energy Florida, LLC	Electric Utility	Crystal River	FL	628	1GTA	251.7	Natural Gas Fired Combined Cycle	NG	CT
2018	10	6455	Duke Energy Florida, LLC	Electric Utility	Crystal River	FL	628	1GTB	251.7	Natural Gas Fired Combined Cycle	NG	CT
2018	10	6455	Duke Energy Florida, LLC	Electric Utility	Crystal River	FL	628	CC1ST	316.7	Natural Gas Fired Combined Cycle	NG	CA
2018	10	5701	El Paso Electric Co	Electric Utility	Holloman Solar Facility	NM	60301	HPV1	5.0	Solar Photovoltaic	SUN	PV
2018	10	60399	GASNA 6P, LLC	IPP	San Joaquin Solar	CA	60678	SJ1A	18.5	Solar Photovoltaic	SUN	PV
2018	10	49893	Invenergy Services LLC	IPP	Lackawanna Energy Center	PA	60357	GEN2	465.0	Natural Gas Fired Combined Cycle	NG	CS
2018	10	60713	Ku'ia Solar LLC	IPP	Ku'ia Solar	HI	61101	KUIA	2.9	Solar Photovoltaic	SUN	PV
2018	10	11208	Los Angeles Department of Water & Power	Electric Utility	Beacon BESS 1	CA	61431	BCNB1	20.0	Batteries	MWH	BA
2018	10	61681	Minisink Solar 1 LLC	IPP	Minisink Solar 1 LLC	NY	62145	MINI1	1.8	Solar Photovoltaic	SUN	PV
2018	10	61101	Minnesota Solar CSG 1, LLC	IPP	Wright Cuddyer CSG	MN	61494	41327	1.0	Solar Photovoltaic	SUN	PV
2018	10	61101	Minnesota Solar CSG 1, LLC	IPP	Wright Cuddyer CSG	MN	61494	41328	1.0	Solar Photovoltaic	SUN	PV
2018	10	61101	Minnesota Solar CSG 1, LLC	IPP	Wright Cuddyer CSG	MN	61494	41329	1.0	Solar Photovoltaic	SUN	PV
2018	10	61101	Minnesota Solar CSG 1, LLC	IPP	Wright Cuddyer CSG	MN	61494	41330	1.0	Solar Photovoltaic	SUN	PV
2018	10	56990	NJR Clean Energy Ventures Corporation	IPP	Quakertown Solar Farm, LLC	NJ	61965	QKRTN	8.8	Solar Photovoltaic	SUN	PV
2018	10	56990	NJR Clean Energy Ventures Corporation	IPP	Springfield Solar Project	NJ	61907	NJLND	7.5	Solar Photovoltaic	SUN	PV
2018	10	54913	NSTAR Electric Company	Electric Utility	East Springfield Solar PV	MA	62093	REC34	1.4	Solar Photovoltaic	SUN	PV
2018	10	54913	NSTAR Electric Company	Electric Utility	Montague Site 36-Grosolar	MA	62092	REC34	4.1	Solar Photovoltaic	SUN	PV
2018	10	56545	Pattern Operators LP	IPP	Stillwater Wind, LLC	MT	61858	WT	80.0	Onshore Wind Turbine	WND	WT
2018	10	60520	SoCore Energy LLC	IPP	Anoka County MN CONX	MN	62061	PV1	3.4	Solar Photovoltaic	SUN	PV
2018	10	60520	SoCore Energy LLC	IPP	Hampton MN GRE	MN	62060	PV1	2.0	Solar Photovoltaic	SUN	PV
2018	10	61582	USS Kasch Solar LLC	IPP	USS Kasch Solar CSG	MN	61999	USSKA	1.0	Solar Photovoltaic	SUN	PV
2018	10	57081	WGL Energy Systems, Inc	IPP	Barone CSG	MN	62138	SO328	1.0	Solar Photovoltaic	SUN	PV
2018	11	55963	AE Power Services LLC	IPP	Rolling Thunder Wind Farm	SD	57045	2	0.8	Batteries	MWH	BA
2018	11	61633	AVS Phase 2 LLC	IPP	Lancaster	CA	62056	LANC	3.0	Solar Photovoltaic	SUN	PV
2018	11	61529	Adams Nielson Solar, LLC	IPP	Adams Nielson Solar	WA	61933	ADAMS	19.2	Solar Photovoltaic	SUN	PV
2018	11	60476	Bluebell Solar, LLC	IPP	Bluebell Solar	TX	60789	UNIT1	30.0	Solar Photovoltaic	SUN	PV
2018	11	61230	CD Arevon USA, Inc.	IPP	Mount Signal Solar Farm 3	CA	61202	MTSG3	252.3	Solar Photovoltaic	SUN	PV
2018	11	61531	Casa Mesa Wind, LLC	IPP	Casa Mesa Wind Energy Center	NM	61925	CMNM	50.9	Onshore Wind Turbine	WND	WT
2018	11	61531	Casa Mesa Wind, LLC	IPP	Casa Mesa Wind Energy Center	NM	61925	CMNMB	1.0	Batteries	MWH	BA
2018	11	61060	Cypress Creek Renewables	IPP	Buckleberry Solar	NC	61693	GEN	52.1	Solar Photovoltaic	SUN	PV

Table 6.3. New Utility Scale Generating Units by Operating Company, Plant, and Month, 2018

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code
2018	11	61060	Cypress Creek Renewables	IPP	Eddy II	TX	61874	GEN1	10.0	Solar Photovoltaic	SUN	PV
2018	11	61060	Cypress Creek Renewables	IPP	Fox Creek Solar	NC	60624	PV1	50.2	Solar Photovoltaic	SUN	PV
2018	11	61060	Cypress Creek Renewables	IPP	Sterling Solar (TX)	TX	61871	GEN1	10.0	Solar Photovoltaic	SUN	PV
2018	11	61060	Cypress Creek Renewables	IPP	Yellow Jacket	TX	61873	GEN1	5.0	Solar Photovoltaic	SUN	PV
2018	11	61187	DG Minnesota CSG, LLC	IPP	Monticello Project CSG	MN	62105	MONTI	5.0	Solar Photovoltaic	SUN	PV
2018	11	61187	DG Minnesota CSG, LLC	IPP	Schultz CSG	MN	62088	SCHUL	1.8	Solar Photovoltaic	SUN	PV
2018	11	6455	Duke Energy Florida, LLC	Electric Utility	Crystal River	FL	628	2GTA	244.0	Natural Gas Fired Combined Cycle	NG	CT
2018	11	6455	Duke Energy Florida, LLC	Electric Utility	Crystal River	FL	628	2GTB	244.0	Natural Gas Fired Combined Cycle	NG	CT
2018	11	6455	Duke Energy Florida, LLC	Electric Utility	Crystal River	FL	628	CC2ST	328.0	Natural Gas Fired Combined Cycle	NG	CA
2018	11	60252	Friendswood Energy Genco, LLC	IPP	Friendswood Energy	TX	60468	GT-1	117.0	Natural Gas Fired Combustion Turbine	NG	GT
2018	11	61334	Libra Community Solar Garden, LLC	IPP	Libra Community Solar	MN	61709	LIBR	1.0	Solar Photovoltaic	SUN	PV
2018	11	61381	Meadow Lake Wind Farm VI LLC	IPP	Meadow Lake Wind Farm VI LLC	IN	61756	MWLVI	200.4	Onshore Wind Turbine	WND	WT
2018	11	61682	Minisink Solar 2 LLC	IPP	Minisink Community Solar 2 LLC	NY	62146	MINI2	2.0	Solar Photovoltaic	SUN	PV
2018	11	58489	OCI Solar Power	IPP	Ivory Solar	TX	61697	IVORY	50.0	Solar Photovoltaic	SUN	PV
2018	11	61726	Oak Leaf Solar XXVII LLC	IPP	Oak Leaf Solar XXVII LLC	CO	62224	53971	1.5	Solar Photovoltaic	SUN	PV
2018	11	14624	PUD No 2 of Grant County	Electric Utility	Wanapum	WA	3888	8A	122.0	Conventional Hydroelectric	WAT	HY
2018	11	61640	Quarter Horse Farm LLC	IPP	Quarter Horse Solar	NC	62095	PGRF5	4.5	Solar Photovoltaic	SUN	PV
2018	11	61677	Sol Systems	IPP	Red Toad 4451 Buffalo Road, LLC	NC	62131	G4451	2.0	Solar Photovoltaic	SUN	PV
2018	11	61677	Sol Systems	IPP	Red Toad 5840 Buffalo Road, LLC	NC	62204	G5840	2.0	Solar Photovoltaic	SUN	PV
2018	11	17633	Southern Indiana Gas & Elec Co	Electric Utility	Oak Hill Solar Array	IN	61333	OHSA1	2.0	Solar Photovoltaic	SUN	PV
2018	11	17633	Southern Indiana Gas & Elec Co	Electric Utility	Volkman Road Solar Array	IN	61334	VRSA1	2.0	Solar Photovoltaic	SUN	PV
2018	11	60910	Sun Farm V, LLC	IPP	Sun Farm V, LLC	NC	61287	SF5PV	4.8	Solar Photovoltaic	SUN	PV
2018	11	61441	Sun Farm VI, LLC	IPP	Sun Farm VI, LLC	NC	61842	PV1	4.8	Solar Photovoltaic	SUN	PV
2018	11	58658	Sunlight Partners	IPP	Kathleen Solar	NC	60180	PV1	5.0	Solar Photovoltaic	SUN	PV
2018	11	61685	Syncarpha Eagle Nest I, LLC	IPP	Syncarpha Eagle Nest	NM	62149	SYEN1	1.0	Solar Photovoltaic	SUN	PV
2018	11	57081	WGL Energy Systems, Inc	IPP	Bolduan CSG	MN	62194	SO360	1.0	Solar Photovoltaic	SUN	PV

NOTES:
Capacity from facilities with a total generator nameplate capacity less than 1 MW are excluded from this table.
Entity ID and Plant ID are official, unique identification numbers assigned by EIA; Generator IDs are assigned by plant owners and/or operators.
Descriptions for the Energy Source Codes and the Prime Mover Codes listed in the table can be found in the Technical Notes.

Table 6.4. Retired Utility Scale Generating Units by Operating Company, Plant, and Month, 2018

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code
2018	1	221	Alaska Village Elec Coop, Inc	Electric Utility	Brevig Mission	AK	60260	3	0.5	Petroleum Liquids	DFO	IC
2018	1	4329	Copper Valley Elec Assn, Inc	Electric Utility	Valdez	AK	6306	7	2.8	Petroleum Liquids	DFO	GT
2018	1	9617	JEA	Electric Utility	St Johns River Power Park	FL	207	1	626.0	Conventional Steam Coal	BIT	ST
2018	1	9617	JEA	Electric Utility	St Johns River Power Park	FL	207	2	626.0	Conventional Steam Coal	BIT	ST
2018	1	55983	Luminant Generation Company LLC	IPP	Monticello	TX	6147	1	535.0	Conventional Steam Coal	SUB	ST
2018	1	55983	Luminant Generation Company LLC	IPP	Monticello	TX	6147	2	535.0	Conventional Steam Coal	SUB	ST
2018	1	55983	Luminant Generation Company LLC	IPP	Monticello	TX	6147	3	795.0	Conventional Steam Coal	SUB	ST
2018	1	55983	Luminant Generation Company LLC	IPP	Sandow No 4	TX	6648	4	600.0	Conventional Steam Coal	LIG	ST
2018	1	55983	Luminant Generation Company LLC	IPP	Sandow No 5	TX	52071	5	600.0	Conventional Steam Coal	LIG	ST
2018	1	58247	National Centers for Animal Health	Commercial	NCAH Central Utility Plant	IA	58265	S-7A	1.0	Natural Gas Fired Combustion Turbine	NG	GT
2018	1	17887	St Joseph's Hospital	Commercial	St Josephs Hospital	FL	54534	0001	1.6	Natural Gas Internal Combustion Engine	NG	IC
2018	1	5677	Waste Energy Services Inc	Electric CHP	Waste Energy Services	MI	50077	CAT1	0.5	Landfill Gas	LFG	IC
2018	1	5677	Waste Energy Services Inc	Electric CHP	Waste Energy Services	MI	50077	CAT2	0.3	Landfill Gas	LFG	IC
2018	1	5677	Waste Energy Services Inc	Electric CHP	Waste Energy Services	MI	50077	CAT3	0.3	Landfill Gas	LFG	IC
2018	1	5677	Waste Energy Services Inc	Electric CHP	Waste Energy Services	MI	50077	CAT4	0.3	Landfill Gas	LFG	IC
2018	2	7011	Gas Recovery Services-IL Inc	IPP	Mallard Lake Electric	IL	55592	1	3.8	Landfill Gas	LFG	CT
2018	2	7011	Gas Recovery Services-IL Inc	IPP	Mallard Lake Electric	IL	55592	2	3.8	Landfill Gas	LFG	CT
2018	2	7011	Gas Recovery Services-IL Inc	IPP	Mallard Lake Electric	IL	55592	4	7.6	Landfill Gas	LFG	CA
2018	2	55983	Luminant Generation Company LLC	IPP	Big Brown	TX	3497	1	606.0	Conventional Steam Coal	SUB	ST
2018	2	55983	Luminant Generation Company LLC	IPP	Big Brown	TX	3497	2	602.0	Conventional Steam Coal	SUB	ST
2018	2	15908	NRG California South LP	IPP	Mandalay	CA	345	03	130.0	Natural Gas Fired Combustion Turbine	NG	GT
2018	2	15908	NRG California South LP	IPP	Mandalay	CA	345	1	215.0	Natural Gas Steam Turbine	NG	ST
2018	2	15908	NRG California South LP	IPP	Mandalay	CA	345	2	215.0	Natural Gas Steam Turbine	NG	ST
2018	2	17633	Southern Indiana Gas & Elec Co	Electric Utility	Broadway (IN)	IN	1011	1	50.0	Natural Gas Fired Combustion Turbine	NG	GT
2018	2	56772	TX LFG Energy, LP	IPP	Atascosita	TX	55526	GEN1	1.7	Landfill Gas	LFG	IC
2018	2	56772	TX LFG Energy, LP	IPP	Atascosita	TX	55526	GEN2	1.7	Landfill Gas	LFG	IC
2018	2	56772	TX LFG Energy, LP	IPP	Atascosita	TX	55526	GEN3	1.7	Landfill Gas	LFG	IC
2018	2	56772	TX LFG Energy, LP	IPP	Atascosita	TX	55526	GEN4	1.7	Landfill Gas	LFG	IC
2018	2	56772	TX LFG Energy, LP	IPP	Atascosita	TX	55526	GEN5	1.7	Landfill Gas	LFG	IC
2018	2	56772	TX LFG Energy, LP	IPP	Atascosita	TX	55526	GEN6	1.7	Landfill Gas	LFG	IC
2018	2	57305	Wright Patterson AFB	Commercial	Heat Plant 770	OH	57926	HP	0.0	Natural Gas Steam Turbine	NG	ST
2018	2	57305	Wright Patterson AFB	Commercial	Heat Plant 770	OH	57926	LP	0.0	Natural Gas Steam Turbine	NG	ST
2018	3	16873	City of Sebewaing - (MI)	Electric Utility	Pine Street	MI	7806	1	1.0	Natural Gas Internal Combustion Engine	NG	IC
2018	3	16873	City of Sebewaing - (MI)	Electric Utility	Pine Street	MI	7806	2	1.0	Natural Gas Internal Combustion Engine	NG	IC
2018	3	16873	City of Sebewaing - (MI)	Electric Utility	Pine Street	MI	7806	3	1.0	Petroleum Liquids	DFO	IC
2018	3	16873	City of Sebewaing - (MI)	Electric Utility	Pine Street	MI	7806	4	1.0	Petroleum Liquids	DFO	IC
2018	3	16873	City of Sebewaing - (MI)	Electric Utility	Pine Street	MI	7806	5	1.2	Natural Gas Internal Combustion Engine	NG	IC
2018	3	16873	City of Sebewaing - (MI)	Electric Utility	Pine Street	MI	7806	6	1.2	Natural Gas Internal Combustion Engine	NG	IC
2018	3	12686	Mississippi Power Co	Electric Utility	Jack Watson	MS	2049	3	107.0	Natural Gas Steam Turbine	NG	ST
2018	3	12199	Montana-Dakota Utilities Co	Electric Utility	Portable Generator 1	ND	59196	IC1	2.0	Petroleum Liquids	DFO	IC
2018	3	17164	Sierra Pacific Industries Inc	Industrial	Sierra Pacific Sonora	CA	54517	GEN2	6.0	Wood/Wood Waste Biomass	WDS	ST
2018	3	18642	Tennessee Valley Authority	Electric Utility	Allen	TN	3393	1	247.0	Conventional Steam Coal	SUB	ST
2018	3	18642	Tennessee Valley Authority	Electric Utility	Allen	TN	3393	2	247.0	Conventional Steam Coal	SUB	ST
2018	3	18642	Tennessee Valley Authority	Electric Utility	Allen	TN	3393	3	247.0	Conventional Steam Coal	SUB	ST
2018	4	221	Alaska Village Elec Coop, Inc	Electric Utility	Hooper Bay	AK	6319	3A	0.3	Petroleum Liquids	DFO	IC
2018	4	221	Alaska Village Elec Coop, Inc	Electric Utility	Pilot Station	AK	57058	UNIT1	0.4	Petroleum Liquids	DFO	IC
2018	4	11460	City of Macon - (MO)	Electric Utility	Macon	MO	2141	3	4.6	Petroleum Liquids	DFO	IC
2018	4	59936	Georgia-Pacific Consumer Operations (Camas) LLC	Industrial	Consumer Operations LLC	WA	57759	STG1	16.3	Wood/Wood Waste Biomass	BLQ	ST
2018	4	20847	Wisconsin Electric Power Co	Electric Utility	Pleasant Prairie	WI	6170	1	594.0	Conventional Steam Coal	RC	ST
2018	4	20847	Wisconsin Electric Power Co	Electric Utility	Pleasant Prairie	WI	6170	2	594.0	Conventional Steam Coal	RC	ST
2018	4	20847	Wisconsin Electric Power Co	Electric Utility	Pleasant Prairie	WI	6170	3	2.0	Petroleum Liquids	DFO	IC
2018	5	57017	DOE National Renewable Energy Laboratory	Commercial	DOE Golden NWTC Turbine Side	CO	57693	ALSTO	3.0	Onshore Wind Turbine	WND	WT
2018	5	5416	Duke Energy Carolinas, LLC	Electric Utility	Great Falls (SC)	SC	3259	3	3.0	Conventional Hydroelectric	WAT	HY
2018	5	5416	Duke Energy Carolinas, LLC	Electric Utility	Great Falls (SC)	SC	3259	4	3.0	Conventional Hydroelectric	WAT	HY
2018	5	5416	Duke Energy Carolinas, LLC	Electric Utility	Great Falls (SC)	SC	3259	7	3.0	Conventional Hydroelectric	WAT	HY
2018	5	5416	Duke Energy Carolinas, LLC	Electric Utility	Great Falls (SC)	SC	3259	8	3.0	Conventional Hydroelectric	WAT	HY
2018	5	5416	Duke Energy Carolinas, LLC	Electric Utility	Rocky Creek	SC	3266	1	2.9	Conventional Hydroelectric	WAT	HY
2018	5	5416	Duke Energy Carolinas, LLC	Electric Utility	Rocky Creek	SC	3266	2	2.9	Conventional Hydroelectric	WAT	HY
2018	5	5416	Duke Energy Carolinas, LLC	Electric Utility	Rocky Creek	SC	3266	3	2.9	Conventional Hydroelectric	WAT	HY
2018	5	5416	Duke Energy Carolinas, LLC	Electric Utility	Rocky Creek	SC	3266	4	2.9	Conventional Hydroelectric	WAT	HY
2018	5	5416	Duke Energy Carolinas, LLC	Electric Utility	Rocky Creek	SC	3266	5	4.8	Conventional Hydroelectric	WAT	HY
2018	5	5416	Duke Energy Carolinas, LLC	Electric Utility	Rocky Creek	SC	3266	6	4.8	Conventional Hydroelectric	WAT	HY
2018	5	5416	Duke Energy Carolinas, LLC	Electric Utility	Rocky Creek	SC	3266	7	2.9	Conventional Hydroelectric	WAT	HY
2018	5	5416	Duke Energy Carolinas, LLC	Electric Utility	Rocky Creek	SC	3266	8	2.9	Conventional Hydroelectric	WAT	HY
2018	5	3046	Duke Energy Progress - (NC)	Electric Utility	Darlington County	SC	3250	5	51.0	Natural Gas Fired Combustion Turbine	NG	GT
2018	5	57400	Evergreen Community Power, LLC	Industrial	Evergreen Community Power	PA	58023	ECP	25.0	Wood/Wood Waste Biomass	WDS	ST
2018	5	9205	Illinois Electricial Gen Partn	IPP	Morris Genco LLC	IL	55774	MO4	1.0	Landfill Gas	LFG	IC

Table 6.4. Retired Utility Scale Generating Units by Operating Company, Plant, and Month, 2018

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code
2018	5	9205	Illinois Electricial Gen Partn	IPP	Morris Genco LLC	IL	55774	MO5	1.0	Landfill Gas	LFG	IC
2018	5	10071	Kauai Island Utility Cooperative	Electric Utility	KRS II Koloa Solar	HI	58640	BESS3	1.5	Batteries	MWH	BA
2018	5	15908	NRG California South LP	IPP	Etiwanda Generating Station	CA	331	3	320.0	Natural Gas Steam Turbine	NG	ST
2018	5	15908	NRG California South LP	IPP	Etiwanda Generating Station	CA	331	4	320.0	Natural Gas Steam Turbine	NG	ST
2018	5	15147	PSEG Fossil LLC	IPP	PSEG Sewaren Generating Station	NJ	2411	1	102.8	Natural Gas Steam Turbine	NG	ST
2018	5	15147	PSEG Fossil LLC	IPP	PSEG Sewaren Generating Station	NJ	2411	2	118.0	Natural Gas Steam Turbine	NG	ST
2018	5	15147	PSEG Fossil LLC	IPP	PSEG Sewaren Generating Station	NJ	2411	3	106.2	Natural Gas Steam Turbine	NG	ST
2018	5	15147	PSEG Fossil LLC	IPP	PSEG Sewaren Generating Station	NJ	2411	4	123.6	Natural Gas Steam Turbine	NG	ST
2018	6	60415	CP Crane Power, LLC	IPP	CP Crane Power, LLC	MD	1552	1	190.0	Conventional Steam Coal	SUB	ST
2018	6	60415	CP Crane Power, LLC	IPP	CP Crane Power, LLC	MD	1552	2	195.0	Conventional Steam Coal	SUB	ST
2018	6	60415	CP Crane Power, LLC	IPP	CP Crane Power, LLC	MD	1552	GT1	14.0	Petroleum Liquids	DFO	GT
2018	6	4922	Dayton Power & Light Co	Electric Utility	J M Stuart	OH	2850	2	577.0	Conventional Steam Coal	BIT	ST
2018	6	4922	Dayton Power & Light Co	Electric Utility	J M Stuart	OH	2850	3	577.0	Conventional Steam Coal	BIT	ST
2018	6	4922	Dayton Power & Light Co	Electric Utility	J M Stuart	OH	2850	4	577.0	Conventional Steam Coal	BIT	ST
2018	6	4922	Dayton Power & Light Co	Electric Utility	J M Stuart	OH	2850	D1	2.2	Petroleum Liquids	DFO	IC
2018	6	4922	Dayton Power & Light Co	Electric Utility	J M Stuart	OH	2850	D2	2.2	Petroleum Liquids	DFO	IC
2018	6	4922	Dayton Power & Light Co	Electric Utility	J M Stuart	OH	2850	D3	2.2	Petroleum Liquids	DFO	IC
2018	6	4922	Dayton Power & Light Co	Electric Utility	J M Stuart	OH	2850	D4	2.2	Petroleum Liquids	DFO	IC
2018	6	4922	Dayton Power & Light Co	Electric Utility	Killen Station	OH	6031	2	600.0	Conventional Steam Coal	BIT	ST
2018	6	4922	Dayton Power & Light Co	Electric Utility	Killen Station	OH	6031	GT1	18.0	Petroleum Liquids	DFO	GT
2018	6	15470	Duke Energy Indiana, LLC	Electric Utility	Connersville	IN	1002	1	37.0	Petroleum Liquids	DFO	GT
2018	6	15470	Duke Energy Indiana, LLC	Electric Utility	Connersville	IN	1002	2	37.0	Petroleum Liquids	DFO	GT
2018	6	15470	Duke Energy Indiana, LLC	Electric Utility	Miami Wabash	IN	1006	1	14.0	Petroleum Liquids	DFO	GT
2018	6	15470	Duke Energy Indiana, LLC	Electric Utility	Miami Wabash	IN	1006	2	12.0	Petroleum Liquids	DFO	GT
2018	6	15470	Duke Energy Indiana, LLC	Electric Utility	Miami Wabash	IN	1006	3	12.0	Petroleum Liquids	DFO	GT
2018	6	15470	Duke Energy Indiana, LLC	Electric Utility	Miami Wabash	IN	1006	5	14.0	Petroleum Liquids	DFO	GT
2018	6	15470	Duke Energy Indiana, LLC	Electric Utility	Miami Wabash	IN	1006	6	12.0	Petroleum Liquids	DFO	GT
2018	6	12685	Entergy Mississippi Inc	Electric Utility	Baxter Wilson	MS	2050	2	530.7	Natural Gas Steam Turbine	NG	ST
2018	6	12685	Entergy Mississippi Inc	Electric Utility	Rex Brown	MS	2053	3	29.3	Natural Gas Steam Turbine	NG	ST
2018	6	3303	Florida Power Development	IPP	Florida Power Development	FL	10333	GEN1	66.0	Other Waste Biomass	OBS	ST
2018	6	7651	Greenwood Utilities Comm	Electric Utility	Henderson	MS	2062	1	11.0	Natural Gas Steam Turbine	NG	ST
2018	6	7651	Greenwood Utilities Comm	Electric Utility	Henderson	MS	2062	3	17.9	Natural Gas Steam Turbine	NG	ST
2018	6	7651	Greenwood Utilities Comm	Electric Utility	Henderson	MS	2062	H10	1.3	Natural Gas Internal Combustion Engine	NG	IC
2018	6	7651	Greenwood Utilities Comm	Electric Utility	Henderson	MS	2062	H11	1.3	Natural Gas Internal Combustion Engine	NG	IC
2018	6	7651	Greenwood Utilities Comm	Electric Utility	Henderson	MS	2062	H2	13.0	Natural Gas Fired Combustion Turbine	NG	GT
2018	6	7651	Greenwood Utilities Comm	Electric Utility	Henderson	MS	2062	H4	1.8	Petroleum Liquids	DFO	IC
2018	6	7651	Greenwood Utilities Comm	Electric Utility	Henderson	MS	2062	H5	1.8	Petroleum Liquids	DFO	IC
2018	6	7651	Greenwood Utilities Comm	Electric Utility	Henderson	MS	2062	H6	1.8	Petroleum Liquids	DFO	IC
2018	6	7651	Greenwood Utilities Comm	Electric Utility	Henderson	MS	2062	H7	1.8	Petroleum Liquids	DFO	IC
2018	6	7651	Greenwood Utilities Comm	Electric Utility	Henderson	MS	2062	H8	1.8	Petroleum Liquids	DFO	IC
2018	6	7651	Greenwood Utilities Comm	Electric Utility	Henderson	MS	2062	H9	1.3	Natural Gas Internal Combustion Engine	NG	IC
2018	6	9397	International Turbine Res Inc	IPP	Dinosaur Point	CA	10005	WTGS	17.0	Onshore Wind Turbine	WND	WT
2018	6	9417	Interstate Power and Light Co	Electric Utility	Milton L Kapp	IA	1048	2	112.5	Natural Gas Steam Turbine	NG	ST
2018	6	9417	Interstate Power and Light Co	Electric Utility	Red Cedar	IA	7595	1	13.0	Natural Gas Fired Combustion Turbine	NG	GT
2018	6	11217	Los Angeles County Sanitation	IPP	Commerce Refuse To Energy	CA	10090	GEN1	10.0	Municipal Solid Waste	MSW	ST
2018	6	56516	Morris Energy Operations Company, LLC	Electric CHP	Bayonne Plant Holding LLC	NJ	50497	GTG1	163.0	Natural Gas Fired Combined Cycle	NG	CT
2018	6	56516	Morris Energy Operations Company, LLC	Electric CHP	Bayonne Plant Holding LLC	NJ	50497	GTG2		Natural Gas Fired Combined Cycle	NG	CT
2018	6	56516	Morris Energy Operations Company, LLC	Electric CHP	Bayonne Plant Holding LLC	NJ	50497	GTG3		Natural Gas Fired Combined Cycle	NG	CT
2018	6	56516	Morris Energy Operations Company, LLC	Electric CHP	Bayonne Plant Holding LLC	NJ	50497	STG1		Natural Gas Fired Combined Cycle	NG	CA
2018	6	13756	Northern Indiana Pub Serv Co	Electric Utility	Bailly	IN	995	7	160.0	Conventional Steam Coal	BIT	ST
2018	6	13756	Northern Indiana Pub Serv Co	Electric Utility	Bailly	IN	995	8	320.0	Conventional Steam Coal	BIT	ST
2018	7	57101	FC Landfill Energy	IPP	FC Landfill Energy	MD	57786	UNIT1	1.0	Landfill Gas	LFG	IC
2018	7	57101	FC Landfill Energy	IPP	FC Landfill Energy	MD	57786	UNIT2	1.0	Landfill Gas	LFG	IC
2018	7	56772	TX LFG Energy, LP	IPP	Coastal Plains	TX	55554	UNT2	1.7	Landfill Gas	LFG	IC
2018	8	58416	California State University, Northridge	Commercial	CSU Northridge Plant	CA	58422	63	0.3	Other Natural Gas	NG	FC
2018	8	58416	California State University, Northridge	Commercial	CSU Northridge Plant	CA	58422	64	0.3	Other Natural Gas	NG	FC
2018	8	58416	California State University, Northridge	Commercial	CSU Northridge Plant	CA	58422	65	0.3	Other Natural Gas	NG	FC
2018	8	58416	California State University, Northridge	Commercial	CSU Northridge Plant	CA	58422	67	0.3	Other Natural Gas	NG	FC
2018	9	2872	Auburndale Peaker Energy Center LLC	IPP	Auburndale Peaker Energy Center	FL	55833	CTP	117.0	Natural Gas Fired Combustion Turbine	NG	GT
2018	9	55951	Exelon Nuclear	IPP	Oyster Creek	NJ	2388	1	607.7	Nuclear	NUC	ST
2018	9	8927	Hunterdon Cogeneration LP	Commercial	Hunterdon Cogen Facility	NJ	54707	1	4.1	Natural Gas Fired Combustion Turbine	NG	GT
2018	9	20856	Wisconsin Power & Light Co	Electric Utility	Edgewater	WI	4050	4	294.4	Conventional Steam Coal	SUB	ST
2018	10	11560	City of Manassas - (VA)	Electric Utility	Church Street Plant	VA	7438	C1	0.8	Petroleum Liquids	DFO	IC
2018	10	11560	City of Manassas - (VA)	Electric Utility	Church Street Plant	VA	7438	C2	0.8	Petroleum Liquids	DFO	IC
2018	10	11560	City of Manassas - (VA)	Electric Utility	Church Street Plant	VA	7438	C4	1.0	Petroleum Liquids	DFO	IC
2018	10	18445	City of Tallahassee - (FL)	Electric Utility	S O Purdom	FL	689	GT2	10.0	Natural Gas Fired Combustion Turbine	NG	GT
2018	10	10005	Kansas Gas & Electric Co	Electric Utility	Gordon Evans Energy Center	KS	1240	1	154.0	Natural Gas Steam Turbine	NG	ST

Table 6.4. Retired Utility Scale Generating Units by Operating Company, Plant, and Month, 2018

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code
2018	10	10005	Kansas Gas & Electric Co	Electric Utility	Gordon Evans Energy Center	KS	1240	2	376.0	Natural Gas Steam Turbine	NG	ST
2018	10	22500	Westar Energy Inc	Electric Utility	Tecumseh Energy Center	KS	1252	7	61.0	Conventional Steam Coal	SUB	ST
2018	10	20860	Wisconsin Public Service Corp	Electric Utility	Pulliam	WI	4072	7	76.1	Conventional Steam Coal	SUB	ST
2018	10	20860	Wisconsin Public Service Corp	Electric Utility	Pulliam	WI	4072	8	133.8	Conventional Steam Coal	SUB	ST
2018	11	6306	Benson Power, LLC.	IPP	Benson Power Biomass Plant	MN	55867	G1	55.0	Wood/Wood Waste Biomass	WDS	ST
2018	11	18445	City of Tallahassee - (FL)	Electric Utility	Arvah B Hopkins	FL	688	1	76.0	Natural Gas Steam Turbine	NG	ST
2018	11	10005	Kansas Gas & Electric Co	Electric Utility	Murray Gill	KS	1242	3	104.0	Natural Gas Steam Turbine	NG	ST
2018	11	10005	Kansas Gas & Electric Co	Electric Utility	Murray Gill	KS	1242	4	86.0	Natural Gas Steam Turbine	NG	ST
2018	11	13833	Northeastern Power Co	Electric CHP	Kline Township Cogen Facility	PA	50039	GEN1	51.0	Conventional Steam Coal	WC	ST

NOTES:
Capacity from facilities with a total generator nameplate capacity less than 1 MW are excluded from this table.
Entity ID and Plant ID are official, unique identification numbers assigned by EIA; Generator IDs are assigned by plant owners and/or operators.
Descriptions for the Energy Source Codes and the Prime Mover Codes listed in the table can be found in the Technical Notes.

Table 6.5. Planned U.S. Electric Generating Unit Additions

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code	Status	Nameplate Capacity (MW)
2018	12	60571	AEP Onsite Partners	IPP	Trout Creek Solar	CO	62260	44901	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2018	12	61012	AES Distributed Energy	IPP	Palmer	MA	62135	PAL01	3.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	3.5
2018	12	61012	AES Distributed Energy	IPP	Williamsburg	MA	62202	WIL01	4.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	4.0
2018	12	60691	AES LAWAI SOLAR, LLC	IPP	AES LAWAI SOLAR	HI	61068	LAWA1	20.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	20.0
2018	12	60691	AES LAWAI SOLAR, LLC	IPP	AES LAWAI SOLAR	HI	61068	LAWA2	20.0	Batteries	MWH	BA	(V) Under construction, more than 50 percent complete	20.0
2018	12	61514	Agilitas Energy, LLC	IPP	Blydenburgh Solar Project	NY	61900	BLYD	1.5	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.5
2018	12	61514	Agilitas Energy, LLC	IPP	Lincoln Ave Solar Project	NY	61899	LINC	2.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	2.0
2018	12	60281	Altus Power America Management, LLC	IPP	Corcoran	MN	61971	201	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2018	12	60281	Altus Power America Management, LLC	IPP	Corcoran	MN	61971	202	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2018	12	60281	Altus Power America Management, LLC	IPP	Corcoran	MN	61971	203	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2018	12	60281	Altus Power America Management, LLC	IPP	Corcoran	MN	61971	204	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2018	12	60281	Altus Power America Management, LLC	IPP	Corcoran	MN	61971	205	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2018	12	60146	Ameresco Federal Solutions	IPP	MCRD Parris Island PV	SC	61956	TBESS	4.0	Batteries	MWH	BA	(TS) Construction complete, but not yet in commercial operation	4.0
2018	12	60876	Antelope Expansion 2, LLC	IPP	Antelope Expansion 2	CA	61264	ANTX2	105.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	105.0
2018	12	61327	Arcturus Community Solar Garden, LLC	IPP	Arcturus Community Solar	MN	61705	ARCT	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2018	12	61328	Auriga Community Solar Garden, LLC	IPP	Auriga Community Solar	MN	61706	AURI	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2018	12	59359	BHE Renewables, LLC	IPP	Walnut Ridge Wind Farm	IL	58694	1	212.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	212.0
2018	12	59474	BQ Energy LLC	IPP	Kings Park Solar I	NY	59880	KIPS1	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2018	12	59474	BQ Energy LLC	IPP	Kings Park Solar II	NY	59881	KIPS2	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2018	12	61703	Ballston Solar LLC	IPP	Ballston Solar LLC	OR	62170	BSPV1	2.2	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	2.2
2018	12	61545	Blacktip Solar, LLC	IPP	Blacktip Solar	SC	61939	5	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2018	12	61563	Blue Summit II Wind, LLC	IPP	Blue Summit II Wind, LLC	TX	61970	BSII	99.4	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	99.4
2018	12	61799	Bly Solar Center	IPP	Bly Solar Center	OR	62272	BLY	8.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	8.0
2018	12	61230	CD Arevon USA, Inc.	IPP	CA Flats Solar 150, LLC	CA	60034	GEN01	150.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	150.0
2018	12	59365	Capital Power Corporation	IPP	New Frontier Wind	ND	59903	GEN	100.0	Onshore Wind Turbine	WND	WT	(TS) Construction complete, but not yet in commercial operation	100.0
2018	12	58847	Carlsbad Energy Center	IPP	Carlsbad Energy Center	CA	59002	CEC 6	105.5	Natural Gas Fired Combustion Turbine	NG	GT	(TS) Construction complete, but not yet in commercial operation	105.5
2018	12	58847	Carlsbad Energy Center	IPP	Carlsbad Energy Center	CA	59002	CEC 7	105.5	Natural Gas Fired Combustion Turbine	NG	GT	(TS) Construction complete, but not yet in commercial operation	105.5
2018	12	58847	Carlsbad Energy Center	IPP	Carlsbad Energy Center	CA	59002	CEC 8	105.5	Natural Gas Fired Combustion Turbine	NG	GT	(TS) Construction complete, but not yet in commercial operation	105.5
2018	12	58847	Carlsbad Energy Center	IPP	Carlsbad Energy Center	CA	59002	CEC 9	105.5	Natural Gas Fired Combustion Turbine	NG	GT	(TS) Construction complete, but not yet in commercial operation	105.5
2018	12	58847	Carlsbad Energy Center	IPP	Carlsbad Energy Center	CA	59002	CEC10	105.5	Natural Gas Fired Combustion Turbine	NG	GT	(TS) Construction complete, but not yet in commercial operation	105.5
2018	12	61568	Chisago Holdco LLC	IPP	Chisago Holdco LLC, CSG	MN	61968	CHIS	3.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	3.0
2018	12	3037	City of Carlyle - (IL)	Electric Utility	Carlyle	IL	936	11	2.8	Petroleum Liquids	DFO	IC	(OT) Other	2.8
2018	12	18947	City of Tipton - (IA)	Electric Utility	Tipton	IA	8106	7	2.0	Petroleum Liquids	DFO	IC	(V) Under construction, more than 50 percent complete	2.0
2018	12	61571	Clara City CSG I, LLC	IPP	Syncarpha Clara City CSG I (Stamer)	MN	61980	SCSG1	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2018	12	56769	Consolidated Edison Development Inc.	IPP	Blackwell Solar Park	CA	59524	FRBSP	20.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	20.0
2018	12	56769	Consolidated Edison Development Inc.	IPP	Wistaria Ranch Solar	CA	61750	WICA	100.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	106.7
2018	12	60396	Constellation New Energy Inc.	IPP	NIST Solar	MD	62208	PV1	4.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	4.0
2018	12	61419	Constellation Solar MC, LLC	IPP	Gateway Solar	MD	61794	GTWYN	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2018	12	61419	Constellation Solar MC, LLC	IPP	Gateway Solar	MD	61794	GTWYS	2.6	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.6
2018	12	61540	Coolidge Solar I, LLC	IPP	Coolidge Solar 1, LLC	VT	61959	COLS	19.6	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	19.6
2018	12	58695	Coronal Development Services	IPP	Latitude Solar Center	TN	61412	LATSC	15.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	15.0
2018	12	61528	Cumberland Land Holdings, LLC	IPP	Cumblerland Land Holdings, LLC	AL	61924	CUMB	14.7	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	14.7
2018	12	61060	Cypress Creek Renewables	IPP	Atood II	SC	61960	GEN1	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2018	12	61060	Cypress Creek Renewables	IPP	Bar D	CO	61886	GEN1	4.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	4.0
2018	12	61060	Cypress Creek Renewables	IPP	Bovine	TX	61867	GEN1	10.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	10.0
2018	12	61060	Cypress Creek Renewables	IPP	Bronson	TX	61868	GEN1	10.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	10.0
2018	12	61060	Cypress Creek Renewables	IPP	Chisum	TX	61810	GEN1	10.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	10.0
2018	12	61060	Cypress Creek Renewables	IPP	Copperfield	NC	61882	GEN1	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2018	12	61060	Cypress Creek Renewables	IPP	Gaston II	SC	61961	GEN1	7.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	7.5
2018	12	61060	Cypress Creek Renewables	IPP	Hopewell Friends	NC	61883	GEN1	1.3	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.3
2018	12	61060	Cypress Creek Renewables	IPP	Morning View	NC	61881	GEN1	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2018	12	61060	Cypress Creek Renewables	IPP	Pinesage	NC	61978	GEN1	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2018	12	61060	Cypress Creek Renewables	IPP	Staunton	IN	61885	GEN1	4.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	4.0
2018	12	61060	Cypress Creek Renewables	IPP	West Moore Solar II	TX	61625	GEN1	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2018	12	60370	DG AMP Solar, LLC	IPP	DG AMP Solar Brewster	OH	61818	AMPBR	1.9	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.9
2018	12	61187	DG Minnesota CSG, LLC	IPP	Hammer CSG	MN	62099	HAMME	4.8	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	4.8
2018	12	61187	DG Minnesota CSG, LLC	IPP	Tiller CSG	MN	62098	TILLE	5.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	5.0
2018	12	61567	DP-C2 Episode 1 LLC	IPP	Diamond Solar II	SC	61974	C2BV	8.2	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	8.2
2018	12	61567	DP-C2 Episode 1 LLC	IPP	Edison Solar II	SC	61975	C2BV	4.8	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	4.8
2018	12	61610	Delaware River Solar, LLC	IPP	Hospital Rd Community Solar Farm	NY	62155	9	1.4	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.4
2018	12	61610	Delaware River Solar, LLC	IPP	Pool Brook Rd Community Solar Farm	NY	62156	15	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2018	12	61610	Delaware River Solar, LLC	IPP	Sacket Lake Rd #1 Community Solar Farm	NY	62158	11	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2018	12	61610	Delaware River Solar, LLC	IPP	Sacket Lake Rd #2 Community Solar Farm	NY	62159	20	1.7	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.7
2018	12	61610	Delaware River Solar, LLC	IPP	Turner Rd Community Solar Project	NY	62160	300	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2018	12	6455	Duke Energy Florida, LLC	Electric Utility	Hamilton Solar Power Plant	FL	61807	PV1	74.9	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	74.9
2018	12	56215	E ON Climate Renewables N America LLC	IPP	Stella Wind Farm	TX	59063	WT1	201.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	201.0
2018	12	61420	ENGIE Storage Services NA LLC	Commercial	Pacific Union College BESS	CA	61795	12649	1.0	Batteries	MWH	BA	(V) Under construction, more than 50 percent complete	1.0
2018	12	58970	Ecoplexus, Inc	IPP	Manning PV 1	NC	59520	MANN	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2018	12	61413	Enel Green Power Diamond Vista Wind Project, LLC	IPP	Diamond Vista Wind Project, LLC	KS	61789	DV	299.3	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	299.3
2018	12	60147	Enerparc Solar Development, LLC	IPP	Gastonia Solar Center	NC	60359	60916	4.3	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	4.3
2018	12	56201	Engie North America	IPP	Live Oak Wind Project	TX	61782	WTGS	199.5	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	199.5
2018	12	61579	FL Solar 5, LLC	IPP	Citrus Ridge Solar	FL	61988	FL501	52.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	52.0
2018	12	59745	First Solar Asset Management	IPP	North Rosamond Solar LLC	CA	59879	GEN01	150.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	150.0
2018	12	61548	Gary Solar, LLC	IPP	Gary Solar	SC	61942	8	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2018	12	61443	Good Fellow Solar 1 PH1, LLC	IPP	Target Woodland Solar Project	CA	62246	TWSP	1.8	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.3
2018	12	60878	Green Beanworks B, LLC	IPP	Green Beanworks B PV	CA	61339	GBWXB	3.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	3.0
2018	12	61674	Greenskies	IPP	Roseville Solar	CA	62114	ROSE	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2018	12	61214	Heartland Divide Wind Project, LLC	IPP	Heartland Divide Wind Project, LLC	IA	61609	1	103.5	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	103.5
2018	12	59462	Heelstone Energy Holdings, LLC	IPP	Innovative Solar 54	NC	59669	IS054	50.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	50.0
2018	12	59462	Heelstone Energy Holdings, LLC	IPP	Innovative Solar 67	NC	59678	IS067	33.3	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	33.3
2018	12	60356	Hexagon Energy	IPP	Bay Branch Solar	NC	60601	BBSOL	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2018	12	61001	Hu Honua Bioenergy, LLC	IPP	Hu Honua Bioenergy Facility	HI	61364	HHB	32.0	Other Waste Biomass	OBS	ST	(U) Under construction, less than or equal to 50 percent complete	36.0
2018	12	9234	Indiana Municipal Power Agency	Electric Utility	Rensselaer Solar Site 2	IN	61799	SREN2	4.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	4.0
2018	12	9234	Indiana Municipal Power Agency	Electric Utility	Richmond Solar Site 2	IN	61729	SRIC2	7.5	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	7.5
2018	12	49893	Invenergy Services LLC	IPP	Upstream Wind Energy LLC	NE	61784	UWE	202.5	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	202.5
2018	12	61798	Kern Highschool District Solar,LLC	Commercial	Frontier HS Solar Project	CA	62275	FHSSP	1.4	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.4
2018	12	61798	Kern Highschool District Solar,LLC	Commercial	Liberty HS Solar Project	CA	62274	LHSSP	1.2	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.5
2018	12	61704	Labish Solar LLC	IPP	Labish Solar LLC	OR	62171	LSPV2	2.2	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	2.2
2018	12	61342	Leo Community Solar, LLC	IPP	Leo Community Solar	MN	61713	LEO	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2018	12	61133	Lorenzo Wind, LLC	IPP	Lorenzo Wind	TX	59244	FIBE1	80.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	80.0

Table 6.5. Planned U.S. Electric Generating Unit Additions

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code	Status	Nameplate Capacity (MW)
2018	12	61373	MERIT SI	IPP	Rotor Clip	NJ	61751	RCLIP	2.7	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.8
2018	12	12341	MidAmerican Energy Co	Electric Utility	Arbor Hill Wind Farm	IA	62132	WT1	250.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	250.0
2018	12	12341	MidAmerican Energy Co	Electric Utility	Ivester Wind Farm	IA	61911	WT1	90.8	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	90.8
2018	12	12341	MidAmerican Energy Co	Electric Utility	North English	IA	62133	GT1	200.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	200.0
2018	12	61004	Midway Solar LLC	IPP	Midway Solar - TX	TX	61368	PV1	182.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	182.0
2018	12	61396	Midway Wind, LLC	IPP	Midway Wind, LLC	TX	61776	MIDWY	162.9	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	162.9
2018	12	61487	Montevideo Solar LLC	IPP	Montevideo Solar LLC, CSG	MN	61870	MONTE	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2018	12	61292	NC State University, Energy Systems	Commercial	NCSU CCUP Cogeneration Plant	NC	61675	CTG1	5.6	Natural Gas Fired Combustion Turbine	NG	GT	(V) Under construction, more than 50 percent complete	5.6
2018	12	61292	NC State University, Energy Systems	Commercial	NCSU CCUP Cogeneration Plant	NC	61675	STG	1.0	Natural Gas Steam Turbine	NG	ST	(V) Under construction, more than 50 percent complete	1.0
2018	12	54913	NSTAR Electric Company	Electric Utility	Greenfield Solar PV	MA	62063	LG400	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2018	12	54913	NSTAR Electric Company	Electric Utility	Hatfield Solar PV	MA	62091	LG395	3.6	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	3.6
2018	12	54913	NSTAR Electric Company	Electric Utility	Hinsdale Solar PV	MA	62064	LG400	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2018	12	54913	NSTAR Electric Company	Electric Utility	Savoy Solar PV	MA	62065	LG400	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2018	12	54913	NSTAR Electric Company	Electric Utility	Southampton Solar PV	MA	62066	LG400	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2018	12	54913	NSTAR Electric Company	Electric Utility	Springfield Solar PV	MA	62072	LG395	4.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	4.0
2018	12	54913	NSTAR Electric Company	Electric Utility	Wareham Solar PV	MA	62055	LG395	3.3	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	3.3
2018	12	61080	North Smithfield Solar Power 1, LLC	IPP	North Smithfield Solar Power 1	RI	61461	NSS01	2.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	2.0
2018	12	61763	Oak Leaf Solar XXI	IPP	Oak Leaf Solar XXI	CO	62243	53964	1.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.5
2018	12	61765	Oak Leaf Solar XXV LLC	IPP	Oak Leaf Solar XXV LLC	CO	62245	53968	1.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.5
2018	12	61761	Oak Leaf Solar XXX LLC	IPP	Oak Leaf Solar XXX LLC	CO	62239	53963	1.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.5
2018	12	61764	Oak Leaf Solar XXXI LLC	IPP	Oak Leaf Solar XXXI LLC	CO	62244	53977	1.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.5
2018	12	34691	Ormat Nevada Inc	Commercial	McGinness Hills 3	NV	61912	OEC31	17.0	Geothermal	GEO	BT	(V) Under construction, more than 50 percent complete	37.0
2018	12	34691	Ormat Nevada Inc	Commercial	McGinness Hills 3	NV	61912	OEC32	20.0	Geothermal	GEO	BT	(V) Under construction, more than 50 percent complete	37.0
2018	12	61603	Page Solar Farm, LLC	IPP	Page Solar	NC	62018	PGRI1	1.6	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.6
2018	12	61612	Panda Solar NC 1, LLC	IPP	Panda Solar NC 1, LLC	NC	62089	20002	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2018	12	61655	Panda Solar NC 2, LLC	IPP	Panda Solar NC 2, LLC	NC	62120	20003	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2018	12	61566	Peony Solar, LLC	IPP	Peony Solar	SC	61976	PGRG1	39.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	39.0
2018	12	61353	Philadelphia Authority for Industrial Development	IPP	Navy Yard Peaker Station	PA	61737	GEN4	2.0	Natural Gas Internal Combustion Engine	NG	IC	(V) Under construction, more than 50 percent complete	2.0
2018	12	61507	Plumsted 537 LLC	IPP	Plumsted 537 LLC	NJ	61892	PLMST	19.8	Batteries	MWH	BA	(TS) Construction complete, but not yet in commercial operation	19.8
2018	12	15248	Portland General Electric Co	Electric Utility	Timothy Lake Powerhouse	OR	60868	1	1.2	Conventional Hydroelectric	WAT	HY	(V) Under construction, more than 50 percent complete	1.2
2018	12	61537	Pratt Wind, LLC	IPP	Pratt Wind, LLC	KS	61957	PW	220.0	Onshore Wind Turbine	WND	WT	(TS) Construction complete, but not yet in commercial operation	243.0
2018	12	61573	Prinsburg CSG I, LLC	IPP	Syncarpha Prinsburg CSG (Ledeboer)	MN	61979	SYPRN	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2018	12	15466	Public Service Co of Colorado	Electric Utility	Rush Creek Wind	CO	60619	GEN1	576.0	Onshore Wind Turbine	WND	WT	(TS) Construction complete, but not yet in commercial operation	600.0
2018	12	61414	Rattlesnake Creek Wind Project, LLC	IPP	Rattlesnake Creek Wind Project	NE	59292	RCWP	318.1	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	318.1
2018	12	16191	Robbins Lumber Inc	Industrial	Robbins Lumber	ME	50230	WEG	8.5	Wood/Wood Waste Biomass	WDS	ST	(TS) Construction complete, but not yet in commercial operation	10.0
2018	12	61691	SR Jonesborough II, LLC	IPP	SR Jonesborough	TN	62173	JONES	4.4	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2018	12	60334	SR Millington, LLC	IPP	Millington Solar Farm	TN	60560	MILL	53.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	53.0
2018	12	61675	SS PA II PSU LLC	IPP	University Park Solar	PA	62119	PSUPV	1.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.5
2018	12	61333	Sagitta Community Solar Garden, LLC	IPP	Sagitta Community Solar	MN	61708	SAGI	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2018	12	60520	SoCore Energy LLC	IPP	Athens MN CONX	MN	62062	PV1	6.6	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	6.6
2018	12	61677	Sol Systems	IPP	Nickelson Solar, LLC	NC	62205	GNICK	5.3	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.3
2018	12	61766	Solar Star California LXIII, LLC	IPP	County of San Diego SBRC	CA	62242	SBRC	1.3	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.3
2018	12	61591	Solar University, LLC	IPP	UC Merced Solar	CA	61995	UCMBA	0.5	Batteries	MWH	BA	(V) Under construction, more than 50 percent complete	0.5
2018	12	61591	Solar University, LLC	IPP	UC Merced Solar	CA	61995	UCMPV	4.2	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	4.3
2018	12	17633	Southern Indiana Gas & Elec Co	Electric Utility	Volkman Road Solar Array	IN	61334	VRSA2	1.0	Batteries	MWH	BA	(V) Under construction, more than 50 percent complete	1.0
2018	12	61506	Stryker 22, L.L.C.	IPP	Stryker 22, L.L.C.	NJ	61891	EDGRD	19.8	Batteries	MWH	BA	(TS) Construction complete, but not yet in commercial operation	19.8
2018	12	58658	Sunlight Partners	IPP	Shelter Solar	NC	60156	PV1	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2018	12	60495	Sunpin Holdings, LLC	IPP	Colgreen North Shore Solar Farm	CA	60825	CNS1	74.8	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	74.8
2018	12	61005	Sweetwater Solar LLC	IPP	Sweetwater Solar	WY	61369	PV1	92.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	92.0
2018	12	61527	Tahoka Wind, LLC	IPP	Tahoka Wind	TX	61921	TAH	300.0	Onshore Wind Turbine	WND	WT	(TS) Construction complete, but not yet in commercial operation	300.0
2018	12	18454	Tampa Electric Co	Electric Utility	Bonnie Mine Solar	FL	61655	PV1	35.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	35.0
2018	12	18454	Tampa Electric Co	Electric Utility	Grange Hall Solar	FL	61656	PV1	61.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	61.0
2018	12	18454	Tampa Electric Co	Electric Utility	Lithia Solar	FL	61663	GEN1	74.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	74.5
2018	12	18454	Tampa Electric Co	Electric Utility	Peace Creek Solar	FL	61666	GEN	56.6	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	56.6
2018	12	61532	Techren Solar I LLC	IPP	Techren	NV	61611	TECH1	100.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	100.0
2018	12	60249	Tenaska Pennsylvania Partners, LLC	IPP	Tenaska Westmoreland Generating Station	PA	60464	CTG1	276.0	Natural Gas Fired Combined Cycle	NG	CT	(V) Under construction, more than 50 percent complete	370.0
2018	12	60249	Tenaska Pennsylvania Partners, LLC	IPP	Tenaska Westmoreland Generating Station	PA	60464	CTG2	276.0	Natural Gas Fired Combined Cycle	NG	CT	(V) Under construction, more than 50 percent complete	370.0
2018	12	60249	Tenaska Pennsylvania Partners, LLC	IPP	Tenaska Westmoreland Generating Station	PA	60464	STG1	374.0	Natural Gas Fired Combined Cycle	NG	CA	(V) Under construction, more than 50 percent complete	394.0
2018	12	2770	Terra-Gen Operating Co LLC	IPP	Voyager Wind II	CA	61582	VYGR2	128.7	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	128.7
2018	12	2770	Terra-Gen Operating Co LLC	IPP	Voyager Wind III	CA	61583	VYGR3	43.2	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	43.2
2018	12	2770	Terra-Gen Operating Co LLC	IPP	Voyager Wind IV	CA	61584	VYGR4	21.6	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	21.6
2018	12	60947	Tesla Inc.	IPP	Blue Shld Of Cal- El Dorado Hlls Mtr B	CA	62077	PV1	2.1	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	2.1
2018	12	60947	Tesla Inc.	IPP	Estrella Mountain PV	AZ	60230	PV1	1.8	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.8
2018	12	61436	Titan Solar, LLC	IPP	Titan Solar	CO	61811	PCEC	50.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	50.0
2018	12	61562	Torrecillas Wind Energy, LLC	IPP	Torrecillas Wind Energy, LLC	TX	61969	TWE	300.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	300.0
2018	12	59056	Tri Global Energy, LLC	IPP	Blue Cloud Renewable Energy Project, LLC	TX	60270	WT1	350.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	350.0
2018	12	61580	USS Big Lake 1 LLC	IPP	USS Big Lake 1 Solar CSG	MN	61997	USSBL	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2018	12	61625	USS Brockway Solar LLC	IPP	USS Brockway Solar CSG	MN	62049	USSBR	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2018	12	61626	USS Dubhe Solar LLC	IPP	USS Dubhe Solar CSG	MN	62048	USSDB	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2018	12	61581	USS Good Solar LLC	IPP	USS Good Solar CSG	MN	61998	USSGO	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2018	12	61627	USS JJ Solar LLC	IPP	USS JJ Solar CSG	MN	62047	USSJJ	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2018	12	61628	USS Nillie Corn Solar LLC	IPP	USS Nillie Corn Solar CSG	MN	62046	USSNC	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2018	12	61629	USS Norelius Solar LLC	IPP	USS Norelius Solar CSG	MN	62045	USSNO	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2018	12	61583	USS Rockpoint Solar LLC	IPP	USS Rockpoint Solar CSG	MN	62000	USSRP	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2018	12	61630	USS Solar Dawn LLC	IPP	USS Solar Dawn CSG	MN	62044	USSSD	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2018	12	61631	USS Solar Rapids LLC	IPP	USS Solar Rapids CSG	MN	62042	USSSR	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2018	12	19511	University of Alaska	Commercial	University of Alaska Fairbanks	AK	50711	GEN5	17.0	Conventional Steam Coal	SUB	ST	(TS) Construction complete, but not yet in commercial operation	17.0
2018	12	19876	Virginia Electric & Power Co	Electric Utility	Greensville County Power Station	VA	59913	CT01	324.4	Natural Gas Fired Combined Cycle	NG	CT	(TS) Construction complete, but not yet in commercial operation	369.8
2018	12	19876	Virginia Electric & Power Co	Electric Utility	Greensville County Power Station	VA	59913	CT02	324.4	Natural Gas Fired Combined Cycle	NG	CT	(TS) Construction complete, but not yet in commercial operation	369.8
2018	12	19876	Virginia Electric & Power Co	Electric Utility	Greensville County Power Station	VA	59913	CT03	324.4	Natural Gas Fired Combined Cycle	NG	CT	(TS) Construction complete, but not yet in commercial operation	369.8
2018	12	19876	Virginia Electric & Power Co	Electric Utility	Greensville County Power Station	VA	59913	ST01	611.8	Natural Gas Fired Combined Cycle	NG	CA	(TS) Construction complete, but not yet in commercial operation	663.9
2018	12	61666	WED GW Solar, LLC	IPP	WED GW Solar, LLC	RI	62118	GWSOL	3.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	3.0
2018	12	61648	WED Green Hill, LLC	IPP	WED Green Hill, LLC	RI	62106	GHILL	3.0	Onshore Wind Turbine	WND	WT	(TS) Construction complete, but not yet in commercial operation	3.0
2018	12	61649	WED Plainfield II, LLC	IPP	WED Plainfield II, LLC	RI	62107	PLAI2	3.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	3.0
2018	12	61650	WED Plainfield III, LLC	IPP	WED Plainfield III, LLC	RI	62108	PLAI3	3.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	3.0
2018	12	61651	WED Plainfield, LLC	IPP	WED Plainfield, LLC	RI	62109	PLAI1	3.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	3.0
2018	12	61652	WED Shun I, LLC	IPP	WED Shun I, LLC	RI	62110	SHUN1	3.0	Onshore Wind Turbine	WND	WT	(TS) Construction complete, but not yet in commercial operation	3.0
2018	12	61653	WED Shun II, LLC	IPP	WED Shun II, LLC	RI	62111	SHUN2	3.0	Onshore Wind Turbine	WND	WT	(TS) Construction complete, but not yet in commercial operation	3.0
2018	12	61654	WED Shun III, LLC	IPP	WED Shun III, LLC	RI	62112	SHUN3	3.0	Onshore Wind Turbine	WND	WT	(TS) Construction complete, but not yet in commercial operation	3.0
2018	12	61645	Warrenton Solar I LLC	IPP	Warrenton I Solar	NC	62100	PGRI4	4.9	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	4.9

Table 6.5. Planned U.S. Electric Generating Unit Additions

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code	Status	Nameplate Capacity (MW)
2018	12	60154	White Street Renewables LLC	IPP	White Street Renewables	NC	60364	WSLFG	1.6	Landfill Gas	LFG	IC	(T) Regulatory approvals received. Not under construction	1.6
2018	12	60154	White Street Renewables LLC	IPP	White Street Renewables	NC	60364	WSPV	3.4	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	3.4
2018	12	61291	Wildcat Ranch Wind Project, LLC	IPP	Wildcat Ranch Wind Project	TX	61674	WT	150.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	150.0
2018	12	61366	Woods Hill Solar, LLC	IPP	Woods Hill Solar	CT	61736	PV1	20.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	20.0
2019	1	60248	Agilon Energy LLC	IPP	Victoria Port Power LLC	TX	61242	VP-1	50.0	Natural Gas Fired Combustion Turbine	NG	GT	(V) Under construction, more than 50 percent complete	50.0
2019	1	60248	Agilon Energy LLC	IPP	Victoria Port Power LLC	TX	61242	VP-2	50.0	Natural Gas Fired Combustion Turbine	NG	GT	(V) Under construction, more than 50 percent complete	50.0
2019	1	803	Arizona Public Service Co	Electric Utility	Ocotillo	AZ	116	GT7	104.7	Natural Gas Fired Combustion Turbine	NG	GT	(V) Under construction, more than 50 percent complete	161.9
2019	1	61547	Bond Solar, LLC	IPP	Bond Solar	SC	61941	7	2.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.0
2019	1	61260	Capricornus Community Solar Garden, LLC	IPP	Capricornus Community Solar Garden	MN	61651	CAPR	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2019	1	18445	City of Tallahassee - (FL)	Electric Utility	Arvah B Hopkins	FL	688	IC1	18.5	Natural Gas Internal Combustion Engine	NG	IC	(V) Under construction, more than 50 percent complete	18.8
2019	1	18445	City of Tallahassee - (FL)	Electric Utility	Arvah B Hopkins	FL	688	IC2	18.5	Natural Gas Internal Combustion Engine	NG	IC	(V) Under construction, more than 50 percent complete	18.8
2019	1	18445	City of Tallahassee - (FL)	Electric Utility	Arvah B Hopkins	FL	688	IC3	18.5	Natural Gas Internal Combustion Engine	NG	IC	(V) Under construction, more than 50 percent complete	18.8
2019	1	18445	City of Tallahassee - (FL)	Electric Utility	Arvah B Hopkins	FL	688	IC4	18.5	Natural Gas Internal Combustion Engine	NG	IC	(V) Under construction, more than 50 percent complete	18.8
2019	1	61338	Crux Community Solar Gardens, LLC	IPP	Crux Community Solar	MN	61712	CRUX	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2019	1	5109	DTE Electric Company	Electric Utility	Pine River Wind Park	MI	61106	1	161.3	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	161.3
2019	1	61610	Delaware River Solar, LLC	IPP	Breesport Road Community Solar Farm	NY	62157	235	2.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.0
2019	1	57202	E&E Enterprises LLC	IPP	Allendorf	IA	56215	ET	1.8	Onshore Wind Turbine	WND	WT	(TS) Construction complete, but not yet in commercial operation	2.0
2019	1	57170	EDF Renewable Asset Holdings, Inc.	IPP	Stoneray Power Partners, LLC	MN	62269	STNRY	100.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	100.0
2019	1	61688	ENGIE Generation North America LLC	IPP	Goose Lake MN DPC-GM	MN	62148	PV1	1.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.5
2019	1	58970	Ecoplexus, Inc	IPP	Folsom SP and CSP Sacramento	CA	61698	FOLSM	1.3	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.3
2019	1	61404	Edenton Solar	IPP	Edenton Solar	NC	61781	EDE	5.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	5.0
2019	1	59735	Enerparc CA2, LLC	IPP	Cloverdale Solar Center	CA	60813	ECA02	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2019	1	6452	Florida Power & Light Co	Electric Utility	Interstate Solar Energy Center	FL	61768	1	74.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	74.5
2019	1	6452	Florida Power & Light Co	Electric Utility	Miami Dade Solar Energy Center	FL	61766	1	74.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	74.5
2019	1	6452	Florida Power & Light Co	Electric Utility	Pioneer Trail Solar Energy Center	FL	61767	1	74.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	74.5
2019	1	6452	Florida Power & Light Co	Electric Utility	Sunshine Gateway Solar Energy Center	FL	61763	1	74.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	74.5
2019	1	61518	Frontenac Holdco LLC	IPP	Frontenac Holdco LLC, CSG	MN	61919	FRONT	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2019	1	60399	GASNA 6P, LLC	IPP	San Joaquin Solar	CA	60678	SJ1B	1.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.5
2019	1	7019	Gay & Robinson Inc	Industrial	Gay Robinson	HI	50333	HYD3	6.5	Conventional Hydroelectric	WAT	HY	(V) Under construction, more than 50 percent complete	6.5
2019	1	61549	Goldenrod Solar, LLC	IPP	Goldenrod Solar	SC	61943	9	2.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.0
2019	1	60428	Green City Recovery, LLC	IPP	Green City Recovery, LLC	KY	60703	2	1.0	Landfill Gas	LFG	IC	(TS) Construction complete, but not yet in commercial operation	1.0
2019	1	61365	Hilltopper Wind Project, LLC	IPP	Hilltopper Wind Project	IL	61735	WT1	185.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	185.0
2019	1	49893	Invenergy Services LLC	IPP	Lackawanna Energy Center	PA	60357	GEN3	465.0	Natural Gas Fired Combined Cycle	NG	CS	(V) Under construction, more than 50 percent complete	555.0
2019	1	61550	Jessamine Solar, LLC	IPP	Jessamine Solar	SC	61944	10	1.9	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.9
2019	1	61289	Kaus Community Solar Garden, LLC	IPP	Kaus Community Solar	MN	61716	KAUS	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2019	1	61679	MSC-GreyCloud01 LLC	IPP	MSC-GreyCloud01	MN	62143	52785	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2019	1	61680	MSC-Scandia01 LLC	IPP	MSC-Scandia01	MN	62144	52741	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2019	1	11806	Massachusetts Mun Wholes Electric Co	Electric Utility	Ashburnham Energy Storage Project	MA	62219	AMLPB	3.0	Batteries	MWH	BA	(V) Under construction, more than 50 percent complete	3.0
2019	1	61740	NJ Solar 1, LLC	IPP	Hunterdon Health System Solar Project	NJ	62225	PV1	1.5	Solar Photovoltaic	SUN	PV	(OP) Operating	1.5
2019	1	54913	NSTAR Electric Company	Electric Utility	East Longmeadow Solar PV	MA	62059	LG400	5.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	5.0
2019	1	54913	NSTAR Electric Company	Electric Utility	Southwick Solar PV	MA	62082	REC34	5.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	5.0
2019	1	13484	New York Methodist Hospital	IPP	New York Methodist Hospital	NY	52091	CCHEG	1.5	Petroleum Liquids	DFO	IC	(TS) Construction complete, but not yet in commercial operation	1.5
2019	1	61776	Oak Leaf Solar XXII LLC	IPP	Oak Leaf Solar XXII LLC	CO	62252	53965	1.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.5
2019	1	61777	Oak Leaf Solar XXIII LLC	IPP	Oak Leaf Solar XXIII LLC	CO	62256	53966	1.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.5
2019	1	61780	Oak Leaf Solar XXIV LLC	IPP	Oak Leaf Solar XXIV LLC	CO	62253	53967	1.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.5
2019	1	61779	Oak Leaf Solar XXVI LLC	IPP	Oak Leaf Solar XXVI LLC	CO	62254	53970	1.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.5
2019	1	61494	Radian Generation	IPP	NorWest Energy 4, LLC	OR	62268	NWE4	5.6	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	5.6
2019	1	61494	Radian Generation	IPP	NorWest Energy 9 LLC	OR	62241	NWE9	8.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	8.0
2019	1	61554	River Solar, LLC	IPP	River Solar	SC	61947	12	2.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.0
2019	1	61614	Rollingstone Holdco LLC	IPP	Rollingstone Holdco CSG	MN	62037	ROLLI	5.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	5.0
2019	1	61587	Sagittarius Community Solar Gardens LLC	IPP	Sagittarius Community Solar Gardens LLC	MN	61994	CRUX	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2019	1	61555	Sapphire Solar, LLC	IPP	Sapphire Solar	SC	61948	17	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2019	1	61556	South Solar, LLC	IPP	South Solar	SC	61949	13	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2019	1	60403	TRS Fuel Cell, LLC	Electric CHP	TRS Fuel Cell	CT	60683	MMH1	3.7	Other Natural Gas	NG	FC	(TS) Construction complete, but not yet in commercial operation	3.7
2019	1	60947	Tesla Inc.	IPP	Bd of Educ of Queen Anne's Cnty, Cnty HS	MD	62074	PV1	1.7	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.7
2019	1	61123	Upton County Solar 2 LLC	IPP	Castle Gap Solar	TX	60123	BAT1	9.9	Batteries	MWH	BA	(U) Under construction, less than or equal to 50 percent complete	9.9
2019	1	61559	Whitt Solar, LLC	IPP	Whitt Solar	SC	61952	20	2.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.0
2019	1	61560	Willis Solar, LLC	IPP	Willis Solar	SC	61953	16	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2019	1	61672	Willow Spring Solar LLC	IPP	Willow Spring Solar, LLC	CA	60324	GEN01	100.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	100.0
2019	2	61482	AES ES GILBERT, LLC	IPP	AES ES GILBERT	AZ	61861	SRP	10.0	Batteries	MWH	BA	(V) Under construction, more than 50 percent complete	10.0
2019	2	61542	Abbot Solar, LLC	IPP	Abbot Solar	SC	61936	2	2.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.0
2019	2	61344	Advanced Microgrid Solutions	IPP	HEBT WLA 1	CA	61721	WLA01	1.0	Batteries	MWH	BA	(TS) Construction complete, but not yet in commercial operation	1.0
2019	2	61344	Advanced Microgrid Solutions	IPP	HEBT WLA 1	CA	61721	WLA02	1.0	Batteries	MWH	BA	(TS) Construction complete, but not yet in commercial operation	1.0
2019	2	61344	Advanced Microgrid Solutions	IPP	HEBT WLA 1	CA	61721	WLA1C	11.8	Batteries	MWH	BA	(TS) Construction complete, but not yet in commercial operation	11.8
2019	2	60248	Agilon Energy LLC	IPP	Victoria City Power LLC	TX	61241	VC-1	43.0	Natural Gas Fired Combustion Turbine	NG	GT	(V) Under construction, more than 50 percent complete	50.0
2019	2	60248	Agilon Energy LLC	IPP	Victoria City Power LLC	TX	61241	VC-2	43.0	Natural Gas Fired Combustion Turbine	NG	GT	(V) Under construction, more than 50 percent complete	50.0
2019	2	61259	Altair Community Solar Garden, LLC	IPP	Altair Community Solar Garden	MN	61645	ALTA	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2019	2	61325	Aquarius Community Solar Gardens, LLC	IPP	Aquarius Community Solar	MN	61710	AQUA	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2019	2	61326	Aquila Community Solar Gardens, LLC	IPP	Aquila Community Solar	MN	61704	AQUI	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2019	2	803	Arizona Public Service Co	Electric Utility	Ocotillo	AZ	116	GT6	104.7	Natural Gas Fired Combustion Turbine	NG	GT	(V) Under construction, more than 50 percent complete	161.9
2019	2	61546	Bloom Solar, LLC	IPP	Bloom Solar	SC	61940	6	2.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.0
2019	2	61705	Boring Solar LLC	IPP	Boring Solar LLC	OR	62169	BSPV2	2.2	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.2
2019	2	56608	Calpine Mid-Merit LLC	IPP	York Energy Center	PA	55524	CTG5	216.3	Natural Gas Fired Combined Cycle	NG	CT	(U) Under construction, less than or equal to 50 percent complete	234.9
2019	2	56608	Calpine Mid-Merit LLC	IPP	York Energy Center	PA	55524	CTG6	216.3	Natural Gas Fired Combined Cycle	NG	CT	(U) Under construction, less than or equal to 50 percent complete	234.9
2019	2	56608	Calpine Mid-Merit LLC	IPP	York Energy Center	PA	55524	STG2	395.1	Natural Gas Fired Combined Cycle	NG	CA	(U) Under construction, less than or equal to 50 percent complete	419.6
2019	2	61329	Canopus Community Solar Garden, LLC	IPP	Canopus Community Solar	MN	61707	CANO	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2019	2	61337	Cassiopeia Community Solar Garden, LLC	IPP	Cassiopeia Community Solar	MN	61711	CASS	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2019	2	61467	Central CA Fuel Cell 2, LLC	IPP	Tulare WWTP BioMat Fuel Cell	CA	61846	MM27	2.8	Other Natural Gas	NG	FC	(V) Under construction, more than 50 percent complete	2.8
2019	2	16873	City of Sebewaing - (MI)	Electric Utility	Pine Street	MI	7806	7	4.4	Natural Gas Internal Combustion Engine	NG	IC	(U) Under construction, less than or equal to 50 percent complete	4.4
2019	2	16873	City of Sebewaing - (MI)	Electric Utility	Pine Street	MI	7806	8	3.3	Natural Gas Internal Combustion Engine	NG	IC	(U) Under construction, less than or equal to 50 percent complete	3.3
2019	2	3265	Cleco Power LLC	Electric Utility	St. Mary Clean Energy Center	LA	60610	1	47.9	All Other	WH	OT	(V) Under construction, more than 50 percent complete	58.2
2019	2	61187	DG Minnesota CSG, LLC	IPP	Held Solar Project	MN	62267	HELD	5.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	5.0
2019	2	61567	DP-C2 Episode 1 LLC	IPP	Blackville Solar II	SC	61973	C2BV	20.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	20.0
2019	2	61339	Deneb Community Solar Garden, LLC	IPP	Deneb Community Solar	MN	61715	DENE	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2019	2	6035	Exelon Power	IPP	Exelon West Medway II LLC	MA	59882	4	97.4	Natural Gas Fired Combustion Turbine	NG	GT	(V) Under construction, more than 50 percent complete	100.0
2019	2	6035	Exelon Power	IPP	Exelon West Medway II LLC	MA	59882	5	97.4	Natural Gas Fired Combustion Turbine	NG	GT	(V) Under construction, more than 50 percent complete	100.0
2019	2	60379	Howardtown Farm, LLC	IPP	Howardtown Farm	NC	60630	PV1	10.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	10.0
2019	2	61687	KCE NY 1, LLC	IPP	KCE NY 1	NY	62147	KNY1	20.0	Batteries	MWH	BA	(U) Under construction, less than or equal to 50 percent complete	20.0
2019	2	60018	NET Power, LLC	IPP	NET Power La Porte Station	TX	60910	NPLPS	25.5	Other Natural Gas	NG	OT	(V) Under construction, more than 50 percent complete	25.5
2019	2	61778	Oak Leaf Solar XXVIII LLC	IPP	Oak Leaf Solar XXVIII LLC	CO	62255	53973	1.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.5

Table 6.5. Planned U.S. Electric Generating Unit Additions

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code	Status	Nameplate Capacity (MW)
2019	2	61775	Oak Leaf Solar XXXII	IPP	Oak Leaf Solar XXXII	CO	62251	53975	1.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.5
2019	2	61585	Pisces Community Solar Garden LLC	IPP	Pisces Community Solar Garden	MN	61992	CRUX	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2019	2	61605	Riverhead Solar Farm LLC	IPP	Riverhead Solar Farm	NY	62017	RIV1	20.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	20.0
2019	2	60693	Saratoga Wind Energy LLC	IPP	Saratoga Wind Farm	IA	61070	SWE	66.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	66.0
2019	2	61613	Sartell Holdco LLC	IPP	Sartell Holdco CSG	MN	62036	SARTE	5.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	5.0
2019	2	61616	Solar Provider Group MN I LLC	IPP	Syncarpha Dodge 1	MN	62053	SPGD1	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2019	2	18454	Tampa Electric Co	Electric Utility	Mountain View Solar (FL)	FL	61664	GEN1	55.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	55.0
2019	2	60947	Tesla Inc.	IPP	Pima Community College	AZ	62075	PV1	1.1	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.1
2019	2	61557	Vincent Solar, LLC	IPP	Vincent Solar	SC	61950	14	2.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.0
2019	2	61558	Watauga Solar, LLC	IPP	Watauga Solar	SC	61951	15	2.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.0
2019	3	61543	ACE Solar, LLC	IPP	Ace Solar	SC	61937	18	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2019	3	60146	Ameresco Federal Solutions	IPP	MCRD Parris Island PV	SC	61956	BAKUP	2.5	Petroleum Liquids	DFO	IC	(T) Regulatory approvals received. Not under construction	2.5
2019	3	60146	Ameresco Federal Solutions	IPP	MCRD Parris Island PV	SC	61956	BLKST	1.0	Petroleum Liquids	DFO	IC	(T) Regulatory approvals received. Not under construction	1.0
2019	3	60146	Ameresco Federal Solutions	IPP	MCRD Parris Island PV	SC	61956	CHPP	3.5	Natural Gas Fired Combustion Turbine	NG	GT	(T) Regulatory approvals received. Not under construction	3.5
2019	3	803	Arizona Public Service Co	Electric Utility	Ocotillo	AZ	116	GT5	104.7	Natural Gas Fired Combustion Turbine	NG	GT	(V) Under construction, more than 50 percent complete	161.9
2019	3	61006	Bearkat TE Partnership LLC	IPP	Bearkat	TX	59972	BRKA2	103.4	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	103.4
2019	3	61060	Cypress Creek Renewables	IPP	Cascade Solar (TX)	TX	61875	GEN1	10.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	10.0
2019	3	61610	Delaware River Solar, LLC	IPP	Kelly Bridge Road Community Solar Farm	NY	62154	12	2.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.0
2019	3	58970	Ecoplexus, Inc	IPP	Felton CSG PV1-5	MN	62210	FELT1	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2019	3	58970	Ecoplexus, Inc	IPP	Felton CSG PV1-5	MN	62210	FELT2	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2019	3	58970	Ecoplexus, Inc	IPP	Felton CSG PV1-5	MN	62210	FELT3	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2019	3	58970	Ecoplexus, Inc	IPP	Felton CSG PV1-5	MN	62210	FELT4	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2019	3	58970	Ecoplexus, Inc	IPP	Felton CSG PV1-5	MN	62210	FELT5	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2019	3	58970	Ecoplexus, Inc	IPP	Randolph CSG PV1-5	MN	62209	RAND1	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2019	3	58970	Ecoplexus, Inc	IPP	Randolph CSG PV1-5	MN	62209	RAND2	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2019	3	58970	Ecoplexus, Inc	IPP	Randolph CSG PV1-5	MN	62209	RAND3	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2019	3	58970	Ecoplexus, Inc	IPP	Randolph CSG PV1-5	MN	62209	RAND4	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2019	3	58970	Ecoplexus, Inc	IPP	Randolph CSG PV1-5	MN	62209	RAND5	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2019	3	61070	Foundation CA Fund IX Manager, LLC	IPP	Foundation Mann Packing	CA	61443	WTG1	1.8	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	1.8
2019	3	60251	GRP Franklin Renewable Energy Facility, LLC	IPP	GRP Franklin Renewable Energy Facility	GA	60550	GEN	93.5	Wood/Wood Waste Biomass	WDS	ST	(V) Under construction, more than 50 percent complete	93.5
2019	3	60846	GRP Madison Renewable Energy Facility, LLC	IPP	GRP Madison Renewable Energy Facility	GA	61213	GEN	65.0	Wood/Wood Waste Biomass	WDS	ST	(V) Under construction, more than 50 percent complete	65.0
2019	3	61456	Hope Farm Solar, LLC	IPP	Hope Farm Solar, LLC	RI	61840	HOPE	10.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	10.0
2019	3	9417	Interstate Power and Light Co	Electric Utility	English Farms	IA	61565	1	169.9	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	169.9
2019	3	9417	Interstate Power and Light Co	Electric Utility	Upland Prairie	IA	61564	1	299.3	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	299.3
2019	3	59898	Kawailoa Solar, LLC	IPP	Kawailoa Solar	HI	60125	KAWS	49.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	49.0
2019	3	60987	Lanikuhana Solar LLC	IPP	Lanikuhana Solar LLC	HI	58281	1	14.7	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	14.7
2019	3	61606	Lindstrom Solar LLC	IPP	Nautilus Lindstrom Solar CSG	MN	62030	LI	2.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.0
2019	3	13206	Nantucket Electric Co	Electric Utility	Nantucket	MA	1615	18	13.5	Petroleum Liquids	DFO	GT	(V) Under construction, more than 50 percent complete	15.4
2019	3	13206	Nantucket Electric Co	Electric Utility	Nantucket	MA	1615	19	1.0	Petroleum Liquids	DFO	IC	(V) Under construction, more than 50 percent complete	1.0
2019	3	61552	Pelzer Solar I, LLC	IPP	Pelzer Solar I	SC	61945	19	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2019	3	59967	Phoenix Energy	Electric CHP	North Fork Community Power	CA	60192	NFCP1	2.0	Other Waste Biomass	OBG	IC	(U) Under construction, less than or equal to 50 percent complete	2.0
2019	3	61553	Redwing Solar, LLC	Industrial	Redwing Solar	SC	61946	11	2.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.0
2019	3	59010	Rhubarb One LLC	IPP	Rhubarb One SC	SC	59596	PV1	20.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	20.0
2019	3	61607	Saint Cloud Solar, LLC	IPP	Nautilus Saint Cloud Solar CSG	MN	62031	SC	4.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	4.0
2019	3	59138	SunPower Corporation, Systems	IPP	Gavilan District College Solar Project	CA	61993	GDCBA	0.5	Batteries	MWH	BA	(U) Under construction, less than or equal to 50 percent complete	0.5
2019	3	60117	SunShare	IPP	Becker Solar 2 CSG	MN	62084	BCKR2	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2019	3	60117	SunShare	IPP	Becker Solar 3 CSG	MN	62085	BCKR3	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2019	3	60117	SunShare	IPP	Becker Solar 4 CSG	MN	62086	BCKR4	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2019	3	60117	SunShare	IPP	Becker Solar 5 CSG	MN	62087	BCKR5	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2019	3	60117	SunShare	IPP	Becker Solar CSG	MN	62040	BCKR1	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2019	3	59764	Waipio PV, LLC	IPP	Waipio Solar	HI	60024	WPO	45.9	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	45.9
2019	3	61609	Winsted Solar LLC	IPP	Nautilus Winsted Solar CSG	MN	62032	WS	3.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	3.0
2019	3	60875	Wolf Run Energy LLC	IPP	Wolf Run Energy	PA	61263	GEN1	4.4	Natural Gas Internal Combustion Engine	NG	IC	(V) Under construction, more than 50 percent complete	4.4
2019	3	60875	Wolf Run Energy LLC	IPP	Wolf Run Energy	PA	61263	GEN2	4.4	Natural Gas Internal Combustion Engine	NG	IC	(V) Under construction, more than 50 percent complete	4.4
2019	3	60875	Wolf Run Energy LLC	IPP	Wolf Run Energy	PA	61263	GEN3	4.4	Natural Gas Internal Combustion Engine	NG	IC	(V) Under construction, more than 50 percent complete	4.4
2019	3	60875	Wolf Run Energy LLC	IPP	Wolf Run Energy	PA	61263	GEN4	4.4	Natural Gas Internal Combustion Engine	NG	IC	(V) Under construction, more than 50 percent complete	4.4
2019	3	60875	Wolf Run Energy LLC	IPP	Wolf Run Energy	PA	61263	GEN5	4.4	Natural Gas Internal Combustion Engine	NG	IC	(V) Under construction, more than 50 percent complete	4.4
2019	4	803	Arizona Public Service Co	Electric Utility	Ocotillo	AZ	116	GT4	104.7	Natural Gas Fired Combustion Turbine	NG	GT	(U) Under construction, less than or equal to 50 percent complete	161.9
2019	4	60609	Clean Focus Renewables, Inc.	IPP	Rugged Solar LLC	CA	57960	1	80.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	80.0
2019	4	61060	Cypress Creek Renewables	IPP	SCE&G Curie CSG	SC	61432	SCCU1	2.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.0
2019	4	60496	Enerparc Inc.	IPP	Neenach Solar Center	CA	60826	ECA03	1.5	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	1.5
2019	4	58959	Freeport LNG Development L.P	Industrial	Freeport LP Pretreatment Facility	TX	59145	65GTG	77.5	Natural Gas Fired Combustion Turbine	NG	GT	(V) Under construction, more than 50 percent complete	97.0
2019	4	60195	Groton Station Fuel Cell, LLC	IPP	Naval Sub Base New London Fuel Cell	CT	61743	MMH2	3.7	Other Natural Gas	NG	FC	(U) Under construction, less than or equal to 50 percent complete	3.7
2019	4	19547	Hawaiian Electric Co Inc	Electric Utility	West Loch Solar One	HI	61987	WLS1	20.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	20.0
2019	4	54769	INEOS USA LLC	Industrial	Power Island	TX	10154	GEN2	50.0	Natural Gas Fired Combustion Turbine	NG	GT	(U) Under construction, less than or equal to 50 percent complete	50.0
2019	4	54769	INEOS USA LLC	Industrial	Power Island	TX	10154	GEN3	50.0	Natural Gas Fired Combustion Turbine	NG	GT	(U) Under construction, less than or equal to 50 percent complete	50.0
2019	4	59458	Landfill Energy Systems Florida	IPP	Sarasota County LFGTE Facility	FL	59686	LESF4	1.6	Landfill Gas	LFG	IC	(L) Regulatory approvals pending. Not under construction	1.6
2019	4	58849	Mariah del Este LLC	IPP	Mariah East	TX	59006	MARN	152.5	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	152.5
2019	4	61663	Panda Solar NC 10, LLC	IPP	Panda Solar NC 10, LLC	NC	62128	20031	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2019	4	61664	Panda Solar NC 11, LLC	IPP	Panda Solar NC 11, LLC	NC	62129	20032	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2019	4	61656	Panda Solar NC 3, LLC	IPP	Panda Solar NC 3, LLC	NC	62121	20011	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2019	4	61657	Panda Solar NC 4, LLC	IPP	Panda Solar NC 4, LLC	NC	62122	20009	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2019	4	61660	Panda Solar NC 6, LLC	IPP	Panda Solar NC 6, LLC	NC	62124	20028	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2019	4	61659	Panda Solar NC 7 , LLC	IPP	Panda Solar NC 7, LLC	NC	62125	20038	1.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.5
2019	4	61661	Panda Solar NC 8, LLC	IPP	Panda Solar NC 8, LLC	NC	62126	20052	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2019	4	61662	Panda Solar NC 9, LLC	IPP	Panda Solar NC 9, LLC	NC	62127	20022	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2019	4	61677	Sol Systems	IPP	Warren Solar Farm LLC	NC	62223	10423	5.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	5.0
2019	4	60193	Tamworth Holdings, LLC	IPP	Tamworth Holdings	NC	60394	PV1	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
2019	4	60410	Tanager Holdings, LLC	IPP	Tanager Holdings	NC	60691	PV1	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
2019	4	61029	Upper Michigan Energy Resources Company	Electric Utility	A.J. Mihm Generating Station	MI	61391	M1	18.3	Natural Gas Internal Combustion Engine	NG	IC	(V) Under construction, more than 50 percent complete	18.8
2019	4	61029	Upper Michigan Energy Resources Company	Electric Utility	A.J. Mihm Generating Station	MI	61391	M2	18.3	Natural Gas Internal Combustion Engine	NG	IC	(V) Under construction, more than 50 percent complete	18.8
2019	4	61029	Upper Michigan Energy Resources Company	Electric Utility	A.J. Mihm Generating Station	MI	61391	M3	18.3	Natural Gas Internal Combustion Engine	NG	IC	(V) Under construction, more than 50 percent complete	18.8
2019	4	61029	Upper Michigan Energy Resources Company	Electric Utility	F.D. Kuester Generating Station	MI	61392	K1	18.3	Natural Gas Internal Combustion Engine	NG	IC	(V) Under construction, more than 50 percent complete	18.8
2019	4	61029	Upper Michigan Energy Resources Company	Electric Utility	F.D. Kuester Generating Station	MI	61392	K2	18.3	Natural Gas Internal Combustion Engine	NG	IC	(V) Under construction, more than 50 percent complete	18.8
2019	4	61029	Upper Michigan Energy Resources Company	Electric Utility	F.D. Kuester Generating Station	MI	61392	K3	18.3	Natural Gas Internal Combustion Engine	NG	IC	(V) Under construction, more than 50 percent complete	18.8
2019	4	61029	Upper Michigan Energy Resources Company	Electric Utility	F.D. Kuester Generating Station	MI	61392	K4	18.3	Natural Gas Internal Combustion Engine	NG	IC	(V) Under construction, more than 50 percent complete	18.8
2019	4	61029	Upper Michigan Energy Resources Company	Electric Utility	F.D. Kuester Generating Station	MI	61392	K5	18.3	Natural Gas Internal Combustion Engine	NG	IC	(V) Under construction, more than 50 percent complete	18.8
2019	4	61029	Upper Michigan Energy Resources Company	Electric Utility	F.D. Kuester Generating Station	MI	61392	K6	18.3	Natural Gas Internal Combustion Engine	NG	IC	(V) Under construction, more than 50 percent complete	18.8
2019	4	61029	Upper Michigan Energy Resources Company	Electric Utility	F.D. Kuester Generating Station	MI	61392	K7	18.3	Natural Gas Internal Combustion Engine	NG	IC	(V) Under construction, more than 50 percent complete	18.8
2019	4	60192	Warbler Holdings, LLC	IPP	Warbler Holdings	NC	60393	PV1	4.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	4.0

Table 6.5. Planned U.S. Electric Generating Unit Additions

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code	Status	Nameplate Capacity (MW)
2019	5	60292	Advanced Solar Power Holdings, Inc	IPP	Two Mile Desert Project	NC	60510	PV1	16.2	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	16.2
2019	5	803	Arizona Public Service Co	Electric Utility	Ocotillo	AZ	116	GT3	104.7	Natural Gas Fired Combustion Turbine	NG	GT	(U) Under construction, less than or equal to 50 percent complete	161.9
2019	5	60672	Birdsboro Power LLC	IPP	Birdsboro Power	PA	61035	GEN1	476.0	Natural Gas Fired Combined Cycle	NG	CS	(V) Under construction, more than 50 percent complete	525.0
2019	5	3913	City of Colby - (KS)	Electric Utility	Colby City of	KS	1272	9	3.0	Petroleum Liquids	DFO	IC	(P) Planned for installation, but regulatory approvals not initiated	3.0
2019	5	61567	DP-C2 Episode 1 LLC	IPP	Richardson Solar II	SC	61972	C2BV	3.6	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	3.6
2019	5	56201	Engie North America	IPP	Seymour Hills Wind Project, LLC	TX	62227	WTGS	30.2	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	30.2
2019	5	60195	Groton Station Fuel Cell, LLC	IPP	Naval Sub Base New London Fuel Cell	CT	61743	MMH3	3.7	Other Natural Gas	NG	FC	(U) Under construction, less than or equal to 50 percent complete	3.7
2019	5	9130	Hutchinson Utilities Comm	Electric Utility	Hutchinson Plant #1	MN	1980	11	9.8	Natural Gas Internal Combustion Engine	NG	IC	(V) Under construction, more than 50 percent complete	9.8
2019	5	9130	Hutchinson Utilities Comm	Electric Utility	Hutchinson Plant #1	MN	1980	12	9.8	Natural Gas Internal Combustion Engine	NG	IC	(V) Under construction, more than 50 percent complete	9.8
2019	5	13902	NorthWestern Energy	Electric Utility	Hauser	MT	2185	HAU7	3.4	Conventional Hydroelectric	WAT	HY	(U) Under construction, less than or equal to 50 percent complete	3.5
2019	5	56545	Pattern Operators LP	IPP	Grady Wind Energy Center, LLC	NM	60317	1	220.5	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	220.5
2019	5	61699	SR Meridian II	IPP	Meridian II	MS	62164	MRDII	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
2019	5	59598	Tooele Army Depot	IPP	Tooele Army Depot	UT	59817	PV1	1.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.5
2019	5	19564	University of Notre Dame	Commercial	University of Notre Dame	IN	50366	GT1	5.6	Natural Gas Fired Combustion Turbine	NG	GT	(U) Under construction, less than or equal to 50 percent complete	5.4
2019	5	19564	University of Notre Dame	Commercial	University of Notre Dame	IN	50366	GT2	5.6	Natural Gas Fired Combustion Turbine	NG	GT	(U) Under construction, less than or equal to 50 percent complete	5.4
2019	6	61608	Agilon Energy Holdings II, LLC	IPP	Victoria Port Power II LLC	TX	61966	VP2-1	43.0	Natural Gas Fired Combustion Turbine	NG	GT	(L) Regulatory approvals pending. Not under construction	50.0
2019	6	61608	Agilon Energy Holdings II, LLC	IPP	Victoria Port Power II LLC	TX	61966	VP2-2	43.0	Natural Gas Fired Combustion Turbine	NG	GT	(L) Regulatory approvals pending. Not under construction	50.0
2019	6	59474	BQ Energy LLC	IPP	Yeoman Creek	IL	61910	YEOM	8.8	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	8.8
2019	6	60366	BRE NC Solar 2, LLC	IPP	BRE NC Solar 2	NC	60626	BEAM2	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
2019	6	60367	BRE NC Solar 3, LLC	IPP	BRE NC Solar 3	NC	60627	BEAM3	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
2019	6	60368	BRE NC Solar 4, LLC	IPP	BRE NC Solar 4	NC	60628	BEAM4	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
2019	6	57449	Borrego Solar Systems Inc	Industrial	Clif Bar Bakery of Twin Falls	ID	62151	PV1	2.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	2.0
2019	6	60096	Calvert Energy LLC	IPP	Pine Valley Solar Farm, LLC	NC	60298	PV1	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
2019	6	61615	Citizens Imperial Solar LLC	IPP	Citizens Imperial Solar	CA	62052	CIS1	30.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	30.0
2019	6	59319	Cotton Solar, LLC	IPP	Cotton Solar	SC	59572	PV1	16.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	16.0
2019	6	39347	East Texas Electric Coop, Inc	Electric Utility	RC Thomas Hydroelectric Project	TX	58645	RCT1	8.7	Conventional Hydroelectric	WAT	HY	(U) Under construction, less than or equal to 50 percent complete	8.9
2019	6	39347	East Texas Electric Coop, Inc	Electric Utility	RC Thomas Hydroelectric Project	TX	58645	RCT2	8.7	Conventional Hydroelectric	WAT	HY	(U) Under construction, less than or equal to 50 percent complete	8.9
2019	6	39347	East Texas Electric Coop, Inc	Electric Utility	RC Thomas Hydroelectric Project	TX	58645	RCT3	8.7	Conventional Hydroelectric	WAT	HY	(U) Under construction, less than or equal to 50 percent complete	8.9
2019	6	58970	Ecoplexus, Inc	IPP	Grandy PV 1	NC	59518	GRAND	20.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	20.0
2019	6	58135	Ecos Energy LLC	IPP	Apple Hill Solar	VT	61037	APPL	2.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	2.0
2019	6	58135	Ecos Energy LLC	IPP	Lake Perris Solar	CA	60973	LKPR	1.5	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	1.5
2019	6	58135	Ecos Energy LLC	IPP	San Jacinto Solar	CA	60972	SJAC	1.5	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	1.5
2019	6	11241	Entergy Louisiana LLC	Electric Utility	St. Charles Power Station (LA)	LA	60926	1A	250.0	Natural Gas Fired Combined Cycle	NG	CT	(V) Under construction, more than 50 percent complete	250.0
2019	6	11241	Entergy Louisiana LLC	Electric Utility	St. Charles Power Station (LA)	LA	60926	1B	250.0	Natural Gas Fired Combined Cycle	NG	CT	(V) Under construction, more than 50 percent complete	250.0
2019	6	11241	Entergy Louisiana LLC	Electric Utility	St. Charles Power Station (LA)	LA	60926	1C	500.0	Natural Gas Fired Combined Cycle	NG	CA	(V) Under construction, more than 50 percent complete	500.0
2019	6	56625	Flat Water Wind Farm LLC	IPP	Flat Water Wind Farm LLC	NE	57283	WTG2	10.5	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	10.5
2019	6	6452	Florida Power & Light Co	Electric Utility	Okeechobee Clean Energy Center	FL	60345	1A	376.6	Natural Gas Fired Combined Cycle	NG	CT	(V) Under construction, more than 50 percent complete	376.6
2019	6	6452	Florida Power & Light Co	Electric Utility	Okeechobee Clean Energy Center	FL	60345	1B	376.6	Natural Gas Fired Combined Cycle	NG	CT	(U) Under construction, less than or equal to 50 percent complete	376.6
2019	6	6452	Florida Power & Light Co	Electric Utility	Okeechobee Clean Energy Center	FL	60345	1C	376.6	Natural Gas Fired Combined Cycle	NG	CT	(U) Under construction, less than or equal to 50 percent complete	376.6
2019	6	6452	Florida Power & Light Co	Electric Utility	Okeechobee Clean Energy Center	FL	60345	1ST	593.3	Natural Gas Fired Combined Cycle	NG	CA	(U) Under construction, less than or equal to 50 percent complete	593.3
2019	6	61037	Foard City Wind, LLC	IPP	Foard City Wind	TX	61402	FOARD	352.8	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	352.8
2019	6	60747	Gamble Solar, LLC	IPP	Gamble Solar	NC	61127	12348	3.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	3.0
2019	6	57389	IKEA Property Inc	Commercial	IKEA Live Oak Rooftop PV System	TX	62152	570	1.7	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.7
2019	6	49893	Invenergy Services LLC	IPP	Santa Rita East	TX	62038	STRAE	302.4	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	302.4
2019	6	59678	KDC Solar PR1, LLC	IPP	KDC Solar PR1, LLC	NJ	59910	SF	22.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	22.0
2019	6	11664	Mark Technologies Corp	IPP	Alta Mesa Project Phase IV	CA	55352	GEN1	40.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	40.0
2019	6	61708	NRG Canal 3 Development LLC	IPP	Canal	MA	1599	3	330.0	Natural Gas Fired Combustion Turbine	NG	GT	(V) Under construction, more than 50 percent complete	330.0
2019	6	61401	North 301 Solar	IPP	North 301 Solar	NC	61778	N301	20.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	20.0
2019	6	58477	O2energies, Inc.	IPP	Five Forks Solar	NC	59951	5FRK	20.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	20.0
2019	6	58764	Origis Energy USA, Inc	IPP	OR Solar 2, LLC	OR	61200	ORSR2	10.0	Solar Photovoltaic	SUN	PV	(OT) Other	10.0
2019	6	15452	PSEG Power Connecticut LLC	IPP	Bridgeport Station	CT	568	501	375.7	Natural Gas Fired Combined Cycle	NG	CT	(V) Under construction, more than 50 percent complete	375.7
2019	6	15452	PSEG Power Connecticut LLC	IPP	Bridgeport Station	CT	568	502	200.6	Natural Gas Fired Combined Cycle	NG	CA	(V) Under construction, more than 50 percent complete	200.6
2019	6	61658	Panda Solar NC 5, LLC	IPP	Panda Solar NC 5, LLC	NC	62123	20007	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2019	6	60389	Rabbit Hill Energy Storage Project	IPP	Rabbit Hill Energy Storage Project	TX	60649	1	9.9	Batteries	MWH	BA	(V) Under construction, more than 50 percent complete	9.9
2019	6	61485	Rio Bravo Windpower, LLC	IPP	Rio Bravo Windpower, LLC	TX	61865	1	237.6	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	237.6
2019	6	61588	San Pablo Raceway, LLC	IPP	San Pablo Raceway	CA	62004	SPRWY	100.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	100.0
2019	6	17650	Southern Power Co	IPP	Mankato Energy Center	MN	56104	CTG1	200.0	Natural Gas Fired Combined Cycle	NG	CT	(U) Under construction, less than or equal to 50 percent complete	210.0
2019	6	61492	StraightUp Solar	IPP	John A Logan College Solar	IL	61878	JALC	1.6	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	1.9
2019	6	58658	Sunlight Partners	IPP	Alexis Solar	NC	60139	PV1	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
2019	6	58658	Sunlight Partners	IPP	Blue Bird Solar	NC	60177	PV1	4.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	4.0
2019	6	58658	Sunlight Partners	IPP	Brooke Solar	NC	60140	PV1	4.5	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	4.5
2019	6	58658	Sunlight Partners	IPP	Cash Solar	NC	60178	PV1	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
2019	6	58658	Sunlight Partners	IPP	Eagle Solar	NC	60161	PV1	4.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	4.0
2019	6	58658	Sunlight Partners	IPP	Grove Solar	NC	60181	PV1	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
2019	6	58658	Sunlight Partners	IPP	Higgins Solar	NC	60166	PV1	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
2019	6	58658	Sunlight Partners	IPP	Icarus Solar	NC	60169	PV1	3.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	3.0
2019	6	58658	Sunlight Partners	IPP	Iga Solar	NC	60170	PV1	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
2019	6	58658	Sunlight Partners	IPP	Izia Solar	NC	60141	PV1	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
2019	6	58658	Sunlight Partners	IPP	June Solar	NC	60158	PV1	4.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	4.0
2019	6	58658	Sunlight Partners	IPP	Longleaf Solar	NC	60173	PV1	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
2019	6	58658	Sunlight Partners	IPP	Robin Solar	NC	60165	PV1	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
2019	6	58658	Sunlight Partners	IPP	Roman Solar	NC	60159	PV1	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
2019	6	58658	Sunlight Partners	IPP	Tate Solar	NC	60160	PV1	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
2019	6	58658	Sunlight Partners	IPP	Wilfork Solar	NC	60162	PV1	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
2019	6	61533	Techren Solar II LLC	IPP	Techren Solar II LLC	NV	61930	TECH2	200.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	200.0
2019	6	59731	Windham Solar LLC	IPP	Lebanon Solar 1	CT	59991	LEB1	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2019	6	59731	Windham Solar LLC	IPP	Lebanon Solar 2	CT	59992	LEB2	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2019	7	61466	Bakersfield Fuel Cell 1, LLC	IPP	Bolthouse Farms Fuel Cell	CA	61845	MM28	2.5	Other Natural Gas	NG	FC	(P) Planned for installation, but regulatory approvals not initiated	2.5
2019	7	61466	Bakersfield Fuel Cell 1, LLC	IPP	Bolthouse Farms Fuel Cell	CA	61845	MM29	2.5	Other Natural Gas	NG	FC	(P) Planned for installation, but regulatory approvals not initiated	2.5
2019	7	61745	Burgaw Solar, LLC	IPP	Burgaw Solar, LLC	NC	62240	1072	5.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	5.0
2019	7	61060	Cypress Creek Renewables	IPP	Lampwick	TX	61872	GEN1	7.5	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	7.5
2019	7	56201	Engie North America	IPP	Solomon Forks Wind Project, LLC	KS	61984	WTGS	275.6	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	275.6
2019	7	60534	Halifax Solar LLC	IPP	Halifax Solar LLC	NC	60884	HALFX	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2019	7	54913	NSTAR Electric Company	Electric Utility	Hampden Solar PV	MA	62073	LG390	3.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	3.5
2019	7	60975	SR Innovation, LLC	IPP	SR Innovation - NIKE PV	TN	61332	NIKE2	1.7	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	1.7
2019	7	61502	Sholes Wind Energy Center, LLC	IPP	Sholes Wind Energy Center	NE	61889	WSN1	160.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	160.0
2019	7	61276	West Liberty Renewables LLC	IPP	West Liberty Wind Farm	IA	61057	T1	2.5	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	2.5
2019	7	61276	West Liberty Renewables LLC	IPP	West Liberty Wind Farm	IA	61057	T2	2.5	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	2.5
2019	8	60877	Antelope DSR 3, LLC	IPP	Antelope DSR 3	CA	61265	ADSR3	20.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	20.0
2019	8	59714	Antrim Wind Energy LLC	IPP	Antrim Wind	NH	59953	AWND1	28.4	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	28.8

Table 6.5. Planned U.S. Electric Generating Unit Additions

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code	Status	Nameplate Capacity (MW)
2019	8	59550	Croda Inc.	Industrial	Croda Atlas Point CHP	DE	59783	91199	2.0	Landfill Gas	LFG	IC	(P) Planned for installation, but regulatory approvals not initiated	2.0
2019	8	61521	Pegasus Wind, LLC	IPP	Pegasus Wind	MI	61916	PWEC	141.1	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	141.1
2019	8	16534	Sacramento Municipal Util Dist	Electric Utility	White Rock/Slab Creek	CA	435	H3	2.7	Conventional Hydroelectric	WAT	HY	(U) Under construction, less than or equal to 50 percent complete	2.7
2019	9	60328	Big Level Wind LLC	IPP	Big Level Wind	PA	60551	BLW01	90.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	90.0
2019	9	60719	Broadlands Wind Farm LLC	IPP	Broadlands Wind Farm	IL	61161	GEN01	300.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	300.0
2019	9	59365	Capital Power Corporation	IPP	Black Fork Wind Energy Project	OH	59907	GEN	200.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	200.0
2019	9	58970	Ecoplexus, Inc	IPP	Everett PV1	NC	60997	EVRT1	10.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	10.0
2019	9	61054	Fluvanna Wind Energy 2 LLC	IPP	Gopher Creek Wind Farm	TX	61417	GCWF	158.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	158.0
2019	9	61374	Foxtail Wind, LLC	Electric Utility	Foxtail Wind, LLC	ND	61747	1	150.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	150.0
2019	9	60259	Green River Wind Farm, LLC	IPP	Green River Wind Farm	IL	60471	GRNRV	212.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	212.0
2019	9	58606	Mauka Fit One LLC	IPP	Mauka FIT One	HI	58662	3501	3.5	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	3.5
2019	9	61515	Phoebe Energy Project, LLC	IPP	Phoebe Solar	TX	61906	PHOEB	250.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	250.0
2019	9	61771	Ranchero Wind Farm LLC	IPP	Ranchero Wind Farm LLC	TX	62259	RAN	300.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	300.0
2019	9	60217	San Bernardino Valley Mun. Water Dist.	Electric Utility	Waterman Turnout Hydroelectric	CA	60466	WTHF	1.0	Conventional Hydroelectric	WAT	HY	(L) Regulatory approvals pending. Not under construction	1.0
2019	9	17609	Southern California Edison Co	Electric Utility	DESI-1 Battery Energy Storage Facility	CA	60699	DESI1	2.4	Batteries	MWH	BA	(TS) Construction complete, but not yet in commercial operation	2.4
2019	10	61465	Brush Solar Center	IPP	Brush Solar Center	OR	61844	BRUSH	2.8	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	2.8
2019	10	61473	Morgan Solar Center	IPP	Morgan Solar Center	OR	61855	MORGN	3.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	3.0
2019	10	16657	San Jose/Santa Clara Water P C	Commercial	SJ/SC WPCP	CA	56080	EG4	3.5	Other Waste Biomass	OBG	IC	(U) Under construction, less than or equal to 50 percent complete	3.5
2019	10	16657	San Jose/Santa Clara Water P C	Commercial	SJ/SC WPCP	CA	56080	EG5	3.5	Other Waste Biomass	OBG	IC	(U) Under construction, less than or equal to 50 percent complete	3.5
2019	10	16657	San Jose/Santa Clara Water P C	Commercial	SJ/SC WPCP	CA	56080	EG6	3.5	Other Waste Biomass	OBG	IC	(U) Under construction, less than or equal to 50 percent complete	3.5
2019	10	16657	San Jose/Santa Clara Water P C	Commercial	SJ/SC WPCP	CA	56080	EG7	3.5	Other Waste Biomass	OBG	IC	(U) Under construction, less than or equal to 50 percent complete	3.5
2019	10	61330	Turtle Creek Wind Farm LLC	IPP	Turtle Creek Wind Farm LLC	IA	61638	TC1	200.1	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	200.1
2019	10	61472	Vale Solar Center	IPP	Vale Solar Center	OR	61856	VALE	3.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	3.0
2019	10	59260	Wright Solar Park LLC	IPP	Wright Solar Park	CA	59525	FRWSP	200.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	200.0
2019	11	61541	1634 Solar, LLC	IPP	1634 Solar	SC	61935	3	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2019	11	61544	Bani Solar, LLC	IPP	Bani Solar	SC	61938	4	2.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	2.0
2019	11	61519	Blackville Solar Farm, LLC	IPP	Blackville Solar Farm, LLC	SC	61918	1	7.2	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	7.2
2019	11	60656	Chestnut Solar LLC	IPP	Chestnut Solar	NC	61011	PV1	74.9	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	74.9
2019	11	3046	Duke Energy Progress - (NC)	Electric Utility	Asheville	NC	2706	CT5	191.2	Natural Gas Fired Combined Cycle	NG	CT	(V) Under construction, more than 50 percent complete	191.2
2019	11	3046	Duke Energy Progress - (NC)	Electric Utility	Asheville	NC	2706	CT7	191.2	Natural Gas Fired Combined Cycle	NG	CT	(V) Under construction, more than 50 percent complete	191.2
2019	11	3046	Duke Energy Progress - (NC)	Electric Utility	Asheville	NC	2706	ST6	102.0	Natural Gas Fired Combined Cycle	NG	CA	(V) Under construction, more than 50 percent complete	102.0
2019	11	3046	Duke Energy Progress - (NC)	Electric Utility	Asheville	NC	2706	ST8	102.0	Natural Gas Fired Combined Cycle	NG	CA	(V) Under construction, more than 50 percent complete	102.0
2019	11	60229	Quail Holdings, LLC	IPP	Quail Holdings	NC	60434	PV1	25.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	25.0
2019	11	59770	Shorthorn Holdings, LLC	IPP	Shorthorn Holdings	SC	60028	PV1	15.4	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	15.4
2019	11	2770	Terra-Gen Operating Co LLC	IPP	Voyager Wind I	CA	60594	VYGR1	131.1	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	131.1
2019	12	60600	Adams Solar, LLC	IPP	Adams Solar	NC	60949	PV1	2.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	2.0
2019	12	61617	Alpha Value Solar, LLC	IPP	Alpha Value Solar	NC	62054	AVS01	5.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	5.0
2019	12	61118	Ameresco, Inc - Candlewood	IPP	Candlewood Solar	CT	61517	CANDL	25.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	25.0
2019	12	59192	Amity Energy, LLC	IPP	Amity Energy LLC	PA	59418	1	6.8	Natural Gas Internal Combustion Engine	NG	IC	(L) Regulatory approvals pending. Not under construction	7.0
2019	12	59192	Amity Energy, LLC	IPP	Amity Energy LLC	PA	59418	2	6.8	Natural Gas Internal Combustion Engine	NG	IC	(L) Regulatory approvals pending. Not under construction	7.0
2019	12	59192	Amity Energy, LLC	IPP	Amity Energy LLC	PA	59418	3	6.8	Natural Gas Internal Combustion Engine	NG	IC	(L) Regulatory approvals pending. Not under construction	7.0
2019	12	15399	Avangrid Renewables LLC	IPP	Coyote Ridge	SD	61047	WT1	98.0	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	98.0
2019	12	15399	Avangrid Renewables LLC	IPP	Karankawa Wind LLC	TX	61343	WT1	200.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	200.0
2019	12	15399	Avangrid Renewables LLC	IPP	Lund Hill	WA	61045	WT1	60.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	60.0
2019	12	15399	Avangrid Renewables LLC	IPP	Montague Wind Power Facility LLC	OR	58099	1	200.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	200.0
2019	12	15399	Avangrid Renewables LLC	IPP	Otter Creek Wind Farm LLC	IL	61344	WT1	129.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	129.0
2019	12	15399	Avangrid Renewables LLC	IPP	Tatanka Ridge	SD	61046	WT1	98.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	98.0
2019	12	61474	Baker City Solar	IPP	Baker City Solar	OR	61854	BAKER	15.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	15.0
2019	12	58687	Bayles Energy LLC	IPP	Bayles	PA	58816	1	6.8	Natural Gas Internal Combustion Engine	NG	IC	(L) Regulatory approvals pending. Not under construction	7.0
2019	12	58687	Bayles Energy LLC	IPP	Bayles	PA	58816	2	6.8	Natural Gas Internal Combustion Engine	NG	IC	(L) Regulatory approvals pending. Not under construction	7.0
2019	12	58687	Bayles Energy LLC	IPP	Bayles	PA	58816	3	6.8	Natural Gas Internal Combustion Engine	NG	IC	(L) Regulatory approvals pending. Not under construction	7.0
2019	12	60289	Blazing Star Wind Farm, LLC	IPP	Blazing Star Wind Farm 1	MN	60504	BLZG1	200.0	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	200.0
2019	12	60714	Burke Wind LLC	IPP	Burke Wind, LLC	ND	61100	GE23	199.4	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	199.4
2019	12	59365	Capital Power Corporation	IPP	Garrison Butte Wind, LLC	ND	60066	GEN	150.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	150.0
2019	12	59365	Capital Power Corporation	IPP	Poplars Ranch Solar LLC	OR	59890	GEN	16.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	16.0
2019	12	58508	Carolina Solar Energy II LLC	IPP	Cabaniss Solar	NC	60430	PV1	4.2	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	4.2
2019	12	58508	Carolina Solar Energy II LLC	IPP	McGrigor Farm Solar	NC	60440	PV1	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2019	12	58508	Carolina Solar Energy II LLC	IPP	Sellers Farm Solar	NC	60439	PV1	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2019	12	58508	Carolina Solar Energy II LLC	IPP	Tides Lane Farm	NC	60429	PV1	3.7	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	3.7
2019	12	61416	Cattle Ridge Wind Holdings, LLC	IPP	Cattle Ridge Wind Farm 1	SD	60503	CTTL1	200.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	200.0
2019	12	61773	Childress Solar Park LLC	IPP	Misae Solar	TX	62249	77777	240.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	240.0
2019	12	58391	Chilocco Wind Farm LLC	IPP	Chilocco Wind Farm	OK	58406	1	200.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	200.0
2019	12	56769	Consolidated Edison Development Inc.	IPP	Burt County Wind	NE	61511	BCNE	75.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	75.0
2019	12	58695	Coronal Development Services	IPP	Biggs Ford Solar Center	MD	61321	BFSC	15.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	15.0
2019	12	60290	Crocker Wind Farm, LLC	IPP	Crocker Wind Farm	SD	60505	CRCKR	200.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	200.0
2019	12	59464	Current Energy Group	IPP	Hickory	NC	59829	5515	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2019	12	61060	Cypress Creek Renewables	IPP	Willard Solar	NC	60287	PV1	4.9	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	5.0
2019	12	61302	Depot Solar Center, LLC	IPP	Depot Solar Center, LLC	VA	61691	DEPOT	15.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	15.0
2019	12	58468	Dominion Renewable Energy	Electric Utility	Colonial Trail West	VA	61985	CTWS	142.4	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	142.4
2019	12	56215	E ON Climate Renewables N America LLC	IPP	Vici Wind Farm	OK	59062	VICI	180.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	180.0
2019	12	61785	EDP Renewables North America LLC	IPP	Saddle Mountain East Wind Farm	WA	62263	GEN1	126.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	126.0
2019	12	56987	East Blackland Solar Project 1 LLC	IPP	Pflugerville Solar Farm	TX	57659	PSF	144.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	144.0
2019	12	58970	Ecoplexus, Inc	IPP	E Nash PV1	NC	60002	NASH1	20.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	20.0
2019	12	58970	Ecoplexus, Inc	IPP	High Shoals PV1	NC	59997	HISHO	16.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	16.0
2019	12	58970	Ecoplexus, Inc	IPP	Underwood PV2	NC	60998	UNWD2	16.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	16.0
2019	12	58970	Ecoplexus, Inc	IPP	Willoughby PV1	NC	60003	WILL1	20.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	20.0
2019	12	58135	Ecos Energy LLC	IPP	Weybridge 1 Solar	VT	61038	WEY1	3.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	3.0
2019	12	60147	Enerparc Solar Development, LLC	IPP	Pike Road Solar	NC	60360	51116	5.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	5.0
2019	12	58672	Everpower Wind Holdings Inc	IPP	Baron Winds Farm	NY	60596	1	272.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	272.0
2019	12	58672	Everpower Wind Holdings Inc	IPP	Buckeye Wind Farm	OH	58776	1	99.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	99.0
2019	12	58672	Everpower Wind Holdings Inc	IPP	Cassadaga Wind Farm	NY	58777	1	126.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	126.0
2019	12	58672	Everpower Wind Holdings Inc	IPP	Horse Thief Wind Project, LLC	MT	59758	1	80.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	80.0
2019	12	58672	Everpower Wind Holdings Inc	IPP	Mason Dixon Wind Farm	PA	60212	1	79.9	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	79.9
2019	12	58672	Everpower Wind Holdings Inc	IPP	Mud Springs Wind Project, LLC	MT	59756	1	80.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	80.0
2019	12	58672	Everpower Wind Holdings Inc	IPP	Pryor Caves Wind Project, LLC	MT	59757	1	80.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	80.0
2019	12	58672	Everpower Wind Holdings Inc	IPP	Sand Creek Wind Farm	MT	60595	WT1	75.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	75.0
2019	12	58672	Everpower Wind Holdings Inc	IPP	Scioto Ridge Wind Farm	OH	58780	1	189.2	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	189.2
2019	12	58672	Everpower Wind Holdings Inc	IPP	Terrapin Hills Wind Farm	MD	60211	1	50.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	50.0
2019	12	59745	First Solar Asset Management	IPP	Twiggs Solar	GA	61696	TWIGG	200.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	200.0
2019	12	56615	First Solar Project Development	IPP	Sunshine Valley Solar	NV	59826	GEN01	102.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	100.0

Table 6.5. Planned U.S. Electric Generating Unit Additions

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code	Status	Nameplate Capacity (MW)
2019	12	56615	First Solar Project Development	IPP	Windhub Solar A LLC	CA	59878	GEN01	20.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	20.0
2019	12	56615	First Solar Project Development	IPP	Windhub Solar B, LLC	CA	59969	GEN01	20.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	20.0
2019	12	58692	Florey Knob LLC	IPP	Florey Knobb	PA	58821	1	6.8	Natural Gas Internal Combustion Engine	NG	IC	(T) Regulatory approvals received. Not under construction	7.0
2019	12	58692	Florey Knob LLC	IPP	Florey Knobb	PA	58821	2	6.8	Natural Gas Internal Combustion Engine	NG	IC	(T) Regulatory approvals received. Not under construction	7.0
2019	12	58692	Florey Knob LLC	IPP	Florey Knobb	PA	58821	3	6.8	Natural Gas Internal Combustion Engine	NG	IC	(T) Regulatory approvals received. Not under construction	7.0
2019	12	6541	Formosa Plastics Corp	Industrial	Formosa Utility Venture Ltd	TX	10554	3ST1	38.0	Natural Gas Fired Combined Cycle	NG	CA	(U) Under construction, less than or equal to 50 percent complete	40.0
2019	12	6541	Formosa Plastics Corp	Industrial	Formosa Utility Venture Ltd	TX	10554	3TBG1	97.0	Natural Gas Fired Combined Cycle	NG	CT	(U) Under construction, less than or equal to 50 percent complete	102.0
2019	12	6541	Formosa Plastics Corp	Industrial	Formosa Utility Venture Ltd	TX	10554	3TBG2	97.0	Natural Gas Fired Combined Cycle	NG	CT	(U) Under construction, less than or equal to 50 percent complete	102.0
2019	12	7140	Georgia Power Co	Electric Utility	Robins Air Force Base Solar	GA	61648	1	139.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	139.0
2019	12	61611	Glaciers Edge Wind Project LLC	IPP	Glaciers Edge Wind Project	IA	62035	GEW	202.7	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	202.7
2019	12	61166	Green Power Energy LLC	IPP	Cody Road Wind Farm	NY	61592	WT1	2.4	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	2.4
2019	12	61166	Green Power Energy LLC	IPP	Cody Road Wind Farm	NY	61592	WT2	2.4	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	2.4
2019	12	61166	Green Power Energy LLC	IPP	Cody Road Wind Farm	NY	61592	WT3	2.4	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	2.4
2019	12	61166	Green Power Energy LLC	IPP	Cody Road Wind Farm	NY	61592	WT4	2.4	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	2.4
2019	12	61166	Green Power Energy LLC	IPP	Cody Road Wind Farm	NY	61592	WT5	2.4	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	2.4
2019	12	60222	Haida Energy, Inc.	Electric Utility	Hiilangaay Hydro	AK	59037	GEN 1	5.0	Conventional Hydroelectric	WAT	HY	(U) Under construction, less than or equal to 50 percent complete	5.0
2019	12	60040	Hale Wind Energy	IPP	Hale Community Wind Farm	TX	59247	HALE1	478.0	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	478.0
2019	12	58684	Hop Bottom Energy LLC	IPP	Hop Bottom	PA	58800	1	6.8	Natural Gas Internal Combustion Engine	NG	IC	(T) Regulatory approvals received. Not under construction	7.0
2019	12	58684	Hop Bottom Energy LLC	IPP	Hop Bottom	PA	58800	2	6.8	Natural Gas Internal Combustion Engine	NG	IC	(T) Regulatory approvals received. Not under construction	7.0
2019	12	58684	Hop Bottom Energy LLC	IPP	Hop Bottom	PA	58800	3	6.8	Natural Gas Internal Combustion Engine	NG	IC	(T) Regulatory approvals received. Not under construction	7.0
2019	12	49893	Invenergy Services LLC	IPP	Camilla Solar Energy Project	GA	61785	CAMSR	160.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	160.0
2019	12	61421	LeGore Bridge Solar Center, LLC	IPP	LeGore Bridge Solar Center	MD	61796	LGBSC	20.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	20.0
2019	12	56939	Lexington Chenoa Wind Farm II LLC	IPP	Bright Stalk Wind Farm II	IL	57622	GEN1	200.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	200.0
2019	12	56940	Lexington Chenoa Wind Farm LLC	IPP	Bright Stalk Wind Farm I	IL	57623	GEN1	200.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	200.0
2019	12	55983	Luminant Generation Company LLC	IPP	Horseshoe Bend	TX	59806	SOLAR	140.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	140.0
2019	12	60340	M&G Resins USA, LLC	Industrial	M&G Resins USA	TX	60642	1	11.7	All Other	WH	OT	(U) Under construction, less than or equal to 50 percent complete	14.3
2019	12	60340	M&G Resins USA, LLC	Industrial	M&G Resins USA	TX	60642	2	11.7	All Other	WH	OT	(U) Under construction, less than or equal to 50 percent complete	14.3
2019	12	58783	Marseilles Land and Water Company	IPP	Marseilles Lock and Dam Hydro	IL	58903	UNIT1	2.6	Conventional Hydroelectric	WAT	HY	(L) Regulatory approvals pending. Not under construction	2.6
2019	12	58783	Marseilles Land and Water Company	IPP	Marseilles Lock and Dam Hydro	IL	58903	UNIT2	2.6	Conventional Hydroelectric	WAT	HY	(L) Regulatory approvals pending. Not under construction	2.6
2019	12	58783	Marseilles Land and Water Company	IPP	Marseilles Lock and Dam Hydro	IL	58903	UNIT3	2.6	Conventional Hydroelectric	WAT	HY	(L) Regulatory approvals pending. Not under construction	2.6
2019	12	58783	Marseilles Land and Water Company	IPP	Marseilles Lock and Dam Hydro	IL	58903	UNIT4	2.6	Conventional Hydroelectric	WAT	HY	(L) Regulatory approvals pending. Not under construction	2.6
2019	12	61422	Mason Dixon Solar Center, LLC	IPP	Mason Dixon Solar Center	MD	61797	PV	20.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	20.0
2019	12	59761	McLean Homestead, LLC	IPP	McLean Homestead	NC	60020	PV1	4.9	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	4.9
2019	12	61770	Mesteno Wind	IPP	Mesteno	TX	62258	MES	200.0	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	201.6
2019	12	12341	MidAmerican Energy Co	Electric Utility	Orient Wind Farm	IA	61077	1	482.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	482.0
2019	12	12341	MidAmerican Energy Co	Electric Utility	Plum Creek Wind	IA	61078	1	500.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	500.0
2019	12	61459	Minco Wind V, LLC	IPP	Minco Wind V, LLC	OK	61837	MV	220.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	220.0
2019	12	60952	Mt. Jackson Solar LLC	IPP	Mt. Jackson Solar	VA	61318	SOLAR	15.7	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	15.7
2019	12	60442	New Colony Wind LLC	IPP	New Colony Wind Project	MT	60718	WT1	23.1	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	23.1
2019	12	56622	NextEra Energy Resources	IPP	Shaw Creek Solar, LLC	SC	61790	SHAWC	74.9	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	74.9
2019	12	60874	Niles Valley Energy LLC	IPP	Niles Valley Energy LLC	PA	61286	GEN1	4.2	Natural Gas Internal Combustion Engine	NG	IC	(P) Planned for installation, but regulatory approvals not initiated	4.4
2019	12	60874	Niles Valley Energy LLC	IPP	Niles Valley Energy LLC	PA	61286	GEN2	4.2	Natural Gas Internal Combustion Engine	NG	IC	(P) Planned for installation, but regulatory approvals not initiated	4.4
2019	12	60874	Niles Valley Energy LLC	IPP	Niles Valley Energy LLC	PA	61286	GEN3	4.2	Natural Gas Internal Combustion Engine	NG	IC	(P) Planned for installation, but regulatory approvals not initiated	4.4
2019	12	60874	Niles Valley Energy LLC	IPP	Niles Valley Energy LLC	PA	61286	GEN4	4.2	Natural Gas Internal Combustion Engine	NG	IC	(P) Planned for installation, but regulatory approvals not initiated	4.4
2019	12	60874	Niles Valley Energy LLC	IPP	Niles Valley Energy LLC	PA	61286	GEN5	4.2	Natural Gas Internal Combustion Engine	NG	IC	(P) Planned for installation, but regulatory approvals not initiated	4.4
2019	12	61480	Ontario Solar Center	IPP	Ontario Solar Center	OR	61860	ONTRO	3.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	3.0
2019	12	58653	Oxbow Creek Energy LLC	IPP	Oxbow Creek	PA	58714	1	6.8	Natural Gas Internal Combustion Engine	NG	IC	(T) Regulatory approvals received. Not under construction	7.0
2019	12	58653	Oxbow Creek Energy LLC	IPP	Oxbow Creek	PA	58714	2	6.8	Natural Gas Internal Combustion Engine	NG	IC	(T) Regulatory approvals received. Not under construction	7.0
2019	12	58653	Oxbow Creek Energy LLC	IPP	Oxbow Creek	PA	58714	3	6.8	Natural Gas Internal Combustion Engine	NG	IC	(T) Regulatory approvals received. Not under construction	7.0
2019	12	14354	PacifiCorp	Electric Utility	Blundell	UT	299	3	35.0	Geothermal	GEO	ST	(P) Planned for installation, but regulatory approvals not initiated	30.0
2019	12	56545	Pattern Operators LP	IPP	Crazy Mountain Wind LLC	MT	61859	WT	80.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	80.0
2019	12	59771	Pecan Solar LLC	IPP	Pecan Solar	NC	60030	PECAN	74.9	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	74.9
2019	12	61758	Prevailing Wind Park, LLC	IPP	Prevailing Wind Park	SD	62247	PWPSD	220.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	220.0
2019	12	60982	RE Maplewood LLC	IPP	RE Maplewood	TX	61346	PV1	100.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	100.0
2019	12	60982	RE Maplewood LLC	IPP	RE Maplewood	TX	61346	PV2	100.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	100.0
2019	12	60982	RE Maplewood LLC	IPP	RE Maplewood	TX	61346	PV3	100.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	100.0
2019	12	61589	RE Mustang Two LLC	IPP	Mustang Two	CA	62015	M2BAR	50.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	50.0
2019	12	61589	RE Mustang Two LLC	IPP	Mustang Two	CA	62015	M2WHI	100.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	100.0
2019	12	61586	Rankin Solar Center, LLC	IPP	Rankin Solar Center, LLC	SC	61996	RANKI	10.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	10.0
2019	12	60646	Reading Wind Energy, LLC	IPP	Reading Wind Project	KS	60999	READW	200.1	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	200.1
2019	12	60466	Rowan Solar NC LLC	IPP	Rowan Solar NC LLC	NC	60780	PV1	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2019	12	61701	SR Meridian III	IPP	Meridian III	MS	62163	MRDII	52.5	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	52.5
2019	12	61634	SR Terrell, LLC	IPP	SR Terrell	GA	62058	TERRL	74.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	74.0
2019	12	60897	Salinas Valley Solid Waste Authority	IPP	Crazy Horse Solar Project	CA	61285	PV1	2.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	2.0
2019	12	16609	San Diego Gas & Electric Co	Electric Utility	Top Gun Energy Storage	CA	61366	TGES	10.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	10.0
2019	12	61455	Scituate RI Solar, LLC	IPP	Scituate RI Solar, LLC	RI	61841	SCITU	10.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	10.0
2019	12	61321	Seabrook Solar, LLC	IPP	Seabrook Solar	SC	61701	GEN1	70.5	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	72.5
2019	12	60387	Skylar Resources, LP	IPP	Townsite Solar Project	NV	60654	GEN01	160.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	180.0
2019	12	17650	Southern Power Co	IPP	Wildhorse Mountain Wind Facility	OK	61866	1	100.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	100.0
2019	12	17718	Southwestern Public Service Co	Electric Utility	Gaines County	TX	60697	GC-1	186.0	Natural Gas Fired Combustion Turbine	NG	GT	(L) Regulatory approvals pending. Not under construction	225.0
2019	12	60523	Springfield Project Development LLC	IPP	Homestead Wind LLC	IL	60871	HOMES	50.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	50.0
2019	12	61668	Strauss Wind LLC	IPP	Strauss Wind Farm	CA	62113	ST-CA	98.8	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	98.8
2019	12	18454	Tampa Electric Co	Electric Utility	Wimauma Solar	FL	61667	1	74.5	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	74.5
2019	12	59056	Tri Global Energy, LLC	IPP	Cone Renewable Energy Project, LLC	TX	60272	WT1	300.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	300.0
2019	12	59056	Tri Global Energy, LLC	IPP	Easter	TX	59971	ESTR1	300.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	300.0
2019	12	58796	Trishe Wind Colorado	IPP	Trishe Wind Colorado	CO	58928	1	30.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	30.0
2019	12	56633	Trishe Wind Minnesota	IPP	Trishe Wind Minnesota	MN	57255	1	40.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	40.0
2019	12	58153	US Magnesium	Industrial	US Magnesium	UT	58191	GT4	24.0	Natural Gas Fired Combustion Turbine	NG	GT	(V) Under construction, more than 50 percent complete	30.0
2019	12	60597	Violet Solar, LLC	IPP	Violet Solar	NC	60961	PV1	5.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	5.0
2019	12	60694	Washburn Wind Energy LLC	IPP	Washburn Wind Farm	IA	61071	WASH	70.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	70.0
2019	12	60599	Washington Solar, LLC	IPP	Washington Solar	NC	60948	PV1	5.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	5.0
2019	12	59316	Whitetail Solar LLC	IPP	Whitetail Solar	SC	59569	PV1	10.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	10.0
2020	1	60278	64KT 8me LLC	IPP	Springbok 3 Solar Farm	CA	60491	SB3SF	90.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	90.0
2020	1	55918	Acciona Wind Energy USA LLC	IPP	Palmas Wind, LLC	TX	61773	PW	142.6	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	144.9
2020	1	60667	Aksamit Energy Development	IPP	Monument Road	NE	61033	MR001	66.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	66.0
2020	1	59365	Capital Power Corporation	IPP	Salt Springs Wind Farm	KS	60807	WT	200.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	200.0
2020	1	56534	Cricket Valley Energy Center LLC	IPP	Cricket Valley Energy	NY	57185	U001	345.0	Natural Gas Fired Combined Cycle	NG	CC	(T) Regulatory approvals received. Not under construction	390.0
2020	1	61060	Cypress Creek Renewables	IPP	Thigpen Farms Solar, LLC	NC	60850	PV1	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2020	1	60147	Enerparc Solar Development, LLC	IPP	Hilly Branch	NC	60358	28941	2.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	2.0
2020	1	13478	Entergy New Orleans, LLC	Electric Utility	New Orleans Power	LA	60928	1	250.0	Natural Gas Fired Combustion Turbine	NG	GT	(L) Regulatory approvals pending. Not under construction	250.0

Table 6.5. Planned U.S. Electric Generating Unit Additions

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code	Status	Nameplate Capacity (MW)
2020	1	56615	First Solar Project Development	IPP	White Wing Solar	AZ	60572	GEN01	200.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	200.0
2020	1	61594	Highlander Solar Station 1 LLC	IPP	Highlander Solar Station 1	VA	62014	HLND1	165.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	165.0
2020	1	9417	Interstate Power and Light Co	Electric Utility	Whispering Willow North	IA	62079	1	199.9	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	199.9
2020	1	18454	Tampa Electric Co	Electric Utility	Alafia Solar	FL	61653	PV1	50.3	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	50.0
2020	1	59056	Tri Global Energy, LLC	IPP	Changing Winds	TX	59243	CHAN1	288.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	288.0
2020	1	20323	Wellhead Energy, LLC	IPP	Stanton Energy Reliability Center	CA	60698	GT1	45.9	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	60.5
2020	1	20323	Wellhead Energy, LLC	IPP	Stanton Energy Reliability Center	CA	60698	GT2	45.9	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	60.5
2020	1	20856	Wisconsin Power & Light Co	Electric Utility	Riverside Energy Center	WI	55641	CTG3	225.0	Natural Gas Fired Combined Cycle	NG	CT	(U) Under construction, less than or equal to 50 percent complete	232.9
2020	1	20856	Wisconsin Power & Light Co	Electric Utility	Riverside Energy Center	WI	55641	CTG4	225.0	Natural Gas Fired Combined Cycle	NG	CT	(U) Under construction, less than or equal to 50 percent complete	232.9
2020	1	20856	Wisconsin Power & Light Co	Electric Utility	Riverside Energy Center	WI	55641	PV1	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	1	20856	Wisconsin Power & Light Co	Electric Utility	Riverside Energy Center	WI	55641	STG2	250.0	Natural Gas Fired Combined Cycle	NG	CA	(U) Under construction, less than or equal to 50 percent complete	260.1
2020	2	56534	Cricket Valley Energy Center LLC	IPP	Cricket Valley Energy	NY	57185	U002	345.0	Natural Gas Fired Combined Cycle	NG	CC	(T) Regulatory approvals received. Not under construction	390.0
2020	2	58970	Ecoplexus, Inc	IPP	Boykin PV1	NC	59996	BOYK1	17.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	17.0
2020	2	24211	Tucson Electric Power Co	Electric Utility	H Wilson Sundt Generating Station	AZ	126	RIC10	18.2	Natural Gas Internal Combustion Engine	NG	IC	(U) Under construction, less than or equal to 50 percent complete	23.5
2020	2	24211	Tucson Electric Power Co	Electric Utility	H Wilson Sundt Generating Station	AZ	126	RIC5	18.2	Natural Gas Internal Combustion Engine	NG	IC	(U) Under construction, less than or equal to 50 percent complete	23.5
2020	2	24211	Tucson Electric Power Co	Electric Utility	H Wilson Sundt Generating Station	AZ	126	RIC6	18.2	Natural Gas Internal Combustion Engine	NG	IC	(U) Under construction, less than or equal to 50 percent complete	23.5
2020	2	24211	Tucson Electric Power Co	Electric Utility	H Wilson Sundt Generating Station	AZ	126	RIC7	18.2	Natural Gas Internal Combustion Engine	NG	IC	(U) Under construction, less than or equal to 50 percent complete	23.5
2020	2	24211	Tucson Electric Power Co	Electric Utility	H Wilson Sundt Generating Station	AZ	126	RIC8	18.2	Natural Gas Internal Combustion Engine	NG	IC	(U) Under construction, less than or equal to 50 percent complete	23.5
2020	2	24211	Tucson Electric Power Co	Electric Utility	H Wilson Sundt Generating Station	AZ	126	RIC9	18.2	Natural Gas Internal Combustion Engine	NG	IC	(U) Under construction, less than or equal to 50 percent complete	23.5
2020	3	61670	AES Huntington Beach Energy, LLC	IPP	AES Huntington Beach Energy Project	CA	62116	1A	226.0	Natural Gas Fired Combined Cycle	NG	CT	(U) Under construction, less than or equal to 50 percent complete	231.0
2020	3	61670	AES Huntington Beach Energy, LLC	IPP	AES Huntington Beach Energy Project	CA	62116	1B	226.0	Natural Gas Fired Combined Cycle	NG	CT	(U) Under construction, less than or equal to 50 percent complete	231.0
2020	3	61670	AES Huntington Beach Energy, LLC	IPP	AES Huntington Beach Energy Project	CA	62116	1S	192.0	Natural Gas Fired Combined Cycle	NG	CA	(U) Under construction, less than or equal to 50 percent complete	231.0
2020	3	60350	CPV Fairview, LLC	IPP	CPV Fairview Energy Center	PA	60589	GEN1	1,100.0	Natural Gas Fired Combined Cycle	NG	CC	(U) Under construction, less than or equal to 50 percent complete	1,100.0
2020	3	59365	Capital Power Corporation	IPP	Cardinal Point LLC	IL	59902	GEN	150.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	150.0
2020	3	56534	Cricket Valley Energy Center LLC	IPP	Cricket Valley Energy	NY	57185	U003	345.0	Natural Gas Fired Combined Cycle	NG	CC	(T) Regulatory approvals received. Not under construction	390.0
2020	3	6455	Duke Energy Florida, LLC	Electric Utility	Columbia Solar Power Plant	FL	61982	PV	74.9	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	74.9
2020	3	60718	Energy Resources USA, Inc.	IPP	Tom Bevill Lock and Dam Hydroelectric	AL	61749	GEN1	4.0	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	4.0
2020	3	60718	Energy Resources USA, Inc.	IPP	Tom Bevill Lock and Dam Hydroelectric	AL	61749	GEN2	4.0	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	4.0
2020	3	60718	Energy Resources USA, Inc.	IPP	Tom Bevill Lock and Dam Hydroelectric	AL	61749	GEN3	4.0	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	4.0
2020	3	60688	FGE Goodnight, LLC	IPP	Goodnight	TX	59246	GOOD1	500.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	500.0
2020	3	9417	Interstate Power and Light Co	Electric Utility	Golden Plains	IA	62081	1	198.8	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	198.8
2020	3	61251	LA3 West Baton Rouge, L.L.C.	IPP	LA3 West Baton Rouge Solar Facility	LA	61646	LA3WB	50.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	50.0
2020	3	60971	NYC ENERGY LLC	IPP	NISA Electric Generation Project	NY	61331	GEN1	59.7	Natural Gas Fired Combined Cycle	NG	CT	(T) Regulatory approvals received. Not under construction	70.5
2020	3	60971	NYC ENERGY LLC	IPP	NISA Electric Generation Project	NY	61331	STG1	20.2	Natural Gas Fired Combined Cycle	NG	CA	(T) Regulatory approvals received. Not under construction	22.0
2020	3	58718	Na Pua Makani Power Partners LLC	IPP	Na Pua Makani Wind Project	HI	58837	WT1	25.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	25.0
2020	3	14232	Otter Tail Power Co	Electric Utility	Merricourt Wind Project	ND	57048	1	150.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	150.0
2020	3	59056	Tri Global Energy, LLC	IPP	Crosby County Wind Farm, LLC	TX	60273	WT1	120.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	120.0
2020	3	24211	Tucson Electric Power Co	Electric Utility	H Wilson Sundt Generating Station	AZ	126	RIC1	18.2	Natural Gas Internal Combustion Engine	NG	IC	(U) Under construction, less than or equal to 50 percent complete	23.5
2020	3	24211	Tucson Electric Power Co	Electric Utility	H Wilson Sundt Generating Station	AZ	126	RIC2	18.2	Natural Gas Internal Combustion Engine	NG	IC	(U) Under construction, less than or equal to 50 percent complete	23.5
2020	3	24211	Tucson Electric Power Co	Electric Utility	H Wilson Sundt Generating Station	AZ	126	RIC3	18.2	Natural Gas Internal Combustion Engine	NG	IC	(U) Under construction, less than or equal to 50 percent complete	23.5
2020	3	24211	Tucson Electric Power Co	Electric Utility	H Wilson Sundt Generating Station	AZ	126	RIC4	18.2	Natural Gas Internal Combustion Engine	NG	IC	(U) Under construction, less than or equal to 50 percent complete	23.5
2020	3	20421	Western Minnesota Mun Pwr Agny	Electric Utility	Red Rock Hydro Plant	IA	58434	1	27.5	Conventional Hydroelectric	WAT	HY	(V) Under construction, more than 50 percent complete	18.2
2020	3	20421	Western Minnesota Mun Pwr Agny	Electric Utility	Red Rock Hydro Plant	IA	58434	2	27.5	Conventional Hydroelectric	WAT	HY	(V) Under construction, more than 50 percent complete	18.2
2020	4	60796	91MC 8me LLC	IPP	Peak Valley Solar Farm	CA	61167	91MC8	200.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	200.0
2020	4	61669	AES Alamitos Energy, LLC	IPP	AES Alamitos Energy Center	CA	62115	1A	226.0	Natural Gas Fired Combined Cycle	NG	CT	(U) Under construction, less than or equal to 50 percent complete	231.0
2020	4	61669	AES Alamitos Energy, LLC	IPP	AES Alamitos Energy Center	CA	62115	1B	226.0	Natural Gas Fired Combined Cycle	NG	CT	(U) Under construction, less than or equal to 50 percent complete	231.0
2020	4	61669	AES Alamitos Energy, LLC	IPP	AES Alamitos Energy Center	CA	62115	1S	192.0	Natural Gas Fired Combined Cycle	NG	CA	(U) Under construction, less than or equal to 50 percent complete	231.0
2020	4	60167	Concord Blue Eagar, LLC	IPP	Concord Blue Eagar, LLC	AZ	60374	CB001	0.6	Other Waste Biomass	OBG	IC	(L) Regulatory approvals pending. Not under construction	0.6
2020	4	60167	Concord Blue Eagar, LLC	IPP	Concord Blue Eagar, LLC	AZ	60374	CB002	0.6	Other Waste Biomass	OBG	IC	(L) Regulatory approvals pending. Not under construction	0.6
2020	4	58695	Coronal Development Services	IPP	Casper Solar Center	MD	61320	CSPSC	36.7	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	36.7
2020	4	56201	Engie North America	IPP	East Fork Wind Project, LLC	KS	62220	WTGS	195.8	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	195.8
2020	4	6452	Florida Power & Light Co	Electric Utility	Hibiscus Solar Energy Center	FL	62206	1	74.5	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	74.5
2020	4	61592	Pleinmont Solar 1 LLC	IPP	Pleinmont Solar 1	VA	62012	PLNM1	75.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	75.0
2020	4	58798	Shell Chemical Appalachia LLC	Industrial	Shell Chemical Appalachia LLC	PA	58933	GTG1	41.0	Natural Gas Fired Combined Cycle	NG	CT	(U) Under construction, less than or equal to 50 percent complete	41.0
2020	5	61683	Amadeus Wind LLC	IPP	Amadeus Wind Farm	TX	62142	AM-TX	250.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	250.0
2020	5	1752	Biola University	Commercial	Biola University	CA	54296	EG-1H	1.5	Natural Gas Internal Combustion Engine	NG	IC	(P) Planned for installation, but regulatory approvals not initiated	1.5
2020	5	1752	Biola University	Commercial	Biola University	CA	54296	EG-2H	1.5	Natural Gas Internal Combustion Engine	NG	IC	(P) Planned for installation, but regulatory approvals not initiated	1.5
2020	5	60383	Henrietta D Energy Storage LLC	IPP	Henrietta D Energy Storage LLC	CA	60641	HDES1	10.0	Batteries	MWH	BA	(L) Regulatory approvals pending. Not under construction	10.0
2020	5	55768	RC Cape May Holdings LLC	IPP	B L England	NJ	2378	4	282.0	Natural Gas Fired Combined Cycle	NG	CT	(T) Regulatory approvals received. Not under construction	321.0
2020	5	58798	Shell Chemical Appalachia LLC	Industrial	Shell Chemical Appalachia LLC	PA	58933	GTG2	41.0	Natural Gas Fired Combined Cycle	NG	CT	(U) Under construction, less than or equal to 50 percent complete	41.0
2020	5	58798	Shell Chemical Appalachia LLC	Industrial	Shell Chemical Appalachia LLC	PA	58933	GTG3	41.0	Natural Gas Fired Combined Cycle	NG	CT	(U) Under construction, less than or equal to 50 percent complete	41.0
2020	6	61524	226HC 8me LLC	IPP	Holstein 1 Solar Farm	TX	61962	HSF01	200.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	200.0
2020	6	60799	33UI 8me LLC	IPP	Long Ridge Solar Farm	UT	61170	33UI8	300.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	300.0
2020	6	59272	41MB 8me, LLC	IPP	Borden Solar Farm	CA	59531	BRDN	50.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	50.0
2020	6	60798	69SV 8me LLC	IPP	Eland 2 Solar Farm	CA	61169	69SV8	200.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	200.0
2020	6	61711	Ashley Solar (SC)	IPP	Ashley Solar (SC)	SC	62179	21	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61712	Atlantic Solar	IPP	Atlantic Solar	SC	62180	22	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2020	6	61713	B & K Solar	IPP	B & K Solar	SC	62181	23	63.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	63.0
2020	6	61714	Battle Solar	IPP	Battle Solar	SC	62182	24	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61715	Bell Solar	IPP	Bell Solar	SC	62183	25	6.1	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	6.1
2020	6	61716	Big Fork Solar	IPP	Big Fork Solar	SC	62184	26	74.9	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	74.9
2020	6	61717	Birch Solar	IPP	Birch Solar	SC	62185	27	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	59844	Blythe Solar III, LLC	IPP	Blythe Solar III, LLC	CA	60094	BLCK1	31.2	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	31.2
2020	6	59845	Blythe Solar IV, LLC	IPP	Blythe Solar IV, LLC	CA	60095	BLCK1	31.2	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	31.2
2020	6	60395	California Ethanol Power, LLC	Industrial	CE&P Imperial Valley 1	CA	60670	1	50.0	All Other	OTH	CC	(T) Regulatory approvals received. Not under construction	50.0
2020	6	61718	Chapman Solar	IPP	Chapman Solar	SC	62186	28	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	60270	Clark Canyon Hydro, LLC	IPP	Clark Canyon Hydro-Electric Facility	MT	60483	FRNS1	2.4	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	2.4
2020	6	60270	Clark Canyon Hydro, LLC	IPP	Clark Canyon Hydro-Electric Facility	MT	60483	FRNS2	2.4	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	2.4
2020	6	61719	Clark Solar	IPP	Clark Solar	SC	62187	29	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61720	Colleton Solar	IPP	Colleton Solar	SC	62188	30	75.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	75.0
2020	6	61721	Collins Farm Solar	IPP	Collins Farm Solar	SC	62189	31	5.4	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.4
2020	6	49846	Covanta Honolulu Resource Recovery	Commercial	H Power	HI	10334	PV1	2.1	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	2.1
2020	6	61722	Crossroads Solar	IPP	Crossroads Solar	SC	62190	32	67.7	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	67.7
2020	6	61729	Culpepper Solar	IPP	Culpepper Solar	SC	62221	33	69.5	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	69.5
2020	6	61730	Dadswell Solar	IPP	Dadswell Solar	SC	62222	34	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2020	6	61731	Denmark Solar	IPP	Denmark Solar	SC	62211	35	6.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	6.0
2020	6	59966	ESC Harrison County Power	IPP	ESC Harrison County Power	WV	60206	HCCA1	205.4	Natural Gas Fired Combined Cycle	NG	CA	(P) Planned for installation, but regulatory approvals not initiated	207.4
2020	6	59966	ESC Harrison County Power	IPP	ESC Harrison County Power	WV	60206	HCCT1	319.1	Natural Gas Fired Combined Cycle	NG	CT	(P) Planned for installation, but regulatory approvals not initiated	371.5
2020	6	11241	Entergy Louisiana LLC	Electric Utility	Lake Charles Power	LA	60927	1A	250.0	Natural Gas Fired Combined Cycle	NG	CT	(U) Under construction, less than or equal to 50 percent complete	250.0
2020	6	11241	Entergy Louisiana LLC	Electric Utility	Lake Charles Power	LA	60927	1B	250.0	Natural Gas Fired Combined Cycle	NG	CT	(U) Under construction, less than or equal to 50 percent complete	250.0

Table 6.5. Planned U.S. Electric Generating Unit Additions

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code	Status	Nameplate Capacity (MW)
2020	6	11241	Entergy Louisiana LLC	Electric Utility	Lake Charles Power	LA	60927	1C	500.0	Natural Gas Fired Combined Cycle	NG	CA	(U) Under construction, less than or equal to 50 percent complete	500.0
2020	6	61732	Fairfield Solar	IPP	Fairfield Solar	SC	62212	36	10.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	10.0
2020	6	56615	First Solar Project Development	IPP	Morada del Sol, LLC	TX	61049	PV1	239.3	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	247.0
2020	6	61733	Fishwater Solar	IPP	Fishwater Solar	SC	62213	37	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61735	Foreman Solar	IPP	Foreman Solar	SC	62215	39	6.4	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	6.4
2020	6	61737	GEB Solar	IPP	GEB Solar	SC	62217	40	60.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	60.0
2020	6	61736	Gaines Solar	IPP	Gaines Solar	SC	62216	41	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61738	Gedosch Solar II	IPP	Gedosch Solar II	SC	62218	42	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	60050	Halyard Energy Henderson, LLC	IPP	Halyard Henderson Energy Center	TX	60268	TBN1	210.0	Natural Gas Fired Combustion Turbine	NG	GT	(T) Regulatory approvals received. Not under construction	232.0
2020	6	60050	Halyard Energy Henderson, LLC	IPP	Halyard Henderson Energy Center	TX	60268	TBN2	210.0	Natural Gas Fired Combustion Turbine	NG	GT	(T) Regulatory approvals received. Not under construction	232.0
2020	6	60002	Halyard Energy Wharton, LLC	IPP	Halyard Wharton Energy Center	TX	60221	TBN1	162.0	Natural Gas Fired Combustion Turbine	NG	GT	(T) Regulatory approvals received. Not under construction	177.0
2020	6	60002	Halyard Energy Wharton, LLC	IPP	Halyard Wharton Energy Center	TX	60221	TBN2	162.0	Natural Gas Fired Combustion Turbine	NG	GT	(T) Regulatory approvals received. Not under construction	177.0
2020	6	60659	Hickory Run Energy, LLC	IPP	Hickory Run Energy Station	PA	61028	CTG1	283.0	Natural Gas Fired Combined Cycle	NG	CT	(T) Regulatory approvals received. Not under construction	311.0
2020	6	60659	Hickory Run Energy, LLC	IPP	Hickory Run Energy Station	PA	61028	CTG2	283.0	Natural Gas Fired Combined Cycle	NG	CT	(T) Regulatory approvals received. Not under construction	311.0
2020	6	60659	Hickory Run Energy, LLC	IPP	Hickory Run Energy Station	PA	61028	STG1	437.0	Natural Gas Fired Combined Cycle	NG	CA	(T) Regulatory approvals received. Not under construction	450.0
2020	6	61746	Holliday Solar I	IPP	Holliday Solar I	SC	62229	43	75.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	75.0
2020	6	60986	Imperial Valley Solar 2, LLC	IPP	Mount Signal Solar 2	CA	61353	IVS2	153.5	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	153.5
2020	6	56167	Imperial Valley Solar, LLC	IPP	Imperial Valley Solar, LLC	CA	56917	2	400.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	400.0
2020	6	61747	Indigo Solar	IPP	Indigo Solar	SC	62230	44	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61748	Ion Solar	IPP	Ion Solar	SC	62231	45	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2020	6	61749	Jackson Solar	IPP	Jackson Solar	SC	62232	46	14.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	14.0
2020	6	61750	Jefferson Solar	IPP	Jefferson Solar	SC	62233	47	8.2	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	8.2
2020	6	61751	Juniper Solar	IPP	Juniper Solar	SC	62234	48	65.5	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	65.5
2020	6	61752	Lone Star Solar	IPP	Lone Star Solar	SC	62235	49	66.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	66.0
2020	6	55983	Luminant Generation Company LLC	IPP	DeCordova Steam Electric Station	TX	8063	CT5	207.0	Natural Gas Fired Combustion Turbine	NG	GT	(U) Under construction, less than or equal to 50 percent complete	235.5
2020	6	55983	Luminant Generation Company LLC	IPP	DeCordova Steam Electric Station	TX	8063	CT6	207.0	Natural Gas Fired Combustion Turbine	NG	GT	(U) Under construction, less than or equal to 50 percent complete	235.5
2020	6	55983	Luminant Generation Company LLC	IPP	Lake Creek	TX	3502	CT1	207.0	Natural Gas Fired Combustion Turbine	NG	GT	(U) Under construction, less than or equal to 50 percent complete	235.5
2020	6	55983	Luminant Generation Company LLC	IPP	Tradinghouse	TX	3506	CT1	207.0	Natural Gas Fired Combustion Turbine	NG	GT	(U) Under construction, less than or equal to 50 percent complete	235.5
2020	6	55983	Luminant Generation Company LLC	IPP	Tradinghouse	TX	3506	CT2	207.0	Natural Gas Fired Combustion Turbine	NG	GT	(U) Under construction, less than or equal to 50 percent complete	235.5
2020	6	61753	Luz Solar	IPP	Luz Solar	SC	62236	50	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61754	Madison Solar	IPP	Madison Solar	SC	62237	51	10.9	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	10.9
2020	6	61755	Marshall Solar	IPP	Marshall Solar	SC	62238	52	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61787	Martin East Solar	IPP	Martin East Solar	SC	62276	54	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61788	Martin West Solar	IPP	Martin West Solar	SC	62277	55	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61789	McClain Solar	IPP	McClain Solar	SC	62278	56	17.3	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	17.3
2020	6	61790	McCormick Solar	IPP	McCormick Solar	SC	62279	57	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61791	Melsam Solar	IPP	Melsam Solar	SC	62280	58	60.5	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	60.5
2020	6	61792	Middleton Solar	IPP	Middleton Solar	SC	62281	59	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	59357	Navasota Energy Generation Holdings	IPP	Clear Springs Energy Center	TX	59615	CTG-1	178.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	183.0
2020	6	59357	Navasota Energy Generation Holdings	IPP	Clear Springs Energy Center	TX	59615	CTG-2	177.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	183.0
2020	6	59357	Navasota Energy Generation Holdings	IPP	Clear Springs Energy Center	TX	59615	CTG-3	177.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	183.0
2020	6	59357	Navasota Energy Generation Holdings	IPP	Union Valley Energy Center	TX	59616	CTG-1	178.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	183.0
2020	6	59357	Navasota Energy Generation Holdings	IPP	Union Valley Energy Center	TX	59616	CTG-2	178.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	183.0
2020	6	59357	Navasota Energy Generation Holdings	IPP	Union Valley Energy Center	TX	59616	CTG-3	178.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	183.0
2020	6	59357	Navasota Energy Generation Holdings	IPP	Van Alstyne Energy Center	TX	59617	CTG-1	177.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	183.0
2020	6	59357	Navasota Energy Generation Holdings	IPP	Van Alstyne Energy Center	TX	59617	CTG-2	177.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	183.0
2020	6	59357	Navasota Energy Generation Holdings	IPP	Van Alstyne Energy Center	TX	59617	CTG-3	177.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	183.0
2020	6	13402	Nevada Irrigation District	IPP	Loma Rica Hydroelectric Powerhouse	CA	60988	HY1	1.4	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	1.4
2020	6	60958	Ohio River Partners Shareholder LLC	IPP	Hannibal Port Power Project	OH	61322	HPPP1	485.0	Natural Gas Fired Combined Cycle	NG	CC	(P) Planned for installation, but regulatory approvals not initiated	485.0
2020	6	54866	Robinson Power Company LLC	IPP	Robinson Power Company LLC	PA	56453	CTG1	950.0	Natural Gas Fired Combined Cycle	NG	CC	(L) Regulatory approvals pending. Not under construction	1,025.0
2020	6	18414	TES Filer City Station LP	Electric CHP	TES Filer City Station	MI	50835	GEN2	228.0	Natural Gas Fired Combined Cycle	NG	CT	(P) Planned for installation, but regulatory approvals not initiated	253.0
2020	6	59056	Tri Global Energy, LLC	IPP	Canyon Wind Project, LLC	TX	60271	WT1	360.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	360.0
2020	6	54863	U S Power Generating Company LLC	IPP	Gowanus Gas Turbines Generating	NY	2494	SS	90.0	Natural Gas Fired Combustion Turbine	NG	GT	(T) Regulatory approvals received. Not under construction	93.0
2020	6	20159	Washington Parish Engy Ctr 1 LLC	IPP	Washington Parish Energy Center	LA	55486	CTG1	172.0	Natural Gas Fired Combustion Turbine	NG	GT	(U) Under construction, less than or equal to 50 percent complete	200.0
2020	6	20159	Washington Parish Engy Ctr 1 LLC	IPP	Washington Parish Energy Center	LA	55486	CTG2	172.0	Natural Gas Fired Combustion Turbine	NG	GT	(U) Under construction, less than or equal to 50 percent complete	200.0
2020	6	58761	White Camp Solar LLC	IPP	White Camp Solar	TX	58888	WCAMP	100.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	100.0
2020	6	60519	Williams Solar, LLC	IPP	Williams Solar, LLC	TX	60859	PV1	20.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	20.0
2020	7	14624	PUD No 2 of Grant County	Electric Utility	Wanapum	WA	3888	4A	122.0	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	122.0
2020	7	59137	Palmer Renewable Energy	IPP	Palmer Renewable Energy	MA	59336	PRE	42.0	Wood/Wood Waste Biomass	WDS	ST	(T) Regulatory approvals received. Not under construction	42.0
2020	7	61678	RE Rambler LLC	IPP	Rambler	TX	62141	RMBLR	200.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	200.0
2020	8	60776	Aksamit Resource Management	IPP	Milligan III Wind Farm	NE	61159	M3001	73.4	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	73.4
2020	8	59844	Blythe Solar III, LLC	IPP	Blythe Solar III, LLC	CA	60094	BLCK2	31.2	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	31.2
2020	8	59845	Blythe Solar IV, LLC	IPP	Blythe Solar IV, LLC	CA	60095	BLCK2	31.2	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	31.2
2020	8	58146	Gaelectric LLC	IPP	Jawbone Wind Project	MT	58175	JWPI	80.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	80.0
2020	8	58798	Shell Chemical Appalachia LLC	Industrial	Shell Chemical Appalachia LLC	PA	58933	STG1	75.0	Natural Gas Fired Combined Cycle	NG	CA	(U) Under construction, less than or equal to 50 percent complete	75.0
2020	8	58798	Shell Chemical Appalachia LLC	Industrial	Shell Chemical Appalachia LLC	PA	58933	STG2	75.0	Natural Gas Fired Combined Cycle	NG	CA	(U) Under construction, less than or equal to 50 percent complete	75.0
2020	9	7277	Calpine Corporation	IPP	Buckeye Geothermal Power Plant	CA	57180	1	49.9	Geothermal	GEO	ST	(L) Regulatory approvals pending. Not under construction	56.9
2020	9	7277	Calpine Corporation	IPP	Wild Horse Power Plant	CA	57181	1	40.0	Geothermal	GEO	ST	(L) Regulatory approvals pending. Not under construction	48.0
2020	9	56615	First Solar Project Development	IPP	Little Bear Solar 1, LLC	CA	59870	GEN01	20.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	20.0
2020	9	56615	First Solar Project Development	IPP	Little Bear Solar 2, LLC	CA	59885	GEN01	20.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	20.0
2020	9	9417	Interstate Power and Light Co	Electric Utility	Richland	IA	62080	1	130.1	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	130.1
2020	9	60388	Mission Rock Energy Center, LLC	IPP	Mission Rock Energy Center	CA	60650	GT1	275.0	Natural Gas Fired Combustion Turbine	NG	GT	(L) Regulatory approvals pending. Not under construction	275.0
2020	9	61534	Techren Solar III LLC	IPP	Techren Solar III LLC	NV	61931	TECH3	25.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	25.0
2020	9	61535	Techren Solar IV LLC	IPP	Techren Solar IV LLC	NV	61932	TECH4	25.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	25.0
2020	9	20856	Wisconsin Power & Light Co	Electric Utility	Kossuth	IA	62103	1	150.5	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	150.5
2020	10	59844	Blythe Solar III, LLC	IPP	Blythe Solar III, LLC	CA	60094	BLCK3	31.2	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	31.2
2020	10	59845	Blythe Solar IV, LLC	IPP	Blythe Solar IV, LLC	CA	60095	BLCK3	31.2	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	31.2
2020	10	58468	Dominion Renewable Energy	Electric Utility	Spring Grove I	VA	61986	SGIS	97.9	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	97.9
2020	10	5580	East Kentucky Power Coop, Inc	Electric Utility	Green Valley LFGTE	KY	56278	4	0.8	Landfill Gas	LFG	IC	(P) Planned for installation, but regulatory approvals not initiated	0.8
2020	10	61734	Flip Solar	IPP	Flip Solar	SC	62214	38	15.8	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	15.8
2020	10	61697	Hillcrest Solar I, LLC	IPP	Hillcrest Solar	OH	62200	HILLC	200.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	200.0
2020	10	58901	Hydro Green Energy	IPP	Braddock Lock and Dam	PA	59091	GEN1	5.3	Conventional Hydroelectric	WAT	HY	(OT) Other	5.3
2020	10	60569	Lincoln Land Wind, LLC	IPP	Lincoln Land Wind	IL	58925	SAN1	30.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	30.0
2020	10	61593	Pleinmont Solar 2 LLC	IPP	Pleinmont Solar 2	VA	62013	PLNM2	240.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	240.0
2020	10	61590	Richmond Spider Solar LLC	IPP	Richmond Spider Solar	VA	62011	RMDSS	20.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	20.0
2020	10	60568	Sugar Creek Wind One LLC	IPP	Sugar Creek Wind One LLC	IL	58924	SUG1	175.0	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	175.0
2020	10	61637	TUUSSO Energy, LLC	IPP	Camas Solar Project	WA	62071	CAMAS	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2020	10	61637	TUUSSO Energy, LLC	IPP	Fumaria Solar Project	WA	62070	FUMAR	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2020	10	61637	TUUSSO Energy, LLC	IPP	Penstemon Solar Project	WA	62069	PENST	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2020	10	61637	TUUSSO Energy, LLC	IPP	Typha Solar Project	WA	62068	TYPHA	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0

Table 6.5. Planned U.S. Electric Generating Unit Additions

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code	Status	Nameplate Capacity (MW)
2020	10	61637	TUUSSO Energy, LLC	IPP	Urtica Solar Project	WA	62067	URTIC	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2020	11	58804	Lake Erie Energy Development Corp	IPP	Icebreaker Offshore Wind Farm	OH	58941	WTG1	3.0	Offshore Wind Turbine	WND	WS	(L) Regulatory approvals pending. Not under construction	3.0
2020	11	58804	Lake Erie Energy Development Corp	IPP	Icebreaker Offshore Wind Farm	OH	58941	WTG2	3.0	Offshore Wind Turbine	WND	WS	(L) Regulatory approvals pending. Not under construction	3.0
2020	11	58804	Lake Erie Energy Development Corp	IPP	Icebreaker Offshore Wind Farm	OH	58941	WTG3	3.0	Offshore Wind Turbine	WND	WS	(L) Regulatory approvals pending. Not under construction	3.0
2020	11	58804	Lake Erie Energy Development Corp	IPP	Icebreaker Offshore Wind Farm	OH	58941	WTG4	3.0	Offshore Wind Turbine	WND	WS	(L) Regulatory approvals pending. Not under construction	3.0
2020	11	58804	Lake Erie Energy Development Corp	IPP	Icebreaker Offshore Wind Farm	OH	58941	WTG5	3.0	Offshore Wind Turbine	WND	WS	(L) Regulatory approvals pending. Not under construction	3.0
2020	11	58804	Lake Erie Energy Development Corp	IPP	Icebreaker Offshore Wind Farm	OH	58941	WTG6	3.0	Offshore Wind Turbine	WND	WS	(L) Regulatory approvals pending. Not under construction	3.0
2020	11	61331	Popular Camp Wind Farm LLC	IPP	Poplar Camp Wind Farm	VA	61111	PC1	72.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	72.0
2020	11	61516	Stratford Solar Center, LLC	IPP	Stratford Solar Center, LLC	VA	61908	STRAT	15.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	15.0
2020	11	19539	University of Iowa	Commercial	University of Iowa Main Power Plant	IA	54775	GEN12	5.8	Natural Gas Steam Turbine	NG	ST	(L) Regulatory approvals pending. Not under construction	5.8
2020	11	19539	University of Iowa	Commercial	University of Iowa Main Power Plant	IA	54775	GEN13	10.0	Natural Gas Steam Turbine	NG	ST	(L) Regulatory approvals pending. Not under construction	10.0
2020	12	60526	Alternative Power Development Northwest, LLC	IPP	Carter Solar One, LLC	ID	60896	CRTON	20.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	20.0
2020	12	60526	Alternative Power Development Northwest, LLC	IPP	Jackpot Solar East, LLC	ID	60899	JPTEA	20.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	20.0
2020	12	60526	Alternative Power Development Northwest, LLC	IPP	Jackpot Solar North, LLC	ID	60897	JPTNO	20.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	20.0
2020	12	60526	Alternative Power Development Northwest, LLC	IPP	Jackpot Solar South, LLC	ID	60898	JPTSO	20.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	20.0
2020	12	60526	Alternative Power Development Northwest, LLC	IPP	Jackpot Solar West, LLC	ID	60900	JPTWE	20.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	20.0
2020	12	15399	Avangrid Renewables LLC	IPP	La Joya NM	NM	61044	WT1	166.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	166.0
2020	12	15399	Avangrid Renewables LLC	IPP	Roaring Brook, LLC	NY	61041	WT1	78.0	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	78.0
2020	12	60560	Big Blue Wind Farm, LLC (TX)	IPP	Big Blue River Wind Farm	IN	60907	WT1	200.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	200.0
2020	12	61257	Blazing Star 2 LLC	IPP	Blazing Star 2 Wind Farm	MN	61650	BLZS2	200.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	200.0
2020	12	61030	Bluegrove Wind, LLC	IPP	Bluegrove Wind	TX	61400	BLUGR	100.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	100.0
2020	12	59844	Blythe Solar III, LLC	IPP	Blythe Solar III, LLC	CA	60094	BLCK4	31.2	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	31.2
2020	12	59845	Blythe Solar IV, LLC	IPP	Blythe Solar IV, LLC	CA	60095	BLCK4	31.2	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	31.2
2020	12	61031	Byers Wind, LLC	IPP	Byers Wind	TX	61401	BYERS	200.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	200.0
2020	12	59365	Capital Power Corporation	IPP	Nolin Hills Wind, LLC	OR	60070	GEN	350.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	350.0
2020	12	59365	Capital Power Corporation	IPP	Tisch Mills Wind	WI	60674	TISCH	150.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	150.0
2020	12	59432	Clear Creek Power	IPP	Highland Park Project	CO	59659	HPWT	181.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	181.0
2020	12	56872	Contra Costa Generating Station LLC	IPP	Oakley Generating Station	CA	57552	CT1	197.3	Natural Gas Fired Combined Cycle	NG	CT	(U) Under construction, less than or equal to 50 percent complete	222.3
2020	12	56872	Contra Costa Generating Station LLC	IPP	Oakley Generating Station	CA	57552	CT2	197.3	Natural Gas Fired Combined Cycle	NG	CT	(U) Under construction, less than or equal to 50 percent complete	222.3
2020	12	56872	Contra Costa Generating Station LLC	IPP	Oakley Generating Station	CA	57552	ST	191.3	Natural Gas Fired Combined Cycle	NG	CA	(U) Under construction, less than or equal to 50 percent complete	227.7
2020	12	61709	Desert Harvest, LLC	IPP	Desert Harvest, LLC	CA	62177	DH001	80.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	80.0
2020	12	58672	Everpower Wind Holdings Inc	IPP	Coyote Crest Wind Farm	WA	58778	1	127.5	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	127.5
2020	12	56615	First Solar Project Development	IPP	Aiya Solar Project	NV	59869	GEN01	100.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	100.0
2020	12	56615	First Solar Project Development	IPP	American Kings Solar, LLC	CA	60777	GEN01	123.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	123.0
2020	12	56615	First Solar Project Development	IPP	Snow Mountain Solar, LLC	NV	59935	GEN01	101.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	100.0
2020	12	56615	First Solar Project Development	IPP	Willow Spring Solar 3, LLC	CA	60325	GEN01	50.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	50.0
2020	12	60888	GCL New Energy, Inc.	IPP	Pioneer Solar (CO), LLC	CO	61991	PI-QF	80.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	80.0
2020	12	60040	Hale Wind Energy	IPP	Hale Community Wind Farm	TX	59247	HALE2	240.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	240.0
2020	12	61638	Harrison Power LLC	Industrial	Cadiz Power Plant	OH	62153	GEN 1	550.0	Natural Gas Fired Combined Cycle	NG	CS	(P) Planned for installation, but regulatory approvals not initiated	660.0
2020	12	61638	Harrison Power LLC	Industrial	Cadiz Power Plant	OH	62153	GEN 2	550.0	Natural Gas Fired Combined Cycle	NG	CS	(P) Planned for installation, but regulatory approvals not initiated	660.0
2020	12	11208	Los Angeles Department of Water & Power	Electric Utility	Scattergood	CA	404	8	218.0	Natural Gas Fired Combined Cycle	NG	CT	(P) Planned for installation, but regulatory approvals not initiated	230.0
2020	12	11208	Los Angeles Department of Water & Power	Electric Utility	Scattergood	CA	404	9	110.0	Natural Gas Fired Combined Cycle	NG	CA	(P) Planned for installation, but regulatory approvals not initiated	116.0
2020	12	61710	Maverick Solar, LLC	IPP	Maverick Solar, LLC	CA	62178	MAV01	225.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	225.0
2020	12	61010	Ord Mountain Solar, LLC	IPP	Ord Mountain Solar	CA	61372	ORDMT	60.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	60.0
2020	12	56545	Pattern Operators LP	IPP	Summit Ridge I Wind Farm	OR	58894	SRWF	192.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	192.0
2020	12	58842	Power Company of Wyoming LLC	IPP	Chokecherry and Sierra Madre Wind	WY	58987	I-A	687.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	687.0
2020	12	61069	RE Gaskell West LLC	IPP	RE Gaskell West 2 LLC	CA	61446	PV2	45.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	45.0
2020	12	61069	RE Gaskell West LLC	IPP	RE Gaskell West 3 LLC	CA	61447	PV3	20.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	20.0
2020	12	61069	RE Gaskell West LLC	IPP	RE Gaskell West 4 LLC	CA	61448	PV4	20.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	20.0
2020	12	61069	RE Gaskell West LLC	IPP	RE Gaskell West 5 LLC	CA	61449	PV5	20.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	20.0
2020	12	60982	RE Maplewood LLC	IPP	RE Maplewood	TX	61346	PV4	100.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	100.0
2020	12	60982	RE Maplewood LLC	IPP	RE Maplewood	TX	61346	PV5	100.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	100.0
2020	12	61727	Reloj del Sol Wind Farm LLC	IPP	Reloj del Sol Wind Farm	TX	62207	RELOJ	209.4	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	209.4
2020	12	61624	SR Snipesville	IPP	Snipesville	GA	62165	SNIPE	61.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	61.0
2020	12	60387	Skylar Resources, LP	IPP	Townsite Solar Project	NV	60654	GEN02	20.0	Batteries	MWH	BA	(T) Regulatory approvals received. Not under construction	20.0
2020	12	2782	Terra-Gen Operating Company	IPP	Dixie Valley Power Partnership	NV	10681	GEN1	25.0	Geothermal	GEO	ST	(P) Planned for installation, but regulatory approvals not initiated	28.0
2020	12	19316	Two Elk Generation Partners LP	IPP	Two Elk Generating Station	WY	55360	GEN1	275.0	Conventional Steam Coal	WC	ST	(U) Under construction, less than or equal to 50 percent complete	320.0
2020	12	60847	West Fork Wind, LLC	IPP	West Fork Wind	IN	61214	WT1	150.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	150.0
2020	12	60932	Wrighter Energy LLC	IPP	Wrighter Energy	PA	61302	GEN1	4.2	Natural Gas Internal Combustion Engine	NG	IC	(P) Planned for installation, but regulatory approvals not initiated	4.4
2020	12	60932	Wrighter Energy LLC	IPP	Wrighter Energy	PA	61302	GEN2	4.2	Natural Gas Internal Combustion Engine	NG	IC	(P) Planned for installation, but regulatory approvals not initiated	4.4
2020	12	60932	Wrighter Energy LLC	IPP	Wrighter Energy	PA	61302	GEN3	4.2	Natural Gas Internal Combustion Engine	NG	IC	(P) Planned for installation, but regulatory approvals not initiated	4.4
2020	12	60932	Wrighter Energy LLC	IPP	Wrighter Energy	PA	61302	GEN4	4.2	Natural Gas Internal Combustion Engine	NG	IC	(P) Planned for installation, but regulatory approvals not initiated	4.4
2020	12	60932	Wrighter Energy LLC	IPP	Wrighter Energy	PA	61302	GEN5	4.2	Natural Gas Internal Combustion Engine	NG	IC	(P) Planned for installation, but regulatory approvals not initiated	4.4
2021	1	61033	Boswell Wind Project I, LLC	IPP	Boswell Wind I	WY	61393	BOSW1	80.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	80.0
2021	1	61034	Boswell Wind Project II, LLC	IPP	Boswell Wind II	WY	61394	BOSW2	80.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	80.0
2021	1	61035	Boswell Wind Project III, LLC	IPP	Boswell Wind III	WY	61395	BOSW3	80.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	80.0
2021	1	61036	Boswell Wind Project IV, LLC	IPP	Boswell Wind IV	WY	61396	BOSW4	80.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	80.0
2021	1	58765	FGE Texas I LLC	IPP	FGE Texas I	TX	58931	CA1	249.9	Natural Gas Fired Combined Cycle	NG	CA	(T) Regulatory approvals received. Not under construction	265.2
2021	1	58765	FGE Texas I LLC	IPP	FGE Texas I	TX	58931	GT1	226.7	Natural Gas Fired Combined Cycle	NG	CT	(T) Regulatory approvals received. Not under construction	238.9
2021	1	58765	FGE Texas I LLC	IPP	FGE Texas I	TX	58931	GT2	226.7	Natural Gas Fired Combined Cycle	NG	CT	(T) Regulatory approvals received. Not under construction	238.9
2021	1	58702	Fluence	IPP	AES ES ALAMITOS, LLC	CA	61204	ALMTS	100.0	Batteries	MWH	BA	(L) Regulatory approvals pending. Not under construction	100.0
2021	1	60131	South Field Energy, LLC	IPP	South Field Energy	OH	60356	SFECC	1,060.0	Natural Gas Fired Combined Cycle	NG	CC	(T) Regulatory approvals received. Not under construction	1,105.0
2021	1	18454	Tampa Electric Co	Electric Utility	Lake Hancock Solar	FL	61657	PV1	49.6	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	50.0
2021	1	19876	Virginia Electric & Power Co	Electric Utility	Coastal Virginia Offshore Wind (CVOW)	VA	59693	OSW1	12.0	Offshore Wind Turbine	WND	WS	(L) Regulatory approvals pending. Not under construction	12.0
2021	2	59686	Coronado Power Ventures LLC	IPP	Pinecrest Energy Center	TX	59923	CTG-1	229.0	Natural Gas Fired Combined Cycle	NG	CT	(T) Regulatory approvals received. Not under construction	232.0
2021	2	59686	Coronado Power Ventures LLC	IPP	Pinecrest Energy Center	TX	59923	CTG-2	229.0	Natural Gas Fired Combined Cycle	NG	CT	(T) Regulatory approvals received. Not under construction	232.0
2021	2	59686	Coronado Power Ventures LLC	IPP	Pinecrest Energy Center	TX	59923	STG	289.0	Natural Gas Fired Combined Cycle	NG	CA	(T) Regulatory approvals received. Not under construction	289.0
2021	3	61684	Diablo Energy Storage, LLC	IPP	Diablo Energy Storage	CA	62175	DIBLO	50.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	50.0
2021	3	56615	First Solar Project Development	IPP	Desert Quartzite	CA	59871	GEN01	450.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	580.0
2021	3	16609	San Diego Gas & Electric Co	Electric Utility	Fallbrook Energy Storage	CA	61365	FBES	40.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	40.0
2021	3	58846	Southeast Renewable Fuels, LLC	Industrial	SRF Sorghum to Ethanol Advanced Biorefin	FL	58997	G1001	12.0	Other Waste Biomass	OBS	ST	(U) Under construction, less than or equal to 50 percent complete	15.0
2021	4	59434	Mattawoman Energy, LLC	IPP	Mattawoman Energy Center	MD	59662	CGT11	286.0	Natural Gas Fired Combined Cycle	NG	CC	(P) Planned for installation, but regulatory approvals not initiated	286.0
2021	4	59434	Mattawoman Energy, LLC	IPP	Mattawoman Energy Center	MD	59662	CGT12	286.0	Natural Gas Fired Combined Cycle	NG	CC	(P) Planned for installation, but regulatory approvals not initiated	286.0
2021	4	59434	Mattawoman Energy, LLC	IPP	Mattawoman Energy Center	MD	59662	STG11	436.0	Natural Gas Fired Combined Cycle	NG	CC	(P) Planned for installation, but regulatory approvals not initiated	436.0
2021	4	14232	Otter Tail Power Co	Electric Utility	Astoria Station	SD	61144	1	260.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	260.0
2021	4	56789	TBE Montgomery LLC	IPP	TBE-Montgomery LLC	NY	57472	CTG	11.6	Other Waste Biomass	OBG	CT	(U) Under construction, less than or equal to 50 percent complete	12.0
2021	4	56789	TBE Montgomery LLC	IPP	TBE-Montgomery LLC	NY	57472	STG	7.4	Other Waste Biomass	OBG	CA	(U) Under construction, less than or equal to 50 percent complete	9.0
2021	5	14605	City of Peabody - (MA)	Electric Utility	Waters River	MA	1678	3	55.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	60.0
2021	5	59677	Middlesex Energy Center LLC	IPP	Middlesex Energy Center LLC	NJ	59909	CT001	570.0	Natural Gas Fired Combined Cycle	NG	CC	(P) Planned for installation, but regulatory approvals not initiated	570.0
2021	6	61523	225DD 8me LLC	IPP	Galloway Solar Farm	TX	61920	GSM01	360.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	360.0

Table 6.5. Planned U.S. Electric Generating Unit Additions

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code	Status	Nameplate Capacity (MW)
2021	6	61525	231RC 8me LLC	IPP	Norton Solar Farm	TX	61967	NSM01	125.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	125.0
2021	6	59964	ESC Brooke County Power I	IPP	ESC Brooke County Power I	WV	60202	BCCA1	261.2	Natural Gas Fired Combined Cycle	NG	CA	(P) Planned for installation, but regulatory approvals not initiated	280.5
2021	6	59964	ESC Brooke County Power I	IPP	ESC Brooke County Power I	WV	60202	BCCT1	252.3	Natural Gas Fired Combined Cycle	NG	CT	(P) Planned for installation, but regulatory approvals not initiated	280.5
2021	6	59964	ESC Brooke County Power I	IPP	ESC Brooke County Power I	WV	60202	BCCT2	252.3	Natural Gas Fired Combined Cycle	NG	CT	(P) Planned for installation, but regulatory approvals not initiated	280.5
2021	6	59965	ESC Tioga County Power	IPP	ESC Tioga County Power	PA	60205	TCCA1	302.0	Natural Gas Fired Combined Cycle	NG	CA	(P) Planned for installation, but regulatory approvals not initiated	331.5
2021	6	59965	ESC Tioga County Power	IPP	ESC Tioga County Power	PA	60205	TCCT1	253.1	Natural Gas Fired Combined Cycle	NG	CT	(P) Planned for installation, but regulatory approvals not initiated	280.5
2021	6	59965	ESC Tioga County Power	IPP	ESC Tioga County Power	PA	60205	TCCT2	253.1	Natural Gas Fired Combined Cycle	NG	CT	(P) Planned for installation, but regulatory approvals not initiated	280.5
2021	6	58597	Enivromission, Inc	IPP	La Paz Solar Tower	AZ	58652	1	200.0	Solar Thermal without Energy Storage	SUN	OT	(P) Planned for installation, but regulatory approvals not initiated	200.0
2021	6	55937	Entergy Texas Inc.	Electric Utility	Montgomery County	TX	60925	1A	250.0	Natural Gas Fired Combined Cycle	NG	CT	(L) Regulatory approvals pending. Not under construction	250.0
2021	6	55937	Entergy Texas Inc.	Electric Utility	Montgomery County	TX	60925	1B	250.0	Natural Gas Fired Combined Cycle	NG	CT	(L) Regulatory approvals pending. Not under construction	250.0
2021	6	55937	Entergy Texas Inc.	Electric Utility	Montgomery County	TX	60925	1C	500.0	Natural Gas Fired Combined Cycle	NG	CA	(L) Regulatory approvals pending. Not under construction	500.0
2021	6	56615	First Solar Project Development	IPP	Portal Ridge Solar A, LLC	CA	60309	GEN01	18.5	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	18.5
2021	6	58880	Gallegos Wind Farm LLC	IPP	Gallegos Wind Farm, Phase 1	NM	59047	GEN 1	180.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	180.0
2021	6	61395	Indeck Niles, LLC	IPP	Indeck Niles Energy Center	MI	55460	CT1	386.8	Natural Gas Fired Combined Cycle	NG	CT	(T) Regulatory approvals received. Not under construction	386.8
2021	6	61395	Indeck Niles, LLC	IPP	Indeck Niles Energy Center	MI	55460	CT2	386.8	Natural Gas Fired Combined Cycle	NG	CT	(T) Regulatory approvals received. Not under construction	386.8
2021	6	61395	Indeck Niles, LLC	IPP	Indeck Niles Energy Center	MI	55460	ST1	397.8	Natural Gas Fired Combined Cycle	NG	CA	(T) Regulatory approvals received. Not under construction	397.8
2021	6	60836	NTE Connecticut, LLC	IPP	Killingly Energy Center	CT	61239	KEC	338.9	Natural Gas Fired Combined Cycle	NG	CT	(P) Planned for installation, but regulatory approvals not initiated	406.0
2021	6	60836	NTE Connecticut, LLC	IPP	Killingly Energy Center	CT	61239	KEC2	249.4	Natural Gas Fired Combined Cycle	NG	CA	(L) Regulatory approvals pending. Not under construction	297.5
2021	6	59489	Perennial-Wind Chaser LLC	IPP	Perennial Wind Chaser Station	OR	59721	GT1	98.7	Natural Gas Fired Combustion Turbine	NG	GT	(T) Regulatory approvals received. Not under construction	106.0
2021	6	59489	Perennial-Wind Chaser LLC	IPP	Perennial Wind Chaser Station	OR	59721	GT2	98.7	Natural Gas Fired Combustion Turbine	NG	GT	(T) Regulatory approvals received. Not under construction	106.0
2021	6	59489	Perennial-Wind Chaser LLC	IPP	Perennial Wind Chaser Station	OR	59721	GT3	98.7	Natural Gas Fired Combustion Turbine	NG	GT	(T) Regulatory approvals received. Not under construction	106.0
2021	6	59489	Perennial-Wind Chaser LLC	IPP	Perennial Wind Chaser Station	OR	59721	GT4	98.7	Natural Gas Fired Combustion Turbine	NG	GT	(T) Regulatory approvals received. Not under construction	106.0
2021	6	18454	Tampa Electric Co	Electric Utility	Big Bend	FL	645	GT5	360.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	392.0
2021	6	18454	Tampa Electric Co	Electric Utility	Big Bend	FL	645	GT6	360.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	392.0
2021	7	59686	Coronado Power Ventures LLC	IPP	La Paloma Energy Center	TX	59924	CTG-1	211.5	Natural Gas Fired Combined Cycle	NG	CT	(T) Regulatory approvals received. Not under construction	230.0
2021	7	59686	Coronado Power Ventures LLC	IPP	La Paloma Energy Center	TX	59924	CTG-2	211.5	Natural Gas Fired Combined Cycle	NG	CT	(T) Regulatory approvals received. Not under construction	230.0
2021	7	59686	Coronado Power Ventures LLC	IPP	La Paloma Energy Center	TX	59924	STG-1	300.0	Natural Gas Fired Combined Cycle	NG	CA	(T) Regulatory approvals received. Not under construction	311.0
2021	7	58766	FGE Texas II LLC	IPP	FGE Texas II	TX	58930	CA1	249.9	Natural Gas Fired Combined Cycle	NG	CA	(T) Regulatory approvals received. Not under construction	265.2
2021	7	58766	FGE Texas II LLC	IPP	FGE Texas II	TX	58930	GT1	226.7	Natural Gas Fired Combined Cycle	NG	CT	(T) Regulatory approvals received. Not under construction	238.9
2021	7	58766	FGE Texas II LLC	IPP	FGE Texas II	TX	58930	GT2	226.7	Natural Gas Fired Combined Cycle	NG	CT	(T) Regulatory approvals received. Not under construction	238.9
2021	7	56615	First Solar Project Development	IPP	Sun Streams, LLC	AZ	60827	GEN01	150.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	150.0
2021	10	60720	Martinsdale Wind Farm LLC	IPP	Martinsdale Wind Farm	MT	61108	MTD	80.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	80.0
2021	11	7140	Georgia Power Co	Electric Utility	Vogtle	GA	649	3	1,100.0	Nuclear	NUC	ST	(U) Under construction, less than or equal to 50 percent complete	1,100.0
2021	11	7140	Georgia Power Co	Electric Utility	Vogtle	GA	649	4	1,100.0	Nuclear	NUC	ST	(U) Under construction, less than or equal to 50 percent complete	1,100.0
2021	12	61477	325MK 8me LLC	IPP	Eagle Shadow Mountain Solar Farm	NV	61852	ESMSF	300.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	300.0
2021	12	61783	Alabama Ledge Wind Farm LLC	IPP	Alabama Ledge Wind Farm LLC	NY	62261	GEN1	79.8	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	79.8
2021	12	60927	Anchor Energy LLC	IPP	Anchor Energy	PA	61304	GEN1	4.2	Natural Gas Internal Combustion Engine	NG	IC	(P) Planned for installation, but regulatory approvals not initiated	4.4
2021	12	60927	Anchor Energy LLC	IPP	Anchor Energy	PA	61304	GEN2	4.2	Natural Gas Internal Combustion Engine	NG	IC	(P) Planned for installation, but regulatory approvals not initiated	4.4
2021	12	60927	Anchor Energy LLC	IPP	Anchor Energy	PA	61304	GEN3	4.2	Natural Gas Internal Combustion Engine	NG	IC	(P) Planned for installation, but regulatory approvals not initiated	4.4
2021	12	60927	Anchor Energy LLC	IPP	Anchor Energy	PA	61304	GEN4	4.2	Natural Gas Internal Combustion Engine	NG	IC	(P) Planned for installation, but regulatory approvals not initiated	4.4
2021	12	60927	Anchor Energy LLC	IPP	Anchor Energy	PA	61304	GEN5	4.2	Natural Gas Internal Combustion Engine	NG	IC	(P) Planned for installation, but regulatory approvals not initiated	4.4
2021	12	61768	Arrow Canyon Solar LLC	IPP	Arrow Canyon Solar	NV	62248	1	200.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	200.0
2021	12	60711	Battle Mountain SP, LLC	IPP	Battle Mountain Solar Project	NV	61098	BMSP	101.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	101.0
2021	12	56606	Calpine New Jersey Generation LLC	IPP	Deepwater	NJ	2384	CT1	235.0	Natural Gas Fired Combustion Turbine	NG	GT	(L) Regulatory approvals pending. Not under construction	242.0
2021	12	56606	Calpine New Jersey Generation LLC	IPP	Deepwater	NJ	2384	ST1	198.5	Natural Gas Steam Turbine	NG	ST	(L) Regulatory approvals pending. Not under construction	214.0
2021	12	60064	Clean Path Energy Center, LLC	IPP	Clean Path Energy Center	NM	60289	PVGEN	55.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	55.0
2021	12	59380	Enel Green Power NA, Inc.	IPP	Pomerado Energy Storage, LLC	CA	61390	PMRDO	3.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	3.0
2021	12	60405	FDS Coke Plant, LLC	Electric CHP	FDS Co-Generation Facility	OH	60693	1	110.0	Other Gases	OG	ST	(P) Planned for installation, but regulatory approvals not initiated	135.0
2021	12	58378	Jordan Hydroelectric LTD PTP	IPP	Flannagan Hydroelectric Project	VA	58827	LEFT	0.9	Conventional Hydroelectric	WAT	HY	(L) Regulatory approvals pending. Not under construction	0.9
2021	12	58378	Jordan Hydroelectric LTD PTP	IPP	Flannagan Hydroelectric Project	VA	58827	RGHT	0.9	Conventional Hydroelectric	WAT	HY	(L) Regulatory approvals pending. Not under construction	0.9
2021	12	60349	Juneau Hydropower, Inc	IPP	Sweetheart Lake Hydroelectric Facility	AK	60588	JHI01	6.6	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	6.6
2021	12	60349	Juneau Hydropower, Inc	IPP	Sweetheart Lake Hydroelectric Facility	AK	60588	JHI02	6.6	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	6.6
2021	12	60349	Juneau Hydropower, Inc	IPP	Sweetheart Lake Hydroelectric Facility	AK	60588	JHI03	6.6	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	6.6
2021	12	60221	North Slope LLC	IPP	North Slope, LLC	NY	60420	NSPV	200.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	200.0
2021	12	61301	Plum Creek Wind Farm LLC	IPP	Plum Creek	MN	61687	PLMCK	400.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	400.0
2021	12	58842	Power Company of Wyoming LLC	IPP	Chokecherry and Sierra Madre Wind	WY	58987	I-B	813.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	813.0
2021	12	61784	Rolling Upland Wind Farm LLC	IPP	Rolling Upland Wind Farm LLC	NY	62262	GEN1	60.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	60.0
2022	1	60687	Alpine Pacific Utilities Hydro	IPP	Fresno Dam Site Water Power Project	MT	61061	2	0.5	Conventional Hydroelectric	WAT	HY	(L) Regulatory approvals pending. Not under construction	0.5
2022	1	60687	Alpine Pacific Utilities Hydro	IPP	Fresno Dam Site Water Power Project	MT	61061	3	0.5	Conventional Hydroelectric	WAT	HY	(L) Regulatory approvals pending. Not under construction	0.5
2022	1	60835	NTE Carolinas II, LLC	IPP	Reidsville Energy Center	NC	61240	REC	259.0	Natural Gas Fired Combined Cycle	NG	CT	(T) Regulatory approvals received. Not under construction	310.2
2022	1	60835	NTE Carolinas II, LLC	IPP	Reidsville Energy Center	NC	61240	REC2	227.0	Natural Gas Fired Combined Cycle	NG	CA	(T) Regulatory approvals received. Not under construction	233.7
2022	1	60473	Renovo Energy Center	IPP	Renovo Energy Center	PA	60786	RECNY	480.0	Natural Gas Fired Combined Cycle	NG	CS	(L) Regulatory approvals pending. Not under construction	513.0
2022	1	60473	Renovo Energy Center	IPP	Renovo Energy Center	PA	60786	RECPJ	480.0	Natural Gas Fired Combined Cycle	NG	CS	(L) Regulatory approvals pending. Not under construction	513.0
2022	2	60797	68SF 8me LLC	IPP	Eland 1 Solar Farm	CA	61168	68SF8	200.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	200.0
2022	4	5109	DTE Electric Company	Electric Utility	Blue Water Energy Center	MI	62192	11	394.4	Natural Gas Fired Combined Cycle	NG	CT	(U) Under construction, less than or equal to 50 percent complete	394.4
2022	4	5109	DTE Electric Company	Electric Utility	Blue Water Energy Center	MI	62192	12	394.4	Natural Gas Fired Combined Cycle	NG	CT	(U) Under construction, less than or equal to 50 percent complete	394.4
2022	4	5109	DTE Electric Company	Electric Utility	Blue Water Energy Center	MI	62192	1S	478.6	Natural Gas Fired Combined Cycle	NG	CA	(U) Under construction, less than or equal to 50 percent complete	478.6
2022	4	61596	Lincoln Land Energy Center LLC	IPP	Lincoln Land Energy Center	IL	62022	GEN1	520.0	Natural Gas Fired Combined Cycle	NG	CS	(P) Planned for installation, but regulatory approvals not initiated	638.4
2022	4	61596	Lincoln Land Energy Center LLC	IPP	Lincoln Land Energy Center	IL	62022	GEN2	520.0	Natural Gas Fired Combined Cycle	NG	CS	(P) Planned for installation, but regulatory approvals not initiated	638.4
2022	4	59487	Moundsville Power, LLC	IPP	Moundsville Power	WV	59720	MPCA1	319.0	Natural Gas Fired Combined Cycle	NG	CA	(L) Regulatory approvals pending. Not under construction	321.6
2022	4	59487	Moundsville Power, LLC	IPP	Moundsville Power	WV	59720	MPCT1	177.3	Natural Gas Fired Combined Cycle	NG	CT	(L) Regulatory approvals pending. Not under construction	195.5
2022	4	59487	Moundsville Power, LLC	IPP	Moundsville Power	WV	59720	MPCT2	177.3	Natural Gas Fired Combined Cycle	NG	CT	(L) Regulatory approvals pending. Not under construction	195.5
2022	4	55927	Power4Georgians LLC	Electric Utility	Plant Washington	GA	56675	MAIN	850.0	Conventional Steam Coal	SUB	ST	(T) Regulatory approvals received. Not under construction	850.0
2022	6	61386	C4GT, LLC	IPP	C4GT	VA	61760	C4GT	1,060.0	Natural Gas Fired Combined Cycle	NG	CC	(T) Regulatory approvals received. Not under construction	1,060.0
2022	6	55983	Luminant Generation Company LLC	IPP	Eagle Mountain	TX	3489	CT1	224.9	Natural Gas Fired Combined Cycle	NG	CT	(L) Regulatory approvals pending. Not under construction	235.5
2022	6	55983	Luminant Generation Company LLC	IPP	Eagle Mountain	TX	3489	CT2	224.9	Natural Gas Fired Combined Cycle	NG	CT	(L) Regulatory approvals pending. Not under construction	235.5
2022	6	55983	Luminant Generation Company LLC	IPP	Eagle Mountain	TX	3489	ST1	344.4	Natural Gas Fired Combined Cycle	NG	CA	(L) Regulatory approvals pending. Not under construction	382.5
2022	9	58881	Apex Bethel Energy Center	IPP	Apex Bethel Energy Center	TX	59048	ABEC1	158.5	Natural Gas with Compressed Air Storage	NG	CE	(T) Regulatory approvals received. Not under construction	158.5
2022	9	58881	Apex Bethel Energy Center	IPP	Apex Bethel Energy Center	TX	59048	ABEC2	158.5	Natural Gas with Compressed Air Storage	NG	CE	(T) Regulatory approvals received. Not under construction	158.5
2022	12	56814	Black Creek Renewable Energy LLC	IPP	Sampson County Disposal	NC	57492	GEN7	1.6	Landfill Gas	LFG	IC	(T) Regulatory approvals received. Not under construction	1.6
2022	12	56814	Black Creek Renewable Energy LLC	IPP	Sampson County Disposal	NC	57492	GEN8	1.6	Landfill Gas	LFG	IC	(T) Regulatory approvals received. Not under construction	1.6
2022	12	56771	Black Hills Service Company LLC	Electric Utility	Cheyenne Prairie Generating Station	WY	57703	02B	40.0	Natural Gas Fired Combustion Turbine	NG	GT	(OT) Other	40.0
2022	12	56771	Black Hills Service Company LLC	Electric Utility	Cheyenne Prairie Generating Station	WY	57703	03A	40.0	Natural Gas Fired Combustion Turbine	NG	GT	(OT) Other	40.0
2022	12	60064	Clean Path Energy Center, LLC	IPP	Clean Path Energy Center	NM	60289	CPEC1	680.0	Natural Gas Fired Combined Cycle	NG	CC	(P) Planned for installation, but regulatory approvals not initiated	680.0
2022	12	59380	Enel Green Power NA, Inc.	IPP	Cascade Energy Storage, LLC	CA	61801	10002	25.0	Batteries	MWH	BA	(L) Regulatory approvals pending. Not under construction	25.0
2022	12	59380	Enel Green Power NA, Inc.	IPP	Sierra Energy Storage, LLC	CA	61803	10003	10.0	Batteries	MWH	BA	(L) Regulatory approvals pending. Not under construction	10.0
2022	12	60411	Friesian Holdings, LLC	IPP	Friesian Holdings	NC	60692	PV1	75.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	75.0
2023	5	16572	Salt River Project	Electric Utility	Copper Crossing Energy Center	AZ	58413	CCGS3	226.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	241.0
2023	12	59380	Enel Green Power NA, Inc.	IPP	Kingston Energy Storage, LLC	CA	61802	10001	50.0	Batteries	MWH	BA	(L) Regulatory approvals pending. Not under construction	50.0
2023	12	58842	Power Company of Wyoming LLC	IPP	Chokecherry and Sierra Madre Wind	WY	58987	II-A	750.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	750.0

Table 6.5. Planned U.S. Electric Generating Unit Additions

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code	Status	Nameplate Capacity (MW)
2024	1	2719	CalWind Resources Inc	IPP	Tehachapi Wind Resource II	CA	54909	PLAN	15.5	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	15.5
2024	5	16572	Salt River Project	Electric Utility	Copper Crossing Energy Center	AZ	58413	CCGS1	98.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	116.0
2024	5	16572	Salt River Project	Electric Utility	Copper Crossing Energy Center	AZ	58413	CCGS2	98.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	116.0
2024	5	16572	Salt River Project	Electric Utility	Copper Crossing Energy Center	AZ	58413	CCGS4	226.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	241.0
2024	5	16572	Salt River Project	Electric Utility	Copper Crossing Energy Center	AZ	58413	CCGS5	226.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	241.0
2024	12	58842	Power Company of Wyoming LLC	IPP	Chokecherry and Sierra Madre Wind	WY	58987	II-B	750.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	750.0
2025	1	7189	Gila Bend Power Partners LLC	IPP	Gila Bend Power Generation Station	AZ	55507	1	156.0	Natural Gas Fired Combined Cycle	NG	CT	(L) Regulatory approvals pending. Not under construction	170.0
2025	2	7189	Gila Bend Power Partners LLC	IPP	Gila Bend Power Generation Station	AZ	55507	2	156.0	Natural Gas Fired Combined Cycle	NG	CT	(L) Regulatory approvals pending. Not under construction	170.0
2025	2	7189	Gila Bend Power Partners LLC	IPP	Gila Bend Power Generation Station	AZ	55507	3	156.0	Natural Gas Fired Combined Cycle	NG	CT	(L) Regulatory approvals pending. Not under construction	170.0
2025	2	7189	Gila Bend Power Partners LLC	IPP	Gila Bend Power Generation Station	AZ	55507	4	390.0	Natural Gas Fired Combined Cycle	NG	CA	(L) Regulatory approvals pending. Not under construction	390.0
2025	5	16572	Salt River Project	Electric Utility	Copper Crossing Energy Center	AZ	58413	CCGS6	226.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	241.0
2025	5	16572	Salt River Project	Electric Utility	Copper Crossing Energy Center	AZ	58413	CCGS7	226.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	241.0
2025	5	16572	Salt River Project	Electric Utility	Copper Crossing Energy Center	AZ	58413	CCGS8	226.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	241.0
2026	5	40575	Utah Associated Mun Power Sys	Electric Utility	UAMPS Carbon Free Power Plant	ID	61075	NPM1	47.5	Nuclear	NUC	ST	(P) Planned for installation, but regulatory approvals not initiated	50.0
2026	6	40575	Utah Associated Mun Power Sys	Electric Utility	UAMPS Carbon Free Power Plant	ID	61075	NPM2	47.5	Nuclear	NUC	ST	(P) Planned for installation, but regulatory approvals not initiated	50.0
2026	7	40575	Utah Associated Mun Power Sys	Electric Utility	UAMPS Carbon Free Power Plant	ID	61075	NPM3	47.5	Nuclear	NUC	ST	(P) Planned for installation, but regulatory approvals not initiated	50.0
2026	9	40575	Utah Associated Mun Power Sys	Electric Utility	UAMPS Carbon Free Power Plant	ID	61075	NPM4	47.5	Nuclear	NUC	ST	(P) Planned for installation, but regulatory approvals not initiated	50.0
2026	9	40575	Utah Associated Mun Power Sys	Electric Utility	UAMPS Carbon Free Power Plant	ID	61075	NPM5	47.5	Nuclear	NUC	ST	(P) Planned for installation, but regulatory approvals not initiated	50.0
2026	10	40575	Utah Associated Mun Power Sys	Electric Utility	UAMPS Carbon Free Power Plant	ID	61075	NPM6	47.5	Nuclear	NUC	ST	(P) Planned for installation, but regulatory approvals not initiated	50.0
2026	11	40575	Utah Associated Mun Power Sys	Electric Utility	UAMPS Carbon Free Power Plant	ID	61075	NPM7	47.5	Nuclear	NUC	ST	(P) Planned for installation, but regulatory approvals not initiated	50.0
2026	12	40575	Utah Associated Mun Power Sys	Electric Utility	UAMPS Carbon Free Power Plant	ID	61075	NPM8	47.5	Nuclear	NUC	ST	(P) Planned for installation, but regulatory approvals not initiated	50.0
2027	1	40575	Utah Associated Mun Power Sys	Electric Utility	UAMPS Carbon Free Power Plant	ID	61075	NPM9	47.5	Nuclear	NUC	ST	(P) Planned for installation, but regulatory approvals not initiated	50.0
2027	2	40575	Utah Associated Mun Power Sys	Electric Utility	UAMPS Carbon Free Power Plant	ID	61075	NPM10	47.5	Nuclear	NUC	ST	(P) Planned for installation, but regulatory approvals not initiated	50.0
2027	3	40575	Utah Associated Mun Power Sys	Electric Utility	UAMPS Carbon Free Power Plant	ID	61075	NPM11	47.5	Nuclear	NUC	ST	(P) Planned for installation, but regulatory approvals not initiated	50.0
2027	4	40575	Utah Associated Mun Power Sys	Electric Utility	UAMPS Carbon Free Power Plant	ID	61075	NPM12	47.5	Nuclear	NUC	ST	(P) Planned for installation, but regulatory approvals not initiated	50.0
2027	12	60223	Ketchikan Electric Company	Electric Utility	Mahoney Lake Hydroelectric	AK	59027	GEN 1	9.6	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	9.6

NOTES:
Capacity from facilities with a total generator nameplate capacity less than 1 MW are excluded from this table.
Entity ID and Plant ID are official, unique identification numbers assigned by EIA; Generator IDs are assigned by plant owners and/or operators.

Table 6.6. Planned U.S. Electric Generating Unit Retirements

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code
2018	12	12647	ALLETE, Inc.	Electric Utility	Clay Boswell	MN	1893	1	67.3	Conventional Steam Coal	SUB	ST
2018	12	12647	ALLETE, Inc.	Electric Utility	Clay Boswell	MN	1893	2	67.4	Conventional Steam Coal	SUB	ST
2018	12	59173	City of Tulare Water Pollution Control	Commercial	City of Tulare Water Facility	CA	59395	C2550	0.4	Other Waste Biomass	OBG	IC
2018	12	5416	Duke Energy Carolinas, LLC	Electric Utility	99 Islands	SC	3272	5	2.4	Conventional Hydroelectric	WAT	HY
2018	12	5416	Duke Energy Carolinas, LLC	Electric Utility	99 Islands	SC	3272	6	2.4	Conventional Hydroelectric	WAT	HY
2018	12	6455	Duke Energy Florida, LLC	Electric Utility	Crystal River	FL	628	1	324.0	Conventional Steam Coal	BIT	ST
2018	12	6455	Duke Energy Florida, LLC	Electric Utility	Crystal River	FL	628	2	442.0	Conventional Steam Coal	BIT	ST
2018	12	56211	KCP&L Greater Missouri Operations Co	Electric Utility	Sibley	MO	2094	2	42.1	Conventional Steam Coal	SUB	ST
2018	12	56211	KCP&L Greater Missouri Operations Co	Electric Utility	Sibley	MO	2094	3	364.1	Conventional Steam Coal	SUB	ST
2018	12	10000	Kansas City Power & Light Co	Electric Utility	Montrose	MO	2080	2	164.0	Conventional Steam Coal	SUB	ST
2018	12	10000	Kansas City Power & Light Co	Electric Utility	Montrose	MO	2080	3	170.0	Conventional Steam Coal	SUB	ST
2018	12	13960	NRG Cabrillo Power Ops Inc	IPP	Encina	CA	302	2	104.0	Natural Gas Steam Turbine	NG	ST
2018	12	13960	NRG Cabrillo Power Ops Inc	IPP	Encina	CA	302	3	110.0	Natural Gas Steam Turbine	NG	ST
2018	12	13960	NRG Cabrillo Power Ops Inc	IPP	Encina	CA	302	4	300.0	Natural Gas Steam Turbine	NG	ST
2018	12	13960	NRG Cabrillo Power Ops Inc	IPP	Encina	CA	302	5	330.0	Natural Gas Steam Turbine	NG	ST
2018	12	13960	NRG Cabrillo Power Ops Inc	IPP	Encina	CA	302	GT1	14.0	Natural Gas Fired Combustion Turbine	NG	GT
2019	1	11713	City of Marshall - (MI)	Electric Utility	Marshall (MI)	MI	1844	IC2	0.9	Natural Gas Internal Combustion Engine	NG	IC
2019	1	11713	City of Marshall - (MI)	Electric Utility	Marshall (MI)	MI	1844	IC4	0.7	Petroleum Liquids	DFO	IC
2019	1	19145	DTE Tuscola, LLC	Industrial	Tuscola Station	IL	55245	TG1	3.8	Natural Gas Steam Turbine	NG	ST
2019	1	58945	EthosEnergy Power Plant Services	Electric CHP	Quantum Pasco Power LP	FL	54424	EDG1	1.2	Petroleum Liquids	DFO	IC
2019	1	58945	EthosEnergy Power Plant Services	Electric CHP	Quantum Pasco Power LP	FL	54424	EDG2	1.2	Petroleum Liquids	DFO	IC
2019	1	58945	EthosEnergy Power Plant Services	Electric CHP	Quantum Pasco Power LP	FL	54424	GT1	48.5	Natural Gas Fired Combined Cycle	NG	CT
2019	1	58945	EthosEnergy Power Plant Services	Electric CHP	Quantum Pasco Power LP	FL	54424	GT2	48.5	Natural Gas Fired Combined Cycle	NG	CT
2019	1	58945	EthosEnergy Power Plant Services	Electric CHP	Quantum Pasco Power LP	FL	54424	ST1	24.0	Natural Gas Fired Combined Cycle	NG	CA
2019	1	18715	Texas Municipal Power Agency	Electric Utility	Gibbons Creek	TX	6136	1	470.0	Conventional Steam Coal	SUB	ST
2019	2	1692	Big Rivers Electric Corp	Electric Utility	HMP&L Station Two Henderson	KY	1382	1	153.0	Conventional Steam Coal	BIT	ST
2019	2	1692	Big Rivers Electric Corp	Electric Utility	HMP&L Station Two Henderson	KY	1382	2	159.0	Conventional Steam Coal	BIT	ST
2019	2	10171	Kentucky Utilities Co	Electric Utility	E W Brown	KY	1355	1	106.0	Conventional Steam Coal	BIT	ST
2019	2	10171	Kentucky Utilities Co	Electric Utility	E W Brown	KY	1355	2	166.0	Conventional Steam Coal	BIT	ST
2019	2	56997	Marina Energy LLC	Commercial	Stockton Athletic Center	NJ	57864	SAC	0.3	Solar Photovoltaic	SUN	PV
2019	2	25835	Portland City of	IPP	Ground Water Pumping Station	OR	50105	GPS1	0.9	Conventional Hydroelectric	WAT	HY
2019	2	25835	Portland City of	IPP	Ground Water Pumping Station	OR	50105	GPS2	0.9	Conventional Hydroelectric	WAT	HY
2019	2	25835	Portland City of	IPP	Ground Water Pumping Station	OR	50105	GPS3	0.9	Conventional Hydroelectric	WAT	HY
2019	2	25835	Portland City of	IPP	Ground Water Pumping Station	OR	50105	GPS4	0.9	Conventional Hydroelectric	WAT	HY
2019	2	25835	Portland City of	IPP	Ground Water Pumping Station	OR	50105	GPS5	0.9	Conventional Hydroelectric	WAT	HY
2019	2	25835	Portland City of	IPP	Ground Water Pumping Station	OR	50105	GPS6	0.9	Conventional Hydroelectric	WAT	HY
2019	3	11560	City of Manassas - (VA)	Electric Utility	Dean Drive Area Electric Generators	VA	56491	PG1	1.6	Petroleum Liquids	DFO	IC
2019	3	11560	City of Manassas - (VA)	Electric Utility	Dean Drive Area Electric Generators	VA	56491	PG2	1.6	Petroleum Liquids	DFO	IC
2019	3	59879	Greenleaf Energy LLC	Electric CHP	Greenleaf 1 Power Plant	CA	10350	GEN1	42.0	Natural Gas Fired Combined Cycle	NG	CT
2019	3	59879	Greenleaf Energy LLC	Electric CHP	Greenleaf 1 Power Plant	CA	10350	GEN2	8.0	Natural Gas Fired Combined Cycle	NG	CA
2019	3	13206	Nantucket Electric Co	Electric Utility	Nantucket	MA	1615	12	2.8	Petroleum Liquids	DFO	GT
2019	3	13206	Nantucket Electric Co	Electric Utility	Nantucket	MA	1615	13	2.9	Petroleum Liquids	DFO	GT
2019	4	7136	Georgia-Pacific Consr Prods LP-Naheola	Industrial	Georgia-Pacific Consr Prods LP-Naheola	AL	10699	GEN1	12.4	Wood/Wood Waste Biomass	BLQ	ST
2019	4	7136	Georgia-Pacific Consr Prods LP-Naheola	Industrial	Georgia-Pacific Consr Prods LP-Naheola	AL	10699	GEN2	12.4	Wood/Wood Waste Biomass	BLQ	ST
2019	4	56997	Marina Energy LLC	Commercial	Stockton Athletic Center	NJ	57864	LOT7	0.2	Solar Photovoltaic	SUN	PV
2019	4	56997	Marina Energy LLC	Commercial	Stockton Athletic Center	NJ	57864	LOT7B	0.2	Solar Photovoltaic	SUN	PV
2019	5	8776	City of Holyoke Gas and Electric Dept.	Electric Utility	Harris Energy Realty	MA	54981	ALBA	0.3	Conventional Hydroelectric	WAT	HY
2019	5	8776	City of Holyoke Gas and Electric Dept.	Electric Utility	Harris Energy Realty	MA	54981	ALBD	0.4	Conventional Hydroelectric	WAT	HY
2019	5	29926	Entergy Nuclear Generation Co	IPP	Pilgrim Nuclear Power Station	MA	1590	1	677.2	Nuclear	NUC	ST
2019	5	60771	Marcus Hook 50 L.P	Electric CHP	Marcus Hook Refinery Cogen	PA	50074	GEN1	48.0	Natural Gas Fired Combustion Turbine	NG	GT
2019	5	12773	Monmouth Energy Inc	IPP	Monmouth Landfill Gas to Energy	NJ	55618	GEN1	3.3	Landfill Gas	LFG	GT
2019	5	12773	Monmouth Energy Inc	IPP	Monmouth Landfill Gas to Energy	NJ	55618	GEN2	3.3	Landfill Gas	LFG	GT
2019	5	19876	Virginia Electric & Power Co	Electric Utility	Yorktown	VA	3809	1	159.0	Conventional Steam Coal	BIT	ST
2019	5	19876	Virginia Electric & Power Co	Electric Utility	Yorktown	VA	3809	2	164.0	Conventional Steam Coal	BIT	ST
2019	5	20847	Wisconsin Electric Power Co	Electric Utility	Presque Isle	MI	1769	5	55.0	Conventional Steam Coal	SUB	ST
2019	5	20847	Wisconsin Electric Power Co	Electric Utility	Presque Isle	MI	1769	6	55.0	Conventional Steam Coal	SUB	ST
2019	5	20847	Wisconsin Electric Power Co	Electric Utility	Presque Isle	MI	1769	7	83.0	Conventional Steam Coal	SUB	ST
2019	5	20847	Wisconsin Electric Power Co	Electric Utility	Presque Isle	MI	1769	8	83.0	Conventional Steam Coal	SUB	ST
2019	5	20847	Wisconsin Electric Power Co	Electric Utility	Presque Isle	MI	1769	9	83.0	Conventional Steam Coal	SUB	ST
2019	8	14624	PUD No 2 of Grant County	Electric Utility	Wanapum	WA	3888	4	103.8	Conventional Hydroelectric	WAT	HY
2019	9	55951	Exelon Nuclear	IPP	Three Mile Island	PA	8011	1	802.8	Nuclear	NUC	ST
2019	9	17583	South Texas Electric Coop, Inc	Electric Utility	Sam Rayburn	TX	3631	1	10.5	Natural Gas Fired Combustion Turbine	NG	GT
2019	9	17583	South Texas Electric Coop, Inc	Electric Utility	Sam Rayburn	TX	3631	2	11.5	Natural Gas Fired Combustion Turbine	NG	GT
2019	10	22484	AES Redondo Beach LLC	IPP	AES Redondo Beach LLC	CA	356	7	480.0	Natural Gas Steam Turbine	NG	ST
2019	10	1752	Biola University	Commercial	Biola University	CA	54296	EG1	0.6	Natural Gas Internal Combustion Engine	NG	IC
2019	10	1752	Biola University	Commercial	Biola University	CA	54296	EG2	0.6	Natural Gas Internal Combustion Engine	NG	IC
2019	10	56997	Marina Energy LLC	Commercial	Stockton Athletic Center	NJ	57864	2LOT7	0.5	Solar Photovoltaic	SUN	PV

Table 6.6. Planned U.S. Electric Generating Unit Retirements

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code
2019	11	3046	Duke Energy Progress - (NC)	Electric Utility	Asheville	NC	2706	1	189.0	Conventional Steam Coal	BIT	ST
2019	11	3046	Duke Energy Progress - (NC)	Electric Utility	Asheville	NC	2706	2	189.0	Conventional Steam Coal	BIT	ST
2019	12	22148	AES Alamitos LLC	IPP	AES Alamitos LLC	CA	315	1	175.0	Natural Gas Steam Turbine	NG	ST
2019	12	22148	AES Alamitos LLC	IPP	AES Alamitos LLC	CA	315	2	175.0	Natural Gas Steam Turbine	NG	ST
2019	12	22148	AES Alamitos LLC	IPP	AES Alamitos LLC	CA	315	6	495.0	Natural Gas Steam Turbine	NG	ST
2019	12	23693	AES Huntington Beach LLC	IPP	AES Huntington Beach LLC	CA	335	1	225.8	Natural Gas Steam Turbine	NG	ST
2019	12	195	Alabama Power Co	Electric Utility	Barry	AL	3	1	55.0	Natural Gas Steam Turbine	NG	ST
2019	12	195	Alabama Power Co	Electric Utility	Barry	AL	3	2	55.0	Natural Gas Steam Turbine	NG	ST
2019	12	195	Alabama Power Co	Electric Utility	Gadsden	AL	7	1	64.0	Natural Gas Steam Turbine	NG	ST
2019	12	195	Alabama Power Co	Electric Utility	Gadsden	AL	7	2	66.0	Natural Gas Steam Turbine	NG	ST
2019	12	56706	Chevron Technology Ventures	IPP	Questa Solar Facility	NM	57369	QST	1.0	Solar Photovoltaic	SUN	PV
2019	12	61138	City Point Energy Center	Electric CHP	James River Genco LLC	VA	10377	GEN1	46.3	Conventional Steam Coal	BIT	ST
2019	12	61138	City Point Energy Center	Electric CHP	James River Genco LLC	VA	10377	GEN2	46.3	Conventional Steam Coal	BIT	ST
2019	12	228	City of Albany - (MO)	Electric Utility	Albany	MO	2113	1	2.1	Petroleum Liquids	DFO	IC
2019	12	59879	Greenleaf Energy LLC	Electric CHP	Greenleaf 2 Power Plant	CA	10349	GEN1	49.5	Natural Gas Fired Combustion Turbine	NG	GT
2019	12	8688	Hofstra University	Commercial	Hofstra University	NY	51035	GEN1	1.1	Natural Gas Internal Combustion Engine	NG	IC
2019	12	8688	Hofstra University	Commercial	Hofstra University	NY	51035	GEN2	1.1	Natural Gas Internal Combustion Engine	NG	IC
2019	12	56211	KCP&L Greater Missouri Operations Co	Electric Utility	Lake Road (MO)	MO	2098	4	97.1	Natural Gas Steam Turbine	NG	ST
2019	12	11479	Madison Gas & Electric Co	Electric Utility	Fitchburg	WI	3991	1	16.6	Natural Gas Fired Combustion Turbine	NG	GT
2019	12	11479	Madison Gas & Electric Co	Electric Utility	Fitchburg	WI	3991	2	15.8	Natural Gas Fired Combustion Turbine	NG	GT
2019	12	11479	Madison Gas & Electric Co	Electric Utility	Nine Springs	WI	9674	GT1	14.2	Natural Gas Fired Combustion Turbine	NG	GT
2019	12	11479	Madison Gas & Electric Co	Electric Utility	Sycamore (WI)	WI	3993	1	11.2	Natural Gas Fired Combustion Turbine	NG	GT
2019	12	11479	Madison Gas & Electric Co	Electric Utility	Sycamore (WI)	WI	3993	2	16.6	Natural Gas Fired Combustion Turbine	NG	GT
2019	12	16572	Salt River Project	Electric Utility	Navajo	AZ	4941	NAV1	750.0	Conventional Steam Coal	BIT	ST
2019	12	16572	Salt River Project	Electric Utility	Navajo	AZ	4941	NAV2	750.0	Conventional Steam Coal	BIT	ST
2019	12	16572	Salt River Project	Electric Utility	Navajo	AZ	4941	NAV3	750.0	Conventional Steam Coal	BIT	ST
2019	12	17718	Southwestern Public Service Co	Electric Utility	Cunningham	NM	2454	1	71.0	Natural Gas Steam Turbine	NG	ST
2019	12	17718	Southwestern Public Service Co	Electric Utility	Plant X	TX	3485	1	38.0	Natural Gas Steam Turbine	NG	ST
2020	1	14328	Pacific Gas & Electric Co.	Electric Utility	Kilarc	CA	253	1	1.6	Conventional Hydroelectric	WAT	HY
2020	1	14328	Pacific Gas & Electric Co.	Electric Utility	Kilarc	CA	253	2	1.6	Conventional Hydroelectric	WAT	HY
2020	1	21622	The University of Texas at Dallas	Commercial	University of Texas at Dallas	TX	54607	GEN1	3.5	Natural Gas Internal Combustion Engine	NG	IC
2020	2	16657	San Jose/Santa Clara Water P C	Commercial	SJ/SC WPCP	CA	56080	EG1	2.8	Natural Gas Internal Combustion Engine	NG	IC
2020	2	16657	San Jose/Santa Clara Water P C	Commercial	SJ/SC WPCP	CA	56080	EG2	2.8	Natural Gas Internal Combustion Engine	NG	IC
2020	2	16657	San Jose/Santa Clara Water P C	Commercial	SJ/SC WPCP	CA	56080	EG3	2.8	Natural Gas Internal Combustion Engine	NG	IC
2020	4	6027	Entergy Nuclear Indian Point 2	IPP	Indian Point 2	NY	2497	2	1,000.4	Nuclear	NUC	ST
2020	4	11820	Massachusetts Inst of Tech	Commercial	Mass Inst Tech Cntrl Utilities/Cogen Plt	MA	54907	CTG1	19.0	Natural Gas Fired Combustion Turbine	NG	GT
2020	5	6455	Duke Energy Florida, LLC	Electric Utility	Avon Park	FL	624	P1	24.0	Natural Gas Fired Combustion Turbine	NG	GT
2020	5	6455	Duke Energy Florida, LLC	Electric Utility	Avon Park	FL	624	P2	24.0	Petroleum Liquids	DFO	GT
2020	5	6455	Duke Energy Florida, LLC	Electric Utility	Higgins	FL	630	P1	20.0	Natural Gas Fired Combustion Turbine	NG	GT
2020	5	6455	Duke Energy Florida, LLC	Electric Utility	Higgins	FL	630	P2	25.0	Natural Gas Fired Combustion Turbine	NG	GT
2020	5	6455	Duke Energy Florida, LLC	Electric Utility	Higgins	FL	630	P3	31.0	Natural Gas Fired Combustion Turbine	NG	GT
2020	5	6455	Duke Energy Florida, LLC	Electric Utility	Higgins	FL	630	P4	31.0	Natural Gas Fired Combustion Turbine	NG	GT
2020	5	6526	FirstEnergy Generation Corp	IPP	FirstEnergy W H Sammis	OH	2866	1	180.0	Conventional Steam Coal	BIT	ST
2020	5	6526	FirstEnergy Generation Corp	IPP	FirstEnergy W H Sammis	OH	2866	2	180.0	Conventional Steam Coal	BIT	ST
2020	5	6526	FirstEnergy Generation Corp	IPP	FirstEnergy W H Sammis	OH	2866	3	180.0	Conventional Steam Coal	BIT	ST
2020	5	6526	FirstEnergy Generation Corp	IPP	FirstEnergy W H Sammis	OH	2866	4	180.0	Conventional Steam Coal	BIT	ST
2020	5	50161	FirstEnergy Nuclear Operating Company	IPP	Davis Besse	OH	6149	1	894.0	Nuclear	NUC	ST
2020	5	16721	S D Warren Co.- Westbrook	Industrial	S D Warren Westbrook	ME	50447	GN18	0.4	Conventional Hydroelectric	WAT	HY
2020	5	16721	S D Warren Co.- Westbrook	Industrial	S D Warren Westbrook	ME	50447	GN19	0.4	Conventional Hydroelectric	WAT	HY
2020	5	16721	S D Warren Co.- Westbrook	Industrial	S D Warren Westbrook	ME	50447	GN20	0.4	Conventional Hydroelectric	WAT	HY
2020	6	7483	City of Grand Haven - (MI)	Electric Utility	Grand Haven Diesel Plant	MI	1826	1	8.4	Natural Gas Internal Combustion Engine	NG	IC
2020	6	60422	H.A. Wagner LLC	IPP	Herbert A Wagner	MD	1554	2	118.0	Conventional Steam Coal	RC	ST
2020	7	14328	Pacific Gas & Electric Co.	Electric Utility	Cow Creek	CA	229	1	0.9	Conventional Hydroelectric	WAT	HY
2020	7	14328	Pacific Gas & Electric Co.	Electric Utility	Cow Creek	CA	229	2	0.9	Conventional Hydroelectric	WAT	HY
2020	9	14173	Oroville Cogeneration LP	Industrial	Oroville Cogeneration LP	CA	54477	GEN1	1.1	Natural Gas Internal Combustion Engine	NG	IC
2020	9	14173	Oroville Cogeneration LP	Industrial	Oroville Cogeneration LP	CA	54477	GEN2	1.1	Natural Gas Internal Combustion Engine	NG	IC
2020	9	14173	Oroville Cogeneration LP	Industrial	Oroville Cogeneration LP	CA	54477	GEN3	1.1	Natural Gas Internal Combustion Engine	NG	IC
2020	9	14173	Oroville Cogeneration LP	Industrial	Oroville Cogeneration LP	CA	54477	GEN4	1.1	Natural Gas Internal Combustion Engine	NG	IC
2020	9	14173	Oroville Cogeneration LP	Industrial	Oroville Cogeneration LP	CA	54477	GEN5	1.1	Natural Gas Internal Combustion Engine	NG	IC
2020	9	14173	Oroville Cogeneration LP	Industrial	Oroville Cogeneration LP	CA	54477	GEN6	1.1	Natural Gas Internal Combustion Engine	NG	IC
2020	9	14173	Oroville Cogeneration LP	Industrial	Oroville Cogeneration LP	CA	54477	GEN7	1.1	Natural Gas Internal Combustion Engine	NG	IC
2020	11	56778	Bloom Energy 2009 PPA	IPP	Caltech Central	CA	57460	CL00	0.1	Other Waste Biomass	OBG	FC
2020	11	56778	Bloom Energy 2009 PPA	IPP	Caltech Central	CA	57460	CL01	0.1	Other Waste Biomass	OBG	FC
2020	11	56778	Bloom Energy 2009 PPA	IPP	Caltech Central	CA	57460	CL02	0.1	Other Waste Biomass	OBG	FC
2020	11	56778	Bloom Energy 2009 PPA	IPP	Caltech Central	CA	57460	CL03	0.1	Other Waste Biomass	OBG	FC
2020	11	56778	Bloom Energy 2009 PPA	IPP	Caltech Central	CA	57460	CL04	0.1	Other Waste Biomass	OBG	FC
2020	11	56778	Bloom Energy 2009 PPA	IPP	Caltech Central	CA	57460	CL05	0.1	Other Waste Biomass	OBG	FC

Table 6.6. Planned U.S. Electric Generating Unit Retirements

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code
2020	11	56778	Bloom Energy 2009 PPA	IPP	Caltech Central	CA	57460	CL06	0.1	Other Waste Biomass	OBG	FC
2020	11	56778	Bloom Energy 2009 PPA	IPP	Caltech Central	CA	57460	CL07	0.1	Other Waste Biomass	OBG	FC
2020	11	56778	Bloom Energy 2009 PPA	IPP	Caltech Central	CA	57460	CL08	0.1	Other Waste Biomass	OBG	FC
2020	11	56778	Bloom Energy 2009 PPA	IPP	Caltech Central	CA	57460	CL09	0.1	Other Waste Biomass	OBG	FC
2020	11	56778	Bloom Energy 2009 PPA	IPP	Caltech Central	CA	57460	CL10	0.1	Other Waste Biomass	OBG	FC
2020	12	22148	AES Alamitos LLC	IPP	AES Alamitos LLC	CA	315	3	332.0	Natural Gas Steam Turbine	NG	ST
2020	12	22148	AES Alamitos LLC	IPP	AES Alamitos LLC	CA	315	4	335.0	Natural Gas Steam Turbine	NG	ST
2020	12	22148	AES Alamitos LLC	IPP	AES Alamitos LLC	CA	315	5	485.0	Natural Gas Steam Turbine	NG	ST
2020	12	23693	AES Huntington Beach LLC	IPP	AES Huntington Beach LLC	CA	335	2	225.8	Natural Gas Steam Turbine	NG	ST
2020	12	22484	AES Redondo Beach LLC	IPP	AES Redondo Beach LLC	CA	356	5	175.0	Natural Gas Steam Turbine	NG	ST
2020	12	22484	AES Redondo Beach LLC	IPP	AES Redondo Beach LLC	CA	356	6	175.0	Natural Gas Steam Turbine	NG	ST
2020	12	22484	AES Redondo Beach LLC	IPP	AES Redondo Beach LLC	CA	356	8	480.0	Natural Gas Steam Turbine	NG	ST
2020	12	17833	City Utilities of Springfield - (MO)	Electric Utility	James River Power Station	MO	2161	4	56.0	Natural Gas Steam Turbine	NG	ST
2020	12	17833	City Utilities of Springfield - (MO)	Electric Utility	James River Power Station	MO	2161	5	97.0	Natural Gas Steam Turbine	NG	ST
2020	12	50006	Invista	Industrial	Camden South Carolina	SC	10795	GEN1	5.5	Natural Gas Steam Turbine	NG	ST
2020	12	50006	Invista	Industrial	Camden South Carolina	SC	10795	GEN2	5.5	Natural Gas Steam Turbine	NG	ST
2020	12	56155	Lansing Board of Water and Light	Electric Utility	Eckert Station	MI	1831	4	64.0	Conventional Steam Coal	SUB	ST
2020	12	56155	Lansing Board of Water and Light	Electric Utility	Eckert Station	MI	1831	5	63.1	Conventional Steam Coal	SUB	ST
2020	12	56155	Lansing Board of Water and Light	Electric Utility	Eckert Station	MI	1831	6	62.8	Conventional Steam Coal	SUB	ST
2020	12	15908	NRG California South LP	IPP	Ellwood	CA	8076	01	54.0	Natural Gas Fired Combustion Turbine	NG	GT
2020	12	55269	NextEra Energy Duane Arnold LLC	IPP	Duane Arnold Energy Center	IA	1060	1	601.4	Nuclear	NUC	ST
2020	12	61013	Northern Westchester Hospital	Commercial	Northern Westchester Hospital	NY	61378	4	0.8	Petroleum Liquids	DFO	IC
2020	12	61013	Northern Westchester Hospital	Commercial	Northern Westchester Hospital	NY	61378	5	0.8	Petroleum Liquids	DFO	IC
2020	12	14232	Otter Tail Power Co	Electric Utility	Hoot Lake	MN	1943	D1	0.2	Petroleum Liquids	DFO	IC
2020	12	14232	Otter Tail Power Co	Electric Utility	Hoot Lake	MN	1943	D2	0.1	Petroleum Liquids	DFO	IC
2020	12	17718	Southwestern Public Service Co	Electric Utility	Plant X	TX	3485	2	90.0	Natural Gas Steam Turbine	NG	ST
2020	12	19099	TransAlta Centralia Gen LLC	IPP	Transalta Centralia Generation	WA	3845	1	670.0	Conventional Steam Coal	RC	ST
2020	12	20856	Wisconsin Power & Light Co	Electric Utility	Rock River	WI	4057	3	21.2	Natural Gas Fired Combustion Turbine	NG	GT
2020	12	20856	Wisconsin Power & Light Co	Electric Utility	Rock River	WI	4057	4	14.3	Natural Gas Fired Combustion Turbine	NG	GT
2020	12	20856	Wisconsin Power & Light Co	Electric Utility	Rock River	WI	4057	5	49.8	Natural Gas Fired Combustion Turbine	NG	GT
2020	12	20856	Wisconsin Power & Light Co	Electric Utility	Rock River	WI	4057	6	46.7	Natural Gas Fired Combustion Turbine	NG	GT
2020	12	20856	Wisconsin Power & Light Co	Electric Utility	Sheepskin	WI	4059	1	34.3	Natural Gas Fired Combustion Turbine	NG	GT
2021	1	15908	NRG California South LP	IPP	Ormond Beach	CA	350	1	741.0	Natural Gas Steam Turbine	NG	ST
2021	1	15908	NRG California South LP	IPP	Ormond Beach	CA	350	2	750.0	Natural Gas Steam Turbine	NG	ST
2021	1	15248	Portland General Electric Co	Electric Utility	Boardman	OR	6106	1	585.0	Conventional Steam Coal	SUB	ST
2021	4	6028	Entergy Nuclear Indian Point 3	IPP	Indian Point 3	NY	8907	3	1,041.3	Nuclear	NUC	ST
2021	4	17633	Southern Indiana Gas & Elec Co	Electric Utility	Northeast (IN)	IN	1013	1	10.0	Natural Gas Fired Combustion Turbine	NG	GT
2021	4	17633	Southern Indiana Gas & Elec Co	Electric Utility	Northeast (IN)	IN	1013	2	10.0	Natural Gas Fired Combustion Turbine	NG	GT
2021	5	58435	Collinwood BioEnergy	Industrial	Collinwood BioEnergy Facility	OH	58439	CBE01	1.0	Other Waste Biomass	OBG	IC
2021	5	50161	FirstEnergy Nuclear Operating Company	IPP	Beaver Valley	PA	6040	1	907.0	Nuclear	NUC	ST
2021	5	50161	FirstEnergy Nuclear Operating Company	IPP	Perry	OH	6020	1	1,240.0	Nuclear	NUC	ST
2021	6	14232	Otter Tail Power Co	Electric Utility	Hoot Lake	MN	1943	2	58.0	Conventional Steam Coal	SUB	ST
2021	6	14232	Otter Tail Power Co	Electric Utility	Hoot Lake	MN	1943	3	80.0	Conventional Steam Coal	SUB	ST
2021	6	15452	PSEG Power Connecticut LLC	IPP	Bridgeport Station	CT	568	3	383.4	Conventional Steam Coal	SUB	ST
2021	9	17166	Sierra Pacific Power Co	Electric Utility	Fort Churchill	NV	2330	2	113.0	Natural Gas Steam Turbine	NG	ST
2021	10	50161	FirstEnergy Nuclear Operating Company	IPP	Beaver Valley	PA	6040	2	901.0	Nuclear	NUC	ST
2021	12	15466	Public Service Co of Colorado	Electric Utility	Salida	CO	474	1	0.8	Conventional Hydroelectric	WAT	HY
2022	1	59409	Eco Services Corp.	Industrial	Houston Plant	TX	52065	GEN2	1.5	All Other	WH	ST
2022	6	56192	Entergy Nuclear Palisades LLC	IPP	Palisades	MI	1715	1	801.8	Nuclear	NUC	ST
2022	7	15298	Talen Montana LLC	IPP	Colstrip	MT	6076	1	307.0	Conventional Steam Coal	SUB	ST
2022	7	15298	Talen Montana LLC	IPP	Colstrip	MT	6076	2	307.0	Conventional Steam Coal	SUB	ST
2022	8	6909	Gainesville Regional Utilities	Electric Utility	Deerhaven Generating Station	FL	663	1	75.0	Natural Gas Steam Turbine	NG	ST
2022	9	177	AES Hawaii Inc	Electric CHP	AES Hawaii	HI	10673	GEN1	180.0	Conventional Steam Coal	SUB	ST
2022	11	13781	Northern States Power Co - Minnesota	Electric Utility	Cornell	WI	6086	1	6.2	Conventional Hydroelectric	WAT	HY
2022	11	13781	Northern States Power Co - Minnesota	Electric Utility	Cornell	WI	6086	2	6.4	Conventional Hydroelectric	WAT	HY
2022	11	13781	Northern States Power Co - Minnesota	Electric Utility	Cornell	WI	6086	3	6.9	Conventional Hydroelectric	WAT	HY
2022	11	13781	Northern States Power Co - Minnesota	Electric Utility	Cornell	WI	6086	4	0.4	Conventional Hydroelectric	WAT	HY
2022	12	15470	Duke Energy Indiana, LLC	Electric Utility	R Gallagher	IN	1008	2	140.0	Conventional Steam Coal	BIT	ST
2022	12	15470	Duke Energy Indiana, LLC	Electric Utility	R Gallagher	IN	1008	4	140.0	Conventional Steam Coal	BIT	ST
2022	12	54803	Dynegy Oakland, LLC	IPP	Dynegy Oakland Power Plant	CA	6211	GEN1	55.0	Petroleum Liquids	JF	GT
2022	12	54803	Dynegy Oakland, LLC	IPP	Dynegy Oakland Power Plant	CA	6211	GEN2	55.0	Petroleum Liquids	JF	GT
2022	12	54803	Dynegy Oakland, LLC	IPP	Dynegy Oakland Power Plant	CA	6211	GEN3	55.0	Petroleum Liquids	JF	GT
2022	12	5701	El Paso Electric Co	Electric Utility	Newman	TX	3456	1	74.0	Natural Gas Steam Turbine	NG	ST
2022	12	5701	El Paso Electric Co	Electric Utility	Newman	TX	3456	2	76.0	Natural Gas Steam Turbine	NG	ST
2022	12	5701	El Paso Electric Co	Electric Utility	Rio Grande	NM	2444	6	45.0	Natural Gas Steam Turbine	NG	ST
2022	12	5701	El Paso Electric Co	Electric Utility	Rio Grande	NM	2444	7	46.0	Natural Gas Steam Turbine	NG	ST
2022	12	13781	Northern States Power Co - Minnesota	Electric Utility	French Island	WI	4005	3	61.0	Petroleum Liquids	DFO	GT

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Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code
2022	12	13781	Northern States Power Co - Minnesota	Electric Utility	French Island	WI	4005	4	61.0	Petroleum Liquids	DFO	GT
2022	12	13781	Northern States Power Co - Minnesota	Electric Utility	Sherburne County	MN	6090	2	682.0	Conventional Steam Coal	SUB	ST
2022	12	15466	Public Service Co of Colorado	Electric Utility	Comanche (CO)	CO	470	1	325.0	Conventional Steam Coal	SUB	ST
2022	12	17718	Southwestern Public Service Co	Electric Utility	Nichols	TX	3484	1	107.0	Natural Gas Steam Turbine	NG	ST
2022	12	30151	Tri-State G & T Assn, Inc	Electric Utility	Nucla	CO	527	1	12.0	Conventional Steam Coal	BIT	ST
2022	12	30151	Tri-State G & T Assn, Inc	Electric Utility	Nucla	CO	527	2	12.0	Conventional Steam Coal	BIT	ST
2022	12	30151	Tri-State G & T Assn, Inc	Electric Utility	Nucla	CO	527	3	12.0	Conventional Steam Coal	BIT	ST
2022	12	30151	Tri-State G & T Assn, Inc	Electric Utility	Nucla	CO	527	ST4	64.0	Conventional Steam Coal	BIT	ST
2023	1	11135	City of Logan - (UT)	Electric Utility	Hydro III	UT	3675	HY1	0.7	Conventional Hydroelectric	WAT	HY
2023	1	11135	City of Logan - (UT)	Electric Utility	Hydro III	UT	3675	HY2	0.7	Conventional Hydroelectric	WAT	HY
2023	3	57173	AC Landfill Energy LLC	IPP	AC Landfill Energy LLC	NJ	57845	UNIT1	1.5	Landfill Gas	LFG	IC
2023	3	57173	AC Landfill Energy LLC	IPP	AC Landfill Energy LLC	NJ	57845	UNIT2	1.8	Landfill Gas	LFG	IC
2023	3	57173	AC Landfill Energy LLC	IPP	AC Landfill Energy LLC	NJ	57845	UNIT3	1.8	Landfill Gas	LFG	IC
2023	3	13399	Nevada Cogeneration Assoc # 1	Electric CHP	Nevada Cogen Assoc#1 GarnetVly	NV	54350	GTA	20.5	Natural Gas Fired Combined Cycle	NG	CT
2023	3	13399	Nevada Cogeneration Assoc # 1	Electric CHP	Nevada Cogen Assoc#1 GarnetVly	NV	54350	GTB	20.5	Natural Gas Fired Combined Cycle	NG	CT
2023	3	13399	Nevada Cogeneration Assoc # 1	Electric CHP	Nevada Cogen Assoc#1 GarnetVly	NV	54350	GTC	20.5	Natural Gas Fired Combined Cycle	NG	CT
2023	3	13399	Nevada Cogeneration Assoc # 1	Electric CHP	Nevada Cogen Assoc#1 GarnetVly	NV	54350	STM	24.0	Natural Gas Fired Combined Cycle	NG	CA
2023	3	13365	Nevada Cogeneration Assoc # 2	Electric CHP	Nevada Cogen Associates 2 Black Mountain	NV	54349	GTA	21.7	Natural Gas Fired Combined Cycle	NG	CT
2023	3	13365	Nevada Cogeneration Assoc # 2	Electric CHP	Nevada Cogen Associates 2 Black Mountain	NV	54349	GTB	21.7	Natural Gas Fired Combined Cycle	NG	CT
2023	3	13365	Nevada Cogeneration Assoc # 2	Electric CHP	Nevada Cogen Associates 2 Black Mountain	NV	54349	GTC	21.7	Natural Gas Fired Combined Cycle	NG	CT
2023	3	13365	Nevada Cogeneration Assoc # 2	Electric CHP	Nevada Cogen Associates 2 Black Mountain	NV	54349	STM	28.0	Natural Gas Fired Combined Cycle	NG	CA
2023	9	17166	Sierra Pacific Power Co	Electric Utility	Brunswick	NV	6510	1	2.0	Petroleum Liquids	DFO	IC
2023	9	17166	Sierra Pacific Power Co	Electric Utility	Brunswick	NV	6510	2	2.0	Petroleum Liquids	DFO	IC
2023	9	17166	Sierra Pacific Power Co	Electric Utility	Brunswick	NV	6510	3	2.0	Petroleum Liquids	DFO	IC
2023	12	5860	Empire District Electric Co	Electric Utility	Empire Energy Center	MO	6223	1	82.0	Natural Gas Fired Combustion Turbine	NG	GT
2023	12	13781	Northern States Power Co - Minnesota	Electric Utility	Blue Lake	MN	8027	1	39.0	Petroleum Liquids	DFO	GT
2023	12	13781	Northern States Power Co - Minnesota	Electric Utility	Blue Lake	MN	8027	2	39.0	Petroleum Liquids	DFO	GT
2023	12	13781	Northern States Power Co - Minnesota	Electric Utility	Blue Lake	MN	8027	3	36.0	Petroleum Liquids	DFO	GT
2023	12	13781	Northern States Power Co - Minnesota	Electric Utility	Blue Lake	MN	8027	4	39.0	Petroleum Liquids	DFO	GT
2023	12	13781	Northern States Power Co - Minnesota	Electric Utility	French Island	WI	4005	1	9.0	Wood/Wood Waste Biomass	WDS	ST
2023	12	13781	Northern States Power Co - Minnesota	Electric Utility	French Island	WI	4005	2	7.0	Wood/Wood Waste Biomass	WDS	ST
2023	12	13781	Northern States Power Co - Minnesota	Electric Utility	Laverne Battery	MN	58579	1	1.0	Batteries	MWH	BA
2023	12	14063	Oklahoma Gas & Electric Co	Electric Utility	Horseshoe Lake	OK	2951	6	167.0	Natural Gas Steam Turbine	NG	ST
2023	12	14127	Omaha Public Power District	Electric Utility	North Omaha	NE	2291	1	64.8	Natural Gas Steam Turbine	NG	ST
2023	12	14127	Omaha Public Power District	Electric Utility	North Omaha	NE	2291	2	90.8	Natural Gas Steam Turbine	NG	ST
2023	12	14127	Omaha Public Power District	Electric Utility	North Omaha	NE	2291	3	86.0	Natural Gas Steam Turbine	NG	ST
2023	12	17633	Southern Indiana Gas & Elec Co	Electric Utility	A B Brown	IN	6137	1	245.0	Conventional Steam Coal	BIT	ST
2023	12	17633	Southern Indiana Gas & Elec Co	Electric Utility	A B Brown	IN	6137	2	245.0	Conventional Steam Coal	BIT	ST
2023	12	17718	Southwestern Public Service Co	Electric Utility	Nichols	TX	3484	2	106.0	Natural Gas Steam Turbine	NG	ST
2024	1	11843	Maui Electric Co Ltd	Electric Utility	Kahului	HI	6056	1	4.7	Petroleum Liquids	RFO	ST
2024	1	11843	Maui Electric Co Ltd	Electric Utility	Kahului	HI	6056	2	4.8	Petroleum Liquids	RFO	ST
2024	1	11843	Maui Electric Co Ltd	Electric Utility	Kahului	HI	6056	3	11.0	Petroleum Liquids	RFO	ST
2024	1	11843	Maui Electric Co Ltd	Electric Utility	Kahului	HI	6056	4	11.9	Petroleum Liquids	RFO	ST
2024	7	1951	White Pine Electric Power LLC	IPP	White Pine Electric Power	MI	10148	GEN3	18.0	Natural Gas Steam Turbine	NG	ST
2024	11	14328	Pacific Gas & Electric Co.	Electric Utility	Diablo Canyon	CA	6099	1	1,122.0	Nuclear	NUC	ST
2024	12	16604	City of San Antonio - (TX)	Electric Utility	J T Deely	TX	6181	1	420.0	Conventional Steam Coal	SUB	ST
2024	12	16604	City of San Antonio - (TX)	Electric Utility	J T Deely	TX	6181	2	420.0	Conventional Steam Coal	SUB	ST
2024	12	11208	Los Angeles Department of Water & Power	Electric Utility	Scattergood	CA	404	1	111.8	Natural Gas Steam Turbine	NG	ST
2024	12	11208	Los Angeles Department of Water & Power	Electric Utility	Scattergood	CA	404	2	156.3	Natural Gas Steam Turbine	NG	ST
2024	12	12384	Midwest Generations EME LLC	IPP	Will County	IL	884	4	510.0	Conventional Steam Coal	SUB	ST
2024	12	13781	Northern States Power Co - Minnesota	Electric Utility	Apple River	WI	6231	1	0.4	Conventional Hydroelectric	WAT	HY
2024	12	13781	Northern States Power Co - Minnesota	Electric Utility	Apple River	WI	6231	3	0.5	Conventional Hydroelectric	WAT	HY
2024	12	13781	Northern States Power Co - Minnesota	Electric Utility	Apple River	WI	6231	4	0.5	Conventional Hydroelectric	WAT	HY
2024	12	13781	Northern States Power Co - Minnesota	Electric Utility	Granite City	MN	1910	1	13.0	Natural Gas Fired Combustion Turbine	NG	GT
2024	12	13781	Northern States Power Co - Minnesota	Electric Utility	Granite City	MN	1910	2	13.0	Natural Gas Fired Combustion Turbine	NG	GT
2024	12	13781	Northern States Power Co - Minnesota	Electric Utility	Granite City	MN	1910	3	13.0	Natural Gas Fired Combustion Turbine	NG	GT
2024	12	13781	Northern States Power Co - Minnesota	Electric Utility	Granite City	MN	1910	4	13.0	Natural Gas Fired Combustion Turbine	NG	GT
2024	12	13781	Northern States Power Co - Minnesota	Electric Utility	Sherburne County	MN	6090	1	680.0	Conventional Steam Coal	SUB	ST
2024	12	17633	Southern Indiana Gas & Elec Co	Electric Utility	F B Culley	IN	1012	2	90.0	Conventional Steam Coal	BIT	ST
2024	12	17718	Southwestern Public Service Co	Electric Utility	Plant X	TX	3485	3	93.0	Natural Gas Steam Turbine	NG	ST
2025	8	13781	Northern States Power Co - Minnesota	Electric Utility	White River (WI)	WI	3989	1	0.2	Conventional Hydroelectric	WAT	HY
2025	8	13781	Northern States Power Co - Minnesota	Electric Utility	White River (WI)	WI	3989	2	0.2	Conventional Hydroelectric	WAT	HY
2025	8	14328	Pacific Gas & Electric Co.	Electric Utility	Diablo Canyon	CA	6099	2	1,118.0	Nuclear	NUC	ST
2025	9	17166	Sierra Pacific Power Co	Electric Utility	Fort Churchill	NV	2330	1	113.0	Natural Gas Steam Turbine	NG	ST
2025	11	13781	Northern States Power Co - Minnesota	Electric Utility	Trego	WI	4012	1	0.4	Conventional Hydroelectric	WAT	HY
2025	11	13781	Northern States Power Co - Minnesota	Electric Utility	Trego	WI	4012	2	0.3	Conventional Hydroelectric	WAT	HY
2025	12	56155	Lansing Board of Water and Light	Electric Utility	Erickson Station	MI	1832	1	154.5	Conventional Steam Coal	SUB	ST

Table 6.6. Planned U.S. Electric Generating Unit Retirements

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code
2025	12	13781	Northern States Power Co - Minnesota	Electric Utility	Angus Anson	SD	7237	1	90.0	Natural Gas Fired Combustion Turbine	NG	GT
2025	12	13781	Northern States Power Co - Minnesota	Electric Utility	Angus Anson	SD	7237	2	90.0	Natural Gas Fired Combustion Turbine	NG	GT
2025	12	13781	Northern States Power Co - Minnesota	Electric Utility	Saxon Falls	WI	1756	1	0.5	Conventional Hydroelectric	WAT	HY
2025	12	13781	Northern States Power Co - Minnesota	Electric Utility	Saxon Falls	WI	1756	2	0.5	Conventional Hydroelectric	WAT	HY
2025	12	13781	Northern States Power Co - Minnesota	Electric Utility	Superior Falls	MI	1757	1	0.5	Conventional Hydroelectric	WAT	HY
2025	12	13781	Northern States Power Co - Minnesota	Electric Utility	Superior Falls	MI	1757	2	0.5	Conventional Hydroelectric	WAT	HY
2025	12	13781	Northern States Power Co - Minnesota	Electric Utility	Wheaton	WI	4014	1	44.0	Natural Gas Fired Combustion Turbine	NG	GT
2025	12	13781	Northern States Power Co - Minnesota	Electric Utility	Wheaton	WI	4014	2	55.0	Natural Gas Fired Combustion Turbine	NG	GT
2025	12	13781	Northern States Power Co - Minnesota	Electric Utility	Wheaton	WI	4014	3	44.0	Natural Gas Fired Combustion Turbine	NG	GT
2025	12	13781	Northern States Power Co - Minnesota	Electric Utility	Wheaton	WI	4014	4	47.0	Natural Gas Fired Combustion Turbine	NG	GT
2025	12	13781	Northern States Power Co - Minnesota	Electric Utility	Wheaton	WI	4014	5	52.0	Petroleum Liquids	DFO	GT
2025	12	13781	Northern States Power Co - Minnesota	Electric Utility	Wheaton	WI	4014	6	48.0	Petroleum Liquids	DFO	GT
2025	12	15466	Public Service Co of Colorado	Electric Utility	Comanche (CO)	CO	470	2	335.0	Conventional Steam Coal	SUB	ST
2025	12	17166	Sierra Pacific Power Co	Electric Utility	North Valmy	NV	8224	1	254.0	Conventional Steam Coal	SUB	ST
2025	12	17166	Sierra Pacific Power Co	Electric Utility	North Valmy	NV	8224	2	268.0	Conventional Steam Coal	SUB	ST
2025	12	17633	Southern Indiana Gas & Elec Co	Electric Utility	Broadway (IN)	IN	1011	2	65.0	Natural Gas Fired Combustion Turbine	NG	GT
2025	12	17718	Southwestern Public Service Co	Electric Utility	Cunningham	NM	2454	2	183.0	Natural Gas Steam Turbine	NG	ST
2025	12	17718	Southwestern Public Service Co	Electric Utility	Maddox	NM	2446	2	61.0	Natural Gas Fired Combustion Turbine	NG	GT
2025	12	17718	Southwestern Public Service Co	Electric Utility	Maddox	NM	2446	3	10.0	Natural Gas Fired Combustion Turbine	NG	GT
2025	12	19099	TransAlta Centralia Gen LLC	IPP	Transalta Centralia Generation	WA	3845	2	670.0	Conventional Steam Coal	RC	ST
2025	12	30151	Tri-State G & T Assn, Inc	Electric Utility	Craig (CO)	CO	6021	1	428.0	Conventional Steam Coal	SUB	ST
2026	6	9417	Interstate Power and Light Co	Electric Utility	Burlington (IA)	IA	1104	GT1	15.2	Natural Gas Fired Combustion Turbine	NG	GT
2026	6	9417	Interstate Power and Light Co	Electric Utility	Burlington (IA)	IA	1104	GT2	13.4	Natural Gas Fired Combustion Turbine	NG	GT
2026	6	9417	Interstate Power and Light Co	Electric Utility	Burlington (IA)	IA	1104	GT3	14.2	Natural Gas Fired Combustion Turbine	NG	GT
2026	6	9417	Interstate Power and Light Co	Electric Utility	Burlington (IA)	IA	1104	GT4	16.1	Natural Gas Fired Combustion Turbine	NG	GT
2026	12	16604	City of San Antonio - (TX)	Electric Utility	O W Sommers	TX	3611	1	420.0	Natural Gas Steam Turbine	NG	ST
2026	12	5701	El Paso Electric Co	Electric Utility	Newman	TX	3456	3	102.0	Natural Gas Steam Turbine	NG	ST
2026	12	5701	El Paso Electric Co	Electric Utility	Newman	TX	3456	4	83.0	Natural Gas Fired Combined Cycle	NG	CA
2026	12	5701	El Paso Electric Co	Electric Utility	Newman	TX	3456	CT1	72.0	Natural Gas Fired Combined Cycle	NG	CT
2026	12	5701	El Paso Electric Co	Electric Utility	Newman	TX	3456	CT2	72.0	Natural Gas Fired Combined Cycle	NG	CT
2026	12	5860	Empire District Electric Co	Electric Utility	Empire Energy Center	MO	6223	2	82.0	Natural Gas Fired Combustion Turbine	NG	GT
2026	12	56997	Marina Energy LLC	Industrial	L'Oreal Piscataway	NJ	57868	UNIT1	1.1	Solar Photovoltaic	SUN	PV
2027	6	11208	Los Angeles Department of Water & Power	Electric Utility	Intermountain Power Project	UT	6481	1	900.0	Conventional Steam Coal	BIT	ST
2027	6	11208	Los Angeles Department of Water & Power	Electric Utility	Intermountain Power Project	UT	6481	2	900.0	Conventional Steam Coal	BIT	ST
2029	10	56667	Loraine Windpower Project	IPP	Loraine Windpark Project LLC	TX	57303	LWG1	75.0	Onshore Wind Turbine	WND	WT
2031	1	803	Arizona Public Service Co	Electric Utility	Four Corners	NM	2442	4	770.0	Conventional Steam Coal	SUB	ST
2031	1	803	Arizona Public Service Co	Electric Utility	Four Corners	NM	2442	5	770.0	Conventional Steam Coal	SUB	ST
2047	1	60304	Innovative Solar 31, LLC	IPP	Innovative Solar 31	NC	60540	IS031	35.0	Solar Photovoltaic	SUN	PV
2047	7	60455	PVN Milliken, LLC	IPP	PVN Milliken, LLC	CA	60790	PV	3.0	Solar Photovoltaic	SUN	PV
2047	9	60734	Elizabeth Mines Solar 1, LLC	IPP	Elizabeth Mines Solar 1	VT	61124	EMS1	5.0	Solar Photovoltaic	SUN	PV
2052	1	60471	Mt. Tom Solar, LLC	IPP	Mt. Tom Solar Project	MA	60906	BA1	3.1	Batteries	MWH	BA

NOTES:
Capacity from facilities with a total generator nameplate capacity less than 1 MW are excluded from this table.
Entity ID and Plant ID are official, unique identification numbers assigned by EIA; Generator IDs are assigned by plant owners and/or operators.
Descriptions for the Energy Source Codes and the Prime Mover Codes listed in the table can be found in the Technical Notes.

Table 6.7.A. Capacity Factors for Utility Scale Generators Primarily Using Fossil Fuels, January 2013-November 2018

	Coal	Natural Gas				Petroleum		
Period		Natural Gas Fired Combined Cycle	Natural Gas Fired Combustion Turbine	Steam Turbine	Internal Combustion Engine	Steam Turbine	Petroleum Liquids Fired Combustion Turbine	Internal Combustion Engine
Annual Factors								
2013	59.8%	48.2%	4.9%	10.6%	6.1%	12.1%	0.8%	2.2%
2014	61.1%	48.3%	5.2%	10.4%	8.5%	12.5%	1.1%	1.4%
2015	54.7%	55.9%	6.9%	11.5%	8.9%	13.3%	1.1%	2.2%
2016	53.3%	55.5%	8.3%	12.4%	9.6%	11.5%	1.1%	2.6%
2017	53.7%	51.3%	6.7%	10.5%	9.9%	13.5%	0.9%	2.3%
Year 2016								
January	56.4%	56.4%	5.0%	7.1%	9.5%	10.1%	0.6%	3.1%
February	49.1%	53.6%	5.0%	7.4%	8.6%	10.6%	0.7%	2.8%
March	36.0%	50.2%	7.1%	10.2%	8.9%	8.9%	1.1%	2.2%
April	37.8%	47.6%	8.3%	11.7%	9.2%	9.7%	0.8%	2.1%
May	41.6%	52.5%	7.6%	12.3%	9.3%	11.4%	1.1%	2.5%
June	61.2%	63.9%	9.9%	17.5%	10.3%	13.3%	1.3%	2.1%
July	69.8%	68.2%	13.7%	23.1%	11.7%	16.9%	2.1%	2.1%
August	69.3%	70.8%	13.8%	21.1%	12.7%	15.1%	2.6%	2.3%
Sept	60.4%	60.7%	9.5%	14.6%	10.3%	12.9%	1.2%	2.3%
October	50.8%	47.8%	7.8%	11.4%	8.0%	8.8%	0.9%	2.4%
November	46.2%	46.3%	6.8%	6.5%	7.9%	9.9%	0.7%	2.8%
December	61.2%	47.5%	5.1%	5.4%	8.3%	10.1%	0.5%	4.0%
Year 2017								
January	59.9%	46.7%	5.3%	4.3%	9.2%	11.6%	0.7%	3.0%
February	49.7%	44.4%	5.4%	3.8%	7.9%	10.3%	0.8%	2.4%
March	46.3%	44.8%	6.5%	7.2%	7.8%	13.0%	0.8%	2.7%
April	43.6%	42.5%	5.6%	8.7%	8.0%	10.1%	0.6%	1.9%
May	48.4%	45.8%	6.0%	9.1%	8.2%	15.9%	0.8%	2.0%
June	58.5%	56.0%	7.3%	14.1%	10.3%	15.8%	0.8%	2.0%
July	67.1%	67.0%	9.1%	20.8%	13.0%	18.5%	0.9%	2.1%
August	62.9%	65.5%	8.0%	16.1%	12.3%	14.9%	0.9%	2.3%
Sept	53.8%	55.7%	7.8%	13.3%	10.9%	14.2%	1.1%	2.3%
October	47.5%	48.2%	6.6%	12.4%	10.2%	11.7%	0.9%	2.1%
November	49.3%	45.6%	5.8%	7.0%	10.1%	12.3%	0.7%	2.1%
December	56.2%	52.3%	6.4%	8.5%	10.3%	14.3%	1.4%	2.4%
Year 2018								
January	64.2%	54.0%	11.9%	13.1%	NA	19.0%	5.0%	NA
February	49.3%	55.1%	6.9%	6.5%	NA	11.8%	0.9%	NA
March	43.9%	51.5%	9.3%	8.4%	NA	10.9%	1.4%	NA
April	41.7%	48.0%	11.4%	8.5%	NA	12.7%	1.9%	NA
May	47.0%	52.3%	11.8%	16.7%	NA	9.2%	2.3%	NA
June	58.4%	61.9%	12.0%	17.7%	NA	15.2%	3.0%	NA
July	64.3%	73.0%	18.9%	25.5%	NA	14.3%	3.6%	NA
August	64.3%	72.2%	18.9%	22.3%	NA	15.8%	2.6%	NA
Sept	56.0%	66.3%	14.5%	16.5%	NA	17.8%	3.1%	NA
October	48.9%	55.3%	12.0%	13.8%	NA	13.9%	2.2%	NA
November	53.7%	50.6%	9.7%	9.0%	NA	13.4%	1.8%	NA

Values for 2017 and prior years are final. Values for 2018 are preliminary. NA = Not Available

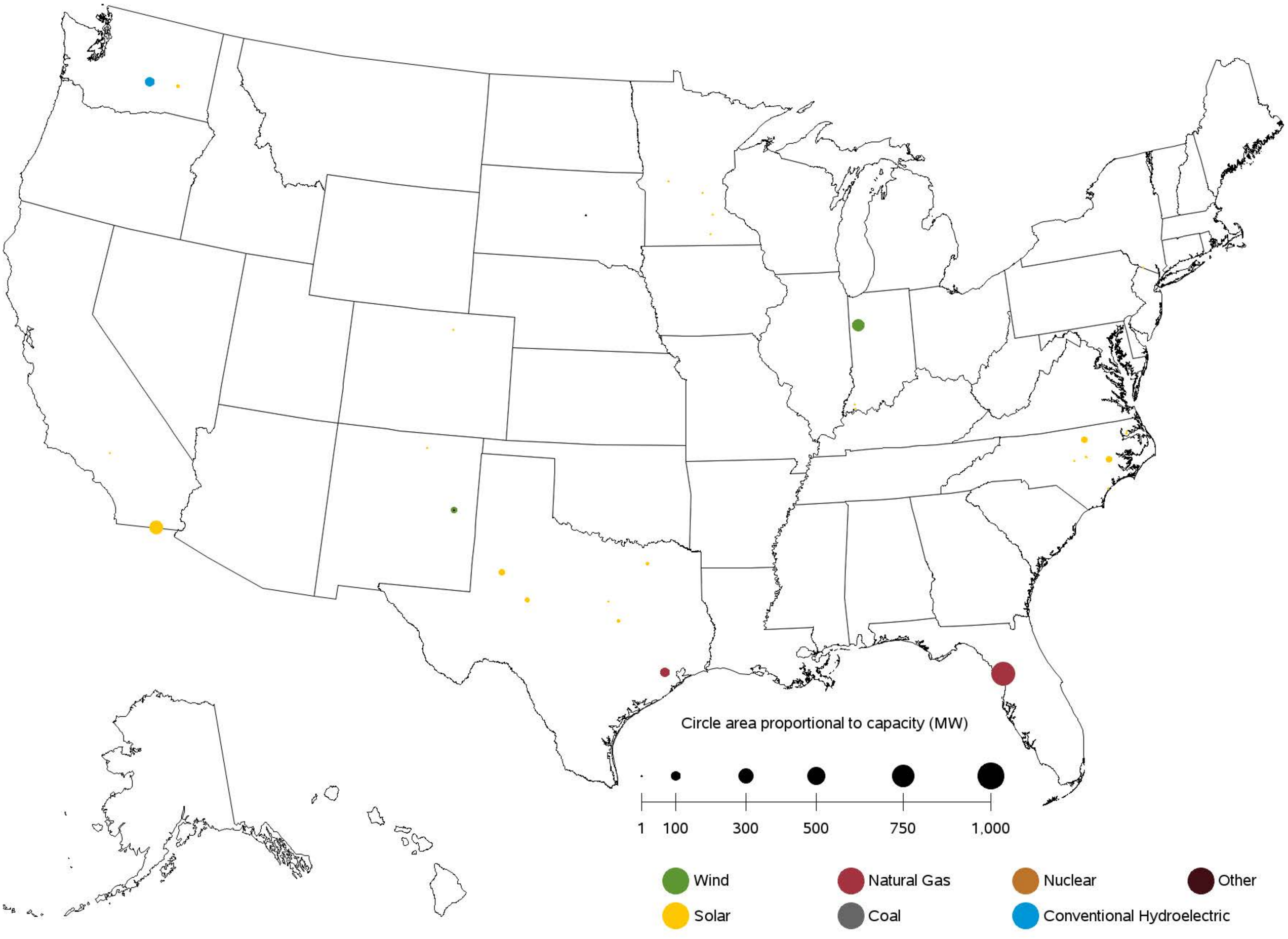
Sources: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report; U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report' and Form EIA-860M, 'Monthly Update to the Annual Electric Generator Report.'

Table 6.7.B. Capacity Factors for Utility Scale Generators Not Primarily Using Fossil Fuels, January 2013-November 2018

Period	Nuclear	Conventional Hydropower	Wind	Solar Photovoltaic	Solar Thermal	Landfill Gas and Muncipal Solid Waste	Other Biomass Including Wood	Geothermal
Annual Factors								
2013	89.9%	38.9%	32.4%	NA	NA	68.9%	56.7%	73.6%
2014	91.7%	37.3%	34.0%	25.9%	19.8%	68.9%	58.9%	74.0%
2015	92.3%	35.8%	32.2%	25.8%	22.1%	68.7%	55.3%	74.3%
2016	92.3%	38.2%	34.5%	25.1%	22.2%	69.7%	55.6%	73.9%
2017	92.2%	43.1%	34.6%	25.7%	21.8%	68.0%	57.8%	74.0%
Year 2016								
January	98.5%	43.6%	33.9%	15.2%	6.8%	68.3%	58.5%	73.4%
February	95.3%	43.8%	39.6%	22.9%	19.5%	67.6%	61.2%	73.2%
March	89.9%	45.9%	40.2%	24.9%	19.6%	67.2%	55.8%	72.5%
April	88.1%	44.6%	39.3%	27.2%	20.9%	69.3%	45.8%	68.8%
May	90.5%	42.8%	34.2%	30.2%	28.9%	72.9%	47.0%	73.9%
June	94.2%	40.6%	30.5%	30.3%	33.5%	72.0%	54.7%	71.2%
July	94.5%	36.1%	31.9%	31.7%	36.9%	70.9%	59.3%	72.2%
August	96.1%	33.0%	24.5%	31.7%	29.2%	70.3%	63.5%	73.0%
Sept	90.9%	28.6%	30.4%	28.5%	30.2%	67.9%	58.5%	75.5%
October	81.7%	29.3%	36.4%	24.0%	19.1%	63.8%	48.9%	74.6%
November	90.9%	32.8%	35.3%	20.4%	14.4%	72.6%	54.9%	77.7%
December	96.7%	37.9%	38.8%	16.2%	7.0%	73.4%	59.6%	80.1%
Year 2017								
January	98.7%	45.4%	32.6%	12.7%	7.3%	73.0%	59.7%	75.9%
February	95.0%	44.1%	38.6%	17.2%	11.7%	69.2%	59.9%	75.3%
March	87.8%	49.1%	40.6%	25.1%	22.9%	66.7%	60.7%	74.1%
April	79.1%	51.1%	41.1%	28.4%	24.9%	66.4%	52.3%	75.9%
May	82.7%	54.7%	36.2%	32.5%	31.0%	68.7%	49.9%	70.5%
June	93.4%	52.7%	32.9%	35.9%	37.9%	69.7%	56.7%	68.9%
July	96.2%	45.1%	25.6%	32.7%	25.4%	67.4%	60.4%	74.4%
August	97.7%	37.3%	21.8%	30.4%	27.6%	68.2%	60.8%	73.9%
Sept	94.9%	33.4%	29.5%	29.1%	29.2%	65.7%	55.2%	73.6%
October	89.0%	31.0%	40.2%	26.4%	24.1%	63.8%	54.1%	67.5%
November	92.9%	36.0%	39.1%	19.4%	10.3%	67.8%	59.9%	73.2%
December	99.4%	37.7%	38.0%	17.7%	9.0%	69.6%	63.3%	85.1%
Year 2018								
January	100.7%	45.0%	42.5%	18.7%	10.0%	72.1%	58.7%	76.6%
February	96.8%	49.2%	41.9%	22.9%	16.1%	76.7%	57.4%	80.5%
March	90.4%	45.0%	44.0%	26.3%	19.3%	73.2%	52.2%	78.2%
April	82.4%	49.9%	44.9%	31.2%	24.4%	71.6%	43.9%	70.3%
May	90.8%	54.1%	38.8%	31.9%	33.0%	68.9%	48.7%	78.8%
June	97.1%	51.6%	42.1%	34.5%	41.7%	76.5%	54.6%	76.2%
July	97.7%	43.3%	25.4%	31.6%	30.1%	75.6%	51.1%	78.0%
August	97.5%	37.7%	32.0%	31.0%	32.5%	75.3%	49.6%	78.0%
Sept	90.4%	32.8%	29.9%	27.7%	34.8%	70.2%	43.8%	78.4%
October	80.5%	31.1%	33.7%	23.1%	20.8%	71.9%	44.8%	72.6%
November	89.4%	37.1%	37.0%	18.7%	13.3%	73.7%	44.5%	78.8%

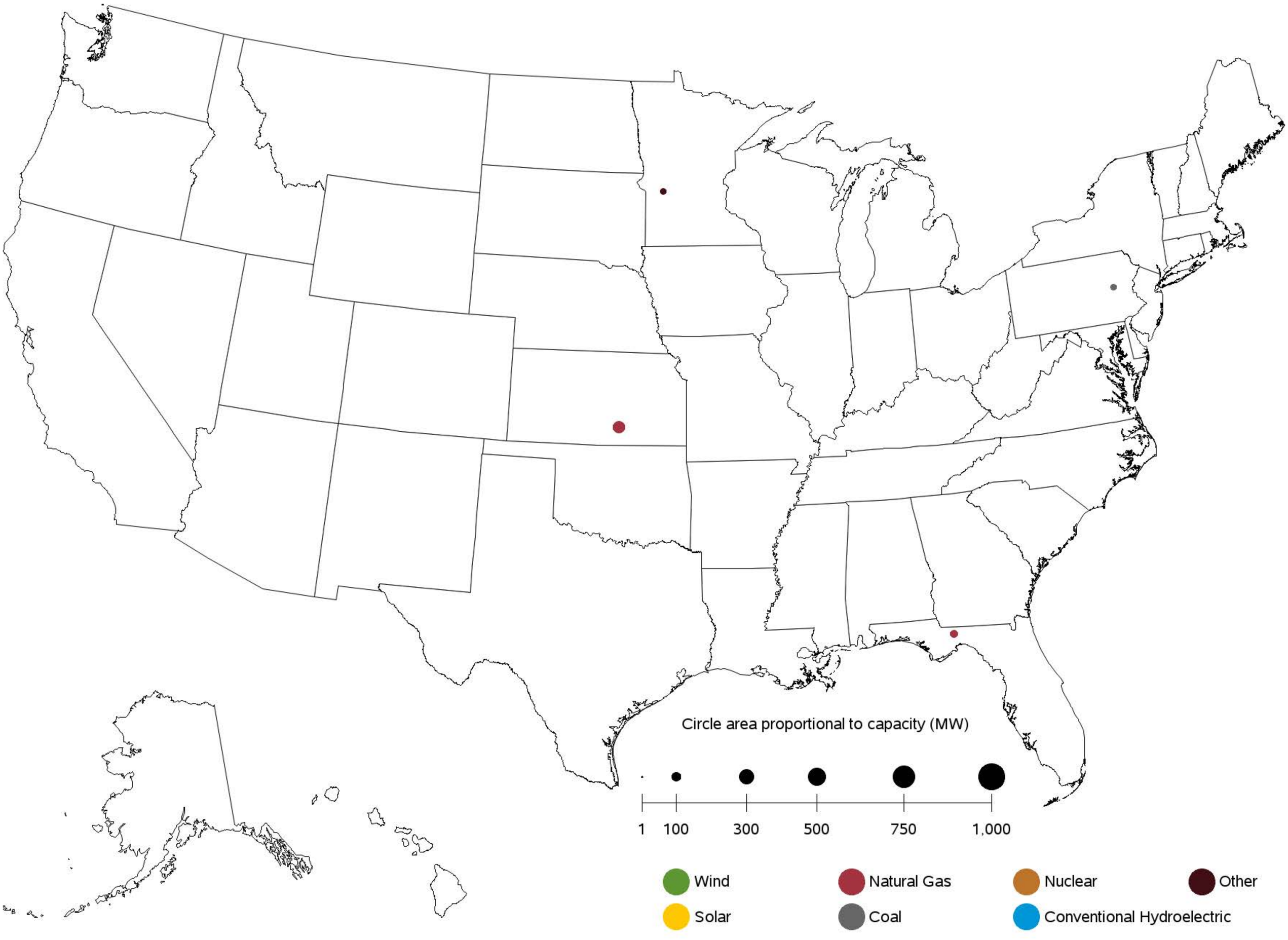
Values for 2017 and prior years are final. Values for 2018 are preliminary. NA = Not Available
Notes: Solar Thermal Capacity Factors include generation from plants using concentrated solar power energy storage.
Sources: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report; U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report' and Form EIA-860M, 'Monthly Update to the Annual Electric Generator Report.'

Figure 6.1.A. Utility-Scale Generating Units Added in November 2018



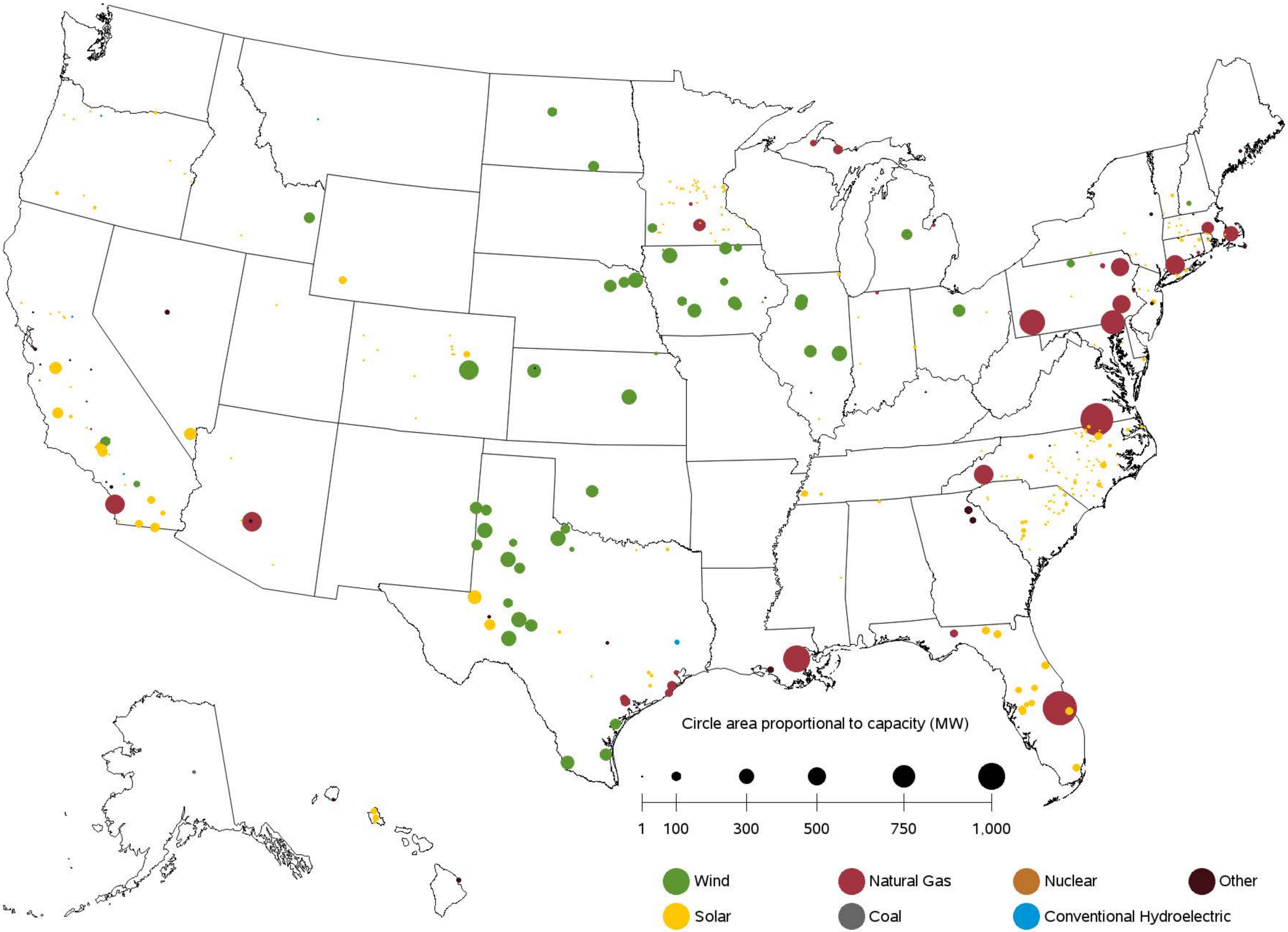
Sources: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report' and Form EIA-860M, 'Monthly Update to the Annual Electric Generator Report.'

Figure 6.1.B. Utility-Scale Generating Units Retired in November 2018



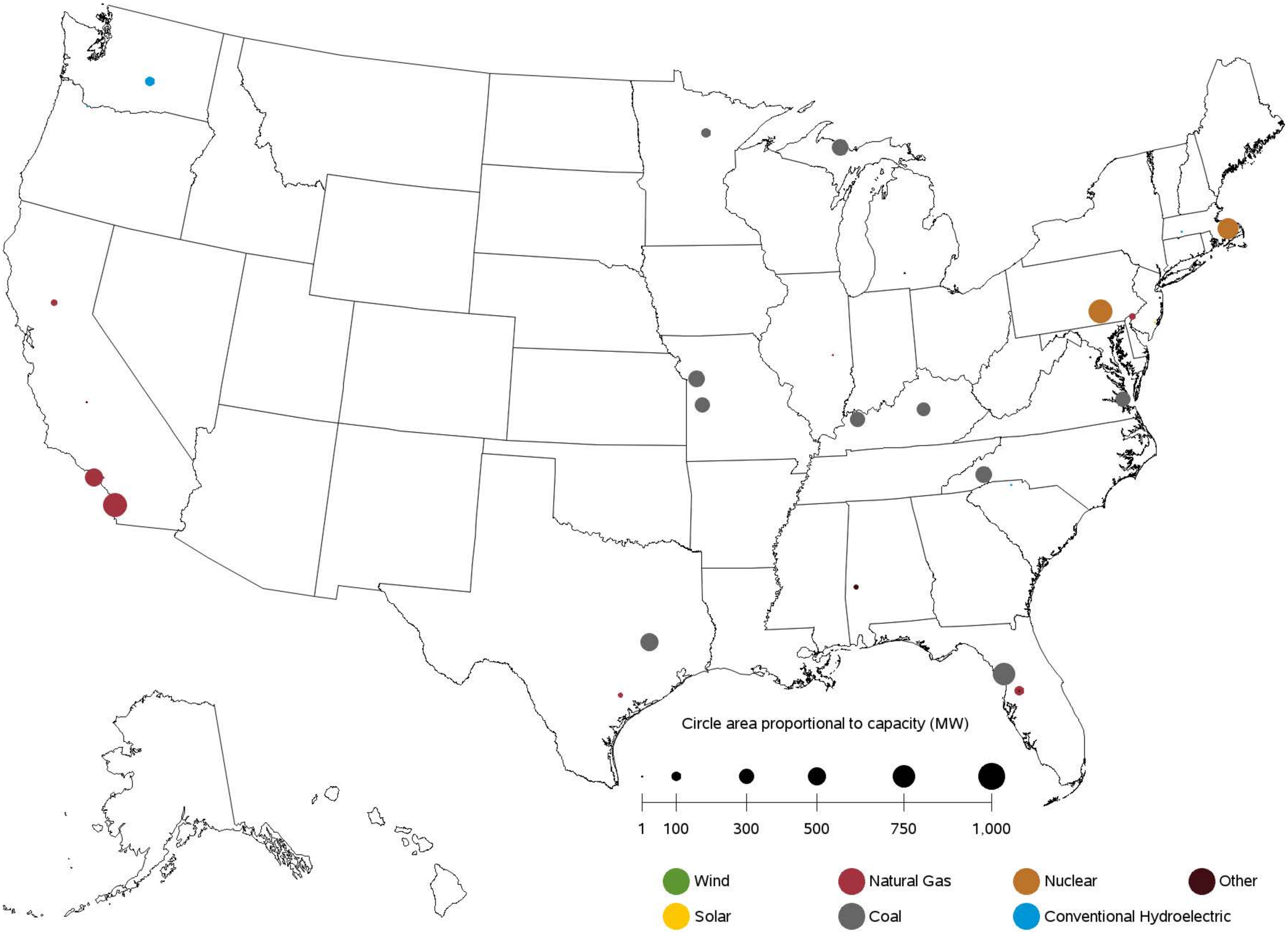
Sources: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report' and Form EIA-860M, 'Monthly Update to the Annual Electric Generator Report.'

Figure 6.1.C. Utility-Scale Generating Units Planned to Come Online from December 2018 to November 2019



Sources: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report' and Form EIA-860M, 'Monthly Update to the Annual Electric Generator Report.'

Figure 6.1.D. Utility-Scale Generating Units Planned to Retire from December 2018 to November 2019



Sources: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report' and Form EIA-860M, 'Monthly Update to the Annual Electric Generator Report.'

Chapter 7

Imports and Exports

Table 7.1. Electric Power Industry - U.S. Electricity Imports from and Electricity Exports to Canada and Mexico (Megawatthours)

	Canada		Mexico		U.S. Total		
Period	Imports from	Exports to	Imports from	Exports to	Imports	Exports	Net Imports
Annual Totals							
2016	65,173,818	2,682,381	7,542,445	3,531,636	72,716,263	6,214,017	66,502,246
2017	59,909,320	3,312,798	5,775,597	6,058,005	65,684,917	9,370,803	56,314,114
Year 2016							
January	5,886,417	227,589	636,613	161,007	6,523,030	388,596	6,134,434
February	4,927,541	384,301	505,252	167,788	5,432,793	552,089	4,880,704
March	5,210,412	410,645	598,334	260,086	5,808,746	670,731	5,138,015
April	4,092,342	358,746	610,099	91,608	4,702,441	450,354	4,252,087
May	4,977,621	142,398	583,132	227,227	5,560,753	369,625	5,191,128
June	6,162,812	94,538	585,652	515,952	6,748,464	610,490	6,137,974
July	6,969,110	78,459	704,978	496,360	7,674,088	574,819	7,099,269
August	6,577,610	149,565	771,285	437,154	7,348,895	586,719	6,762,176
Sept	4,631,320	161,183	666,113	425,652	5,297,433	586,835	4,710,598
October	4,989,801	320,694	761,195	111,790	5,750,996	432,484	5,318,512
November	5,809,773	109,219	611,189	307,814	6,420,962	417,033	6,003,929
December	4,939,059	245,044	508,603	329,198	5,447,662	574,242	4,873,420
Year 2017							
January	6,345,401	172,909	673,166	310,843	7,018,567	483,752	6,534,815
February	5,120,144	359,401	552,254	330,610	5,672,398	690,011	4,982,387
March	5,612,473	663,648	410,568	334,509	6,023,041	998,157	5,024,884
April	5,262,194	619,414	299,908	486,903	5,562,102	1,106,317	4,455,785
May	4,912,110	341,657	171,906	489,911	5,084,016	831,568	4,252,448
June	5,637,814	242,997	355,162	568,400	5,992,976	811,397	5,181,579
July	5,328,084	65,828	585,167	642,440	5,913,251	708,268	5,204,983
August	5,874,172	63,435	634,751	709,103	6,508,923	772,538	5,736,385
Sept	4,715,752	139,000	512,536	553,042	5,228,288	692,042	4,536,246
October	3,504,501	165,550	447,906	544,420	3,952,407	709,970	3,242,437
November	3,379,626	263,999	550,385	558,909	3,930,011	822,908	3,107,103
December	4,217,049	214,960	581,888	528,915	4,798,937	743,875	4,055,062
Year 2018							
January	4,738,934	680,100	485,831	459,404	5,224,765	1,139,504	4,085,261
February	4,314,276	926,822	473,386	340,682	4,787,662	1,267,504	3,520,158
March	5,045,055	707,032	553,462	488,339	5,598,517	1,195,371	4,403,146
April	4,067,648	1,134,937	461,095	486,681	4,528,743	1,621,618	2,907,125
May	4,865,120	569,954	374,033	571,444	5,239,153	1,141,398	4,097,755
June	5,002,142	534,488	491,763	680,851	5,493,905	1,215,339	4,278,566
July	4,669,081	176,762	701,543	758,502	5,370,624	935,264	4,435,360
August	5,430,607	272,018	705,309	862,128	6,135,916	1,134,146	5,001,770
Sept	3,648,158	437,073	602,500	623,925	4,250,658	1,060,998	3,189,660

Source: U.S. Energy Information Administration, Form EIA-111, "Quarterly Electricity Imports and Exports Report."

Chapter 8

Puerto Rico

Table 8.1 Puerto Rico- Sales of Electricity to Ultimate Customers: Total by End-Use Sector, 2008 - November 2018 (Thousand Megawatthours)

Period	Residential	Commercial	Industrial	Transportation	All Sectors
Annual Totals					
2008	6,473	9,023	3,544	0	19,040
2009	6,673	8,937	3,094	0	18,704
2010	6,975	9,041	2,968	0	18,984
2011	6,587	8,832	2,832	0	18,251
2012	6,771	8,879	2,500	0	18,150
2013	6,320	8,969	2,504	0	17,793
2014	6,218	8,761	2,376	0	17,356
2015	6,314	8,586	2,355	0	17,255
2016	6,524	8,569	2,251	0	17,344
2017	5,045	6,820	1,747	0	13,611
Year 2016					
January	515	648	158	0	1,321
February	447	647	176	0	1,270
March	499	738	208	0	1,445
April	506	665	176	0	1,346
May	556	746	202	0	1,504
June	594	742	201	0	1,537
July	621	773	193	0	1,587
August	604	722	205	0	1,530
Sept	594	751	187	0	1,532
October	540	704	180	0	1,424
November	541	723	190	0	1,454
December	509	709	176	0	1,394
Year 2017					
January	508	650	159	0	1,317
February	395	575	154	0	1,125
March	490	698	191	0	1,380
April	494	628	184	0	1,306
May	525	675	182	0	1,382
June	595	692	184	0	1,472
July	590	710	200	0	1,501
August	632	719	187	0	1,537
Sept	520	372	127	0	1,020
October	16	224	11	0	252
November	42	569	28	0	639
December	237	306	138	0	682
Year 2018					
January	389	558	142	0	1,089
February	393	760	175	0	1,328
March	450	531	98	0	1,080
April	466	784	273	0	1,524
May	566	802	165	0	1,533
June	507	592	208	0	1,308
July	578	680	145	0	1,404
August	577	688	209	0	1,475
Sept	527	722	186	0	1,436
October	698	847	191	0	1,736
November	457	593	172	0	1,222
Year to Date					
2016	6,016	7,860	2,075	0	15,951
2017	4,808	6,513	1,608	0	12,930
2018	5,609	7,558	1,966	0	15,133
Rolling 12 Months Ending in November					
2017	5,317	7,223	1,784	0	14,324
2018	5,846	7,864	2,105	0	15,814

Sources: U.S. Energy Information Administration, Form EIA-861M (formerly EIA-826), Monthly Electric Industry Power Report.
Form EIA-826, Monthly Electric Sales and Revenue Report with State Distributions Report;
Form EIA-861, Annual Electric Power Industry Report

Table 8.2 Puerto Rico- Revenue from Sales of Electricity to Ultimate Customers: Total by End-Use Sector, 2008 - November 2018 (Million Dollars)

Period	Residential	Commercial	Industrial	Transportation	All Sectors
Annual Totals					
2008	1,574	2,285	734	0	4,593
2009	1,313	1,868	518	0	3,699
2010	1,521	2,103	564	0	4,188
2011	1,748	2,483	663	0	4,894
2012	1,690	2,605	647	0	4,942
2013	1,633	2,474	570	0	4,678
2014	1,636	2,394	551	0	4,581
2015	1,282	1,850	417	0	3,549
2016	1,170	1,677	356	0	3,203
2017	1,123	1,549	344	0	3,016
Year 2016					
January	86	120	23	0	229
February	75	118	25	0	218
March	79	131	29	0	239
April	86	124	26	0	235
May	91	139	29	0	259
June	103	141	30	0	274
July	110	150	30	0	291
August	118	154	36	0	308
Sept	111	146	31	0	288
October	108	155	33	0	296
November	102	147	32	0	282
December	101	152	31	0	284
Year 2017					
January	112	142	30	0	284
February	99	143	32	0	274
March	105	151	34	0	291
April	109	144	34	0	287
May	119	157	35	0	311
June	129	152	34	0	314
July	130	161	37	0	327
August	143	166	35	0	345
Sept	101	74	21	0	196
October	6	46	4	0	56
November	19	115	15	0	150
December	50	98	34	0	182
Year 2018					
January	86	159	32	0	277
February	76	171	32	0	279
March	110	149	22	0	280
April	84	161	54	0	300
May	104	165	23	0	292
June	108	133	40	0	281
July	122	166	29	0	317
August	114	149	39	0	302
Sept	109	161	34	0	303
October	137	169	36	0	342
November	102	142	34	0	278
Year to Date					
2016	1,069	1,525	325	0	2,919
2017	1,073	1,452	310	0	2,834
2018	1,152	1,725	374	0	3,251
Rolling 12 Months Ending in November					
2017	1,174	1,604	341	0	3,119
2018	1,202	1,823	408	0	3,433

Sources: U.S. Energy Information Administration, Form EIA-861M (formerly EIA-826), Monthly Electric Industry Power Report.
Form EIA-826, Monthly Electric Sales and Revenue Report with State Distributions Report;
Form EIA-861, Annual Electric Power Industry Report

Table 8.3 Puerto Rico- Number of Ultimate Customers Served by Sector: Total by End-Use Sector, 2008 - November 2018

Period	Residential	Commercial	Industrial	Transportation	All Sectors
Annual Totals					
2008	1,318,498	133,223	1,225	0	1,452,946
2009	1,330,507	132,620	828	0	1,463,955
2010	1,339,703	133,029	790	0	1,473,522
2011	1,341,708	132,738	750	0	1,475,196
2012	1,349,750	131,264	721	0	1,481,735
2013	1,340,989	131,034	694	0	1,472,717
2014	1,328,546	129,122	662	0	1,458,330
2015	1,326,631	127,365	647	0	1,454,643
2016	1,332,152	127,179	633	0	1,459,964
2017	1,337,756	127,065	618	0	1,465,439
Year 2016					
January	1,327,936	127,058	640	0	1,455,634
February	1,328,227	127,040	637	0	1,455,904
March	1,329,387	127,155	636	0	1,457,178
April	1,331,140	127,236	635	0	1,459,011
May	1,332,103	127,264	636	0	1,460,003
June	1,332,712	127,158	635	0	1,460,505
July	1,333,672	127,327	633	0	1,461,632
August	1,333,858	127,218	631	0	1,461,707
Sept	1,331,317	126,967	627	0	1,458,911
October	1,334,555	127,221	626	0	1,462,402
November	1,335,163	127,237	629	0	1,463,029
December	1,335,753	127,265	627	0	1,463,645
Year 2017					
January	1,336,481	127,251	627	0	1,464,359
February	1,337,101	127,229	626	0	1,464,956
March	1,335,413	127,147	620	0	1,463,180
April	1,337,164	127,086	620	0	1,464,870
May	1,337,956	127,048	618	0	1,465,622
June	1,339,373	127,119	616	0	1,467,108
July	1,338,891	127,049	614	0	1,466,554
August	1,337,758	127,026	615	0	1,465,399
Sept	1,338,973	127,056	615	0	1,466,644
October	1,337,261	126,948	615	0	1,464,824
November	1,338,117	126,941	613	0	1,465,671
December	1,338,583	126,877	612	0	1,466,072
Year 2018					
January	1,338,417	126,681	611	0	1,465,709
February	1,337,561	126,422	612	0	1,464,595
March	1,338,960	126,367	613	0	1,465,940
April	1,339,727	126,216	612	0	1,466,555
May	1,340,002	126,123	610	0	1,466,735
June	1,339,841	126,006	610	0	1,466,457
July	1,340,490	125,949	607	0	1,467,046
August	1,341,417	126,011	604	0	1,468,032
Sept	1,342,332	126,102	605	0	1,469,039
October	1,343,883	126,219	603	0	1,470,705
November	1,344,948	126,429	601	0	1,471,978
Rolling 12 Months Ending in November					
2017	1,337,520	127,097	619	0	1,465,236
2018	1,340,513	126,284	608	0	1,467,405

Sources: U.S. Energy Information Administration, Form EIA-861M (formerly EIA-826), Monthly Electric Industry Power Report.
Form EIA-826, Monthly Electric Sales and Revenue Report with State Distributions Report;
Form EIA-861, Annual Electric Power Industry Report

Table 8.4 Puerto Rico- Average Price of Electricity to Ultimate Customers: Total by End-Use Sector, 2008 - November 2018 (Cents per Kilowatthour)

Period	Residential	Commercial	Industrial	Transportation	All Sectors
Annual Totals					
2008	24.32	25.32	20.72	--	24.12
2009	19.68	20.91	16.73	--	19.78
2010	21.80	23.26	19.01	--	22.06
2011	26.54	28.11	23.39	--	26.82
2012	24.96	29.34	25.89	--	27.23
2013	25.84	27.59	22.77	--	26.29
2014	26.31	27.33	23.18	--	26.39
2015	20.31	21.55	17.71	--	20.57
2016	17.93	19.57	15.83	--	18.47
2017	22.26	22.72	19.70	--	22.16
Year 2016					
January	16.78	18.54	14.39	--	17.36
February	16.74	18.31	14.23	--	17.19
March	15.90	17.70	14.02	--	16.55
April	16.91	18.58	14.52	--	17.42
May	16.33	18.63	14.61	--	17.24
June	17.32	19.01	15.12	--	17.85
July	17.78	19.39	15.74	--	18.31
August	19.50	21.38	17.42	--	20.11
Sept	18.66	19.42	16.61	--	18.78
October	20.07	22.02	18.35	--	20.82
November	18.88	20.34	17.04	--	19.37
December	19.79	21.45	17.90	--	20.40
Year 2017					
January	22.10	21.89	18.77	--	21.60
February	25.09	24.84	20.48	--	24.33
March	21.46	21.69	17.76	--	21.06
April	22.16	22.89	18.43	--	21.99
May	22.66	23.27	19.03	--	22.48
June	21.69	21.91	18.18	--	21.35
July	22.01	22.62	18.43	--	21.82
August	22.62	23.17	18.91	--	22.42
Sept	19.36	19.90	16.35	--	19.18
October	37.23	20.39	40.29	--	22.36
November	45.99	20.27	53.04	--	23.39
December	21.07	31.94	24.72	--	26.70
Year 2018					
January	22.11	28.53	22.32	--	25.43
February	19.32	22.48	18.45	--	21.02
March	24.40	27.97	22.42	--	25.97
April	18.09	20.56	19.86	--	19.68
May	18.38	20.61	13.77	--	19.05
June	21.24	22.46	19.23	--	21.47
July	21.17	24.32	19.78	--	22.56
August	19.81	21.63	18.51	--	20.48
Sept	20.59	22.33	18.04	--	21.13
October	19.58	19.99	18.69	--	19.68
November	22.30	23.99	19.54	--	22.73
Year to Date					
2016	17.77	19.40	15.65	--	18.30
2017	22.32	22.29	19.27	--	21.92
2018	20.53	22.83	19.00	--	21.48
Rolling 12 Months Ending in November					
2017	22.07	22.20	19.13	--	21.77
2018	20.56	23.18	19.37	--	21.71

Sources: U.S. Energy Information Administration, Form EIA-861M (formerly EIA-826), Monthly Electric Industry Power Report.
Form EIA-826, Monthly Electric Sales and Revenue Report with State Distributions Report;
Form EIA-861, Annual Electric Power Industry Report

Table 8.5. Net Summer Capacity (MW) of Existing Utility Scale Units by Technology for Puerto Rico, 2007-November 2018

Period	Coal	Hydroelectric Conventional	Natural Gas	Other	Petroleum	Solar	Wind	Total
Annual Totals								
2007	454	98	1,335	0	2,792	0	0	4,679
2008	454	98	1,335	0	3,104	0	0	4,991
2009	454	98	1,335	0	3,169	0	0	5,056
2010	454	98	1,335	0	3,169	0	0	5,056
2011	454	98	1,335	0	3,169	5	0	5,061
2012	454	98	1,335	0	3,169	23	98	5,177
2013	454	98	1,335	0	3,169	26	98	5,180
2014	454	98	1,335	0	3,169	38	99	5,192
2015	454	98	1,335	9	3,173	70	99	5,237
2016	454	98	1,335	33	3,173	145	99	5,336
2017	454	98	1,335	33	3,173	145	99	5,336
Year 2018								
January	454	0	558	33	728	145	99	2,017
February	454	0	558	33	728	145	99	2,017
March	454	0	558	33	728	145	99	2,017
April	454	0	558	33	728	145	99	2,017
May	454	0	558	33	728	145	99	2,017
June	454	0	558	33	728	145	99	2,017
July	454	0	558	33	728	145	99	2,017
August	454	0	569	33	728	145	99	2,028
Sept	454	0	569	33	728	145	99	2,028
October	454	0	569	33	728	145	99	2,028
November	454	0	569	33	728	145	99	2,028

Capacity from facilities with a total generator nameplate capacity less than 1 MW are excluded from this report.

Sources: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report' and Form EIA-860M, 'Monthly Update to the Annual Electric Generator Report.'

Appendices

Table A.1.A. Relative Standard Error (Percent) for Net Generation by Fuel Type:

Total (All Sectors) by Census Division and State, November 2018

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**52**	**13**	**0**	**3**	**0**	**0**	**9**
Connecticut	0	32	0	1	0	0	31
Maine	0	34	0	17	0	0	11
Massachusetts	0	23	0	6	0	0	20
New Hampshire	109	7	0	0	0	0	19
Rhode Island	0	55	0	16	0	0	0
Vermont	0	226	0	0	0	0	18
Middle Atlantic	**3**	**14**	**64**	**1**	**15**	**0**	**3**
New Jersey	0	32	0	3	0	0	0
New York	0	19	0	2	0	0	2
Pennsylvania	4	18	93	1	23	0	12
East North Central	**1**	**6**	**18**	**1**	**5**	**0**	**11**
Illinois	0	16	0	10	0	0	37
Indiana	0	2	0	2	9	0	36
Michigan	3	5	0	3	0	0	21
Ohio	1	13	29	1	14	0	36
Wisconsin	0	96	0	5	0	0	16
West North Central	**1**	**8**	**0**	**8**	**0**	**0**	**8**
Iowa	0	20	0	11	0	0	27
Kansas	0	17	0	21	0	0	0
Minnesota	2	41	0	15	0	0	23
Missouri	0	8	0	9	0	0	18
Nebraska	4	124	0	55	0	0	23
North Dakota	0	6	0	68	0	0	17
South Dakota	0	19	0	68	0	0	12
South Atlantic	**1**	**6**	**36**	**1**	**0**	**0**	**8**
Delaware	0	116	0	6	0	0	0
District of Columbia	0	0	0	0	0	0	0
Florida	0	10	0	1	0	0	43
Georgia	0	20	87	2	0	0	14
Maryland	0	30	0	4	0	0	2
North Carolina	0	10	0	1	0	0	11
South Carolina	0	16	0	1	0	0	17
Virginia	21	10	0	3	0	0	21
West Virginia	2	0	0	13	0	0	16
East South Central	**0**	**6**	**0**	**1**	**0**	**0**	**5**
Alabama	0	29	0	2	0	0	6
Kentucky	0	1	0	4	0	0	9
Mississippi	0	19	0	1	0	0	0
Tennessee	0	10	0	3	0	0	7
West South Central	**0**	**12**	**0**	**1**	**4**	**0**	**9**
Arkansas	0	19	0	5	0	0	12
Louisiana	0	100	0	2	7	0	21
Oklahoma	0	1	0	2	0	0	14
Texas	0	6	0	1	2	0	20
Mountain	**1**	**3**	**0**	**1**	**0**	**0**	**5**
Arizona	0	4	0	2	0	0	5
Colorado	0	12	0	3	0	0	21
Idaho	151	0	0	15	0	0	9
Montana	3	50	0	20	0	0	9
Nevada	0	0	0	1	0	0	3
New Mexico	0	20	0	5	0	0	64
Utah	0	0	0	4	0	0	25
Wyoming	4	1	0	10	0	0	26
Pacific Contiguous	**0**	**15**	**0**	**1**	**2**	**0**	**2**
California	0	18	0	1	2	0	9
Oregon	0	7	0	4	0	0	3
Washington	0	34	0	17	0	0	1
Pacific Noncontiguous	**19**	**1**	**0**	**31**	**0**	**0**	**21**
Alaska	36	3	0	31	0	0	22
Hawaii	19	1	0	0	0	0	50
U.S. Total	**0**	**2**	**8**	**0**	**3**	**0**	**2**

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.

Table A.1.A. Relative Standard Error (Percent) for Net Generation by Fuel Type:

Total (All Sectors) by Census Division and State, November 2018 (Continued)

Census Region and State	Wind	Geothermal	Biomass	Solar Thermal and Photovoltaic	Other Renewables	Hydroelectric Pumped Storage	Other Energy Sources	All Energy Sources
New England	**0**	**0**	**0**	**9**	**5**	**0**	**1**	**2**
Connecticut	0	0	0	32	14	0	0	1
Maine	0	0	0	109	6	0	0	5
Massachusetts	0	0	0	10	6	0	2	4
New Hampshire	0	0	0	0	15	0	0	4
Rhode Island	0	0	0	60	5	0	0	15
Vermont	0	0	0	28	13	0	0	12
Middle Atlantic	**0**	**0**	**0**	**8**	**3**	**0**	**1**	**1**
New Jersey	0	0	0	9	6	0	0	1
New York	0	0	0	16	3	0	2	1
Pennsylvania	0	0	0	35	4	0	0	1
East North Central	**0**	**0**	**0**	**12**	**2**	**0**	**3**	**0**
Illinois	0	0	0	33	2	0	0	1
Indiana	0	0	0	17	3	0	0	1
Michigan	0	0	0	28	4	0	10	2
Ohio	0	0	0	29	4	0	0	1
Wisconsin	0	0	0	55	6	0	37	1
West North Central	**0**	**0**	**0**	**9**	**2**	**0**	**5**	**1**
Iowa	0	0	0	92	2	0	0	1
Kansas	0	0	0	111	2	0	0	1
Minnesota	0	0	0	10	3	0	3	2
Missouri	0	0	0	29	4	0	0	1
Nebraska	0	0	0	63	4	0	0	3
North Dakota	0	0	0	0	3	0	40	1
South Dakota	0	0	0	203	6	0	0	7
South Atlantic	**0**	**0**	**0**	**2**	**2**	**0**	**1**	**0**
Delaware	0	0	0	41	38	0	0	5
District of Columbia	0	0	0	0	0	0	0	0
Florida	0	0	0	3	3	0	1	1
Georgia	0	0	0	6	3	0	0	1
Maryland	0	0	0	11	7	0	0	1
North Carolina	0	0	0	4	3	0	0	1
South Carolina	0	0	0	15	5	0	0	1
Virginia	0	0	0	11	6	0	0	2
West Virginia	0	0	0	0	6	0	0	2
East South Central	**0**	**0**	**0**	**8**	**3**	**0**	**7**	**1**
Alabama	0	0	0	13	3	0	0	1
Kentucky	0	0	0	47	15	0	0	1
Mississippi	0	0	0	4	3	0	0	1
Tennessee	0	0	0	28	7	0	78	1
West South Central	**0**	**0**	**0**	**3**	**1**	**0**	**2**	**0**
Arkansas	0	0	0	7	5	0	0	1
Louisiana	0	0	0	187	4	0	2	1
Oklahoma	0	0	0	46	2	0	0	1
Texas	0	0	0	3	2	0	5	1
Mountain	**0**	**5**	**0**	**2**	**2**	**0**	**3**	**1**
Arizona	0	0	0	3	4	0	0	1
Colorado	0	0	0	9	3	0	0	1
Idaho	0	21	0	14	5	0	0	6
Montana	0	0	0	63	6	0	0	3
Nevada	0	5	0	3	3	0	0	1
New Mexico	0	0	0	8	3	0	0	1
Utah	0	10	0	6	5	0	10	1
Wyoming	0	0	0	0	5	0	0	3
Pacific Contiguous	**0**	**2**	**0**	**2**	**2**	**0**	**2**	**1**
California	0	2	0	2	2	0	2	1
Oregon	0	14	0	13	4	0	0	2
Washington	0	0	0	59	3	0	0	1
Pacific Noncontiguous	**0**	**12**	**0**	**15**	**9**	**0**	**2**	**6**
Alaska	0	0	0	0	21	0	0	16
Hawaii	0	12	0	15	9	0	2	3
U.S. Total	**0**	**3**	**0**	**2**	**1**	**0**	**0**	**0**

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.

Table A.1.B. Relative Standard Error (Percent) for Net Generation by Fuel Type:

Total (All Sectors) by Census Division and State, Year-to-Date through November 2018

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**52**	**13**	**0**	**3**	**0**	**0**	**9**
Connecticut	0	32	0	1	0	0	31
Maine	0	34	0	17	0	0	11
Massachusetts	0	23	0	6	0	0	20
New Hampshire	109	7	0	0	0	0	19
Rhode Island	0	55	0	16	0	0	0
Vermont	0	226	0	0	0	0	18
Middle Atlantic	**3**	**14**	**64**	**1**	**15**	**0**	**3**
New Jersey	0	32	0	3	0	0	0
New York	0	19	0	2	0	0	2
Pennsylvania	4	18	93	1	23	0	12
East North Central	**1**	**6**	**18**	**1**	**5**	**0**	**11**
Illinois	0	16	0	10	0	0	37
Indiana	0	2	0	2	9	0	36
Michigan	3	5	0	3	0	0	21
Ohio	1	13	29	1	14	0	36
Wisconsin	0	96	0	5	0	0	16
West North Central	**1**	**8**	**0**	**8**	**0**	**0**	**8**
Iowa	0	20	0	11	0	0	27
Kansas	0	17	0	21	0	0	0
Minnesota	2	41	0	15	0	0	23
Missouri	0	8	0	9	0	0	18
Nebraska	4	124	0	55	0	0	23
North Dakota	0	6	0	68	0	0	17
South Dakota	0	19	0	68	0	0	12
South Atlantic	**1**	**6**	**36**	**1**	**0**	**0**	**8**
Delaware	0	116	0	6	0	0	0
District of Columbia	0	0	0	0	0	0	0
Florida	0	10	0	1	0	0	43
Georgia	0	20	87	2	0	0	14
Maryland	0	30	0	4	0	0	2
North Carolina	0	10	0	1	0	0	11
South Carolina	0	16	0	1	0	0	17
Virginia	21	10	0	3	0	0	21
West Virginia	2	0	0	13	0	0	16
East South Central	**0**	**6**	**0**	**1**	**0**	**0**	**5**
Alabama	0	29	0	2	0	0	6
Kentucky	0	1	0	4	0	0	9
Mississippi	0	19	0	1	0	0	0
Tennessee	0	10	0	3	0	0	7
West South Central	**0**	**12**	**0**	**1**	**4**	**0**	**9**
Arkansas	0	19	0	5	0	0	12
Louisiana	0	100	0	2	7	0	21
Oklahoma	0	1	0	2	0	0	14
Texas	0	6	0	1	2	0	20
Mountain	**1**	**3**	**0**	**1**	**0**	**0**	**5**
Arizona	0	4	0	2	0	0	5
Colorado	0	12	0	3	0	0	21
Idaho	151	0	0	15	0	0	9
Montana	3	50	0	20	0	0	9
Nevada	0	0	0	1	0	0	3
New Mexico	0	20	0	5	0	0	64
Utah	0	0	0	4	0	0	25
Wyoming	4	1	0	10	0	0	26
Pacific Contiguous	**0**	**15**	**0**	**1**	**2**	**0**	**2**
California	0	18	0	1	2	0	9
Oregon	0	7	0	4	0	0	3
Washington	0	34	0	17	0	0	1
Pacific Noncontiguous	**19**	**1**	**0**	**31**	**0**	**0**	**21**
Alaska	36	3	0	31	0	0	22
Hawaii	19	1	0	0	0	0	50
U.S. Total	**0**	**2**	**8**	**0**	**3**	**0**	**2**

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.

Table A.1.B. Relative Standard Error (Percent) for Net Generation by Fuel Type:

Total (All Sectors) by Census Division and State, Year-to-Date through November 2018 (Continued)

Census Region and State	Wind	Geothermal	Biomass	Solar Thermal and Photovoltaic	Other Renewables	Hydroelectric Pumped Storage	Other Energy Sources	All Energy Sources
New England	**0**	**0**	**0**	**9**	**5**	**0**	**1**	**2**
Connecticut	0	0	0	32	14	0	0	1
Maine	0	0	0	109	6	0	0	5
Massachusetts	0	0	0	10	6	0	2	4
New Hampshire	0	0	0	0	15	0	0	4
Rhode Island	0	0	0	60	5	0	0	15
Vermont	0	0	0	28	13	0	0	12
Middle Atlantic	**0**	**0**	**0**	**8**	**3**	**0**	**1**	**1**
New Jersey	0	0	0	9	6	0	0	1
New York	0	0	0	16	3	0	2	1
Pennsylvania	0	0	0	35	4	0	0	1
East North Central	**0**	**0**	**0**	**12**	**2**	**0**	**3**	**0**
Illinois	0	0	0	33	2	0	0	1
Indiana	0	0	0	17	3	0	0	1
Michigan	0	0	0	28	4	0	10	2
Ohio	0	0	0	29	4	0	0	1
Wisconsin	0	0	0	55	6	0	37	1
West North Central	**0**	**0**	**0**	**9**	**2**	**0**	**5**	**1**
Iowa	0	0	0	92	2	0	0	1
Kansas	0	0	0	111	2	0	0	1
Minnesota	0	0	0	10	3	0	3	2
Missouri	0	0	0	29	4	0	0	1
Nebraska	0	0	0	63	4	0	0	3
North Dakota	0	0	0	0	3	0	40	1
South Dakota	0	0	0	203	6	0	0	7
South Atlantic	**0**	**0**	**0**	**2**	**2**	**0**	**1**	**0**
Delaware	0	0	0	41	38	0	0	5
District of Columbia	0	0	0	0	0	0	0	0
Florida	0	0	0	3	3	0	1	1
Georgia	0	0	0	6	3	0	0	1
Maryland	0	0	0	11	7	0	0	1
North Carolina	0	0	0	4	3	0	0	1
South Carolina	0	0	0	15	5	0	0	1
Virginia	0	0	0	11	6	0	0	2
West Virginia	0	0	0	0	6	0	0	2
East South Central	**0**	**0**	**0**	**8**	**3**	**0**	**7**	**1**
Alabama	0	0	0	13	3	0	0	1
Kentucky	0	0	0	47	15	0	0	1
Mississippi	0	0	0	4	3	0	0	1
Tennessee	0	0	0	28	7	0	78	1
West South Central	**0**	**0**	**0**	**3**	**1**	**0**	**2**	**0**
Arkansas	0	0	0	7	5	0	0	1
Louisiana	0	0	0	187	4	0	2	1
Oklahoma	0	0	0	46	2	0	0	1
Texas	0	0	0	3	2	0	5	1
Mountain	**0**	**5**	**0**	**2**	**2**	**0**	**3**	**1**
Arizona	0	0	0	3	4	0	0	1
Colorado	0	0	0	9	3	0	0	1
Idaho	0	21	0	14	5	0	0	6
Montana	0	0	0	63	6	0	0	3
Nevada	0	5	0	3	3	0	0	1
New Mexico	0	0	0	8	3	0	0	1
Utah	0	10	0	6	5	0	10	1
Wyoming	0	0	0	0	5	0	0	3
Pacific Contiguous	**0**	**2**	**0**	**2**	**2**	**0**	**2**	**1**
California	0	2	0	2	2	0	2	1
Oregon	0	14	0	13	4	0	0	2
Washington	0	0	0	59	3	0	0	1
Pacific Noncontiguous	**0**	**12**	**0**	**15**	**9**	**0**	**2**	**6**
Alaska	0	0	0	0	21	0	0	16
Hawaii	0	12	0	15	9	0	2	3
U.S. Total	**0**	**3**	**0**	**2**	**1**	**0**	**0**	**0**

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Table A.1.C. Relative Standard Error (Percent) for Small Scale Solar Generation and Capacity by Sector, Census Division and State, November 2018

Census Region and State	Residential	Commercial	Industrial	Transportation	Total
New England	**0**	**0**	**1**	**.**	**0**
Connecticut	0	0	0	.	0
Maine	1	2	0	.	1
Massachusetts	0	0	1	.	0
New Hampshire	0	0	0	.	0
Rhode Island	0	0	0	.	0
Vermont	1	6	55	.	3
Middle Atlantic	**0**	**0**	**1**	**.**	**0**
New Jersey	0	0	2	.	0
New York	0	0	1	.	0
Pennsylvania	0	1	0	.	1
East North Central	**2**	**2**	**2**	**.**	**1**
Illinois	4	8	0	.	5
Indiana	4	1	0	.	2
Michigan	2	13	17	.	5
Ohio	3	3	3	.	2
Wisconsin	5	8	2	.	4
West North Central	**2**	**1**	**5**	**.**	**1**
Iowa	5	2	37	.	2
Kansas	9	5	0	.	6
Minnesota	5	6	4	.	3
Missouri	3	1	0	.	2
Nebraska	12	23	31	.	10
North Dakota	0	0	0	.	0
South Dakota	0	0	0	.	0
South Atlantic	**1**	**1**	**1**	**.**	**1**
Delaware	3	2	10	.	2
District of Columbia	0	0	0	.	0
Florida	3	4	2	.	2
Georgia	76	50	0	.	45
Maryland	1	1	1	.	0
North Carolina	5	1	0	.	3
South Carolina	2	2	0	.	2
Virginia	6	5	4	.	4
West Virginia	0	0	0	.	0
East South Central	**3**	**3**	**0**	**.**	**2**
Alabama	0	0	0	.	0
Kentucky	4	4	0	.	3
Mississippi	5	8	0	.	4
Tennessee	0	0	0	.	0
West South Central	**1**	**3**	**0**	**.**	**1**
Arkansas	10	11	0	.	7
Louisiana	1	5	0	.	1
Oklahoma	9	9	0	.	6
Texas	3	4	0	.	2
Mountain	**0**	**1**	**2**	**.**	**0**
Arizona	0	1	7	.	0
Colorado	1	2	30	.	1
Idaho	2	9	0	.	2
Montana	7	13	0	.	6
Nevada	0	0	0	.	0
New Mexico	2	5	0	.	2
Utah	1	4	0	.	1
Wyoming	14	44	0	.	15
Pacific Contiguous	**0**	**1**	**0**	**.**	**0**
California	0	1	0	.	0
Oregon	1	6	6	.	2
Washington	2	21	30	.	3
Pacific Noncontiguous	**0**	**0**	**0**	**.**	**0**
Alaska	7	7	0	.	5
Hawaii	0	0	0	.	0
U.S. Total	**0**	**0**	**0**	**.**	**0**

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.

Table A.2.A. Relative Standard Error (Percent) for Net Generation by Fuel Type: Electric Utilities by Census Division and State, November 2018

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**109**	**16**	**0**	**97**	**0**	**0**	**19**
Connecticut	0	44	0	0	0	0	26
Maine	0	0	0	0	0	0	0
Massachusetts	0	104	0	155	0	0	40
New Hampshire	109	9	0	0	0	0	34
Rhode Island	0	0	0	0	0	0	0
Vermont	0	226	0	0	0	0	29
Middle Atlantic	**0**	**27**	**0**	**7**	**0**	**0**	**1**
New Jersey	0	0	0	124	0	0	0
New York	0	28	0	7	0	0	1
Pennsylvania	0	0	0	0	0	0	0
East North Central	**1**	**5**	**0**	**4**	**0**	**0**	**12**
Illinois	0	56	0	17	0	0	47
Indiana	0	3	0	6	0	0	36
Michigan	3	5	0	13	0	0	22
Ohio	6	53	0	4	0	0	38
Wisconsin	0	106	0	6	0	0	18
West North Central	**1**	**8**	**0**	**10**	**0**	**0**	**8**
Iowa	0	20	0	13	0	0	27
Kansas	0	17	0	22	0	0	0
Minnesota	2	45	0	17	0	0	29
Missouri	0	8	0	18	0	0	18
Nebraska	4	124	0	55	0	0	23
North Dakota	0	6	0	70	0	0	17
South Dakota	0	19	0	68	0	0	12
South Atlantic	**1**	**7**	**0**	**1**	**0**	**0**	**9**
Delaware	0	0	0	0	0	0	0
Florida	0	10	0	1	0	0	43
Georgia	0	19	0	2	0	0	14
Maryland	0	38	0	0	0	0	0
North Carolina	0	9	0	1	0	0	10
South Carolina	0	18	0	1	0	0	17
Virginia	24	24	0	4	0	0	20
West Virginia	0	0	0	0	0	0	23
East South Central	**0**	**5**	**0**	**2**	**0**	**0**	**5**
Alabama	0	14	0	5	0	0	6
Kentucky	0	1	0	4	0	0	9
Mississippi	0	20	0	2	0	0	0
Tennessee	0	10	0	3	0	0	7
West South Central	**0**	**14**	**0**	**2**	**0**	**0**	**10**
Arkansas	0	22	0	5	0	0	12
Louisiana	0	100	0	4	0	0	0
Oklahoma	0	1	0	3	0	0	14
Texas	0	7	0	4	0	0	20
Mountain	**1**	**3**	**0**	**1**	**0**	**0**	**5**
Arizona	0	4	0	3	0	0	5
Colorado	0	12	0	2	0	0	23
Idaho	0	0	0	10	0	0	9
Montana	0	735	0	42	0	0	9
Nevada	0	0	0	1	0	0	0
New Mexico	0	20	0	7	0	0	64
Utah	0	0	0	4	0	0	25
Wyoming	4	1	0	29	0	0	26
Pacific Contiguous	**0**	**18**	**0**	**3**	**0**	**0**	**2**
California	0	19	0	3	0	0	8
Oregon	0	0	0	9	0	0	3
Washington	0	294	0	22	0	0	1
Pacific Noncontiguous	**50**	**1**	**0**	**32**	**0**	**0**	**23**
Alaska	50	3	0	32	0	0	23
Hawaii	0	1	0	0	0	0	0
U.S. Total	**0**	**1**	**0**	**1**	**0**	**0**	**2**

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Table A.2.A. Relative Standard Error (Percent) for Net Generation by Fuel Type:

Electric Utilities by Census Division and State, November 2018 (Continued)

Census Region and State	Wind	Geothermal	Biomass	Solar Thermal and Photovoltaic	Other Renewables	Hydroelectric Pumped Storage	Other Energy Sources	All Energy Sources
New England	**0**	**0**	**0**	**34**	**7**	**0**	**0**	**21**
Connecticut	0	0	0	0	0	0	0	14
Maine	0	0	0	0	0	0	0	0
Massachusetts	0	0	0	54	32	0	0	36
New Hampshire	0	0	0	0	0	0	0	43
Rhode Island	0	0	0	0	0	0	0	0
Vermont	0	0	0	46	11	0	0	17
Middle Atlantic	**0**	**0**	**0**	**33**	**33**	**0**	**0**	**2**
New Jersey	0	0	0	33	33	0	0	86
New York	0	0	0	0	0	0	0	2
Pennsylvania	0	0	0	0	0	0	0	0
East North Central	**0**	**0**	**0**	**22**	**7**	**0**	**5**	**1**
Illinois	0	0	0	83	36	0	0	2
Indiana	0	0	0	29	24	0	0	1
Michigan	0	0	0	36	7	0	0	2
Ohio	0	0	0	102	62	0	0	3
Wisconsin	0	0	0	0	12	0	40	2
West North Central	**0**	**0**	**0**	**70**	**2**	**0**	**7**	**1**
Iowa	0	0	0	100	2	0	0	1
Kansas	0	0	0	259	8	0	0	1
Minnesota	0	0	0	186	6	0	0	2
Missouri	0	0	0	0	67	0	0	1
Nebraska	0	0	0	0	22	0	0	4
North Dakota	0	0	0	0	5	0	40	1
South Dakota	0	0	0	0	11	0	0	9
South Atlantic	**0**	**0**	**0**	**3**	**6**	**0**	**0**	**0**
Delaware	0	0	0	116	116	0	0	30
Florida	0	0	0	2	2	0	0	0
Georgia	0	0	0	11	11	0	0	1
Maryland	0	0	0	100	100	0	0	0
North Carolina	0	0	0	13	13	0	0	1
South Carolina	0	0	0	0	20	0	0	1
Virginia	0	0	0	23	19	0	0	3
West Virginia	0	0	0	0	0	0	0	1
East South Central	**0**	**0**	**0**	**38**	**37**	**0**	**0**	**1**
Alabama	0	0	0	61	61	0	0	1
Kentucky	0	0	0	48	42	0	0	1
Mississippi	0	0	0	0	0	0	0	1
Tennessee	0	0	0	0	0	0	0	1
West South Central	**0**	**0**	**0**	**42**	**9**	**0**	**0**	**1**
Arkansas	0	0	0	223	223	0	0	1
Louisiana	0	0	0	187	187	0	0	2
Oklahoma	0	0	0	46	9	0	0	2
Texas	0	0	0	149	35	0	0	2
Mountain	**0**	**13**	**0**	**8**	**5**	**0**	**27**	**1**
Arizona	0	0	0	10	10	0	0	1
Colorado	0	0	0	155	28	0	0	1
Idaho	0	0	0	0	24	0	0	7
Montana	0	0	0	0	21	0	0	8
Nevada	0	0	0	0	0	0	0	1
New Mexico	0	0	0	18	18	0	0	2
Utah	0	13	0	0	13	0	41	1
Wyoming	0	0	0	0	8	0	0	4
Pacific Contiguous	**0**	**0**	**0**	**14**	**3**	**0**	**0**	**1**
California	0	0	0	14	5	0	0	2
Oregon	0	0	0	121	7	0	0	3
Washington	0	0	0	0	5	0	0	1
Pacific Noncontiguous	**0**	**0**	**0**	**0**	**16**	**0**	**0**	**8**
Alaska	0	0	0	0	33	0	0	18
Hawaii	0	0	0	0	0	0	0	1
U.S. Total	**0**	**3**	**0**	**3**	**2**	**0**	**4**	**0**

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.

Table A.2.B. Relative Standard Error (Percent) for Net Generation by Fuel Type:

Electric Utilities by Census Division and State, Year-to-Date through November 2018

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**109**	**16**	**0**	**97**	**0**	**0**	**19**
Connecticut	0	44	0	0	0	0	26
Maine	0	0	0	0	0	0	0
Massachusetts	0	104	0	155	0	0	40
New Hampshire	109	9	0	0	0	0	34
Rhode Island	0	0	0	0	0	0	0
Vermont	0	226	0	0	0	0	29
Middle Atlantic	**0**	**27**	**0**	**7**	**0**	**0**	**1**
New Jersey	0	0	0	124	0	0	0
New York	0	28	0	7	0	0	1
Pennsylvania	0	0	0	0	0	0	0
East North Central	**1**	**5**	**0**	**4**	**0**	**0**	**12**
Illinois	0	56	0	17	0	0	47
Indiana	0	3	0	6	0	0	36
Michigan	3	5	0	13	0	0	22
Ohio	6	53	0	4	0	0	38
Wisconsin	0	106	0	6	0	0	18
West North Central	**1**	**8**	**0**	**10**	**0**	**0**	**8**
Iowa	0	20	0	13	0	0	27
Kansas	0	17	0	22	0	0	0
Minnesota	2	45	0	17	0	0	29
Missouri	0	8	0	18	0	0	18
Nebraska	4	124	0	55	0	0	23
North Dakota	0	6	0	70	0	0	17
South Dakota	0	19	0	68	0	0	12
South Atlantic	**1**	**7**	**0**	**1**	**0**	**0**	**9**
Delaware	0	0	0	0	0	0	0
Florida	0	10	0	1	0	0	43
Georgia	0	19	0	2	0	0	14
Maryland	0	38	0	0	0	0	0
North Carolina	0	9	0	1	0	0	10
South Carolina	0	18	0	1	0	0	17
Virginia	24	24	0	4	0	0	20
West Virginia	0	0	0	0	0	0	23
East South Central	**0**	**5**	**0**	**2**	**0**	**0**	**5**
Alabama	0	14	0	5	0	0	6
Kentucky	0	1	0	4	0	0	9
Mississippi	0	20	0	2	0	0	0
Tennessee	0	10	0	3	0	0	7
West South Central	**0**	**14**	**0**	**2**	**0**	**0**	**10**
Arkansas	0	22	0	5	0	0	12
Louisiana	0	100	0	4	0	0	0
Oklahoma	0	1	0	3	0	0	14
Texas	0	7	0	4	0	0	20
Mountain	**1**	**3**	**0**	**1**	**0**	**0**	**5**
Arizona	0	4	0	3	0	0	5
Colorado	0	12	0	2	0	0	23
Idaho	0	0	0	10	0	0	9
Montana	0	735	0	42	0	0	9
Nevada	0	0	0	1	0	0	0
New Mexico	0	20	0	7	0	0	64
Utah	0	0	0	4	0	0	25
Wyoming	4	1	0	29	0	0	26
Pacific Contiguous	**0**	**18**	**0**	**3**	**0**	**0**	**2**
California	0	19	0	3	0	0	8
Oregon	0	0	0	9	0	0	3
Washington	0	294	0	22	0	0	1
Pacific Noncontiguous	**50**	**1**	**0**	**32**	**0**	**0**	**23**
Alaska	50	3	0	32	0	0	23
Hawaii	0	1	0	0	0	0	0
U.S. Total	**0**	**1**	**0**	**1**	**0**	**0**	**2**

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.

Table A.2.B. Relative Standard Error (Percent) for Net Generation by Fuel Type:

Electric Utilities by Census Division and State, Year-to-Date through November 2018 (Continued)

Census Region and State	Wind	Geothermal	Biomass	Solar Thermal and Photovoltaic	Other Renewables	Hydroelectric Pumped Storage	Other Energy Sources	All Energy Sources
New England	**0**	**0**	**0**	**34**	**7**	**0**	**0**	**21**
Connecticut	0	0	0	0	0	0	0	14
Maine	0	0	0	0	0	0	0	0
Massachusetts	0	0	0	54	32	0	0	36
New Hampshire	0	0	0	0	0	0	0	43
Rhode Island	0	0	0	0	0	0	0	0
Vermont	0	0	0	46	11	0	0	17
Middle Atlantic	**0**	**0**	**0**	**33**	**33**	**0**	**0**	**2**
New Jersey	0	0	0	33	33	0	0	86
New York	0	0	0	0	0	0	0	2
Pennsylvania	0	0	0	0	0	0	0	0
East North Central	**0**	**0**	**0**	**22**	**7**	**0**	**5**	**1**
Illinois	0	0	0	83	36	0	0	2
Indiana	0	0	0	29	24	0	0	1
Michigan	0	0	0	36	7	0	0	2
Ohio	0	0	0	102	62	0	0	3
Wisconsin	0	0	0	0	12	0	40	2
West North Central	**0**	**0**	**0**	**70**	**2**	**0**	**7**	**1**
Iowa	0	0	0	100	2	0	0	1
Kansas	0	0	0	259	8	0	0	1
Minnesota	0	0	0	186	6	0	0	2
Missouri	0	0	0	0	67	0	0	1
Nebraska	0	0	0	0	22	0	0	4
North Dakota	0	0	0	0	5	0	40	1
South Dakota	0	0	0	0	11	0	0	9
South Atlantic	**0**	**0**	**0**	**3**	**6**	**0**	**0**	**0**
Delaware	0	0	0	116	116	0	0	30
Florida	0	0	0	2	2	0	0	0
Georgia	0	0	0	11	11	0	0	1
Maryland	0	0	0	100	100	0	0	0
North Carolina	0	0	0	13	13	0	0	1
South Carolina	0	0	0	0	20	0	0	1
Virginia	0	0	0	23	19	0	0	3
West Virginia	0	0	0	0	0	0	0	1
East South Central	**0**	**0**	**0**	**38**	**37**	**0**	**0**	**1**
Alabama	0	0	0	61	61	0	0	1
Kentucky	0	0	0	48	42	0	0	1
Mississippi	0	0	0	0	0	0	0	1
Tennessee	0	0	0	0	0	0	0	1
West South Central	**0**	**0**	**0**	**42**	**9**	**0**	**0**	**1**
Arkansas	0	0	0	223	223	0	0	1
Louisiana	0	0	0	187	187	0	0	2
Oklahoma	0	0	0	46	9	0	0	2
Texas	0	0	0	149	35	0	0	2
Mountain	**0**	**13**	**0**	**8**	**5**	**0**	**27**	**1**
Arizona	0	0	0	10	10	0	0	1
Colorado	0	0	0	155	28	0	0	1
Idaho	0	0	0	0	24	0	0	7
Montana	0	0	0	0	21	0	0	8
Nevada	0	0	0	0	0	0	0	1
New Mexico	0	0	0	18	18	0	0	2
Utah	0	13	0	0	13	0	41	1
Wyoming	0	0	0	0	8	0	0	4
Pacific Contiguous	**0**	**0**	**0**	**14**	**3**	**0**	**0**	**1**
California	0	0	0	14	5	0	0	2
Oregon	0	0	0	121	7	0	0	3
Washington	0	0	0	0	5	0	0	1
Pacific Noncontiguous	**0**	**0**	**0**	**0**	**16**	**0**	**0**	**8**
Alaska	0	0	0	0	33	0	0	18
Hawaii	0	0	0	0	0	0	0	1
U.S. Total	**0**	**3**	**0**	**3**	**2**	**0**	**4**	**0**

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.

Table A.3.A. Relative Standard Error (Percent) for Net Generation by Fuel Type:

Independent Power Producers by Census Division and State, November 2018

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**0**	**21**	**0**	**3**	**0**	**0**	**10**
Connecticut	0	37	0	1	0	0	36
Maine	0	46	0	19	0	0	12
Massachusetts	0	25	0	7	0	0	23
New Hampshire	0	18	0	0	0	0	22
Rhode Island	0	62	0	17	0	0	0
Vermont	0	0	0	0	0	0	22
Middle Atlantic	**3**	**17**	**0**	**1**	**0**	**0**	**10**
New Jersey	0	39	0	3	0	0	0
New York	0	34	0	3	0	0	9
Pennsylvania	4	18	0	1	0	0	13
East North Central	**0**	**10**	**29**	**1**	**6**	**0**	**41**
Illinois	0	16	0	11	0	0	57
Indiana	0	0	0	0	0	0	0
Michigan	0	0	0	1	0	0	84
Ohio	0	12	29	1	19	0	68
Wisconsin	0	0	0	0	0	0	77
West North Central	**0**	**221**	**0**	**10**	**0**	**0**	**49**
Iowa	0	105	0	14,430	0	0	0
Kansas	0	0	0	0	0	0	0
Minnesota	0	280	0	39	0	0	61
Missouri	0	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0	0
South Atlantic	**4**	**9**	**0**	**2**	**0**	**0**	**5**
Delaware	0	116	0	9	0	0	0
Florida	0	258	0	8	0	0	0
Georgia	0	269	0	6	0	0	165
Maryland	0	29	0	8	0	0	2
North Carolina	0	119	0	6	0	0	73
South Carolina	0	0	0	6	0	0	92
Virginia	1	2	0	2	0	0	68
West Virginia	8	0	0	25	0	0	32
East South Central	**0**	**5**	**0**	**0**	**0**	**0**	**195**
Alabama	0	6	0	0	0	0	0
Kentucky	0	0	0	0	0	0	195
Mississippi	0	0	0	0	0	0	0
Tennessee	0	0	0	0	0	0	0
West South Central	**0**	**18**	**0**	**1**	**0**	**0**	**20**
Arkansas	0	0	0	0	0	0	58
Louisiana	0	0	0	8	0	0	21
Oklahoma	0	0	0	0	0	0	0
Texas	0	18	0	1	0	0	0
Mountain	**3**	**20**	**0**	**3**	**0**	**0**	**24**
Arizona	0	0	0	0	0	0	0
Colorado	0	0	0	15	0	0	59
Idaho	0	0	0	45	0	0	29
Montana	3	31	0	5	0	0	70
Nevada	0	0	0	0	0	0	114
New Mexico	0	0	0	6	0	0	0
Utah	0	0	0	0	0	0	0
Wyoming	0	0	0	0	0	0	0
Pacific Contiguous	**0**	**5**	**0**	**2**	**0**	**0**	**32**
California	0	0	0	2	0	0	51
Oregon	0	0	0	1	0	0	49
Washington	0	6	0	30	0	0	43
Pacific Noncontiguous	**18**	**1**	**0**	**0**	**0**	**0**	**0**
Alaska	50	0	0	0	0	0	0
Hawaii	19	1	0	0	0	0	0
U.S. Total	**1**	**4**	**22**	**1**	**3**	**0**	**6**

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Table A.3.A. Relative Standard Error (Percent) for Net Generation by Fuel Type:

Independent Power Producers by Census Division and State, November 2018 (Continued)

Census Region and State	Wind	Geothermal	Biomass	Solar Thermal and Photovoltaic	Other Renewables	Hydroelectric Pumped Storage	Other Energy Sources	All Energy Sources
New England	**0**	**0**	**0**	**9**	**6**	**0**	**1**	**2**
Connecticut	0	0	0	33	14	0	0	1
Maine	0	0	0	109	7	0	0	6
Massachusetts	0	0	0	10	6	0	2	4
New Hampshire	0	0	0	0	18	0	0	3
Rhode Island	0	0	0	60	6	0	0	15
Vermont	0	0	0	35	23	0	0	17
Middle Atlantic	**0**	**0**	**0**	**9**	**3**	**0**	**0**	**1**
New Jersey	0	0	0	11	7	0	0	1
New York	0	0	0	16	4	0	0	1
Pennsylvania	0	0	0	38	4	0	0	1
East North Central	**0**	**0**	**0**	**15**	**2**	**0**	**18**	**0**
Illinois	0	0	0	33	2	0	0	1
Indiana	0	0	0	21	3	0	0	1
Michigan	0	0	0	43	6	0	25	2
Ohio	0	0	0	31	4	0	0	1
Wisconsin	0	0	0	57	8	0	0	1
West North Central	**0**	**0**	**0**	**9**	**2**	**0**	**0**	**2**
Iowa	0	0	0	227	4	0	0	2
Kansas	0	0	0	121	3	0	0	3
Minnesota	0	0	0	10	3	0	0	4
Missouri	0	0	0	30	4	0	0	2
Nebraska	0	0	0	63	4	0	0	4
North Dakota	0	0	0	0	3	0	0	3
South Dakota	0	0	0	203	8	0	0	8
South Atlantic	**0**	**0**	**0**	**3**	**2**	**0**	**1**	**1**
Delaware	0	0	0	44	48	0	0	9
Florida	0	0	0	12	5	0	1	5
Georgia	0	0	0	6	7	0	0	5
Maryland	0	0	0	11	7	0	0	1
North Carolina	0	0	0	4	3	0	0	4
South Carolina	0	0	0	15	17	0	0	6
Virginia	0	0	0	12	10	0	0	2
West Virginia	0	0	0	0	6	0	0	7
East South Central	**0**	**0**	**0**	**8**	**10**	**0**	**0**	**0**
Alabama	0	0	0	13	12	0	0	0
Kentucky	0	0	0	247	94	0	0	3
Mississippi	0	0	0	4	9	0	0	0
Tennessee	0	0	0	29	27	0	0	25
West South Central	**0**	**0**	**0**	**3**	**1**	**0**	**0**	**1**
Arkansas	0	0	0	7	19	0	0	1
Louisiana	0	0	0	0	58	0	0	4
Oklahoma	0	0	0	0	2	0	0	1
Texas	0	0	0	3	2	0	0	1
Mountain	**0**	**5**	**0**	**2**	**2**	**0**	**0**	**1**
Arizona	0	0	0	3	4	0	0	1
Colorado	0	0	0	9	3	0	0	4
Idaho	0	21	0	14	6	0	0	12
Montana	0	0	0	63	6	0	0	3
Nevada	0	5	0	3	3	0	0	2
New Mexico	0	0	0	9	3	0	0	3
Utah	0	13	0	6	5	0	0	4
Wyoming	0	0	0	0	7	0	0	5
Pacific Contiguous	**0**	**2**	**0**	**2**	**2**	**0**	**0**	**1**
California	0	2	0	2	2	0	0	1
Oregon	0	14	0	13	5	0	0	2
Washington	0	0	0	59	6	0	0	3
Pacific Noncontiguous	**0**	**12**	**0**	**19**	**12**	**0**	**556**	**7**
Alaska	0	0	0	0	44	0	0	42
Hawaii	0	12	0	19	12	0	556	7
U.S. Total	**0**	**3**	**0**	**2**	**1**	**0**	**1**	**0**

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Table A.3.B. Relative Standard Error (Percent) for Net Generation by Fuel Type:

Independent Power Producers by Census Division and State, Year-to-Date through November 2018

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**0**	**21**	**0**	**3**	**0**	**0**	**10**
Connecticut	0	37	0	1	0	0	36
Maine	0	46	0	19	0	0	12
Massachusetts	0	25	0	7	0	0	23
New Hampshire	0	18	0	0	0	0	22
Rhode Island	0	62	0	17	0	0	0
Vermont	0	0	0	0	0	0	22
Middle Atlantic	**3**	**17**	**0**	**1**	**0**	**0**	**10**
New Jersey	0	39	0	3	0	0	0
New York	0	34	0	3	0	0	9
Pennsylvania	4	18	0	1	0	0	13
East North Central	**0**	**10**	**29**	**1**	**6**	**0**	**41**
Illinois	0	16	0	11	0	0	57
Indiana	0	0	0	0	0	0	0
Michigan	0	0	0	1	0	0	84
Ohio	0	12	29	1	19	0	68
Wisconsin	0	0	0	0	0	0	77
West North Central	**0**	**221**	**0**	**10**	**0**	**0**	**49**
Iowa	0	105	0	14,430	0	0	0
Kansas	0	0	0	0	0	0	0
Minnesota	0	280	0	39	0	0	61
Missouri	0	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0	0
South Atlantic	**4**	**9**	**0**	**2**	**0**	**0**	**5**
Delaware	0	116	0	9	0	0	0
Florida	0	258	0	8	0	0	0
Georgia	0	269	0	6	0	0	165
Maryland	0	29	0	8	0	0	2
North Carolina	0	119	0	6	0	0	73
South Carolina	0	0	0	6	0	0	92
Virginia	1	2	0	2	0	0	68
West Virginia	8	0	0	25	0	0	32
East South Central	**0**	**5**	**0**	**0**	**0**	**0**	**195**
Alabama	0	6	0	0	0	0	0
Kentucky	0	0	0	0	0	0	195
Mississippi	0	0	0	0	0	0	0
Tennessee	0	0	0	0	0	0	0
West South Central	**0**	**18**	**0**	**1**	**0**	**0**	**20**
Arkansas	0	0	0	0	0	0	58
Louisiana	0	0	0	8	0	0	21
Oklahoma	0	0	0	0	0	0	0
Texas	0	18	0	1	0	0	0
Mountain	**3**	**20**	**0**	**3**	**0**	**0**	**24**
Arizona	0	0	0	0	0	0	0
Colorado	0	0	0	15	0	0	59
Idaho	0	0	0	45	0	0	29
Montana	3	31	0	5	0	0	70
Nevada	0	0	0	0	0	0	114
New Mexico	0	0	0	6	0	0	0
Utah	0	0	0	0	0	0	0
Wyoming	0	0	0	0	0	0	0
Pacific Contiguous	**0**	**5**	**0**	**2**	**0**	**0**	**32**
California	0	0	0	2	0	0	51
Oregon	0	0	0	1	0	0	49
Washington	0	6	0	30	0	0	43
Pacific Noncontiguous	**18**	**1**	**0**	**0**	**0**	**0**	**0**
Alaska	50	0	0	0	0	0	0
Hawaii	19	1	0	0	0	0	0
U.S. Total	**1**	**4**	**22**	**1**	**3**	**0**	**6**

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.

Table A.3.B. Relative Standard Error (Percent) for Net Generation by Fuel Type:

Independent Power Producers by Census Division and State, Year-to-Date through November 2018 (Continued)

Census Region and State	Wind	Geothermal	Biomass	Solar Thermal and Photovoltaic	Other Renewables	Hydroelectric Pumped Storage	Other Energy Sources	All Energy Sources
New England	**0**	**0**	**0**	**9**	**6**	**0**	**1**	**2**
Connecticut	0	0	0	33	14	0	0	1
Maine	0	0	0	109	7	0	0	6
Massachusetts	0	0	0	10	6	0	2	4
New Hampshire	0	0	0	0	18	0	0	3
Rhode Island	0	0	0	60	6	0	0	15
Vermont	0	0	0	35	23	0	0	17
Middle Atlantic	**0**	**0**	**0**	**9**	**3**	**0**	**0**	**1**
New Jersey	0	0	0	11	7	0	0	1
New York	0	0	0	16	4	0	0	1
Pennsylvania	0	0	0	38	4	0	0	1
East North Central	**0**	**0**	**0**	**15**	**2**	**0**	**18**	**0**
Illinois	0	0	0	33	2	0	0	1
Indiana	0	0	0	21	3	0	0	1
Michigan	0	0	0	43	6	0	25	2
Ohio	0	0	0	31	4	0	0	1
Wisconsin	0	0	0	57	8	0	0	1
West North Central	**0**	**0**	**0**	**9**	**2**	**0**	**0**	**2**
Iowa	0	0	0	227	4	0	0	2
Kansas	0	0	0	121	3	0	0	3
Minnesota	0	0	0	10	3	0	0	4
Missouri	0	0	0	30	4	0	0	2
Nebraska	0	0	0	63	4	0	0	4
North Dakota	0	0	0	0	3	0	0	3
South Dakota	0	0	0	203	8	0	0	8
South Atlantic	**0**	**0**	**0**	**3**	**2**	**0**	**1**	**1**
Delaware	0	0	0	44	48	0	0	9
Florida	0	0	0	12	5	0	1	5
Georgia	0	0	0	6	7	0	0	5
Maryland	0	0	0	11	7	0	0	1
North Carolina	0	0	0	4	3	0	0	4
South Carolina	0	0	0	15	17	0	0	6
Virginia	0	0	0	12	10	0	0	2
West Virginia	0	0	0	0	6	0	0	7
East South Central	**0**	**0**	**0**	**8**	**10**	**0**	**0**	**0**
Alabama	0	0	0	13	12	0	0	0
Kentucky	0	0	0	247	94	0	0	3
Mississippi	0	0	0	4	9	0	0	0
Tennessee	0	0	0	29	27	0	0	25
West South Central	**0**	**0**	**0**	**3**	**1**	**0**	**0**	**1**
Arkansas	0	0	0	7	19	0	0	1
Louisiana	0	0	0	0	58	0	0	4
Oklahoma	0	0	0	0	2	0	0	1
Texas	0	0	0	3	2	0	0	1
Mountain	**0**	**5**	**0**	**2**	**2**	**0**	**0**	**1**
Arizona	0	0	0	3	4	0	0	1
Colorado	0	0	0	9	3	0	0	4
Idaho	0	21	0	14	6	0	0	12
Montana	0	0	0	63	6	0	0	3
Nevada	0	5	0	3	3	0	0	2
New Mexico	0	0	0	9	3	0	0	3
Utah	0	13	0	6	5	0	0	4
Wyoming	0	0	0	0	7	0	0	5
Pacific Contiguous	**0**	**2**	**0**	**2**	**2**	**0**	**0**	**1**
California	0	2	0	2	2	0	0	1
Oregon	0	14	0	13	5	0	0	2
Washington	0	0	0	59	6	0	0	3
Pacific Noncontiguous	**0**	**12**	**0**	**19**	**12**	**0**	**556**	**7**
Alaska	0	0	0	0	44	0	0	42
Hawaii	0	12	0	19	12	0	556	7
U.S. Total	**0**	**3**	**0**	**2**	**1**	**0**	**1**	**0**

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.

Table A.4.A. Relative Standard Error for Net Generation by Fuel Type: Commercial Sector by Census Division and State, November 2018

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**0**	**15**	**0**	**13**	**0**	**0**	**0**
Connecticut	0	7	0	18	0	0	0
Maine	0	0	0	0	0	0	0
Massachusetts	0	31	0	20	0	0	0
New Hampshire	0	1	0	0	0	0	0
Rhode Island	0	0	0	0	0	0	0
Vermont	0	0	0	0	0	0	0
Middle Atlantic	**0**	**105**	**0**	**12**	**0**	**0**	**0**
New Jersey	0	0	0	22	0	0	0
New York	0	108	0	15	0	0	0
Pennsylvania	0	0	0	0	0	0	0
East North Central	**145**	**2**	**0**	**6**	**0**	**0**	**0**
Illinois	201	0	0	18	0	0	0
Indiana	0	0	0	0	0	0	0
Michigan	0	2	0	6	0	0	0
Ohio	0	0	0	0	0	0	0
Wisconsin	0	0	0	16	0	0	0
West North Central	**0**	**9**	**0**	**1**	**0**	**0**	**0**
Iowa	0	0	0	0	0	0	0
Minnesota	0	12	0	1	0	0	0
Missouri	0	0	0	0	0	0	0
Nebraska	0	0	0	0	0	0	0
North Dakota	0	0	0	0	0	0	0
South Dakota	0	4,335	0	0	0	0	0
South Atlantic	**0**	**9**	**0**	**8**	**0**	**0**	**0**
District of Columbia	0	0	0	0	0	0	0
Florida	0	0	0	0	0	0	0
Georgia	0	9	0	0	0	0	0
Maryland	0	384	0	3	0	0	0
North Carolina	0	332	0	70	0	0	0
South Carolina	0	540	0	0	0	0	0
Virginia	0	0	0	0	0	0	0
East South Central	**0**	**0**	**0**	**19**	**0**	**0**	**0**
Mississippi	0	0	0	0	0	0	0
Tennessee	0	0	0	19	0	0	0
West South Central	**0**	**0**	**0**	**24**	**0**	**0**	**449**
Arkansas	0	0	0	142	0	0	0
Louisiana	0	0	0	30	0	0	0
Oklahoma	0	0	0	0	0	0	0
Texas	0	0	0	31	0	0	449
Mountain	**0**	**0**	**0**	**10**	**0**	**0**	**0**
Arizona	0	0	0	0	0	0	0
Colorado	0	0	0	0	0	0	0
Idaho	0	0	0	0	0	0	0
Nevada	0	0	0	0	0	0	0
New Mexico	0	0	0	36	0	0	0
Utah	0	0	0	6	0	0	0
Pacific Contiguous	**0**	**99**	**0**	**3**	**0**	**0**	**774**
California	0	34	0	3	0	0	774
Oregon	0	1,226	0	0	0	0	0
Washington	0	0	0	0	0	0	0
Pacific Noncontiguous	**66**	**1**	**0**	**0**	**0**	**0**	**63**
Alaska	66	1	0	0	0	0	63
Hawaii	0	0	0	0	0	0	0
U.S. Total	**28**	**10**	**0**	**4**	**0**	**0**	**51**

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.

Table A.4.A. Relative Standard Error for Net Generation by Fuel Type:

Commercial Sector by Census Division and State, November 2018 (Continued)

Census Region and State	Wind	Geothermal	Biomass	Solar Thermal and Photovoltaic	Other Renewables	Hydroelectric Pumped Storage	Other Energy Sources	All Energy Sources
New England	**0**	**0**	**0**	**94**	**6**	**0**	**0**	**9**
Connecticut	0	0	0	343	343	0	0	17
Maine	0	0	0	0	0	0	0	0
Massachusetts	0	0	0	93	20	0	0	17
New Hampshire	0	0	0	0	0	0	0	0
Rhode Island	0	0	0	0	0	0	0	0
Vermont	0	0	0	0	0	0	0	0
Middle Atlantic	**0**	**0**	**0**	**25**	**5**	**0**	**4**	**6**
New Jersey	0	0	0	25	13	0	0	9
New York	0	0	0	141	6	0	8	9
Pennsylvania	0	0	0	120	5	0	0	2
East North Central	**0**	**0**	**0**	**112**	**12**	**0**	**0**	**6**
Illinois	0	0	0	183	111	0	0	21
Indiana	0	0	0	0	0	0	0	0
Michigan	0	0	0	0	0	0	0	4
Ohio	0	0	0	169	29	0	0	3
Wisconsin	0	0	0	236	52	0	0	25
West North Central	**0**	**0**	**0**	**0**	**20**	**0**	**98**	**5**
Iowa	0	0	0	0	16	0	0	3
Kansas	0	0	0	0	124	0	0	124
Minnesota	0	0	0	0	38	0	98	13
Missouri	0	0	0	0	0	0	0	0
Nebraska	0	0	0	0	0	0	0	0
North Dakota	0	0	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0	0	4,335
South Atlantic	**0**	**0**	**0**	**25**	**6**	**0**	**0**	**5**
Delaware	0	0	0	242	35	0	0	35
District of Columbia	0	0	0	0	0	0	0	0
Florida	0	0	0	117	22	0	0	15
Georgia	0	0	0	179	179	0	0	74
Maryland	0	0	0	101	25	0	0	3
North Carolina	0	0	0	27	25	0	0	27
South Carolina	0	0	0	0	0	0	0	2
Virginia	0	0	0	0	3	0	0	1
East South Central	**0**	**0**	**0**	**139**	**139**	**0**	**0**	**19**
Mississippi	0	0	0	0	0	0	0	0
Tennessee	0	0	0	139	139	0	0	19
West South Central	**0**	**0**	**0**	**0**	**21**	**0**	**0**	**22**
Arkansas	0	0	0	0	0	0	0	122
Louisiana	0	0	0	0	0	0	0	30
Oklahoma	0	0	0	0	0	0	0	0
Texas	0	0	0	0	22	0	0	27
Mountain	**0**	**0**	**0**	**29**	**24**	**0**	**0**	**9**
Arizona	0	0	0	60	60	0	0	7
Colorado	0	0	0	80	110	0	0	81
Idaho	0	0	0	0	0	0	0	0
Nevada	0	0	0	36	36	0	0	18
New Mexico	0	0	0	0	314	0	0	36
Utah	0	0	0	0	0	0	0	6
Pacific Contiguous	**0**	**0**	**0**	**25**	**5**	**0**	**0**	**3**
California	0	0	0	25	5	0	0	3
Oregon	0	0	0	0	22	0	0	10
Washington	0	0	0	0	49	0	0	18
Pacific Noncontiguous	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**16**
Alaska	0	0	0	0	0	0	0	39
Hawaii	0	0	0	0	0	0	0	0
U.S. Total	**0**	**0**	**0**	**13**	**3**	**0**	**2**	**3**

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.

Table A.4.B. Relative Standard Error for Net Generation by Fuel Type:

Commercial Sector by Census Division and State, Year-to-Date through November 2018

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**0**	**15**	**0**	**13**	**0**	**0**	**0**
Connecticut	0	7	0	18	0	0	0
Maine	0	0	0	0	0	0	0
Massachusetts	0	31	0	20	0	0	0
New Hampshire	0	1	0	0	0	0	0
Rhode Island	0	0	0	0	0	0	0
Vermont	0	0	0	0	0	0	0
Middle Atlantic	**0**	**105**	**0**	**12**	**0**	**0**	**0**
New Jersey	0	0	0	22	0	0	0
New York	0	108	0	15	0	0	0
Pennsylvania	0	0	0	0	0	0	0
East North Central	**145**	**2**	**0**	**6**	**0**	**0**	**0**
Illinois	201	0	0	18	0	0	0
Indiana	0	0	0	0	0	0	0
Michigan	0	2	0	6	0	0	0
Ohio	0	0	0	0	0	0	0
Wisconsin	0	0	0	16	0	0	0
West North Central	**0**	**9**	**0**	**1**	**0**	**0**	**0**
Iowa	0	0	0	0	0	0	0
Minnesota	0	12	0	1	0	0	0
Missouri	0	0	0	0	0	0	0
Nebraska	0	0	0	0	0	0	0
North Dakota	0	0	0	0	0	0	0
South Dakota	0	4,335	0	0	0	0	0
South Atlantic	**0**	**9**	**0**	**8**	**0**	**0**	**0**
District of Columbia	0	0	0	0	0	0	0
Florida	0	0	0	0	0	0	0
Georgia	0	9	0	0	0	0	0
Maryland	0	384	0	3	0	0	0
North Carolina	0	332	0	70	0	0	0
South Carolina	0	540	0	0	0	0	0
Virginia	0	0	0	0	0	0	0
East South Central	**0**	**0**	**0**	**19**	**0**	**0**	**0**
Mississippi	0	0	0	0	0	0	0
Tennessee	0	0	0	19	0	0	0
West South Central	**0**	**0**	**0**	**24**	**0**	**0**	**449**
Arkansas	0	0	0	142	0	0	0
Louisiana	0	0	0	30	0	0	0
Oklahoma	0	0	0	0	0	0	0
Texas	0	0	0	31	0	0	449
Mountain	**0**	**0**	**0**	**10**	**0**	**0**	**0**
Arizona	0	0	0	0	0	0	0
Colorado	0	0	0	0	0	0	0
Idaho	0	0	0	0	0	0	0
Nevada	0	0	0	0	0	0	0
New Mexico	0	0	0	36	0	0	0
Utah	0	0	0	6	0	0	0
Pacific Contiguous	**0**	**99**	**0**	**3**	**0**	**0**	**774**
California	0	34	0	3	0	0	774
Oregon	0	1,226	0	0	0	0	0
Washington	0	0	0	0	0	0	0
Pacific Noncontiguous	**66**	**1**	**0**	**0**	**0**	**0**	**63**
Alaska	66	1	0	0	0	0	63
Hawaii	0	0	0	0	0	0	0
U.S. Total	**28**	**10**	**0**	**4**	**0**	**0**	**51**

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.

Table A.4.B. Relative Standard Error for Net Generation by Fuel Type:

Commercial Sector by Census Division and State, Year-to-Date through November 2018 (Continued)

Census Region and State	Wind	Geothermal	Biomass	Solar Thermal and Photovoltaic	Other Renewables	Hydroelectric Pumped Storage	Other Energy Sources	All Energy Sources
New England	**0**	**0**	**0**	**94**	**6**	**0**	**0**	**9**
Connecticut	0	0	0	343	343	0	0	17
Maine	0	0	0	0	0	0	0	0
Massachusetts	0	0	0	93	20	0	0	17
New Hampshire	0	0	0	0	0	0	0	0
Rhode Island	0	0	0	0	0	0	0	0
Vermont	0	0	0	0	0	0	0	0
Middle Atlantic	**0**	**0**	**0**	**25**	**5**	**0**	**4**	**6**
New Jersey	0	0	0	25	13	0	0	9
New York	0	0	0	141	6	0	8	9
Pennsylvania	0	0	0	120	5	0	0	2
East North Central	**0**	**0**	**0**	**112**	**12**	**0**	**0**	**6**
Illinois	0	0	0	183	111	0	0	21
Indiana	0	0	0	0	0	0	0	0
Michigan	0	0	0	0	0	0	0	4
Ohio	0	0	0	169	29	0	0	3
Wisconsin	0	0	0	236	52	0	0	25
West North Central	**0**	**0**	**0**	**0**	**20**	**0**	**98**	**5**
Iowa	0	0	0	0	16	0	0	3
Kansas	0	0	0	0	124	0	0	124
Minnesota	0	0	0	0	38	0	98	13
Missouri	0	0	0	0	0	0	0	0
Nebraska	0	0	0	0	0	0	0	0
North Dakota	0	0	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0	0	4,335
South Atlantic	**0**	**0**	**0**	**25**	**6**	**0**	**0**	**5**
Delaware	0	0	0	242	35	0	0	35
District of Columbia	0	0	0	0	0	0	0	0
Florida	0	0	0	117	22	0	0	15
Georgia	0	0	0	179	179	0	0	74
Maryland	0	0	0	101	25	0	0	3
North Carolina	0	0	0	27	25	0	0	27
South Carolina	0	0	0	0	0	0	0	2
Virginia	0	0	0	0	3	0	0	1
East South Central	**0**	**0**	**0**	**139**	**139**	**0**	**0**	**19**
Mississippi	0	0	0	0	0	0	0	0
Tennessee	0	0	0	139	139	0	0	19
West South Central	**0**	**0**	**0**	**0**	**21**	**0**	**0**	**22**
Arkansas	0	0	0	0	0	0	0	122
Louisiana	0	0	0	0	0	0	0	30
Oklahoma	0	0	0	0	0	0	0	0
Texas	0	0	0	0	22	0	0	27
Mountain	**0**	**0**	**0**	**29**	**24**	**0**	**0**	**9**
Arizona	0	0	0	60	60	0	0	7
Colorado	0	0	0	80	110	0	0	81
Idaho	0	0	0	0	0	0	0	0
Nevada	0	0	0	36	36	0	0	18
New Mexico	0	0	0	0	314	0	0	36
Utah	0	0	0	0	0	0	0	6
Pacific Contiguous	**0**	**0**	**0**	**25**	**5**	**0**	**0**	**3**
California	0	0	0	25	5	0	0	3
Oregon	0	0	0	0	22	0	0	10
Washington	0	0	0	0	49	0	0	18
Pacific Noncontiguous	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**16**
Alaska	0	0	0	0	0	0	0	39
Hawaii	0	0	0	0	0	0	0	0
U.S. Total	**0**	**0**	**0**	**13**	**3**	**0**	**2**	**3**

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.

Table A.5.A. Relative Standard Error for Net Generation by Fuel Type: Industrial Sector by Census Division and State, November 2018

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**0**	**41**	**0**	**10**	**0**	**0**	**31**
Connecticut	0	0	0	12	0	0	0
Maine	0	48	0	31	0	0	32
Massachusetts	0	0	0	7	0	0	0
New Hampshire	0	0	0	0	0	0	0
Rhode Island	0	0	0	35	0	0	0
Middle Atlantic	**41**	**7**	**64**	**7**	**14**	**0**	**38**
New Jersey	0	0	0	8	0	0	0
New York	0	0	0	7	0	0	38
Pennsylvania	41	92	93	11	23	0	0
East North Central	**9**	**6**	**0**	**5**	**7**	**0**	**33**
Illinois	8	0	0	13	0	0	0
Indiana	0	0	0	7	9	0	0
Michigan	101	26	0	12	0	0	73
Ohio	0	0	0	9	0	0	0
Wisconsin	29	216	0	13	0	0	37
West North Central	**6**	**0**	**0**	**5**	**0**	**0**	**30**
Iowa	3	0	0	8	0	0	0
Kansas	0	0	0	14	0	0	0
Minnesota	22	0	0	0	0	0	30
Missouri	0	0	0	0	0	0	0
Nebraska	10	0	0	0	0	0	0
North Dakota	69	0	0	0	0	0	0
South Atlantic	**12**	**24**	**87**	**6**	**0**	**0**	**27**
Delaware	0	0	0	0	0	0	0
Florida	35	31	0	15	0	0	0
Georgia	34	42	87	27	0	0	0
Maryland	0	0	0	0	0	0	0
North Carolina	4	78	0	30	0	0	369
South Carolina	0	0	0	15	0	0	0
Virginia	12	498	0	8	0	0	0
West Virginia	0	0	0	0	0	0	27
East South Central	**6**	**73**	**0**	**10**	**0**	**0**	**0**
Alabama	38	89	0	19	0	0	0
Kentucky	0	0	0	9	0	0	0
Mississippi	0	0	0	28	0	0	0
Tennessee	0	0	0	3	0	0	0
West South Central	**0**	**0**	**0**	**2**	**5**	**0**	**0**
Arkansas	0	0	0	24	0	0	0
Louisiana	0	0	0	2	7	0	0
Oklahoma	0	0	0	0	0	0	0
Texas	0	0	0	2	6	0	0
Mountain	**27**	**0**	**0**	**4**	**0**	**0**	**0**
Colorado	0	0	0	0	0	0	0
Idaho	151	0	0	28	0	0	0
Montana	0	0	0	0	0	0	0
Nevada	0	0	0	0	0	0	0
New Mexico	0	0	0	0	0	0	0
Utah	0	0	0	0	0	0	0
Wyoming	29	0	0	6	0	0	0
Pacific Contiguous	**0**	**63**	**0**	**1**	**2**	**0**	**0**
California	0	24	0	1	2	0	0
Oregon	0	0	0	37	0	0	0
Washington	0	72	0	36	0	0	0
Pacific Noncontiguous	**0**	**1**	**0**	**0**	**0**	**0**	**109**
Alaska	0	9	0	0	0	0	0
Hawaii	0	0	0	0	0	0	109
U.S. Total	**4**	**7**	**31**	**1**	**3**	**0**	**16**

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.

Table A.5.A. Relative Standard Error for Net Generation by Fuel Type:

Industrial Sector by Census Division and State, November 2018 (Continued)

Census Region and State	Wind	Geothermal	Biomass	Solar Thermal and Photovoltaic	Other Renewables	Hydroelectric Pumped Storage	Other Energy Sources	All Energy Sources
New England	**0**	**0**	**0**	**114**	**6**	**0**	**0**	**7**
Connecticut	0	0	0	885	885	0	0	12
Maine	0	0	0	0	6	0	0	9
Massachusetts	0	0	0	0	0	0	0	7
New Hampshire	0	0	0	0	0	0	0	0
Rhode Island	0	0	0	0	0	0	0	35
Middle Atlantic	**0**	**0**	**0**	**73**	**6**	**0**	**0**	**6**
New Jersey	0	0	0	101	101	0	0	4
New York	0	0	0	0	12	0	0	6
Pennsylvania	0	0	0	105	7	0	0	9
East North Central	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**3**
Illinois	0	0	0	0	0	0	0	6
Indiana	0	0	0	0	19	0	0	5
Michigan	0	0	0	0	7	0	0	7
Ohio	0	0	0	0	15	0	0	6
Wisconsin	0	0	0	0	7	0	0	9
West North Central	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**4**
Iowa	0	0	0	0	0	0	0	3
Kansas	0	0	0	0	0	0	0	14
Minnesota	0	0	0	0	0	0	0	8
Missouri	0	0	0	0	0	0	0	0
Nebraska	0	0	0	0	0	0	0	10
North Dakota	0	0	0	0	65	0	0	42
South Atlantic	**0**	**0**	**0**	**188**	**2**	**0**	**0**	**2**
Delaware	0	0	0	0	48	0	0	0
Florida	0	0	0	188	4	0	0	5
Georgia	0	0	0	0	4	0	0	5
Maryland	0	0	0	0	0	0	0	0
North Carolina	0	0	0	0	4	0	0	4
South Carolina	0	0	0	0	2	0	0	2
Virginia	0	0	0	0	0	0	0	2
West Virginia	0	0	0	0	0	0	0	15
East South Central	**0**	**0**	**0**	**149**	**2**	**0**	**78**	**3**
Alabama	0	0	0	0	3	0	0	6
Kentucky	0	0	0	0	13	0	0	9
Mississippi	0	0	0	0	3	0	0	7
Tennessee	0	0	0	149	5	0	78	2
West South Central	**0**	**0**	**0**	**0**	**3**	**0**	**3**	**1**
Arkansas	0	0	0	0	5	0	0	6
Louisiana	0	0	0	0	4	0	2	2
Oklahoma	0	0	0	0	0	0	0	0
Texas	0	0	0	0	8	0	5	2
Mountain	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**4**
Colorado	0	0	0	0	0	0	0	0
Idaho	0	0	0	0	1	0	0	9
Montana	0	0	0	0	0	0	0	0
Nevada	0	0	0	0	0	0	0	0
New Mexico	0	0	0	0	0	0	0	0
Utah	0	0	0	0	0	0	0	0
Wyoming	0	0	0	0	0	0	0	8
Pacific Contiguous	**0**	**0**	**0**	**45**	**5**	**0**	**2**	**1**
California	0	0	0	45	8	0	2	1
Oregon	0	0	0	0	12	0	0	11
Washington	0	0	0	0	7	0	0	6
Pacific Noncontiguous	**0**	**0**	**0**	**0**	**132**	**0**	**0**	**10**
Alaska	0	0	0	0	132	0	0	3
Hawaii	0	0	0	0	0	0	0	14
U.S. Total	**0**	**0**	**0**	**35**	**2**	**0**	**1**	**1**

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.

Table A.5.B. Relative Standard Error for Net Generation by Fuel Type:

Industrial Sector by Census Division and State, Year-to-Date through November 2018

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**0**	**41**	**0**	**10**	**0**	**0**	**31**
Connecticut	0	0	0	12	0	0	0
Maine	0	48	0	31	0	0	32
Massachusetts	0	0	0	7	0	0	0
New Hampshire	0	0	0	0	0	0	0
Rhode Island	0	0	0	35	0	0	0
Middle Atlantic	**41**	**7**	**64**	**7**	**14**	**0**	**38**
New Jersey	0	0	0	8	0	0	0
New York	0	0	0	7	0	0	38
Pennsylvania	41	92	93	11	23	0	0
East North Central	**9**	**6**	**0**	**5**	**7**	**0**	**33**
Illinois	8	0	0	13	0	0	0
Indiana	0	0	0	7	9	0	0
Michigan	101	26	0	12	0	0	73
Ohio	0	0	0	9	0	0	0
Wisconsin	29	216	0	13	0	0	37
West North Central	**6**	**0**	**0**	**5**	**0**	**0**	**30**
Iowa	3	0	0	8	0	0	0
Kansas	0	0	0	14	0	0	0
Minnesota	22	0	0	0	0	0	30
Missouri	0	0	0	0	0	0	0
Nebraska	10	0	0	0	0	0	0
North Dakota	69	0	0	0	0	0	0
South Atlantic	**12**	**24**	**87**	**6**	**0**	**0**	**27**
Delaware	0	0	0	0	0	0	0
Florida	35	31	0	15	0	0	0
Georgia	34	42	87	27	0	0	0
Maryland	0	0	0	0	0	0	0
North Carolina	4	78	0	30	0	0	369
South Carolina	0	0	0	15	0	0	0
Virginia	12	498	0	8	0	0	0
West Virginia	0	0	0	0	0	0	27
East South Central	**6**	**73**	**0**	**10**	**0**	**0**	**0**
Alabama	38	89	0	19	0	0	0
Kentucky	0	0	0	9	0	0	0
Mississippi	0	0	0	28	0	0	0
Tennessee	0	0	0	3	0	0	0
West South Central	**0**	**0**	**0**	**2**	**5**	**0**	**0**
Arkansas	0	0	0	24	0	0	0
Louisiana	0	0	0	2	7	0	0
Oklahoma	0	0	0	0	0	0	0
Texas	0	0	0	2	6	0	0
Mountain	**27**	**0**	**0**	**4**	**0**	**0**	**0**
Colorado	0	0	0	0	0	0	0
Idaho	151	0	0	28	0	0	0
Montana	0	0	0	0	0	0	0
Nevada	0	0	0	0	0	0	0
New Mexico	0	0	0	0	0	0	0
Utah	0	0	0	0	0	0	0
Wyoming	29	0	0	6	0	0	0
Pacific Contiguous	**0**	**63**	**0**	**1**	**2**	**0**	**0**
California	0	24	0	1	2	0	0
Oregon	0	0	0	37	0	0	0
Washington	0	72	0	36	0	0	0
Pacific Noncontiguous	**0**	**1**	**0**	**0**	**0**	**0**	**109**
Alaska	0	9	0	0	0	0	0
Hawaii	0	0	0	0	0	0	109
U.S. Total	**4**	**7**	**31**	**1**	**3**	**0**	**16**

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.

Table A.5.B. Relative Standard Error for Net Generation by Fuel Type:

Industrial Sector by Census Division and State, Year-to-Date through November 2018 (Continued)

Census Region and State	Wind	Geothermal	Biomass	Solar Thermal and Photovoltaic	Other Renewables	Hydroelectric Pumped Storage	Other Energy Sources	All Energy Sources
New England	**0**	**0**	**0**	**114**	**6**	**0**	**0**	**7**
Connecticut	0	0	0	885	885	0	0	12
Maine	0	0	0	0	6	0	0	9
Massachusetts	0	0	0	0	0	0	0	7
New Hampshire	0	0	0	0	0	0	0	0
Rhode Island	0	0	0	0	0	0	0	35
Middle Atlantic	**0**	**0**	**0**	**73**	**6**	**0**	**0**	**6**
New Jersey	0	0	0	101	101	0	0	4
New York	0	0	0	0	12	0	0	6
Pennsylvania	0	0	0	105	7	0	0	9
East North Central	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**3**
Illinois	0	0	0	0	0	0	0	6
Indiana	0	0	0	0	19	0	0	5
Michigan	0	0	0	0	7	0	0	7
Ohio	0	0	0	0	15	0	0	6
Wisconsin	0	0	0	0	7	0	0	9
West North Central	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**4**
Iowa	0	0	0	0	0	0	0	3
Kansas	0	0	0	0	0	0	0	14
Minnesota	0	0	0	0	0	0	0	8
Missouri	0	0	0	0	0	0	0	0
Nebraska	0	0	0	0	0	0	0	10
North Dakota	0	0	0	0	65	0	0	42
South Atlantic	**0**	**0**	**0**	**188**	**2**	**0**	**0**	**2**
Delaware	0	0	0	0	48	0	0	0
Florida	0	0	0	188	4	0	0	5
Georgia	0	0	0	0	4	0	0	5
Maryland	0	0	0	0	0	0	0	0
North Carolina	0	0	0	0	4	0	0	4
South Carolina	0	0	0	0	2	0	0	2
Virginia	0	0	0	0	0	0	0	2
West Virginia	0	0	0	0	0	0	0	15
East South Central	**0**	**0**	**0**	**149**	**2**	**0**	**78**	**3**
Alabama	0	0	0	0	3	0	0	6
Kentucky	0	0	0	0	13	0	0	9
Mississippi	0	0	0	0	3	0	0	7
Tennessee	0	0	0	149	5	0	78	2
West South Central	**0**	**0**	**0**	**0**	**3**	**0**	**3**	**1**
Arkansas	0	0	0	0	5	0	0	6
Louisiana	0	0	0	0	4	0	2	2
Oklahoma	0	0	0	0	0	0	0	0
Texas	0	0	0	0	8	0	5	2
Mountain	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**4**
Colorado	0	0	0	0	0	0	0	0
Idaho	0	0	0	0	1	0	0	9
Montana	0	0	0	0	0	0	0	0
Nevada	0	0	0	0	0	0	0	0
New Mexico	0	0	0	0	0	0	0	0
Utah	0	0	0	0	0	0	0	0
Wyoming	0	0	0	0	0	0	0	8
Pacific Contiguous	**0**	**0**	**0**	**45**	**5**	**0**	**2**	**1**
California	0	0	0	45	8	0	2	1
Oregon	0	0	0	0	12	0	0	11
Washington	0	0	0	0	7	0	0	6
Pacific Noncontiguous	**0**	**0**	**0**	**0**	**132**	**0**	**0**	**10**
Alaska	0	0	0	0	132	0	0	3
Hawaii	0	0	0	0	0	0	0	14
U.S. Total	**0**	**0**	**0**	**35**	**2**	**0**	**1**	**1**

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.

Table A.6.A. Relative Standard Error for Sales of Electricity to Ultimate Customers by End-Use Sector, Census Division, and State, November 2018

Census Region and State	Residential	Commercial	Industrial	Transportation	Total
New England	**0**	**1**	**2**	**0**	**1**
Connecticut	0	1	3	0	1
Maine	0	1	2	0	1
Massachusetts	1	1	5	0	1
New Hampshire	0	1	3	0	1
Rhode Island	0	0	0	0	0
Vermont	2	8	8	0	3
Middle Atlantic	**0**	**0**	**0**	**0**	**0**
New Jersey	0	0	1	0	0
New York	0	0	1	0	0
Pennsylvania	0	1	0	0	0
East North Central	**0**	**1**	**1**	**0**	**0**
Illinois	0	1	1	0	0
Indiana	1	4	2	0	1
Michigan	1	2	3	0	1
Ohio	0	1	1	0	1
Wisconsin	1	4	6	0	2
West North Central	**1**	**2**	**3**	**0**	**1**
Iowa	2	8	5	0	3
Kansas	2	2	8	0	2
Minnesota	2	5	7	0	3
Missouri	1	3	7	0	2
Nebraska	2	8	9	0	4
North Dakota	2	4	9	0	4
South Dakota	3	10	13	0	5
South Atlantic	**0**	**0**	**2**	**0**	**0**
Delaware	1	2	5	0	2
District of Columbia	0	0	0	0	0
Florida	1	1	6	0	1
Georgia	1	1	4	0	1
Maryland	0	1	2	0	0
North Carolina	1	1	3	0	1
South Carolina	1	1	4	0	1
Virginia	1	0	4	0	1
West Virginia	0	1	0	0	0
East South Central	**1**	**2**	**2**	**0**	**1**
Alabama	1	1	3	0	1
Kentucky	1	4	3	0	2
Mississippi	2	2	5	0	2
Tennessee	1	4	5	0	2
West South Central	**1**	**1**	**2**	**0**	**1**
Arkansas	2	2	4	0	2
Louisiana	1	1	2	0	1
Oklahoma	1	1	5	0	2
Texas	2	1	2	0	1
Mountain	**1**	**2**	**2**	**0**	**1**
Arizona	1	3	4	0	1
Colorado	2	5	6	0	3
Idaho	1	5	6	0	2
Montana	2	8	5	0	3
Nevada	1	2	1	0	1
New Mexico	3	8	8	0	4
Utah	2	5	3	0	2
Wyoming	2	8	4	0	3
Pacific Contiguous	**0**	**1**	**2**	**0**	**1**
California	0	1	2	0	1
Oregon	1	5	9	0	3
Washington	1	5	7	0	2
Pacific Noncontiguous	**1**	**5**	**4**	**0**	**2**
Alaska	3	11	16	0	6
Hawaii	0	0	0	0	0
U.S. Total	**0**	**0**	**1**	**0**	**0**

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Table A.6.B. Relative Standard Error for Sales of Electricity to Ultimate Customers

by End-Use Sector, Census Division, and State, Year-to-Date through November 2018

Census Region and State	Residential	Commercial	Industrial	Transportation	Total
New England	**0**	**1**	**2**	**0**	**0**
Connecticut	0	1	3	0	1
Maine	0	1	2	0	1
Massachusetts	0	1	5	0	1
New Hampshire	0	1	2	0	1
Rhode Island	0	0	0	0	0
Vermont	1	6	6	0	3
Middle Atlantic	**0**	**0**	**0**	**0**	**0**
New Jersey	0	0	1	0	0
New York	0	0	1	0	0
Pennsylvania	0	0	0	0	0
East North Central	**0**	**1**	**1**	**0**	**0**
Illinois	0	1	1	0	0
Indiana	1	3	2	0	1
Michigan	0	1	2	0	1
Ohio	0	1	1	0	0
Wisconsin	0	3	4	0	2
West North Central	**0**	**1**	**2**	**0**	**1**
Iowa	1	6	4	0	2
Kansas	1	1	5	0	1
Minnesota	1	3	5	0	2
Missouri	1	2	5	0	1
Nebraska	1	6	6	0	3
North Dakota	1	3	6	0	3
South Dakota	1	7	9	0	3
South Atlantic	**0**	**0**	**1**	**0**	**0**
Delaware	1	2	4	0	1
District of Columbia	0	0	0	0	0
Florida	0	0	4	0	0
Georgia	1	1	3	0	1
Maryland	0	0	2	0	0
North Carolina	0	0	2	0	1
South Carolina	1	1	2	0	1
Virginia	0	0	3	0	0
West Virginia	0	1	0	0	0
East South Central	**0**	**1**	**1**	**0**	**1**
Alabama	1	1	2	0	1
Kentucky	1	3	3	0	1
Mississippi	1	1	4	0	1
Tennessee	1	3	4	0	1
West South Central	**1**	**0**	**1**	**0**	**0**
Arkansas	1	1	3	0	1
Louisiana	1	1	1	0	0
Oklahoma	1	1	3	0	1
Texas	1	1	1	0	1
Mountain	**0**	**1**	**1**	**0**	**1**
Arizona	0	2	3	0	1
Colorado	1	4	5	0	2
Idaho	1	4	3	0	1
Montana	1	6	4	0	2
Nevada	0	2	1	0	1
New Mexico	1	6	6	0	3
Utah	1	4	2	0	2
Wyoming	1	6	3	0	2
Pacific Contiguous	**0**	**1**	**2**	**0**	**1**
California	0	1	1	0	0
Oregon	1	3	6	0	2
Washington	0	3	5	0	2
Pacific Noncontiguous	**0**	**4**	**3**	**0**	**2**
Alaska	1	8	11	0	4
Hawaii	0	0	0	0	0
U.S. Total	**0**	**0**	**0**	**0**	**0**

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.

Table A.7.A. Relative Standard Error for Revenue from Sales of Electricity to Ultimate Customers by End-Use Sector, Census Division, and State, November 2018

Census Region and State	Residential	Commercial	Industrial	Transportation	Total
New England	**0**	**1**	**2**	**0**	**0**
Connecticut	0	1	1	0	1
Maine	0	1	2	0	1
Massachusetts	1	1	3	0	1
New Hampshire	0	1	2	0	1
Rhode Island	0	0	0	0	0
Vermont	2	7	7	0	3
Middle Atlantic	**0**	**0**	**0**	**0**	**0**
New Jersey	0	1	2	0	0
New York	0	0	1	0	0
Pennsylvania	0	1	0	0	0
East North Central	**0**	**1**	**1**	**0**	**0**
Illinois	1	1	1	0	1
Indiana	1	4	2	0	1
Michigan	1	1	4	0	1
Ohio	1	1	1	0	1
Wisconsin	1	3	7	0	2
West North Central	**1**	**2**	**4**	**0**	**1**
Iowa	2	6	8	0	3
Kansas	2	3	8	0	2
Minnesota	1	4	8	0	2
Missouri	2	4	7	0	2
Nebraska	2	6	13	0	4
North Dakota	2	3	9	0	4
South Dakota	3	7	15	0	4
South Atlantic	**1**	**1**	**2**	**0**	**0**
Delaware	2	3	8	0	2
District of Columbia	0	0	0	0	0
Florida	1	1	6	0	1
Georgia	2	2	4	0	1
Maryland	0	1	2	0	0
North Carolina	1	2	4	0	1
South Carolina	2	2	4	0	1
Virginia	1	1	4	0	1
West Virginia	0	2	0	0	0
East South Central	**1**	**2**	**2**	**0**	**1**
Alabama	1	2	3	0	1
Kentucky	2	5	3	0	2
Mississippi	2	3	6	0	2
Tennessee	1	4	6	0	2
West South Central	**1**	**1**	**2**	**0**	**1**
Arkansas	2	4	5	0	2
Louisiana	2	2	2	0	1
Oklahoma	2	3	6	0	2
Texas	1	2	3	0	1
Mountain	**1**	**2**	**3**	**0**	**1**
Arizona	2	3	5	0	2
Colorado	4	5	8	0	3
Idaho	1	4	7	0	2
Montana	2	5	8	0	3
Nevada	2	3	2	0	1
New Mexico	6	8	12	0	5
Utah	4	6	5	0	3
Wyoming	2	6	5	0	3
Pacific Contiguous	**0**	**1**	**2**	**0**	**0**
California	1	1	1	0	0
Oregon	1	3	11	0	2
Washington	1	3	8	0	2
Pacific Noncontiguous	**1**	**2**	**3**	**0**	**1**
Alaska	2	7	17	0	4
Hawaii	0	0	0	0	0
U.S. Total	**0**	**0**	**1**	**0**	**0**

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Table A.7.B. Relative Standard Error for Revenue from Sales of Electricity to Ultimate Customers

by End-Use Sector, Census Division, and State, Year-to-Date through November 2018

Census Region and State	Residential	Commercial	Industrial	Transportation	Total
New England	**1**	**1**	**1**	**0**	**0**
Connecticut	2	1	1	0	1
Maine	1	1	2	0	1
Massachusetts	0	1	3	0	1
New Hampshire	1	1	2	0	1
Rhode Island	0	0	0	0	0
Vermont	2	6	5	0	2
Middle Atlantic	**0**	**0**	**0**	**0**	**0**
New Jersey	0	0	1	0	0
New York	0	0	1	0	0
Pennsylvania	1	1	0	0	0
East North Central	**0**	**1**	**1**	**0**	**0**
Illinois	0	1	1	0	0
Indiana	1	3	1	0	1
Michigan	0	1	3	0	1
Ohio	0	1	1	0	0
Wisconsin	1	2	5	0	1
West North Central	**0**	**1**	**3**	**0**	**1**
Iowa	1	4	5	0	2
Kansas	1	2	5	0	1
Minnesota	1	3	6	0	2
Missouri	1	3	4	0	1
Nebraska	1	5	8	0	3
North Dakota	1	3	6	0	3
South Dakota	1	5	10	0	3
South Atlantic	**0**	**0**	**1**	**0**	**0**
Delaware	1	3	5	0	1
District of Columbia	0	0	0	0	0
Florida	0	1	4	0	0
Georgia	1	1	3	0	1
Maryland	0	1	1	0	0
North Carolina	1	1	3	0	1
South Carolina	1	1	2	0	1
Virginia	1	1	3	0	0
West Virginia	0	1	0	0	0
East South Central	**1**	**2**	**2**	**0**	**1**
Alabama	1	1	2	0	1
Kentucky	1	4	3	0	1
Mississippi	1	2	4	0	1
Tennessee	1	3	4	0	1
West South Central	**1**	**1**	**1**	**0**	**1**
Arkansas	1	2	3	0	1
Louisiana	1	1	1	0	1
Oklahoma	1	1	4	0	1
Texas	1	1	2	0	1
Mountain	**0**	**1**	**2**	**0**	**1**
Arizona	0	2	3	0	1
Colorado	1	4	6	0	2
Idaho	1	3	3	0	1
Montana	1	4	7	0	2
Nevada	0	2	1	0	1
New Mexico	2	6	9	0	3
Utah	1	4	3	0	2
Wyoming	1	5	4	0	2
Pacific Contiguous	**0**	**1**	**1**	**0**	**0**
California	0	1	1	0	0
Oregon	1	2	7	0	2
Washington	1	2	6	0	1
Pacific Noncontiguous	**0**	**2**	**2**	**0**	**1**
Alaska	1	6	10	0	3
Hawaii	0	0	0	0	0
U.S. Total	**0**	**0**	**1**	**0**	**0**

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Table A.8.A. Relative Standard Error for Average Price of Electricity to Ultimate Customers by End-Use Sector, Census Division, and State, November 2018

Census Region and State	Residential	Commercial	Industrial	Transportation	Total
New England	**0**	**0**	**1**	**0**	**0**
Connecticut	0	0	2	0	0
Maine	0	0	1	0	0
Massachusetts	0	0	2	0	0
New Hampshire	0	0	1	0	0
Rhode Island	0	0	0	0	0
Vermont	1	2	2	0	1
Middle Atlantic	**0**	**0**	**0**	**0**	**0**
New Jersey	0	0	1	0	0
New York	0	0	0	0	0
Pennsylvania	0	0	0	0	0
East North Central	**0**	**0**	**0**	**0**	**0**
Illinois	0	0	0	0	0
Indiana	1	1	1	0	1
Michigan	0	1	2	0	0
Ohio	0	0	0	0	0
Wisconsin	1	1	2	0	1
West North Central	**1**	**1**	**2**	**0**	**0**
Iowa	2	3	3	0	1
Kansas	1	2	3	0	1
Minnesota	1	2	3	0	1
Missouri	1	1	2	0	1
Nebraska	2	2	5	0	2
North Dakota	1	1	3	0	1
South Dakota	2	4	5	0	2
South Atlantic	**0**	**0**	**1**	**0**	**0**
Delaware	1	1	4	0	1
District of Columbia	0	0	0	0	0
Florida	0	1	3	0	0
Georgia	1	1	2	0	1
Maryland	0	0	1	0	0
North Carolina	1	1	2	0	1
South Carolina	1	1	2	0	1
Virginia	1	1	2	0	0
West Virginia	0	0	0	0	0
East South Central	**1**	**1**	**1**	**0**	**0**
Alabama	1	2	1	0	1
Kentucky	1	1	1	0	1
Mississippi	1	2	3	0	1
Tennessee	1	1	2	0	1
West South Central	**1**	**1**	**1**	**0**	**0**
Arkansas	1	3	2	0	1
Louisiana	1	1	1	0	1
Oklahoma	1	2	3	0	1
Texas	1	1	1	0	1
Mountain	**1**	**1**	**1**	**0**	**0**
Arizona	1	1	2	0	1
Colorado	2	2	3	0	1
Idaho	1	2	3	0	1
Montana	2	3	4	0	1
Nevada	1	1	1	0	1
New Mexico	3	3	6	0	2
Utah	2	2	2	0	1
Wyoming	2	3	2	0	1
Pacific Contiguous	**0**	**1**	**1**	**0**	**0**
California	0	0	1	0	0
Oregon	1	2	3	0	1
Washington	1	2	2	0	1
Pacific Noncontiguous	**1**	**3**	**2**	**0**	**1**
Alaska	2	6	6	0	3
Hawaii	0	0	0	0	0
U.S. Total	**0**	**0**	**0**	**0**	**0**

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.

Table A.8.B. Relative Standard Error for Average Price of Electricity to Ultimate Customers

by End-Use Sector, Census Division, and State, Year-to-Date through November 2018

Census Region and State	Residential	Commercial	Industrial	Transportation	Total
New England	**1**	**1**	**2**	**0**	**1**
Connecticut	2	1	3	0	1
Maine	1	1	2	0	1
Massachusetts	0	1	4	0	1
New Hampshire	1	1	2	0	1
Rhode Island	0	0	0	0	0
Vermont	1	7	7	0	3
Middle Atlantic	**0**	**0**	**0**	**0**	**0**
New Jersey	0	0	1	0	0
New York	0	0	1	0	0
Pennsylvania	1	1	0	0	0
East North Central	**0**	**1**	**1**	**0**	**0**
Illinois	0	1	1	0	1
Indiana	1	4	2	0	1
Michigan	0	2	3	0	1
Ohio	0	1	1	0	0
Wisconsin	1	3	6	0	2
West North Central	**0**	**2**	**3**	**0**	**1**
Iowa	1	6	6	0	3
Kansas	1	2	6	0	2
Minnesota	1	4	7	0	2
Missouri	1	3	6	0	1
Nebraska	1	7	9	0	4
North Dakota	1	4	8	0	4
South Dakota	1	8	12	0	4
South Atlantic	**0**	**0**	**2**	**0**	**0**
Delaware	1	3	5	0	2
District of Columbia	0	0	0	0	0
Florida	0	1	5	0	0
Georgia	1	1	4	0	1
Maryland	0	1	2	0	0
North Carolina	1	1	3	0	1
South Carolina	1	1	3	0	1
Virginia	0	1	4	0	1
West Virginia	0	1	0	0	0
East South Central	**0**	**2**	**2**	**0**	**1**
Alabama	1	1	3	0	1
Kentucky	1	5	3	0	2
Mississippi	1	2	5	0	2
Tennessee	1	4	5	0	2
West South Central	**1**	**1**	**2**	**0**	**1**
Arkansas	1	2	4	0	1
Louisiana	1	1	2	0	1
Oklahoma	1	2	5	0	1
Texas	2	1	2	0	1
Mountain	**0**	**2**	**2**	**0**	**1**
Arizona	0	2	4	0	1
Colorado	1	5	7	0	2
Idaho	1	4	4	0	2
Montana	1	7	7	0	3
Nevada	0	2	1	0	1
New Mexico	2	7	10	0	4
Utah	1	5	3	0	2
Wyoming	1	7	4	0	3
Pacific Contiguous	**0**	**1**	**2**	**0**	**1**
California	0	1	2	0	1
Oregon	1	4	9	0	2
Washington	1	4	7	0	2
Pacific Noncontiguous	**1**	**4**	**3**	**0**	**2**
Alaska	1	9	14	0	5
Hawaii	0	0	0	0	0
U.S. Total	**0**	**0**	**1**	**0**	**0**

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.

Table B.1 Major Disturbances and Unusual Occurrences, Year-to-Date 2018

Year	Month	Event Date and Time	Restoration Date and Time	Duration	Utility/Power Pool	NERC Region	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected
2018	1	01/01/2018 5:43 PM	. .	. Hours, . Minutes	American Electric Power - Texas	TRE	Texas:	Public appeal to reduce the use of electricity for purposes of maintaining the continuity of the electric power system-Severe Weather	Unknown	Unknown
2018	1	01/01/2018 6:21 PM	01/02/2018 6:11 PM	23 Hours, 50 Minutes	Tennessee Valley Authority	SERC	Tennessee:	Public appeal to reduce the use of electricity for purposes of maintaining the continuity of the electric power system-Severe Weather	Unknown	Unknown
2018	1	01/01/2018 9:37 PM	01/02/2018 10:30 AM	12 Hours, 53 Minutes	Memphis Light Gas and Water Division	SERC	Tennessee:	Public appeal to reduce the use of electricity for purposes of maintaining the continuity of the electric power system-System Operations	Unknown	Unknown
2018	1	01/02/2018 6:45 AM	01/02/2018 9:00 AM	2 Hours, 15 Minutes	Duke Energy Progress	SERC	North Carolina: South Carolina:	System-wide voltage reductions of 3 percent or more-Severe Weather	14998	Unknown
2018	1	01/02/2018 7:30 AM	. .	. Hours, . Minutes	South Carolina Electric and Gas	SERC	South Carolina:	Public appeal to reduce the use of electricity for purposes of maintaining the continuity of the electric power system-Severe Weather	0	717000
2018	1	01/02/2018 10:00 AM	02/12/2018 8:00 AM	982 Hours, 0 Minutes	Somerset Operating Company, LLC	NPCC	New York: Niagara County;	Fuel supply emergencies that could impact electric power system adequacy or reliability-Fuel Supply Deficiency	675	Unknown
2018	1	01/15/2018 4:20 AM	01/18/2018 5:48 AM	73 Hours, 28 Minutes	American Electric Power - Texas	TRE	Texas:	Public appeal to reduce the use of electricity for purposes of maintaining the continuity of the electric power system-Severe Weather	Unknown	Unknown
2018	1	01/16/2018 1:57 PM	01/16/2018 2:32 PM	0 Hours, 35 Minutes	ERCOT	TRE	Texas:	Electrical System Separation (Islanding) where part or parts of a power grid remain(s) operational in an otherwise blacked out area or within the partial failure of an integrated electrical system-Severe Weather	Unknown	Unknown
2018	1	01/16/2018 3:00 PM	01/18/2018 1:00 PM	46 Hours, 0 Minutes	Memphis Light Gas and Water Division	SERC	Tennessee: Shelby County;	Public appeal to reduce the use of electricity for purposes of maintaining the continuity of the electric power system-System Operations	Unknown	Unknown
2018	1	01/16/2018 3:00 PM	01/18/2018 1:00 PM	46 Hours, 0 Minutes	Tennessee Valley Authority	SERC	Tennessee:	Public appeal to reduce the use of electricity for purposes of maintaining the continuity of the electric power system-Severe Weather	Unknown	Unknown
2018	1	01/17/2018 5:10 AM	01/17/2018 1:00 PM	7 Hours, 50 Minutes	Cooperative Energy	SERC	Mississippi:	Public appeal to reduce the use of electricity for purposes of maintaining the continuity of the electric power system-System Operations	1788	420000
2018	1	01/17/2018 6:10 AM	01/17/2018 2:00 PM	7 Hours, 50 Minutes	Louisiana Generating LLC	SERC	Louisiana:	Public appeal to reduce the use of electricity for purposes of maintaining the continuity of the electric power system-System Operations	Unknown	Unknown
2018	1	01/18/2018 5:00 AM	01/18/2018 9:45 AM	4 Hours, 45 Minutes	Cooperative Energy	SERC	Mississippi:	Public appeal to reduce the use of electricity for purposes of maintaining the continuity of the electric power system-System Operations	1760	420000
2018	1	01/18/2018 5:00 AM	01/18/2018 11:00 AM	6 Hours, 0 Minutes	Entergy Services, Inc.	SERC	Arkansas: Mississippi: Louisiana: Texas:	Public appeal to reduce the use of electricity for purposes of maintaining the continuity of the electric power system-Severe Weather	31500	Unknown
2018	1	01/18/2018 6:00 AM	. .	. Hours, . Minutes	Louisiana Generating LLC	SERC	Louisiana:	Public appeal to reduce the use of electricity for purposes of maintaining the continuity of the electric power system-System Operations	Unknown	Unknown
2018	2	02/08/2018 1:25 PM	02/08/2018 1:31 PM	0 Hours, 6 Minutes	Pacific Gas & Electric Co	WECC	California:	Electrical System Separation (Islanding) where part or parts of a power grid remain(s) operational in an otherwise blacked out area or within the partial failure of an integrated electrical system-System Operations	30	10900
2018	3	03/01/2018 11:43 AM	03/01/2018 11:56 AM	0 Hours, 13 Minutes	Pacific Gas & Electric Co	WECC	California:	Electrical System Separation (Islanding) where part or parts of a power grid remain(s) operational in an otherwise blacked out area or within the partial failure of an integrated electrical system-Severe Weather	38	10898
2018	3	03/01/2018 9:57 PM	03/02/2018 10:14 AM	12 Hours, 17 Minutes	The Illuminating Company	RF	Ohio:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	86501
2018	3	03/01/2018 10:20 PM	03/04/2018 8:00 PM	69 Hours, 40 Minutes	Detroit Edison Co	RF	Michigan: Wayne County, Washtenaw County, Oakland County, Macomb County, Monroe County;	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	95000
2018	3	03/02/2018 7:00 AM	. .	. Hours, . Minutes	Central Hudson Gas & Elec Corp	NPCC	New York: Dutchess County, Orange County, Greene County, Ulster County, Putnam County, Sullivan County, Albany County, Columbia County;	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	90000
2018	3	03/02/2018 8:00 AM	03/03/2018 11:00 PM	39 Hours, 0 Minutes	American Electric Power - (RFC Reliability Region) (8400 Smiths Mill Road, New Albany Ohio 43054)	RF	Virginia: West Virginia:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	65198
2018	3	03/02/2018 8:42 AM	. .	. Hours, . Minutes	Niagara Mohawk Power Corporation (dba National Grid)	NPCC	New York:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	63331

Table B.1 Major Disturbances and Unusual Occurrences, Year-to-Date 2018

Year	Month	Event Date and Time	Restoration Date and Time	Duration	Utility/Power Pool	NERC Region	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected
2018	3	03/02/2018 11:34 AM	. .	. Hours, . Minutes	New York State Electric & Gas	NPCC	New York:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	50000
2018	3	03/02/2018 11:58 AM	. .	. Hours, . Minutes	PPL Electric Utilities Corp	RF	Pennsylvania: Berks County, Bucks County, Carbon County, Chester County, Clinton County, Columbia County, Cumberland County, Dauphin County, Juniata County, Lackawanna County, Lancaster County, Lebanon County, Lehigh County, Luzerne County, Lycoming County, Monroe County, Montgomery County, Montour County, Northampton County, Northumberland County, Pike County, Schuylkill County, Snyder County;	Electrical System Separation (Islanding) where part or parts of a power grid remain(s) operational in an otherwise blacked out area or within the partial failure of an integrated electrical system-Severe Weather	Unknown	126000
2018	3	03/02/2018 12:00 PM	. .	. Hours, . Minutes	Baltimore Gas and Electric	RF	Maryland:	Public appeal to reduce the use of electricity for purposes of maintaining the continuity of the electric power system-Severe Weather	670	474019
2018	3	03/02/2018 12:00 PM	03/05/2018 12:00 AM	60 Hours, 0 Minutes	Exelon Corporation/PECO	RF	Pennsylvania:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	630000
2018	3	03/02/2018 1:51 PM	03/04/2018 12:11 PM	46 Hours, 20 Minutes	Metropolitan Edison Co	RF	Pennsylvania:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	233136
2018	3	03/02/2018 1:51 PM	03/05/2018 1:18 PM	71 Hours, 27 Minutes	ISO New England	NPCC	Connecticut: Massachusetts: Rhode Island:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	325000
2018	3	03/02/2018 3:10 PM	03/06/2018 4:57 AM	85 Hours, 47 Minutes	Jersey Central Power & Lt Co	RF	Ohio:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	249322
2018	3	03/02/2018 3:46 PM	03/04/2018 7:46 PM	52 Hours, 0 Minutes	Consolidated Edison Co-NY Inc	NPCC	New York: New York County, Westchester County;	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	72353
2018	3	03/02/2018 5:00 PM	03/06/2018 11:00 AM	90 Hours, 0 Minutes	Delmarva Power & Light Company	RF	Delaware: Maryland:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	60000
2018	3	03/07/2018 12:00 PM	03/07/2018 5:00 PM	5 Hours, 0 Minutes	Exelon Corporation/PECO	RF	Pennsylvania:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	120000
2018	3	03/07/2018 4:10 PM	03/10/2018 11:32 AM	67 Hours, 22 Minutes	Jersey Central Power & Lt Co	RF	New Jersey:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	216800
2018	3	03/07/2018 5:15 PM	. .	. Hours, . Minutes	Public Service Electric & Gas	RF	New Jersey:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	50	58000
2018	3	03/07/2018 7:37 PM	03/10/2018 4:35 PM	68 Hours, 58 Minutes	ISO New England	NPCC	Connecticut: Massachusetts: Maine: New Hampshire: Rhode Island: Vermont:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	102000
2018	3	03/13/2018 8:50 AM	03/14/2018 11:22 PM	38 Hours, 32 Minutes	ISO New England	NPCC	Massachusetts: Rhode Island:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	123629
2018	3	03/19/2018 11:29 PM	03/20/2018 3:37 AM	4 Hours, 8 Minutes	Southern Company	SERC	Alabama: Georgia:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	261	78220
2018	3	03/20/2018 7:00 PM	03/25/2018 6:30 AM	107 Hours, 30 Minutes	Atlantic City Electric Co	RF	New Jersey: Atlantic County, Camden County, Cape May County, Gloucester County, Salem County, Cumberland County, Burlington County;	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	80	124000
2018	3	03/24/2018 10:30 PM	03/26/2018 8:00 PM	45 Hours, 30 Minutes	American Electric Power - (RFC Reliability Region) (8400 Smiths Mill Road, New Albany Ohio 43054)	RF	Virginia: West Virginia:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	81227
2018	4	04/04/2018 4:42 PM	04/07/2018 6:22 AM	61 Hours, 40 Minutes	Niagara Mohawk Power Corporation (dba National Grid)	NPCC	New York:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	72896
2018	4	04/05/2018 12:50 AM	04/05/2018 4:00 PM	15 Hours, 10 Minutes	ISO New England	NPCC	Connecticut: Maine: Massachusetts: New Hampshire: Rhode Island: Vermont:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	65932
2018	4	04/09/2018 11:16 AM	. .	. Hours, . Minutes	Peak Reliability	WECC	Utah:	Uncontrolled loss of 300 Megawatts or more of firm system loads for more than 15 minutes from a single incident-Transmission Interruption	300	250000
2018	4	04/09/2018 12:16 PM	04/09/2018 1:52 PM	1 Hours, 36 Minutes	Pacificorp	WECC	Utah: Salt Lake County;	Uncontrolled loss of 300 Megawatts or more of firm system loads for more than 15 minutes from a single incident-Transmission Interruption	806	57000
2018	4	04/14/2018 9:30 AM	04/14/2018 10:00 AM	0 Hours, 30 Minutes	Entergy Corp	SERC	Louisiana: Arkansas: Mississippi: Texas:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	56350
2018	4	04/15/2018 7:30 AM	04/18/2018 7:30 AM	72 Hours, 0 Minutes	DTE Energy	RF	Michigan:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	389591
2018	4	04/15/2018 5:14 PM	04/15/2018 11:25 PM	6 Hours, 11 Minutes	Duke Energy Carolinas	SERC	North Carolina: South Carolina:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	78100
2018	5	05/04/2018 12:00 PM	05/06/2018 1:00 PM	49 Hours, 0 Minutes	DTE Energy	RF	Michigan:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	300000
2018	5	05/04/2018 2:00 PM	05/05/2018 9:30 AM	19 Hours, 30 Minutes	Consumers Energy Co	RF	Michigan: Calhoun County, Genesee County, Ingham County, Kent County, Macomb County, Midland County, Saginaw County, Gratiot County;	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	90000

Table B.1 Major Disturbances and Unusual Occurrences, Year-to-Date 2018

Year	Month	Event Date and Time	Restoration Date and Time	Duration	Utility/Power Pool	NERC Region	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected
2018	5	05/04/2018 8:10 PM	. .	. Hours, . Minutes	Niagara Mohawk Power Corporation (dba National Grid)	NPCC	New York:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	106150
2018	5	05/04/2018 11:10 PM	05/05/2018 12:40 AM	1 Hours, 30 Minutes	ISO New England	NPCC	New Hampshire: Vermont:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	56000
2018	5	05/05/2018 4:30 AM	05/05/2018 3:30 PM	11 Hours, 0 Minutes	ISO New England	NPCC	Vermont: New Hampshire: Maine:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	31900
2018	5	05/14/2018 7:08 PM	. .	. Hours, . Minutes	Dominion Energy VA	SERC	Virginia:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	112000
2018	5	05/15/2018 2:50 PM	. .	. Hours, . Minutes	PPL Electric Utilities Corp	RF	Pennsylvania: Lehigh County, Schuylkill County, Cumberland County, Lancaster County, Northampton County, Berks County, Clinton County, Susquehanna County, Bucks County, Carbon County, Chester County, Columbia County, Juniata County;	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	114000
2018	5	05/15/2018 4:00 PM	. .	. Hours, . Minutes	Central Hudson Gas & Electric	NPCC	New York: Dutchess County, Ulster County, Orange County;	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	72000
2018	5	05/15/2018 5:15 PM	. .	. Hours, . Minutes	New York State Electric & Gas	NPCC	New York:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	49999
2018	5	05/15/2018 5:25 PM	. .	. Hours, . Minutes	Jersey Central Power & Lt Co	RF	New Jersey:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	82372
2018	5	05/15/2018 6:14 PM	05/15/2018 7:00 PM	0 Hours, 46 Minutes	Metropolitan Edison Co	RF	Pennsylvania:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	52872
2018	5	05/15/2018 6:35 PM	05/18/2018 3:57 PM	69 Hours, 22 Minutes	ISO New England	NPCC	Connecticut: Massachusetts: Rhode Island:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	120000
2018	5	05/17/2018 1:11 AM	. .	. Hours, . Minutes	Peak Reliability	WECC	California: Contra Costa County;	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	70	70000
2018	5	05/17/2018 1:11 AM	05/18/2018 12:38 AM	23 Hours, 27 Minutes	Pacific Gas & Electric Co	WECC	California:	Loss of electric service to more than 50,000 customers for 1 hour or more-Transmission Disruption	124	70000
2018	5	05/26/2018 6:40 PM	05/27/2018 11:50 PM	29 Hours, 10 Minutes	CenterPoint Energy	TRE	Texas: Harris County;	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	163932
2018	6	06/02/2018 5:00 AM	06/02/2018 11:00 AM	6 Hours, 0 Minutes	Kansas City Power & Light Co.	SPP RE	Missouri: Jackson County, Clay County, Platte County, Andrew County; Kansas: Johnson County;	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	103535
2018	6	06/18/2018 6:20 PM	06/19/2018 12:15 AM	5 Hours, 55 Minutes	ISO New England	NPCC	Connecticut: Maine: Massachusetts: New Hampshire: Rhode Island: Vermont:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	112927
2018	6	06/20/2018 10:58 PM	06/21/2018 6:05 AM	7 Hours, 7 Minutes	Lake Worth Utilities	FRCC	Florida: Palm Beach County;	Complete operational failure or shut-down of the transmission and/or distribution of electrical system-Transmission Interruption	73	27000
2018	6	06/22/2018 2:38 PM	. .	. Hours, . Minutes	Peak Reliability	WECC	Washington:	Electrical System Separation (Islanding) where part or parts of power grid remain(s) operational in an otherwise blocked out area or within the partial failure of an integrated electrical system-Severe Weather	10000	4200000
2018	6	06/28/2018 2:50 PM	06/29/2018 9:00 AM	18 Hours, 10 Minutes	Southern Company	SERC	Alabama: Georgia:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	160	48109
2018	6	06/28/2018 6:36 PM	07/01/2018 7:00 AM	60 Hours, 24 Minutes	Ameren Missouri	SERC	Missouri: Illinois:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	112000
2018	6	06/29/2018 7:35 AM	06/29/2018 9:30 AM	1 Hours, 55 Minutes	Minnesota Power	MRO	Minnesota: St. Louis County;	Uncontrolled loss of 300 Megawatts or more of firm system loads for 15 minutes or more from a single incident-Severe Weather	350	Unknown
2018	7	07/11/2018 12:58 AM	. .	. Hours, . Minutes	California Department of Water Resources	WECC	California:	Fuel supply emergencies that could impact electric power system adequacy or reliability-Fuel Supply Deficiency	0	0
2018	7	07/11/2018 3:40 PM	07/11/2018 4:00 PM	0 Hours, 20 Minutes	Tennessee Valley Authority	SERC	Tennessee:	Uncontrolled loss of 300 Megawatts or more of firm system loads for 15 minutes or more from a single incident-Transmission Interruption	425	26195
2018	7	07/16/2018 5:15 AM	. .	. Hours, . Minutes	California Department of Water Resources	WECC	California: Merced County;	Fuel supply emergencies that could impact electric power system adequacy or reliability-Fuel Supply Deficiency	0	0
2018	7	07/18/2018 4:00 AM	. .	. Hours, . Minutes	California Department of Water Resources	WECC	California: Fresno County;	Fuel supply emergencies that could impact electric power system adequacy or reliability-Fuel Supply Deficiency	0	0
2018	7	07/18/2018 5:28 PM	07/18/2018 5:31 PM	0 Hours, 3 Minutes	Bonneville Power Administration	WECC	Oregon:	Total generation loss, within one minute of: greater than or equal to 2,000 Megawatts in the Eastern or Western Interconnection or greater than or equal to 1,400 Megawatts in the ERCOT Interconnection.-Severe Weather/Transmission Interruption	Unknown	Unknown
2018	7	07/20/2018 4:19 PM	07/20/2018 4:48 PM	0 Hours, 29 Minutes	Tennessee Valley Authority	SERC	Kentucky:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	87833

Table B.1 Major Disturbances and Unusual Occurrences, Year-to-Date 2018

Year	Month	Event Date and Time	Restoration Date and Time	Duration	Utility/Power Pool	NERC Region	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected
2018	7	07/21/2018 4:45 AM	07/21/2018 11:15 AM	6 Hours, 30 Minutes	Entergy Corp	SERC	Arkansas:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	64930
2018	7	07/21/2018 7:20 AM	07/21/2018 11:30 AM	4 Hours, 10 Minutes	Southern Company	SERC	Georgia:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	143	42901
2018	7	07/23/2018 4:16 AM	07/23/2018 4:29 AM	0 Hours, 13 Minutes	Duke Energy Florida	FRCC	Florida: Pinellas County;	Unexpected Transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Severe Weather/Transmission Interruption	40	Unknown
2018	7	07/26/2018 8:24 PM	. .	. Hours, . Minutes	Redding Electric Utility	WECC	California: Shasta County;	Public appeal to reduce the use of electricity for purposes of maintaining the continuity of the Bulk Electric System-Natural Disaster	Unknown	Unknown
2018	7	07/27/2018 9:34 AM	07/27/2018 9:51 AM	0 Hours, 17 Minutes	Peak Reliability	WECC	Washington: Clark County;	Electrical System Separation (Islanding) where part or parts of power grid remain(s) operational in an otherwise blocked out area or within the partial failure of an integrated electrical system-System Operations	Unknown	Unknown
2018	7	07/27/2018 4:28 PM	07/27/2018 4:33 PM	0 Hours, 5 Minutes	Consolidated Edison Co-NY Inc	NPCC	New York: New York County;	Unexpected Transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Severe Weather/Transmission Interruption	0	0
2018	7	07/29/2018 2:33 PM	07/29/2018 6:23 PM	3 Hours, 50 Minutes	Pacific Gas & Electric Co	WECC	California:	Loss of electric service to more than 50,000 customers for 1 hour or more-Natural Disaster	83	57670
2018	7	07/30/2018 6:30 AM	07/30/2018 11:00 PM	16 Hours, 30 Minutes	Arizona Public Service Co	WECC	Arizona: Maricopa County;	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	82000
2018	8	08/07/2018 1:22 AM	08/07/2018 1:59 AM	0 Hours, 37 Minutes	Pacific Gas & Electric Co	WECC	California: Butte County;	Electrical System Separation (Islanding) where part or parts of power grid remain(s) operational in an otherwise blocked out area or within the partial failure of an integrated electrical system.-Natural Disaster	5	485
2018	8	08/07/2018 1:22 AM	08/07/2018 7:04 PM	17 Hours, 42 Minutes	Pacific Gas & Electric Co	WECC	California: Butte County;	Electrical System Separation (Islanding) where part or parts of power grid remain(s) operational in an otherwise blocked out area or within the partial failure of an integrated electrical system.-Natural Disaster	27	11383
2018	8	08/26/2018 10:00 PM	08/27/2018 4:56 AM	6 Hours, 56 Minutes	Consumers Energy Co	RF	Michigan: Muskegon County, Newaygo County, Oceana County, Mason County, Kent County, Mecosta County, Montcalm County, Isabella County, Midland County, Saginaw County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	67000
2018	8	08/28/2018 8:00 PM	08/30/2018 2:59 PM	42 Hours, 59 Minutes	Consumers Energy Co	RF	Michigan: Benzie County, Barry County, Grand Traverse County, Kalkaska County, Mason County, Oceana County, Muskegon County, Kent County, Newaygo County, Montcalm County, Mecosta County, Antrim County, Eaton County, Ionia County, Isabella County, Clare County, Saginaw County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	110000
2018	8	08/29/2018 12:00 AM	08/30/2018 12:00 AM	24 Hours, 0 Minutes	ComEd	SERC	Illinois:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	100000
2018	8	08/31/2018 3:07 PM	08/31/2018 3:31 PM	0 Hours, 24 Minutes	Pacificorp	WECC	Oregon:	Unexpected Transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Natural Disaster/Transmission Interruption	96	50000
2018	9	09/06/2018 2:26 AM	09/06/2018 2:27 AM	0 Hours, 1 Minutes	Tampa Electric Co	FRCC	Florida: Hillsborough County;	Unexpected Transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Transmission Interruption	0	0
2018	9	09/13/2018 8:30 PM	09/19/2018 5:00 PM	140 Hours, 30 Minutes	North Carolina El Member Corp	SERC	North Carolina:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	300	325000
2018	9	09/13/2018 8:56 PM	09/20/2018 7:00 PM	166 Hours, 4 Minutes	Duke Energy Progress	SERC	North Carolina: South Carolina:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	1457583
2018	9	09/15/2018 1:05 AM	09/17/2018 4:00 PM	62 Hours, 55 Minutes	South Carolina Pub Serv Auth	SERC	South Carolina: Horry County, Chesterfield County, Dillon County, Georgetown County, Marlboro County, Darlington County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	50100
2018	9	09/15/2018 3:00 PM	09/15/2018 6:00 PM	3 Hours, 0 Minutes	Louisiana Generating LLC	SERC	Louisiana:	Public appeal to reduce the use of electricity for purposes of maintaining the continuity of the Bulk Electric System.-System Operations	Unknown	Unknown

Table B.1 Major Disturbances and Unusual Occurrences, Year-to-Date 2018

Year	Month	Event Date and Time	Restoration Date and Time	Duration	Utility/Power Pool	NERC Region	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected
2018	9	09/15/2018 3:00 PM	09/15/2018 6:00 PM	3 Hours, 0 Minutes	Cooperative Energy	SERC	Mississippi: Forrest County;	Public appeal to reduce the use of electricity for purposes of maintaining the continuity of the Bulk Electric System.-System Operations	1322	420000
2018	9	09/16/2018 8:00 AM	09/18/2018 7:40 PM	59 Hours, 40 Minutes	Duke Energy Carolinas	SERC	North Carolina: South Carolina:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	50000
2018	9	09/22/2018 3:23 PM	09/22/2018 11:00 PM	7 Hours, 37 Minutes	Los Angeles Department of Water & Power	WECC	California: Los Angeles County;	Unexpected Transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Natural Disaster	3507	2500
2018	9	09/26/2018 1:54 PM	09/26/2018 5:58 PM	4 Hours, 4 Minutes	CenterPoint Energy	TRE	Texas: Harris County;	Unexpected Transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Transmission Interruption	0	0
2018	10	10/10/2018 11:59 AM	. .	. Hours, . Minutes	Southern Company	FRCC	Florida: Alabama: Georgia:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	152	45604
2018	10	10/10/2018 2:00 PM	10/11/2018 6:00 AM	16 Hours, 0 Minutes	Seminole Electric Cooperative Inc.	FRCC	Florida:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	135	60717
2018	10	10/10/2018 4:00 PM	10/19/2018 6:00 AM	206 Hours, 0 Minutes	City of Tallahassee	FRCC	Florida:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	330	55000
2018	10	10/11/2018 7:21 AM	10/11/2018 3:00 PM	7 Hours, 39 Minutes	South Carolina Electric and Gas	SERC	South Carolina:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	71654
2018	10	10/11/2018 1:15 PM	. .	. Hours, . Minutes	Duke Energy Carolinas	SERC	North Carolina: South Carolina:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	240807
2018	10	10/11/2018 4:42 PM	10/12/2018 9:00 PM	28 Hours, 18 Minutes	Duke Energy Progress	SERC	North Carolina: South Carolina:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	170222
2018	10	10/11/2018 6:55 PM	10/12/2018 12:00 PM	17 Hours, 5 Minutes	North Carolina EI Member Corp	SERC	North Carolina:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	117000
2018	10	10/12/2018 3:36 AM	10/12/2018 1:56 PM	10 Hours, 20 Minutes	PJM Interconnection	RF	Maryland: Garrett County;	Unexpected Transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Transmission Interruption	0	0
2018	10	10/14/2018 10:11 PM	. .	. Hours, . Minutes	Pacific Gas & Electric Co	WECC	California:	Loss of electric service to more than 50,000 customers for 1 hour or more-Natural Disaster	Unknown	60000
2018	10	10/16/2018 4:15 AM	10/16/2018 5:11 PM	12 Hours, 56 Minutes	ISO New England	NPCC	Connecticut: Rhode Island: Massachusetts: Vermont: New Hampshire: Maine:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	18000
2018	10	10/21/2018 12:16 AM	10/21/2018 4:14 PM	15 Hours, 58 Minutes	American Electric Power	RF	West Virginia:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	63408
2018	10	10/31/2018 7:30 PM	11/01/2018 6:55 PM	23 Hours, 25 Minutes	CenterPoint Energy	TRE	Texas: Harris County;	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	402	140932
2018	11	11/03/2018 5:20 PM	11/04/2018 2:30 PM	21 Hours, 10 Minutes	ISO New England	NPCC	Connecticut: Massachusetts: New Hampshire: Vermont: Maine: Rhode Island:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	62000
2018	11	11/06/2018 9:49 AM	11/09/2018 2:05 PM	76 Hours, 16 Minutes	Tennessee Valley Authority	SERC	Tennessee:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	61000
2018	11	11/08/2018 7:16 AM	11/28/2018 4:32 PM	489 Hours, 16 Minutes	Pacific Gas & Electric Co	WECC	California: Butte County;	Electrical System Separation (Islanding) where part or parts of power grid remain(s) operational in an otherwise blocked out area or within the partial failure of an integrated electrical system-Natural Disaster/Transmission Interruption	32	11844
2018	11	11/10/2018 5:02 PM	11/14/2018 3:00 PM	93 Hours, 58 Minutes	WPSC	MRO	Wisconsin:	Fuel supply emergencies that could impact electric power system adequacy or reliability-Fuel Supply Deficiency	0	0
2018	11	11/15/2018 3:23 AM	11/15/2018 5:35 PM	14 Hours, 12 Minutes	LG&E KU	SERC	Kentucky:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	150000
2018	11	11/15/2018 5:28 AM	11/15/2018 8:35 AM	3 Hours, 7 Minutes	Duke Energy Midwest	RF	Indiana:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	55000
2018	11	11/15/2018 5:38 AM	11/16/2018 6:00 AM	24 Hours, 22 Minutes	Duke Energy Midwest	SERC	Kentucky: Ohio:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	104000
2018	11	11/15/2018 10:50 AM	11/17/2018 1:12 PM	50 Hours, 22 Minutes	American Electric Power - (RFC Reliability Region)	RF	Virginia: West Virginia:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	50600

Table B.1 Major Disturbances and Unusual Occurrences, Year-to-Date 2018

Year	Month	Event Date and Time	Restoration Date and Time	Duration	Utility/Power Pool	NERC Region	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected
2018	11	11/25/2018 10:30 PM	11/28/2018 8:17 PM	69 Hours, 47 Minutes	ComEd	SERC	Illinois: Will County, DuPage County, Kane County, McHenry County, Winnebago County, Ogle County, DeKalb County, Lee County, Grundy County, Lake County, Cook County, Livingston County, Stephenson County, LaSalle County, Kankakee County, Kendall County, Boone County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	313448
2018	11	11/27/2018 8:00 AM	11/28/2018 4:50 PM	32 Hours, 50 Minutes	ISO New England	NPCC	Maine: New Hampshire: Vermont:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	32000

Note: Customers affected are estimates and are preliminary.Source: Form OE-417, 'Electric Emergency Incident and Disturbance Report.'

Table B.2 Major Disturbances and Unusual Occurrences, 2017

Year	Month	Event Date and Time	Restoration Date and Time	Duration	Utility/Power Pool	NERC Region	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected
2017	1	01/08/2017 9:07 AM	01/13/2017 2:30 PM	125 Hours, 23 Minutes	Pacific Gas & Electric Co	WECC	California:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	106000
2017	1	01/08/2017 11:59 PM	. .	. Hours, . Minutes	California Department of Water Resources	WECC	California:	Fuel supply emergencies that could impact electric power system adequacy or reliability-Fuel Supply Deficiency	0	0
2017	1	01/10/2017 7:30 PM	01/13/2017 2:30 PM	67 Hours, 0 Minutes	Pacific Gas & Electric Co	WECC	California:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	87000
2017	1	01/15/2017 6:35 AM	01/15/2017 7:44 AM	1 Hours, 9 Minutes	Los Angeles Department of Water & Power	WECC	California: Los Angeles County;	Loss of electric service to more than 50,000 customers for 1 hour or more-Transmission Disruption	176	126000
2017	1	01/15/2017 9:27 AM	01/17/2017 1:58 AM	40 Hours, 31 Minutes	Oklahoma Municipal Power Authority	SPP	Oklahoma: Harper County;	Electrical System Separation (Islanding) where part or parts of a power grid remain(s) operational in an otherwise blacked out area or within the partial failure of an integrated electrical system-Severe Weather	1	788
2017	1	01/18/2017 6:05 PM	01/19/2017 12:05 AM	6 Hours, 0 Minutes	Pacific Gas & Electric Co	WECC	California:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	75000
2017	1	01/22/2017 4:15 AM	01/24/2017 2:00 PM	57 Hours, 45 Minutes	Pacific Gas & Electric Co	WECC	California:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	97	64000
2017	1	01/22/2017 6:00 AM	. .	. Hours, . Minutes	California Department of Water Resources	WECC	California:	Fuel supply emergencies that could impact electric power system adequacy or reliability-Fuel Supply Deficiency	0	0
2017	1	01/22/2017 4:00 PM	01/23/2017 3:26 AM	11 Hours, 26 Minutes	Southern Company	SERC	Alabama: Georgia: Mississippi: Florida:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	100	29965
2017	2	02/02/2017 1:04 AM	02/02/2017 5:00 AM	3 Hours, 56 Minutes	Public Service Company of New Mexico	WECC	New Mexico: Bernalillo County, Santa Fe County;	Uncontrolled loss of 300 Megawatts or more of firm system loads for more than 15 minutes from a single incident-Transmission Interruption	396	149223
2017	2	02/02/2017 1:11 AM	. .	. Hours, . Minutes	Peak Reliability	WECC	New Mexico: Bernalillo County;	Uncontrolled loss of 300 Megawatts or more of firm system loads for more than 15 minutes from a single incident-Transmission Interruption	400	Unknown
2017	2	02/13/2017 1:00 PM	02/15/2017 1:35 PM	48 Hours, 35 Minutes	North Carolina Mun Power Agny #1	SERC	North Carolina: Union County;	Physical attack that could potentially impact electric power system adequacy or reliability; or vandalism which targets components of any security systems-Vandalism	0	0
2017	2	02/17/2017 8:09 AM	02/22/2017 7:30 PM	131 Hours, 21 Minutes	Pacific Gas & Electric Co	WECC	California:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	254	169250
2017	2	02/17/2017 1:00 PM	02/17/2017 1:15 PM	0 Hours, 15 Minutes	Nevada Power Company d/b/a NV Energy	WECC	Nevada: Clark County;	Physical attack that could potentially impact electric power system adequacy or reliability; or vandalism which targets components of any security systems-Vandalism	0	0
2017	2	02/17/2017 3:00 PM	02/20/2017 11:00 AM	68 Hours, 0 Minutes	LADWP	WECC	California: Los Angeles County;	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	111591
2017	3	03/01/2017 8:30 AM	03/01/2017 2:00 PM	5 Hours, 30 Minutes	Tennessee Valley Authority	SERC	Tennessee: Kentucky:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	58000
2017	3	03/01/2017 11:49 AM	03/02/2017 9:30 PM	33 Hours, 41 Minutes	American Electric Power	RFC	Kentucky: West Virginia:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	98575
2017	3	03/02/2017 12:20 PM	03/02/2017 11:45 PM	11 Hours, 25 Minutes	ISO New England	NPCC	Connecticut: Maine: Massachusetts: New Hampshire: Rhode Island: Vermont:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	54316
2017	3	03/06/2017 8:00 PM	03/07/2017 1:00 AM	5 Hours, 0 Minutes	Kansas City Power & Light Co	SERC	Missouri: Jackson County, Platte County, Cass County, Lafayette County, Chariton County, Carroll County, Clay County, Johnson County;	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	97734
2017	3	03/08/2017 9:30 AM	03/11/2017 5:00 AM	67 Hours, 30 Minutes	Consumers Energy Co	RFC	Michigan: Jackson County, Calhoun County, Ingham County, Hillsdale County, Washtenaw County, Kent County, Ottawa County, Midland County, Saginaw County;	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	343000
2017	3	03/08/2017 11:30 AM	03/08/2017 7:52 PM	8 Hours, 22 Minutes	Cleveland Electric Illum Co	RFC	Ohio	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	71012
2017	3	03/08/2017 12:00 PM	03/11/2017 11:31 AM	71 Hours, 31 Minutes	Detroit Edison Co	RFC	Michigan	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	800000
2017	3	03/08/2017 1:30 PM	03/08/2017 4:30 PM	3 Hours, 0 Minutes	Niagara Mohawk Power Corporation (dba National Grid)	NPCC	New York	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather/Transmission Interruption	Unknown	106869
2017	3	03/08/2017 3:33 PM	. .	. Hours, . Minutes	Rochester Gas & Electric Corp	NPCC	New York	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	50000
2017	3	03/14/2017 12:32 PM	. .	. Hours, . Minutes	ISO New England	NPCC	Connecticut: Massachusetts: Rhode Island: New Hampshire: Maine: Vermont:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	69647
2017	3	03/21/2017 8:00 PM	03/22/2017 9:15 AM	13 Hours, 15 Minutes	Southern Company	SERC	Georgia	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	857	257000
2017	3	03/29/2017 3:30 AM	03/31/2017 6:00 AM	50 Hours, 30 Minutes	Oncor Electric Delivery Company LLC	TRE	Texas	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	175000

Table B.2 Major Disturbances and Unusual Occurrences, 2017

Year	Month	Event Date and Time	Restoration Date and Time	Duration	Utility/Power Pool	NERC Region	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected
2017	4	04/03/2017 11:00 AM	04/03/2017 8:00 PM	9 Hours, 0 Minutes	Southern Company	SERC	Alabama, Georgia	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	290	86330
2017	4	04/06/2017 7:00 PM	. .	. Hours, . Minutes	Pacific Gas & Electric Co	WECC	California	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	100000
2017	4	04/07/2017 4:33 AM	04/07/2017 8:20 AM	3 Hours, 47 Minutes	Pacificorp	WECC	Oregon	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	100	64852
2017	4	04/07/2017 8:15 AM	04/08/2017 12:14 AM	15 Hours, 59 Minutes	Portland General Electric Co	WECC	Oregon: Multnomah County, Washington County, Marion County, Clackamas County	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	153867
2017	4	04/24/2017 5:32 AM	04/24/2017 6:33 AM	1 Hours, 1 Minutes	Duke Energy Carolinas	SERC	North Carolina: Mecklenburg County	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	240	74698
2017	4	04/30/2017 1:00 AM	04/30/2017 5:45 PM	16 Hours, 45 Minutes	Entergy Corp	SERC	Arkansas, Louisiana, Mississippi	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	145174
2017	5	05/01/2017 11:14 PM	05/01/2017 11:34 PM	0 Hours, 20 Minutes	Pennsylvania Electric Co	RFC	Ohio	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	92390
2017	5	05/03/2017 6:58 PM	05/03/2017 9:15 PM	2 Hours, 17 Minutes	Southern California Edison Co	WECC	California	Load shedding of 100 Megawatts or more implemented under emergency operational policy-Generation Inadequacy	572	0
2017	5	05/03/2017 7:05 PM	05/03/2017 9:00 PM	1 Hours, 55 Minutes	California ISO	WECC	California	Load shedding of 100 Megawatts or more implemented under emergency operational policy-Generation Inadequacy	878	Unknown
2017	5	05/04/2017 5:00 AM	05/04/2017 10:00 PM	17 Hours, 0 Minutes	Southern Company	SERC	Alabama: Georgia	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	200	60377
2017	5	05/07/2017 5:15 AM	. .	. Hours, . Minutes	California Department of Water Resources	WECC	California: Fresno County	Fuel supply emergencies that could impact electric power system adequacy or reliability-Fuel Supply Deficiency	0	0
2017	5	05/07/2017 11:30 PM	05/08/2017 5:00 AM	5 Hours, 30 Minutes	Owensboro Municipal Utilities	SERC	Kentucky: Daviess County	Public appeal to reduce the use of electricity for purposes of maintaining the continuity of the electric power system-Generation Inadequacy	80	0
2017	5	05/19/2017 5:30 AM	. .	. Hours, . Minutes	Ameren Missouri	SERC	Missouri: St. Louis County	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	70696
2017	5	05/27/2017 11:00 PM	. .	. Hours, . Minutes	Tennessee Valley Authority	SERC	Tennessee: Shelby County, Putnam County, Knox County, Davidson County, Hamilton County; Alabama: Madison County	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	116000
2017	5	05/27/2017 11:10 PM	. .	. Hours, . Minutes	Memphis Light Gas and Water Division	SERC	Tennessee: Shelby County	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	391	188000
2017	5	05/28/2017 7:30 PM	05/29/2017 10:00 PM	26 Hours, 30 Minutes	American Electric Power - (SPP Reliability Region)	TRE	Texas: Louisiana	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	103000
2017	5	05/28/2017 7:30 PM	05/29/2017 10:00 PM	26 Hours, 30 Minutes	Southwest Power Pool, Inc.	SERC	Louisiana: Texas	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	103000
2017	6	06/11/2017 2:39 PM	06/11/2017 5:55 PM	3 Hours, 16 Minutes	MISO	RFC	Michigan	Electrical System Separation (Islanding) where part or parts of a power grid remain(s) operational in an otherwise blacked out area or within the partial failure of an integrated electrical system-Transmission Interruption	63	Unknown
2017	7	07/07/2017 3:30 AM	07/08/2017 7:30 PM	40 Hours, 0 Minutes	Consumers Energy Co	RFC	Michigan: Kent County, Ottawa County, Muskegon County, Barry County, Oceana County, Eaton County	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	160000
2017	7	07/08/2017 6:52 PM	07/09/2017 8:00 AM	13 Hours, 8 Minutes	Los Angeles Department of Water & Power	WECC	California: Los Angeles County	Uncontrolled loss of 300 Megawatts or more of firm system loads for more than 15 minutes from a single incident-Transmission Interruption	645	176867
2017	7	07/18/2017 4:23 PM	07/18/2017 6:39 PM	2 Hours, 16 Minutes	Western Area Power Administration - Western Area Lower Colorado	WECC	Nevada	Uncontrolled loss of 300 Megawatts or more of firm system loads for more than 15 minutes from a single incident-Severe Weather	0	0
2017	7	07/22/2017 10:00 PM	. .	. Hours, . Minutes	Southwest Power Pool, Inc.	SERC	Missouri	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	131000
2017	7	07/22/2017 10:00 PM	. .	. Hours, . Minutes	KCP&L Greater Missouri Operations Company	SERC	Missouri	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	115000
2017	7	07/22/2017 10:00 PM	07/23/2017 12:00 PM	14 Hours, 0 Minutes	Kansas City Power & Light Co	SERC	Missouri: Clay County, Jackson County, Lafayette County, Platte County; Kansas: Johnson County, Miami County, Wyandotte County	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	112540
2017	7	07/23/2017 4:00 AM	. .	. Hours, . Minutes	Ameren Missouri	SERC	Missouri: Illinois	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	82000
2017	7	07/27/2017 6:00 AM	07/27/2017 11:29 AM	5 Hours, 29 Minutes	California Department of Water Resources	WECC	California: Butte County	Fuel supply emergencies that could impact electric power system adequacy or reliability-Fuel Supply Deficiency	0	0

Table B.2 Major Disturbances and Unusual Occurrences, 2017

Year	Month	Event Date and Time	Restoration Date and Time	Duration	Utility/Power Pool	NERC Region	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected
2017	8	08/21/2017 11:41 PM	08/22/2017 12:21 AM	0 Hours, 40 Minutes	Pacific Gas & Electric Co	WECC	California: Plumas County	Electrical System Separation (Islanding) where part or parts of a power grid remain(s) operational in an otherwise blacked out area or within the partial failure of an integrated electrical system-System Operations	1	2
2017	8	08/25/2017 6:17 PM	09/02/2017 5:00 PM	190 Hours, 43 Minutes	American Electric Power - Texas	TRE	Texas: Matagorda County, Nueces County, Aransas County, Refugio County, San Patricio County, Calhoun County, Victoria County, Jackson County, Live Oak County, Jim Wells County, Bee County, Lavaca County	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	220400
2017	8	08/25/2017 6:30 PM	09/05/2017 5:00 PM	262 Hours, 30 Minutes	ERCOT	TRE	Texas	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	330000
2017	8	08/26/2017 12:39 AM	08/26/2017 12:52 AM	0 Hours, 13 Minutes	ERCOT	TRE	Texas	Electrical System Separation (Islanding) where part or parts of a power grid remain(s) operational in an otherwise blacked out area or within the partial failure of an integrated electrical system-Severe Weather	Unknown	Unknown
2017	8	08/26/2017 6:26 AM	09/08/2017 12:00 AM	305 Hours, 34 Minutes	CenterPoint Energy	TRE	Texas	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	1076868
2017	8	08/27/2017 5:10 AM	09/08/2017 12:00 AM	282 Hours, 50 Minutes	CenterPoint Energy	TRE	Texas: Harris County	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	1076868
2017	8	08/30/2017 2:15 AM	. .	. Hours, . Minutes	Entergy Corp	TRE	Texas	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	78500
2017	8	08/31/2017 2:49 PM	08/31/2017 5:14 PM	2 Hours, 25 Minutes	Southern California Edison Co	WECC	California: Los Angeles County	Load shedding of 100 Megawatts or more implemented under emergency operational policy-Severe Weather	100	0
2017	9	09/01/2017 3:41 PM	09/01/2017 8:30 PM	4 Hours, 49 Minutes	Southern California Edison Co	WECC	California:	Load shedding of 100 Megawatts or more implemented under emergency operational policy-Severe Weather	337	0
2017	9	09/09/2017 12:00 AM	. .	. Hours, . Minutes	Tampa Electric Company	FRCC	Florida: Hillsborough County, Pasco County, Polk County;	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	1275	425000
2017	9	09/09/2017 12:30 PM	. .	. Hours, . Minutes	Florida Power & Light	FRCC	Florida:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	3500000
2017	9	09/10/2017 6:35 PM	09/13/2017 5:00 PM	70 Hours, 25 Minutes	Duke Energy Florida	FRCC	Florida: Alachua County, Bay County, Brevard County, Citrus County, Columbia County, Dixie County, Flagler County, Franklin County, Gilchrist County, Gulf County, Hamilton County, Hardee County, Hernando County, Highlands County, Jefferson County, Lafayette County, Lake County, Leon County, Levy County, Madison County, Marion County, Orange County, Osceola County, Pasco County, Pinellas County, Po	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	4500	1000000
2017	9	09/10/2017 8:37 PM	. .	. Hours, . Minutes	Seminole Electric Cooperative Inc	FRCC	Florida:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	452555
2017	9	09/11/2017 12:30 AM	. .	. Hours, . Minutes	Lakeland Electric	FRCC	Florida:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	200	20000
2017	9	09/11/2017 2:27 AM	09/15/2017 8:44 PM	114 Hours, 17 Minutes	Southern Company	SERC	Georgia:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	132	39659
2017	9	09/11/2017 12:55 PM	09/12/2017 8:00 AM	19 Hours, 5 Minutes	South Carolina Electric and Gas	SERC	South Carolina:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	687	154832
2017	9	09/11/2017 5:30 PM	09/13/2017 9:30 AM	40 Hours, 0 Minutes	Duke Energy Carolinas	SERC	North Carolina: South Carolina:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	365	265729
2017	10	10/08/2017 3:00 AM	. .	. Hours, . Minutes	Southern Company	SERC	Alabama: Florida: Mississippi:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	306	91945
2017	10	10/09/2017 2:03 AM	10/17/2017 1:30 PM	203 Hours, 27 Minutes	Pacific Gas & Electric Co	WECC	California:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather/Transmission Interruption	177	117900
2017	10	10/09/2017 6:44 AM	. .	. Hours, . Minutes	Pacific Gas & Electric Co	WECC	California:	Electrical System Separation (Islanding) where part or parts of a power grid remain(s) operational in an otherwise blacked out area or within the partial failure of an integrated electrical system-Severe Weather	100	Unknown
2017	10	10/12/2017 9:09 AM	. .	. Hours, . Minutes	Clarksdale Public Utilities	SERC	Mississippi: Coahoma County;	Public appeal to reduce the use of electricity for purposes of maintaining the continuity of the electric power system-System Operations	Unknown	Unknown
2017	10	10/16/2017 3:45 PM	10/16/2017 4:09 PM	0 Hours, 24 Minutes	Bonneville Power Administration	WECC	Washington: Montana:	Electrical System Separation (Islanding) where part or parts of a power grid remain(s) operational in an otherwise blacked out area or within the partial failure of an integrated electrical system-Transmission Interruption	0	0

Table B.2 Major Disturbances and Unusual Occurrences, 2017

Year	Month	Event Date and Time	Restoration Date and Time	Duration	Utility/Power Pool	NERC Region	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected
2017	10	10/16/2017 3:55 PM	10/16/2017 4:10 PM	0 Hours, 15 Minutes	Peak Reliability	WECC	Washington:	Electrical System Separation (Islanding) where part or parts of a power grid remain(s) operational in an otherwise blacked out area or within the partial failure of an integrated electrical system-Transmission Interruption	0	0
2017	10	10/20/2017 3:44 AM	10/20/2017 3:45 AM	0 Hours, 1 Minutes	Peak Reliability	WECC	Washington:	Uncontrolled loss of 300 Megawatts or more of firm system loads for more than 15 minutes from a single incident-Severe Weather	900	Unknown
2017	10	10/22/2017 8:45 AM	10/22/2017 2:00 PM	5 Hours, 15 Minutes	Entergy Corp	SERC	Louisiana: Mississippi: Arkansas: Texas:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	Unknown
2017	10	10/23/2017 5:50 PM	10/24/2017 6:17 PM	24 Hours, 27 Minutes	Duke Energy Carolinas	SERC	North Carolina: South Carolina:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	440	115144
2017	10	10/26/2017 8:17 AM	10/26/2017 8:41 AM	0 Hours, 24 Minutes	Peak Reliability	WECC	Washington: Clark County;	Electrical System Separation (Islanding) where part or parts of a power grid remain(s) operational in an otherwise blacked out area or within the partial failure of an integrated electrical system-Transmission Interruption	0	0
2017	10	10/26/2017 8:17 AM	10/26/2017 8:41 AM	0 Hours, 24 Minutes	Bonneville Power Administration	WECC	Washington: Whatcom County; Montana:	Electrical System Separation (Islanding) where part or parts of a power grid remain(s) operational in an otherwise blacked out area or within the partial failure of an integrated electrical system-Transmission Interruption	0	0
2017	10	10/29/2017 11:40 PM	11/01/2017 6:08 PM	66 Hours, 28 Minutes	ISO New England	NPCC	Connecticut: Massachusetts: New Hampshire: Maine: Rhode Island: Vermont:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	310453
2017	11	11/01/2017 3:40 PM	11/01/2017 10:00 PM	6 Hours, 20 Minutes	Owensboro Municipal Utilities	SERC	Kentucky: Daviess County;	Public appeal to reduce the use of electricity for purposes of maintaining the continuity of the electric power system-Generation Inadequacy	0	0
2017	11	11/05/2017 7:35 PM	11/05/2017 11:09 PM	3 Hours, 34 Minutes	Ohio Edison Co	RF	Ohio:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	89216
2017	11	11/13/2017 2:00 AM	11/15/2017 8:17 AM	54 Hours, 17 Minutes	Puget Sound Energy	WECC	Washington: Island County, King County, Kitsap County, Thurston County, Skagit County, Whatcom County;	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	236100
2017	11	11/13/2017 4:33 PM	11/16/2017 6:00 AM	61 Hours, 27 Minutes	Seattle City Light, Sytem Control Center	WECC	Washington: King County;	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	85	68430
2017	12	12/04/2017 9:53 PM	. .	. Hours, . Minutes	Southern California Edison Co	WECC	California:	Uncontrolled loss of 300 Megawatts or more of firm system loads for more than 15 minutes from a single incident-Severe Weather/Transmission Interruption	540	263000
2017	12	12/05/2017 6:30 AM	12/06/2017 10:00 AM	27 Hours, 30 Minutes	Consumers Energy Co	RF	Michigan: Oscoda County, Isabella County, Roscommon County, Ogemaw County;	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	117500
2017	12	12/07/2017 8:00 PM	12/08/2017 5:00 PM	21 Hours, 0 Minutes	CPS Energy	TRE	Texas: Bexar County;	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	88000
2017	12	12/08/2017 9:30 AM	12/08/2017 10:30 PM	13 Hours, 0 Minutes	Entergy Corp	SERC	Louisiana: Mississippi:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	Unknown	79000
2017	12	12/08/2017 10:00 AM	12/10/2017 8:50 PM	58 Hours, 50 Minutes	Southern Company	SERC	Alabama: Georgia: Mississippi:	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather	865	301872
2017	12	12/10/2017 1:25 AM	12/10/2017 2:30 AM	1 Hours, 5 Minutes	Southern California Edison Co	WECC	California: Ventura County, Santa Barbara County;	Loss of electric service to more than 50,000 customers for 1 hour or more-Severe Weather/Transmission Interruption	110	51323
2017	12	12/13/2017 9:55 AM	12/13/2017 2:45 PM	4 Hours, 50 Minutes	Long Island Power Authority	NPCC	New York: Suffolk County;	Fuel supply emergencies that could impact electric power system adequacy or reliability-Fuel Supply Deficiency	0	0
2017	12	12/29/2017 7:00 AM	. .	. Hours, . Minutes	Upstate New York Power Producers	NPCC	New York: Tompkins County;	Fuel supply emergencies that could impact electric power system adequacy or reliability-Fuel Supply Deficiency	210	Unknown

Note: Customers affected are estimates and are preliminary.Source: Form OE-417, 'Electric Emergency Incident and Disturbance Report.'

Appendix C

Technical notes

This appendix describes how the U. S. Energy Information Administration (EIA) collects, estimates, and reports electric power data in the EPM.

Data quality

The EPM is prepared by the Office of Electricity, Renewables & Uranium Statistics (ERUS), Energy Information Administration (EIA), U. S. Department of Energy. Quality statistics begin with the collection of the correct data. To assure this, ERUS performs routine reviews of the data collected and the forms on which it is collected. Additionally, to assure that the data are collected from the correct parties, ERUS routinely reviews the frames for each data collection.

Automatic, computerized verification of keyed input, review by subject matter specialists, and follow-up with nonrespondents assure quality statistics. To ensure the quality standards established by the EIA, formulas that use the past history of data values in the database have been designed and implemented to check data input for errors automatically. Data values that fall outside the ranges prescribed in the formulas are verified by telephoning respondents to resolve any discrepancies. All survey nonrespondents are identified and contacted.

Reliability of data

There are two types of errors possible in an estimate based on a sample survey: sampling and non-sampling. Sampling errors occur because observations are made only on a sample, not on the entire population. Non-sampling errors can be attributed to many sources in the collection and processing of data. The accuracy of survey results is determined by the joint effects of sampling and non-sampling errors. Monthly sample survey data have both sampling and non-sampling error. Annual survey data are collected by a census and are not subject to sampling error.

Non-sampling errors can be attributed to many sources: (1) inability to obtain complete information about all cases in the sample (i.e., nonresponse); (2) response errors; (3) definitional difficulties; (4) differences in the interpretation of questions; (5) mistakes in recording or coding the data obtained; and (6) other errors of collection, response, coverage, and estimation for missing data. Note that for the cutoff sampling and model-based regression (ratio) estimation that we use, data 'missing' due to nonresponse, and data 'missing' due to being out-of-sample are treated in the same manner. Therefore missing data may be considered to result in sampling error, and variance estimates reflect all 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, in an effort to minimize their influence. See the Data Processing and Data System Editing section for each EIA form for an in-depth discussion of how the sampling and non-sampling errors are handled in each case.

Relative Standard Error: The relative standard error (RSE) statistic, usually given as a percentage, 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 the 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 approxi-mately a 68 percent chance that the true total or mean is within one RSE of the estimated total or mean. Note that reported RSEs are always estimates themselves, and are usually, as here, reported as percentages. As an example, suppose that a net generation from coal value is estimated to be 1,507 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 approxi-mately 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 may represent 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. Experiments were done to see if nonresponse should be treated differently, but it was decided to treat those cases the same as out-of-sample cases.

Relative Standard Error With Respect to a Superpopulation: The RSESP statistic is similar to the RSE (described above). Like the RSE, it is a statistic designed to estimate the variability of data and is usually given as a percentage. However, where the RSE is only designed to estimate the magnitude of sampling error, the RSESP more fully reflects the impact of variability from sampling and non-sampling errors. This is a more complete measure than RSE in that it can measure statistical variability in a complete census in addition to a sample21,24. In addition to being a measure of data variability, the RSESP can also be useful in comparing different models that are applied to the same set of data22. This capability is used to test different regression models for imputation and prediction. This testing may include considerations such as comparing different regressors, the comparative reliability of different monthly samples, or the use of different geographical strata or groupings for a given model. For testing purposes, ERUS typically uses recent historical data that have been finalized. Typically, time-series graphics showing two or more models or samples are generated showing the RSESP values over time. In selecting models, consideration is given to total survey error as well as any apparent differences in robustness.

Imputation: For monthly data, if the reported values appeared to be in error and the data issue could not be resolved with the respondent, or if the facility was a nonrespondent, a regression methodology is used to impute for the facility. The same procedure is used to estimate ("predict") data for facilities not in the monthly sample. The regression methodology relies on other data to make estimates for erroneous or missing responses.

Estimation for missing monthly data is accomplished by relating the observed data each month to one or more other data elements (regressors) for which we generally have an annual census. Each year, when new annual regressor data are available, recent monthly relationships are updated, causing slight revisions to estimated monthly results. These revisions are made as soon as the annual data are released.

The basic technique employed is described in the paper "Model-Based Sampling and Inference16," on the EIA website. Additional references can be found on the InterStat website (http://interstat.statjournals.net/). The basis for the current methodology involves a 'borrowing of strength' technique for small domains.

Data revision procedure

ERUS has adopted the following policy with respect to the revision and correction of recurrent data in energy publications:

- Annual survey data are disseminated either as preliminary or final when first appearing in a data product. Data initially released as preliminary will be so noted in the data product. These data are typically released as final by the next dissemination of the same product; however, if final data are available at an earlier interval they may be released in another product.
- All monthly survey data are first disseminated as preliminary. These data are revised after the prior year's data are finalized and are disseminated as revised preliminary. No revisions are made to the published data before this or subsequent to these data being finalized unless significant errors are discovered.
- After data are disseminated as final, further revisions will be considered if they 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.
- The magnitudes of changes due to revisions experienced in the past will be included periodically in the data products, so that the reader can assess the accuracy of the data.

Data sources for Electric Power Monthly

Data published in the EPM are compiled from the following sources:

- Form EIA-923, "Power Plant Operations Report,"
- Form EIA 826, "Monthly Electric Utility Sales and Revenues with State Distributions Report,"
- Form EIA 860, "Annual Electric Generator Report,"
- Form EIA-860M, "Monthly Update to the Annual Electric Generator Report," and

- Form EIA 861, "Annual Electric Power Industry Report."

For access to these forms and their instructions, please see:
http://www.eia.gov/cneaf/electricity/page/forms.html.

In addition to the above-named forms, the historical data published in the EPM for periods prior to 2008 are compiled from the following sources:

- FERC Form 423, "Monthly Report of 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-860A, "Annual Electric Generator Report–Utility,"
- Form EIA-860B, "Annual Electric Generator Report–Nonutility,"
- Form EIA-900, "Monthly Nonutility Power Report,"
- Form EIA-906, "Power Plant Report," and
- Form EIA-920, "Combined Heat and Power Plant Report."

See Appendix A of the historical Electric Power Annual reports to find descriptions of forms that are no longer in use. The publications can be found from the top of the current EPA under previous issues: http://www.eia.gov/electricity/annual.

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 difference: The following formula is used to calculate percent differences:

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

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

Meanings of symbols appearing in tables: The following symbols have the meaning described below:

P Indicates a preliminary value.

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).

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 500 of the largest electric utilities (primarily investor owned and publicly owned) as well as a census of energy service providers with sales to ultimate consumers in deregulated States. Form EIA-861, 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.

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 price of electricity to ultimate consumers 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 energy providers to ultimate consumers 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 EPM April 2001, p.1.)

With the October 2004 issue of the 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 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.

Beginning with 2008 data and some annual 2007 data, the Form EIA-923 replaced Forms EIA-906, EIA-920, EIA-423, and FERC 423. In addition, several sections of the discontinued Form EIA-767 have been included in either the Form EIA-860 or Form EIA-923. See the following link for a detailed explanation. http://www.eia.gov/cneaf/electricity/2008forms/consolidate.html

The legislative authority to collect these data is defined in the Federal Energy Administration Act of 1974 (Public Law 93-275, Sec. 13(b), 5(a), 5(b), 52).

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 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 sales of electricity to ultimate customers and revenue from 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 the price of electricity to ultimate consumers at the State level. The estimates are accumulated separately to produce the Census division and U.S. level estimates[1].

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

The electric revenue used to calculate the average price of electricity to ultimate consumers 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 price of electricity to ultimate consumers 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, 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, "Annual Electric Generator Report," 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 generator level. Certain power plant environmental-related data are collected at the boiler level. These data include environmental equipment design parameters, boiler air emission standards, and boiler emission controls The Form EIA-860 is made available in January to collect data related to the previous year.

Instrument and design history: The Form EIA-860 was originally implemented in January 1985 to collect data 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 EIA-411. In January 1999, the Form EIA-860 was renamed the Form EIA-860A, "Annual Electric Generator Report – Utility" and was implemented to collect data from electric utilities 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.

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.

The Federal Energy Administration Act of 1974 (Public Law 93-275) defines the legislative authority to collect these data.

Estimation of form eia-860 data: EIA received forms from all 18,151 existing generators in the 2010 Form EIA-860 frame, so no imputation was required.

Prime Movers: The Form EIA-860 sometimes represents a generator's prime mover by using the abbreviations 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-860M

The Form EIA 860M, "Monthly Update to the Annual Electric Generator Report," is a mandatory monthly survey that collects data on the status of proposed new generators or changes to existing generators for plants that report on Form EIA-860.

The Form EIA-860M has a rolling frame based upon planned changes to capacity as reported on the previous Form EIA-860. Respondents are added to the frame 12 months prior to the expected effective date for all new units or expected retirement date for existing units. For all other types of capacity changes (including retirements, uprates, derates, repowering, or other modifications), respondents are added 1 month prior to the anticipated modification change date. Respondents are removed from the frame at the completion of the changes or if the change date is moved back so that the plant no longer qualifies to be in the frame. Typically, 150 to 200 utilities per month are required to report for 175 to 250 plants (including 250 to 400 generating units) on this form. The unit characteristics of interest are changes to the previously reported planned operating month and year, prime mover type, capacity, and energy sources.

Instrument and design history: The data collected on Form EIA-860M was originally collected via phone calls at the end of each month. During 2005, the Form EIA-860M was introduced as a mandatory form using the Internet Data Collection (IDC) system.

The legislative authority to collect these data is defined in the Federal Energy Administration Act of 1974 (Public Law 93-275, Sec. 13(b), 5(a), 5(b), 52).

Data processing and data system editing: Approximately 150 to 200 utilities are requested to provide data each month on the Form EIA 860M. These data are collected via the IDC system and automatically checked for certain errors. Most of the quality assurance issues are addressed by the respondents as part of the automatic edit check process. In some cases, respondents are subsequently contacted about their explanatory overrides to the edit checks.

Sensitive data: Data collected on the Form EIA-860M are not considered to be sensitive.

Form EIA-861

The Form EIA 861, "Annual Electric Power Industry Report," is a mandatory 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 3,200 are electric utilities and the remainder are nontraditional utilities such as energy service providers or the unregulated subsidiaries of electric utilities and power marketers.

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.

Data processing and data system editing: The Form EIA 861 is made available to the respondents in January of each year to collect data as of the end of the preceding calendar year. The data are edited when entered into the interactive on line system. Internal edit checks are per-formed to verify that current data total across and between schedules, and are comparable to data reported the previous year. Edit checks are also performed to compare data reported on the Form EIA 861 and similar data reported on the Form EIA 826. Respondents are telephoned to obtain clarification of reported data and to obtain missing data.

Data for the Form EIA 861 are collected at the owner level from all electric utilities including energy service providers in the United States, its territories, and Puerto Rico. Form EIA 861 data in this report are for the United States only.

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

The electric revenue used to calculate the average price of electricity to ultimate consumers 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 State and Federal income taxes and other taxes paid by the utility.

The average price of electricity to ultimate consumers reported in this publication by sector represents 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 to the electric power industry participant for providing electrical service.

Sensitive data: Data collected on the Form EIA-861 are not considered to be sensitive.

Form EIA-923

Form EIA-923, “Power Plant Operations Report,” is a monthly collection of data on receipts and cost of fossil fuels, fuel stocks, generation, consumption of fuel for generation, and environmental data (e.g. emission controls and cooling systems). Data are collected from a monthly sample of approximately 1,900 plants, which includes a census of nuclear and pumped-storage hydroelectric plants. In addition approximately 4,050 plants, representing all other generators 1 MW or greater, are collected annually. In addition to electric power generating plants, respondents include fuel storage terminals without

generating capacity that receive shipments of fossil fuels 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. 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 all other plants, consumption is reported at the prime-mover level. For these plants, generation is reported either at the prime-mover level or, for noncombustible sources (e.g. wind, nuclear), at the prime-mover and energy source level. The source and disposition of electricity is reported annually for nonutilities at the plant level as is revenue from sales for resale. Environmental data are collected annually from facilities that have a steam turbine capacity of at least 10 megawatts.

Instrument and design history:

Receipts and cost and quality of fossil fuels
On July 7, 1972, the Federal Power Commission (FPC) issued Order Number 453 enacting the New Code of Federal Regulations, Section 141.61, legally 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. The FERC Form 423 replaced the FPC Form 423 in January 1983. The FERC Form 423 eliminated peaking units, for which data were previously collected on the FPC Form 423. 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. Starting with the January 1993 data, the FERC began to collect the data directly from the respondents.

The Form EIA-423 was originally implemented in January 2002 to collect monthly cost and quality data for fossil fuel receipts from owners or operators of nonutility electricity generating plants. 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 above) 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 non-regulated power producers. Its design closely followed that of the FERC Form 423.

Both the Form EIA-423 and FERC Form 423 were superseded by Schedule 2 of the Form EIA-923 in January of 2008. At the time, the Form EIA-923 maintained the 50-megawatt threshold for these data. In January 2013, the threshold was changed to 200 megawatts for plants primarily fueled by natural gas, petroleum coke, distillate fuel oil, and residual fuel oil. The requirement to report self-produced and minor fuels, i.e., blast furnace gas, other manufactured gases, kerosene, jet fuel, propane, and waste oils was eliminated. The threshold for coal plants remained at 50 megawatts.

Not all data are collected monthly on the Form EIA-923. Beginning with 2008 data, a sample of the respondents report monthly, with the remainder reporting annually. Until January 2013, monthly fuel receipts values for the annual surveys were imputed via regression. Prior to 2008, Schedule 2 annual data were not collected or imputed.

Generation, consumption, and stocks

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 Federal Power Commission (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 entities14. In 1998, the form 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 data15. In 2000, the form was modified to include the production of useful thermal output data.

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 combined heat and power plants; all other plants that generate electricity continue 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.

Forms EIA-906 and EIA-920 were superseded by survey Form EIA-923 beginning in January 2008 with the collection of annual 2007 data and monthly 2008 data.

Data processing and data system editing: Respondents are encouraged to enter data directly into a computerized database via the Internet Data Collection (IDC) system. A variety of automated quality control mechanisms are run during this process, such as range checks and comparisons with historical data. These edit checks are performed as the data are provided, and many problems that are encountered are resolved during the reporting process. Those plants that are unable to use the electronic reporting medium provide the data in hard copy, typically via fax. These data are manually entered into the computerized database. The data are subjected to the same edits as those that are electronically submitted.

If the reported data appear to be in error and the data issue cannot be resolved by follow up contact with the respondent, or if a facility is a nonrespondent, a regression methodology is used to impute for the facility. Beginning in January 2013, imputation is not performed for fuel receipts data reported on Schedule 2.

Imputation: For select survey data elements collected monthly, regression prediction, or imputation, is done for 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). Only approximately 0.02 percent of the national total generation for 2010 is imputed, although this will vary by State and energy source.

When gross generation is reported and net generation is not available, net generation is estimated by using a fixed ratio to gross generation by prime-mover type and installed environmental 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 are 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. These plants include independent power producers, electric utilities, and commercial and industrial combined heat and power producers. All plants with a total fossil-fueled nameplate capacity of 50 megawatts or more (excluding storage terminals, which do not produce electricity) were required to report receipts of fossil fuels. In January 2013, the threshold was changed to 200 megawatts for plants primarily fueled by natural gas, petroleum coke, distillate fuel oil, and residual fuel oil. The requirement to report self-produced and minor fuels, i.e., blast furnace gas, other manufactured gases, kerosene, jet fuel, propane, and waste oils was eliminated. The threshold for coal plants remained at 50 megawatts. 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.

For coal, units for receipts are in tons and units for average heat contents (A) are in million Btu per ton. For petroleum, units for receipts are in barrels and units for average heat contents (A) are in million Btu per barrel.

For gas, units for receipts are in thousand cubic feet (Mcf) and units for average heat contents (A) are in million Btu per thousand cubic foot.

Power production, fuel stocks, and fuel consumption data: 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 Federal Power Commission (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 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 the production of useful thermal output data.

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 combined heat and power plants; all other plants that generate electricity continue 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 2004, Form EIA-920 superseded Form EIA-906 for those plants defined as combined heat and power plants; all other plants that generate electricity continue to report on Form EIA-906.

In January 2008, Form EIA-923 superseded both the Forms EIA-906 and EIA-920 for the collection of these data.

Methodology to estimate biogenic and non-biogenic municipal solid waste[2]: 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 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.

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 Tables 1 and 2, below). [3]

These values are used to allocate net generation published in the Electric Power Monthly generation 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
Biogenic	57	56	55	55	56	57	55	54	51	50
Non-biogenic	43	44	45	45	44	43	46	46	49	50

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Biogenic	77	77	76	76	75	67	65	65	64	64
Non-biogenic	23	23	24	24	25	34	35	35	36	36

Useful thermal output: With the implementation of the Form EIA-923, "Power Plant Operations Report," in 2008, combined heat and power (CHP) plants are required to report total fuel consumed and electric power generation. Beginning with the January 2008 data, EIA will estimate the allocation of the total fuel consumed at CHP plants between electric power generation and useful thermal output.

First, an efficiency factor is determined for each plant and prime mover type. Based on data for electric power generation and useful thermal output 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 useful thermal output (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 multiplied 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.

Conversion of petroleum coke to liquid petroleum: The quantity conversion is 5 barrels (of 42 U.S. gallons each) per short ton (2,000 pounds).

Conversion of propane gas to liquid petroleum: The quantity conversion is 1.53 Mcf (thousand cubic feet) per barrel (or 42 U.S. gallons each).

Conversion of synthesis gas from coal to coal: The quantity conversion is 98 Mcf (thousand cubic feet) per short ton (2,000 pounds).

Conversion of synthesis gas from petroleum coke to petroleum coke: The quantity conversion is 107.42 Mcf (thousand cubic feet) per short ton (2,000 pounds).

Issues within historical data series:

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 due 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. In January 2013, this estimation procedure was dropped.

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 the FERC 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. Furthermore, there may be a notable increase in fuel receipts beginning with January 2008 data.

Starting with the revised data for 2008, tables for total receipts begin to reflect estimation for all plants with capacity over 1 megawatt, to be consistent with other electric power data. Previous receipts data published have been 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 EPM (i.e., 1 megawatt and above), with associated relative standard errors, provides a more complete assessment of the market.

Generation and consumption
Beginning in 2008, a new method of allocating fuel consumption between electric power generation and useful thermal output (UTO) was implemented. This new methodology evenly distributes a combined heat and power (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 decreased while the fuel for UTO is increased 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: Most of the data collected on the Form EIA-923 are not considered business sensitive. However, the cost of fuel delivered to nonutilities, commodity cost of fossil fuels, and reported fuel stocks at the end of the reporting period 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)).

Average Capacity Factors

This section describes the methodology for calculating capacity factors by fuel and technology type for operating electric power plants. Capacity factor is a measure (expressed as a percent) of how often an electric generator operates over a specific period of time, using a ratio of the actual output to the maximum possible output over that time period.

The capacity factor calculation only includes operating electric generators in the Electric Power Sector (sectors 1, 2 and 3) using the net generation reported on the Form EIA-923 and the net summer capacity reported on the Form EIA-860. The capacity factor for a particular fuel/technology type is given by:

$$CapacityFactor = \left(\frac{\sum_{x,m} Generation_{x,m}}{\sum_{x,m} Capacity_{x,m} * AvailableTime_{x,m}} \right)$$

Where x represents generators of that fuel/technology combination and m represents the period of time (month or year). Generation and capacity are specific to a generator, and the generator is categorized by its primary fuel type as reported on the EIA-860. All generation from that generator is included, regardless of other fuels consumed. Available time is also specific to the generator in order to account for differing online and retirement dates. Therefore, these published capacity factors will differ from a simple calculation using annual generation and capacity totals from the appropriate tables in this publication.

NERC classification

The Florida Reliability Coordinating Council (FRCC) separated itself from the Southeastern Electric Reliability Council (SERC) in the mid-1990s. In 1998, several utilities realigned from Southwest Power Pool (SPP) to SERC. Name changes altered both the Mid-Continent Area Power Pool (MAPP) to the Midwest Reliability Organization (MRO) and the Western Systems Coordinating Council (WSCC) to the Western Energy 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. Both the States of Alaska and Hawaii are not contiguous with the other continental States and have no electrical interconnections. At the close of calendar year 2005, the following reliability regional councils were dissolved: East Central Area Reliability Coordinating 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 from a delegation of authority from NERC to handle the regional responsibilities of the Electric Reliability Council of Texas (ERCOT). The revised delegation agreements covering all the regions were approved by the Federal Energy Regulatory Commission on March 21, 2008. Reliability Councils that are unchanged include: Florida Reliability Coordinating Council (FRCC), Northeast Power Coordinating Council (NPCC), and the Western Energy Coordinating Council (WECC

The new NERC Regional Council 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).

Business classification

Nonutility power producers consist of corporations, persons, agencies, authorities, or other legal entities that own or operate facilities for electric generation but are not electric utilities. This includes qualifying cogenerators, small power producer, and independent power producers. Furthermore, 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 manufacturing, agricultural, forestry, transportation, finance, service and administrative industries, based on the Office of Management and Budget's Standard Industrial Classification (SIC) Manual. In 1997, the SIC Manual name was changed to North American Industry Classification System (NAICS). The following is a list of the main classifications and the category of primary business activity within each classification.

Agriculture, Forestry, and Fishing

111 Agriculture production-crops
112 Agriculture production, livestock and animal specialties
113 Forestry
114 Fishing, hunting, and trapping
115 Agricultural services

Mining

211 Oil and gas extraction
2121 Coal mining
2122 Metal mining

2123 Mining and quarrying of nonmetallic minerals except fuels

Construction

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Manufacturing

311 Food and kindred products
3122 Tobacco products
314 Textile and mill products
315 Apparel and other finished products made from fabrics and similar materials
316 Leather and leather products
321 Lumber and wood products, except furniture
322 Paper and allied products (other than 322122 or 32213)
322122 Paper mills, except building paper
32213 Paperboard mills
323 Printing and publishing
324 Petroleum refining and related industries (other than 32411)
32411 Petroleum refining
325 Chemicals and allied products (other than 325188, 325211, 32512, or 325311)
32512 Industrial organic chemicals
325188 Industrial Inorganic Chemicals
325211 Plastics materials and resins
325311 Nitrogenous fertilizers
326 Rubber and miscellaneous plastic products
327 Stone, clay, glass, and concrete products (other than 32731)
32731 Cement, hydraulic
331 Primary metal industries (other than 331111 or 331312)
331111 Blast furnaces and steel mills
331312 Primary aluminum
332 Fabricated metal products, except machinery and transportation equipment
333 Industrial and commercial equipment and components except computer equipment
3345 Measuring, analyzing, and controlling instruments, photographic, medical, and optical goods, watches and clocks
335 Electronic and other electrical equipment and components except computer equipment
336 Transportation equipment
337 Furniture and fixtures
339 Miscellaneous manufacturing industries

Transportation and Public Utilities

22 Electric, gas, and sanitary services
2212 Natural gas transmission
2213 Water supply
22131 Irrigation systems
22132 Sewerage systems
481 Transportation by air
482 Railroad transportation
483 Water transportation
484 Motor freight transportation and warehousing
485 Local and suburban transit and interurban highway passenger transport
486 Pipelines, except natural gas
487 Transportation services
491 United States Postal Service
513 Communications
562212 Refuse systems

Wholesale Trade

421 to 422

Retail Trade

441 to 454

Finance, Insurance, and Real Estate

521 to 533

Services

512 Motion pictures
514 Business services
514199 Miscellaneous services
541 Legal services
561 Engineering, accounting, research, management, and related services
611 Education services
622 Health services
624 Social services
712 Museums, art galleries, and botanical and zoological gardens
713 Amusement and recreation services
721 Hotels
811 Miscellaneous repair services
8111 Automotive repair, services, and parking
812 Personal services
813 Membership organizations
814 Private households

Public Administration

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Multiple Survey Programs- Small Scale PV Solar Estimation of Generation

Monthly generation from small scale PV solar resources is an estimation of the generation produced from PV solar resources and not the results of a data collection effort for generation directly, with the exception of "Third Party Owned" or (TPO) solar installations which has direct data collection. TPO data however is not comprehensive. TPOs do not operate in every state, TPO collected data is not a large portion of the estimated amount, and the data has been collected for limited period of time. The generation estimate is based on data collected for PV solar capacity.

Capacity of PV solar resources is collected directly from respondents. These data are collected on several EIA forms and from several types of respondents. Monthly data for net-metered PV solar capacity is reported on the Form EIA-826. Form EIA-826 is a cutoff sample drawn from the annual survey Form EIA-861 which collects this data from all respondents. Using data from both of these surveys we have a regression model to impute for the non-sampled monthly capacity.

The survey instruments collect solar net metering capacity from reporting utilities by state and customer class. There are four customer classes: residential, commercial, industrial and transportation. However, the estimation process included only the residential, commercial and industrial customers.[1] Data for these customer classes were further classified by U.S. Census Regions, to ensure adequate number of customer observations in for each estimation group.

Estimation Model: The total PV capacity reported by utilities in the annual EIA-861 survey is the single primary input (regressor) to the monthly estimation of PV capacity by state. The model tested for each Census Region was of the form:

$$y_{i_{2015,m}} = \beta_1 x_{i_{2013}} + w_i^{-1/2} e_i \text{, where}$$

$x_{i_{2013}}$ is the ith utility's 2013 (or the last published year) solar PV capacity

$y_{i_{2015,m}}$ is the ith utility's month m, 2015 (or the current year) reported solar PV capacity

w_i is the weight factor, which is the inverse of $x_{i_{2013}}$

β_1 is effectively the growth rate of reported month m solar PV capacity

e_i is the error term

The model checks for outliers and removes them from the regression equation inputs. The model calculates RSEs by sector, state, census region, and US total. Once we have imputed for all of the

monthly net-metered PV solar capacity we add to total net metered capacity, the PV solar capacity collected on the Form EIA-861 for distributed and dispersed resources that are not net metered.

We use a second model to estimate the generation using this capacity as an input. The original methodology was developed for the "Annual Energy Outlook" based on our "NEMS" modelled projections several years ago. The original method underwent a calibration project designed to develop PV production levels for the NEMS projections consistent with simulations of a National Renewable Energy Laboratory model called PVWatts, which is itself embedded in PC software under the umbrella of the NREL's System Advisor Model (SAM).

The PVWatts simulations require, panel azimuth orientations and tilts, something that the NEMS projections do not include. Call the combinations of azimuths and tilts "orientations." The orientation and solar insolation (specific to a location) have a direct effect on the PV production level. The calibration project selected the 100 largest population Metropolitan Statistical Areas (MSAs) and relied on weights derived from orientation data from California Solar Initiative dataset to develop typical outputs for each of the 100 MSAs. It then was expanded from an annual estimate to a monthly estimate. A further description of this model is located here. A listing of the MSAs are included in Appendix 1.

Using Form EIA-861 data for service territories, which lists the counties that each electric distribution company (EDC) provides service, and NREL solar insolation data by county a simple average of insolation values by EDC is calculated.

Using the estimation model, we produce by utility, by state and by sector an estimate of generation. All the utilities'' capacity and generation estimates are summed by state and sector and a KWh/KW rate by state and sector is calculated.

Capacity from the Form EIA-860 that is net metered is subtracted from the total capacity by state and sector as well as the capacity reported on the EIA-826 from TPOs, resulting in a new "net" capacity amount. This capacity amount is multiplied by the KWh/KW rate to produce the non-TPO generation estimate and then it is added to the TPO reported sales to ultimate customers from the EIA-826 to obtain a final estimate for generation and a blended KWh/KW rate is calculated. The estimate for generation is aggregated by US census regions and US totals. The RSEs for capacity are checked for level of error and if they pass, the summary data by state, US census region and US total are reported in the EPM.

Appendix 2 contains a flow diagram of the data inputs, data quality control checks and data analysis required to perform this estimation.

Appendix 1- MSAs

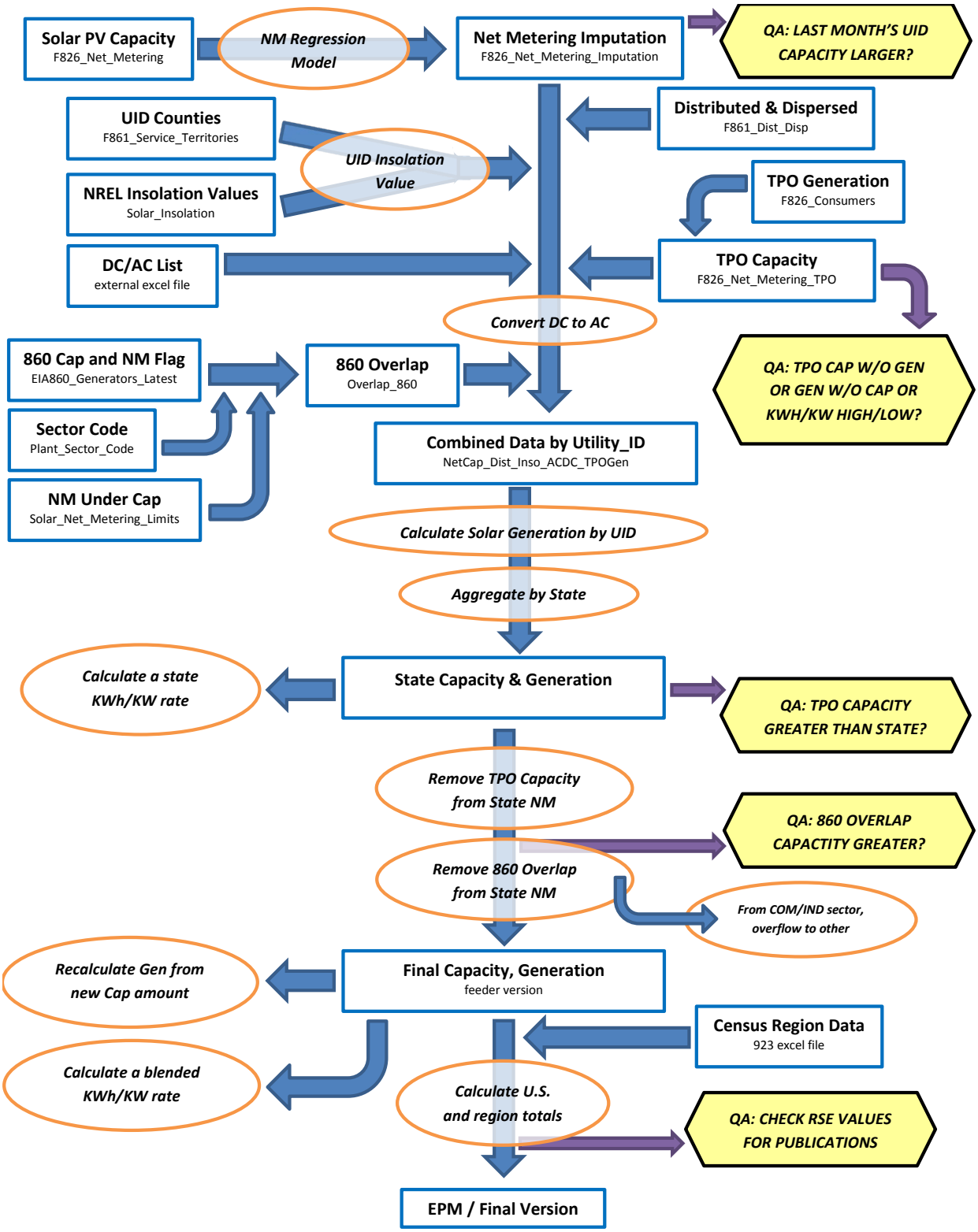
TMY3 (1991-2005) Weather Stations by MSA

Site	Weather Location	MSA
1	USA NY New York Central Park Obs.	New York-Newark-Jersey City, NY-NJ-PA MSA
2	USA CA Los Angeles Intl Airport	Los Angeles-Long Beach-Anaheim, CA MSA
3	USA IL Chicago Midway Airport	Chicago-Naperville-Elgin, IL-IN-WI MSA
4	USA TX Dallas-fort Worth Intl Airport	Dallas-Fort Worth-Arlington, TX MSA
5	USA TX Houston Bush Intercontinental	Houston-The Woodlands-Sugar Land, TX MSA
6	USA PA Philadelphia Int'l Airport	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA
7	USA VA Washington Dc Reagan Airport	Washington-Arlington-Alexandria, DC-VA-MD-WV MSA
8	USA FL Miami Intl Airport	Miami-Fort Lauderdale-West Palm Beach, FL MSA
9	USA GA Atlanta Hartsfield Intl Airport	Atlanta-Sandy Springs-Roswell, GA MSA
10	USA MA Boston Logan Int'l Airport	Boston-Cambridge-Newton, MA-NH MSA
11	USA CA San Francisco Intl Airport	San Francisco–Oakland–Hayward, CA MSA
12	USA AZ Phoenix Sky Harbor Intl Airport	Phoenix-Mesa-Scottsdale, AZ MSA
13	USA CA Riverside Municipal Airport	Riverside-San Bernardino-Ontario, CA MSA
14	USA MI Detroit City Airport	Detroit-Warren-Dearborn, MI MSA
15	USA WA Seattle Seattle-Tacoma Intl Airport	Seattle-Tacoma-Bellevue, WA MSA
16	USA MN Minneapolis-St. Paul Int'l Arp	Minneapolis-St. Paul-Bloomington, MN-WI MSA
17	USA CA San Diego Lindbergh Field	San Diego-Carlsbad, CA MSA
18	USA FL Tampa Int'l Airport	Tampa-St. Petersburg-Clearwater, FL MSA
19	USA MO St Louis Lambert Int'l Airport	St. Louis, MO-IL MSA
20	USA MD Baltimore-Washington Int'l Airport	Baltimore-Columbia-Towson, MD MSA
21	USA CO Denver Centennial [Golden - NREL]	Denver-Aurora-Lakewood, CO MSA
22	USA PA Pittsburgh Allegheny Co Airport	Pittsburgh, PA MSA
23	USA NC Charlotte Douglas Intl Airport	Charlotte-Concord-Gastonia, NC-SC MSA
24	USA OR Portland Hillsboro	Portland-Vancouver-Hillsboro, OR-WA MSA
25	USA TX San Antonio Intl Airport	San Antonio-New Braunfels, TX MSA
26	USA FL Orlando Intl Airport	Orlando-Kissimmee-Sanford, FL MSA
27	USA CA Sacramento Executive Airport	Sacramento–Roseville–Arden-Arcade, CA MSA
28	USA OH Cincinnati Municipal Airport	Cincinnati, OH-KY-IN MSA
29	USA OH Cleveland Hopkins Intl Airport	Cleveland-Elyria, OH MSA
30	USA MO Kansas City Int'l Airport	Kansas City, MO-KS MSA
31	USA NV Las Vegas McCarran Intl Airport	Las Vegas-Henderson-Paradise, NV MSA
32	USA OH Columbus Port Columbus Intl A	Columbus, OH MSA
33	USA IN Indianapolis Intl Airport	Indianapolis-Carmel-Anderson, IN MSA
34	USA CA San Jose Intl Airport	San Jose-Sunnyvale-Santa Clara, CA MSA
35	USA TX Austin Mueller Municipal Airport	Austin-Round Rock, TX MSA
36	USA TN Nashville Int'l Airport	Nashville-Davidson–Murfreesboro–Franklin, TN MSA

37	USA VA Norfolk Int'l Airport	Virginia Beach-Norfolk-Newport News, VA-NC MSA
38	USA RI Providence T F Green State	Providence-Warwick, RI-MA MSA
39	USA WI Milwaukee Mitchell Intl Airport	Milwaukee-Waukesha-West Allis, WI MSA
40	USA FL Jacksonville Craig	Jacksonville, FL MSA
41	USA TN Memphis Int'l Airport	Memphis, TN-MS-AR MSA
42	USA OK Oklahoma City Will Rogers	Oklahoma City, OK MSA
43	USA KY Louisville Bowman Field	Louisville/Jefferson County, KY-IN MSA
44	USA VA Richmond Int'l Airport	Richmond, VA MSA
45	USA LA New Orleans Alvin Callender	New Orleans-Metairie, LA MSA
46	USA CT Hartford Bradley Intl Airport	Hartford-West Hartford-East Hartford, CT MSA
47	USA NC Raleigh Durham Int'l	Raleigh, NC MSA
48	USA UT Salt Lake City Int'l Airport	Salt Lake City, UT MSA
49	USA AL Birmingham Municipal Airport	Birmingham-Hoover, AL MSA
50	USA NY Buffalo Niagara Intl Airport	Buffalo-Cheektowaga-Niagara Falls, NY MSA
51	USA NY Rochester Greater Rochester	Rochester, NY MSA
52	USA MI Grand Rapids Kent County Int'l Airport	Grand Rapids-Wyoming, MI MSA
53	USA AZ Tucson Int'l Airport	Tucson, AZ MSA
54	USA HI Honolulu Intl Airport	Urban Honolulu, HI MSA
55	USA OK Tulsa Int'l Airport	Tulsa, OK MSA
56	USA CA Fresno Yosemite Intl Airport	Fresno, CA MSA
57	USA CT Bridgeport Sikorsky Memorial	Bridgeport-Stamford-Norwalk, CT MSA
58	USA MA Worchester Regional Airport	Worcester, MA-CT MSA
59	USA NM Albuquerque Intl Airport	Albuquerque, NM MSA
60	USA NE Omaha Eppley Airfield	Omaha-Council Bluffs, NE-IA MSA
61	USA NY Albany County Airport	Albany-Schenectady-Troy, NY MSA
62	USA CA Bakersfield Meadows Field	Bakersfield, CA MSA
63	USA CT New Haven Tweed Airport	New Haven-Milford, CT MSA
64	USA TN Knoxville McGhee Tyson Airport	Knoxville, TN MSA
65	USA SC Greenville Downtown Airport	Greenville-Anderson-Mauldin, SC MSA
66	USA CA Oxnard Airport	Oxnard-Thousand Oaks-Ventura, CA MSA
67	USA TX El Paso Int'l Airport	El Paso, TX MSA
68	USA PA Allentown Lehigh Valley Intl	Allentown-Bethlehem-Easton, PA-NJ MSA
69	USA LA Baton Rouge Ryan Airport	Baton Rouge, LA MSA
70	USA TX McCallen Miller Intl Airport	McAllen-Edinburg-Mission, TX MSA
71	USA OH Dayton Int'l Airport	Dayton, OH MSA
72	USA SC Columbia Metro Airport	Columbia, SC MSA
73	USA NC Greensboro Piedmont Triad Int'l Airport	Greensboro-High Point, NC MSA
74	USA FL Sarasota Bradenton	North Port-Sarasota-Bradenton, FL MSA
75	USA AR Little Rock Adams Field	Little Rock-North Little Rock-Conway, AR MSA
76	USA SC Charleston Intl Airport	Charleston-North Charleston, SC MSA
77	USA OH Akron Akron-canton Reg. Airport	Akron, OH MSA
78	USA CA Stockton Metropolitan Airport	Stockton-Lodi, CA MSA

79	USA CO Colorado Springs Muni Airport	Colorado Springs, CO MSA
80	USA NY Syracuse Hancock Int'l Airport	Syracuse, NY MSA
81	USA FL Fort Myers Page Field	Cape Coral-Fort Myers, FL MSA
82	USA NC Winston-Salem Reynolds Airport	Winston-Salem, NC MSA
83	USA ID Boise Air Terminal	Boise City, ID MSA
84	USA KS Wichita Mid-continent Airport	Wichita, KS MSA
85	USA WI Madison Dane Co Regional Airport	Madison, WI MSA
86	USA MA Worchester Regional Airport	Springfield, MA MSA
87	USA FL Lakeland Linder Regional Airport	Lakeland-Winter Haven, FL MSA
88	USA UT Ogden Hinkley Airport	Ogden-Clearfield, UT MSA
89	USA OH Toledo Express Airport	Toledo, OH MSA
90	USA FL Daytona Beach Intl Airport	Deltona-Daytona Beach-Ormond Beach, FL MSA
91	USA IA Des Moines Intl Airport	Des Moines-West Des Moines, IA MSA
92	USA GA Augusta Bush Field	Augusta-Richmond County, GA-SC MSA
93	USA MS Jackson Int’l Airport	Jackson, MS MSA
94	USA UT Provo Muni	Provo-Orem, UT MSA
95	USA PA Wilkes-Barre Scranton Intl Airport	Scranton–Wilkes-Barre–Hazleton, PA MSA
96	USA PA Harrisburg Capital City Airport	Harrisburg-Carlisle, PA MSA
97	USA OH Youngstown Regional Airport	Youngstown-Warren-Boardman, OH-PA MSA
98	USA FL Melbourne Regional Airport	Palm Bay-Melbourne-Titusville, FL MSA
99	USA TN Chattanooga Lovell Field Airport	Chattanooga, TN-GA MSA
100	USA WA Spokane Int’l Airport	Spokane-Spokane Valley, WA MSA

Appendix 2 – Flow diagram of data sources and analysis



[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] 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. Published at http://www.usu.edu/recycle/faq.htm. Accessed December 2006.

[3] 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.

Table C.1 Average Heat Content of Fossil-Fuel Receipts, November 2018

Census Division and State	Coal (Million Btu per Ton)	Petroleum Liquids (Million Btu per Barrel)	Petroleum Coke (Million Btu per Ton)	Natural Gas (Million Btu per Thousand Cubic Feet)
New England	24.60	5.99	--	1.03
Connecticut	--	5.80	--	1.03
Maine	24.60	6.25	--	1.06
Massachusetts	--	5.80	--	1.03
New Hampshire	--	6.01	--	1.03
Rhode Island	--	--	--	1.03
Vermont	--	--	--	--
Middle Atlantic	22.22	5.97	--	1.03
New Jersey	25.38	5.78	--	1.04
New York	26.68	5.82	--	1.03
Pennsylvania	22.08	6.02	--	1.03
East North Central	20.00	5.80	27.53	1.05
Illinois	17.63	5.78	--	1.00
Indiana	22.04	5.75	--	1.05
Michigan	18.98	5.90	27.49	1.05
Ohio	24.67	5.80	--	1.06
Wisconsin	17.83	5.80	27.99	1.04
West North Central	16.57	5.83	27.60	1.05
Iowa	17.58	5.76	27.60	1.08
Kansas	17.09	5.73	--	1.03
Minnesota	17.68	5.80	--	1.08
Missouri	17.76	5.78	--	1.03
Nebraska	16.90	--	--	1.06
North Dakota	12.96	5.92	--	0.99
South Dakota	16.47	6.00	--	--
South Atlantic	23.26	5.83	28.41	1.03
Delaware	25.70	--	--	1.04
District of Columbia	--	--	--	--
Florida	23.57	5.77	28.41	1.02
Georgia	19.16	5.95	--	1.03
Maryland	25.25	5.82	--	1.04
North Carolina	25.33	5.89	--	1.03
South Carolina	24.38	5.94	--	1.03
Virginia	19.84	5.78	--	1.05
West Virginia	24.95	5.76	--	1.08
East South Central	20.79	5.77	--	1.02
Alabama	18.85	5.66	--	1.03
Kentucky	22.12	5.80	--	1.03
Mississippi	13.20	5.80	--	1.02
Tennessee	23.05	5.77	--	1.01
West South Central	16.01	5.91	28.98	1.03
Arkansas	17.41	5.80	--	1.02
Louisiana	17.06	--	28.98	1.03
Oklahoma	16.88	6.00	--	1.03
Texas	15.48	5.87	--	1.02
Mountain	18.64	5.73	--	1.05
Arizona	19.36	5.61	--	1.04
Colorado	18.50	5.73	--	1.10
Idaho	--	--	--	1.00
Montana	17.00	5.92	--	1.04
Nevada	18.86	5.82	--	1.03
New Mexico	18.02	5.66	--	1.03
Utah	21.32	5.88	--	1.04
Wyoming	17.82	5.81	--	1.05
Pacific Contiguous	17.37	5.92	--	1.03
California	22.84	--	--	1.03
Oregon	17.15	--	--	1.04
Washington	16.96	5.92	--	1.04
Pacific Noncontiguous	14.00	6.09	--	1.00
Alaska	14.00	5.60	--	1.00
Hawaii	--	6.09	--	--
U.S. Total	19.00	5.98	28.52	1.03

'Coal' includes anthracite, bituminous, subbituminous, lignite, waste coal, synthetic coal, and coal-derived synthesis gas.
'Petroleum Liquids' include 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.
Notes: See Glossary for definitions. Values are preliminary. Data represents weighted values.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table C.2. Comparison of Preliminary Monthly Data Versus Final Monthly Data at the U.S. Level, 2015 through 2017

	Mean Absolute Value of Percent Change Total (All Sectors)		
Item	**2015**	**2016**	**2017**
Net Generation			
Coal	0.33%	0.09%	0.17%
Petroleum Liquids	1.00%	3.08%	3.76%
Petroleum Coke	1.60%	1.46%	5.79%
Natural Gas	0.18%	0.30%	1.93%
Other Gases	3.90%	3.76%	11.64%
Hydroelectric	1.08%	0.76%	2.47%
Nuclear	0.01%	0.05%	0.00%
Other	0.80%	0.76%	2.50%
Total	**0.23%**	**0.08%**	**0.63%**
Consumption of Fossil Fuels for Electricity Generation			
Coal	0.24%	0.11%	0.13%
Petroleum Liquids	2.28%	5.81%	4.01%
Petroleum Coke	1.50%	0.87%	4.95%
Natural Gas	0.32%	2.26%	1.08%
Fuel Stocks for Electric Power Sector			
Coal	0.40%	0.72%	0.18%
Petroleum Liquids	2.92%	3.19%	1.97%
Petroleum Coke	0.04%	0.27%	14.42%
Retail Sales			
Residential	0.30%	0.26%	0.31%
Commercial	0.18%	0.55%	0.28%
Industrial	2.92%	4.31%	4.00%
Transportation	0.37%	0.06%	0.12%
Total	**0.93%**	**1.40%**	**1.12%**
Revenue			
Residential	0.15%	0.28%	0.26%
Commercial	0.62%	1.21%	0.28%
Industrial	3.15%	4.54%	3.52%
Transportation	1.09%	1.53%	0.21%
Total	**0.83%**	**1.34%**	**0.57%**
Average Retail Price			
Residential	0.15%	0.05%	0.21%
Commercial	0.44%	0.65%	0.20%
Industrial	0.31%	0.24%	0.51%
Transportation	0.83%	1.57%	0.20%
Total	**0.11%**	**0.10%**	**0.53%**
Receipt of Fossil Fuels			
Coal	1.70%	1.92%	1.30%
Petroleum Liquids	1.86%	1.16%	3.18%
Petroleum Coke	2.47%	0.01%	0.00%
Natural Gas	0.25%	0.21%	19.49%
Cost of Fossil Fuels			
Coal	0.04%	0.12%	0.83%
Petroleum Liquids	0.25%	0.26%	0.34%
Petroleum Coke	1.42%	0.12%	0.00%
Natural Gas	0.14%	0.12%	0.47%

Coal includes anthracite, bituminous, subbituminous, lignite, waste coal, and synthetic coal. Coal stocks exclude waste coal.
Petroleum Liquids include distillate fuel oil, residual fuel oil, jet fuel, kerosene, and waste oil.
Natural gas includes a small amount of supplemental gaseous fuels that cannot be identified separately. Excludes blast furnace gas and other gases.
Hydroelectric includes conventional hydroelectric and hydroelectric pumped storage facilities.
Other generation includes geothermal, wood, waste, wind, and solar, batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.
Fuel Stocks are end-of-month values.
See technical notes (http://www.eia.gov/cneaf/electricity/epm/appenc.pdf) for additional information on the Commercial, Industrial and Transportation sectors.
Cost of Fossil Fuels represent weighted values.
Notes: Mean absolute value of percent change is the unweighted average of the absolute percent cahnges.
Sources: U.S. Energy Information Administration, Form EIA-923 'Power Plant Operations Report'; Form EIA-423, 'Monthly Cost and Quality of Fuels for Electric Plants Report'; Form EIA-826, 'Monthly Electric Sales and Revenue With State Distributions Report'; Form EIA-906, 'Power Plant Report;' Form EIA-920 'Combined Heat and Power Plant Report'; and Federal Energy Regulatory Commission, FERC Form 423, 'Monthly Report of Cost and Quality of Fuels for Electric Plants.'

Table C.3. Comparison of Preliminary Annual Data Versus Final Annual Data at the U.S. Level, 2015 through 2017

	2015			2016			2017		
Item	Preliminary Annual Data	Final Annual Data	Percent Change	Preliminary Annual Data	Final Annual Data	Percent Change	Preliminary Annual Data	Final Annual Data	Percent Change
Net Generation (Thousand MWh)									
Coal	1,356,057	1,352,398	-0.27%	1,240,108	1,239,149	-0.08%	1,207,901	1,205,835	-0.17%
Petroleum Liquids	17,456	17,372	-0.48%	12,675	13,008	2.63%	12,583	12,414	-1.34%
Petroleum Coke	10,987	10,877	-1.00%	11,232	11,197	-0.31%	8,508	8,976	5.50%
Natural Gas	1,335,068	1,333,482	-0.12%	1,380,295	1,378,307	-0.14%	1,272,864	1,296,415	1.85%
Other Gases	12,963	13,117	1.18%	13,000	12,807	-1.48%	14,159	12,469	-11.94%
Hydroelectric	246,075	243,989	-0.85%	259,143	261,126	0.77%	293,550	293,839	0.10%
Nuclear	797,178	797,178	0.00%	805,327	805,694	0.05%	804,950	804,950	0.00%
Other	311,597	309,189	-0.77%	357,299	355,387	-0.54%	400,289	399,371	-0.23%
Total	**4,087,381**	**4,077,601**	**-0.24%**	**4,079,079**	**4,076,675**	**-0.06%**	**4,014,804**	**4,034,268**	**0.48%**
Consumption of Fossil Fuels for Electricity Generation									
Coal (1,000 tons)	740,855	739,594	-0.17%	678,005	677,371	-0.09%	663,479	663,911	0.07%
Petroleum Liquids (1,000 barrels)	29,545	28,925	-2.10%	21,225	22,405	5.56%	21,935	21,696	-1.09%
Petroleum Coke (1,000 tons)	4,088	4,044	-1.07%	4,275	4,253	-0.52%	3,349	3,490	4.21%
Natural Gas (1,000 Mcf)	10,048,346	10,016,576	-0.32%	10,400,189	10,170,110	-2.21%	9,440,777	9,507,760	0.71%
Fuel Stocks for Electric Power Sector									
Coal (1,000 tons)	197,128	195,548	-0.80%	163,946	162,009	-1.18%	137,155	137,687	0.39%
Petroleum Liquids (1,000 barrels)	32,223	32,884	2.05%	30,880	31,839	3.11%	28,723	29,294	1.99%
Petroleum Coke (1,000 tons)	1,342	1,340	-0.15%	872	845	-3.10%	1,113	864	-22.42%
Retail Sales (Million kWh)									
Residential	1,399,884	1,404,096	0.30%	1,407,394	1,411,058	0.26%	1,378,819	1,378,648	-0.01%
Commercial	1,358,419	1,360,752	0.17%	1,359,617	1,367,191	0.56%	1,349,208	1,352,888	0.27%
Industrial	958,563	986,508	2.92%	936,269	976,715	4.32%	946,443	984,298	4.00%
Transportation	7,659	7,637	-0.29%	7,499	7,497	-0.03%	7,524	7,523	-0.02%
Total	**3,724,525**	**3,758,992**	**0.93%**	**3,710,779**	**3,762,462**	**1.39%**	**3,681,995**	**3,723,356**	**1.12%**
Revenue (Million Dollars)									
Residential	177,367	177,624	0.14%	176,585	177,077	0.28%	177,860	177,661	-0.11%
Commercial	143,893	144,781	0.62%	140,937	142,643	1.21%	144,108	144,242	0.09%
Industrial	66,088	68,166	3.14%	63,201	66,068	4.54%	65,394	67,691	3.51%
Transportation	779	771	-1.12%	711	722	1.53%	727	728	0.15%
Total	**388,127**	**391,341**	**0.83%**	**381,435**	**386,509**	**1.33%**	**388,089**	**390,322**	**0.58%**
Average Retail Price (Cents/kWh)									
Residential	12.67	12.65	-0.16%	12.55	12.55	0.02%	12.90	12.89	-0.10%
Commercial	10.59	10.64	0.44%	10.37	10.43	0.65%	10.68	10.66	-0.18%
Industrial	6.89	6.91	0.22%	6.75	6.76	0.21%	6.91	6.88	-0.47%
Transportation	10.17	10.09	-0.83%	9.48	9.63	1.55%	9.67	9.68	0.17%
Total	**10.42**	**10.41**	**-0.10%**	**10.28**	**10.27**	**-0.06%**	**10.54**	**10.48**	**-0.54%**
Receipt of Fossil Fuels									
Coal (1,000 tons)	769,866	782,929	1.70%	638,564	650,770	1.91%	634,118	642,364	1.30%
Petroleum Liquids (1,000 barrels)	24,512	24,320	-0.78%	16,610	16,807	1.18%	15,619	16,127	3.25%
Petroleum Coke (1,000 tons)	4,779	4,897	2.46%	4,166	4,166	0.01%	3,309	3,309	0.00%
Natural Gas (1,000 Mcf)	9,843,170	9,842,581	-0.01%	10,258,688	10,271,180	0.12%	8,050,520	9,628,733	19.60%
Cost of Fossil Fuels (Dollars per Million Btu)									
Coal (1,000 tons)	2.22	2.22	-0.03%	2.12	2.11	-0.15%	2.08	2.06	-0.87%
Petroleum Liquids (1,000 barrels)	11.48	11.49	0.10%	9.36	9.39	0.28%	11.82	11.86	0.36%
Petroleum Coke (1,000 tons)	1.87	1.84	-1.37%	1.65	1.65	0.15%	2.13	2.13	0.00%
Natural Gas (1,000 Mcf)	3.22	3.23	0.18%	2.88	2.87	-0.06%	3.39	3.37	-0.55%

Coal includes anthracite, bituminous, subbituminous, lignite, waste coal, and synthetic coal. Coal stocks exclude waste coal.
Petroleum Liquids include distillate fuel oil, residual fuel oil, jet fuel, kerosene, and waste oil.
Natural gas includes a small amount of supplemental gaseous fuels that cannot be identified separately. Excludes blast furnace gas and other gases.
Hydroelectric includes conventional hydroelectric and hydroelectric pumped storage facilities.
Other generation includes geothermal, wood, waste, wind, and solar, batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.
Fuel Stocks are end-of-year values.
See technical notes (http://www.eia.gov/cneaf/electricity/epm/appenc.pdf) for additional information on the Commercial, Industrial and Transportation sectors.
Cost of Fossil Fuels represent weighted values.
Notes: The average revenue per kilowatthour is calculated by dividing revenue by sales. Totals may not equal sum of components because of independent rounding.
Percent changes refer to the difference between the preliminary data published in the Electric Power Monthly (EPM) and the final data published in the EPM. Values for 2017 are Final.
Sources: U.S. Energy Information Administration, Form EIA-923 'Power Plant Operations Report'; Form EIA-423, 'Monthly Cost and Quality of Fuels for Electric Plants Report'; Form EIA-826, 'Monthly Electric Sales and Revenue With State Distributions Report'; Form EIA-906, 'Power Plant Report;' Form EIA-920 'Combined Heat and Power Plant Report'; and Federal Energy Regulatory Commission, FERC Form 423, 'Monthly Report of Cost and Quality of Fuels for Electric Plants.'

Table C.4. Unit of Measure Equivalents for Electricity

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

Source: U.S. Energy Information Administration

Glossary

Anthracite: The highest rank of coal; used primarily for residential and commercial space heating. It is a hard, brittle, and black lustrous coal, often referred to as hard coal, containing a high percentage of fixed carbon and a low percentage of volatile matter. The moisture content of fresh-mined anthracite generally is less than 15 percent. The heat content of anthracite ranges from 22 to 28 million Btu per ton on a moist, mineral-matter-free basis. The heat content of anthracite coal consumed in the United States averages 25 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter). Note: Since the 1980's, anthracite refuse or mine waste has been used for steam electric power generation. This fuel typically has a heat content of 15 million Btu per ton or less.

Ash: Impurities consisting of silica, iron, aluminum, and other noncombustible matter that are contained in coal. Ash increases the weight of coal, adds to the cost of handling, and can affect its burning characteristics. Ash content is measured as a percent by weight of coal on a "received" or a "dry" (moisture-free, usually part of a laboratory analysis) basis.

Ash content: The amount of ash contained in the fuel (except gas) in terms of percent by weight.

Average Price of Electricity to Ultimate Consumers (formerly known as Average Revenue per Kilowatthour): The average revenue per kilowatthour of electricity sold by sector (residential, commercial, industrial, or other) and geographic area (State, Census division, and national), is calculated by dividing the total monthly revenue by the corresponding total monthly sales for each sector and geographic area.

Barrel: A unit of volume equal to 42 U.S. gallons.

Biomass: Organic non-fossil material of biological origin constituting a renewable energy resource.

Bituminous coal: A dense coal, usually black, sometimes dark brown, often with well-defined bands of bright and dull material, used primarily as fuel in steam-electric power generation, with substantial quantities also used for heat and power applications in manufacturing and to make coke. Bituminous coal is the most abundant coal in active U.S. mining regions. Its moisture content usually is less than 20 percent. The heat content of bituminous coal ranges from 21 to 30 million Btu per ton on a moist, mineral-matter-free basis. The heat content of bituminous coal consumed in the United States averages 24 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

British thermal unit: The quantity of heat required to raise the temperature of 1 pound of liquid water by 1 degree Fahrenheit at the temperature at which water has its greatest density (approximately 39 degrees Fahrenheit).

Btu: The abbreviation for British thermal unit(s).

Capacity: See Generator Capacity and Generator Name Plate Capacity (Installed).

Census Divisions: Any of nine geographic areas of the United States as defined by the U.S. Department of Commerce, Bureau of the Census. The divisions, each consisting of several States, are defined as follows:

1) *New England:* Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont;
2) *Middle Atlantic:* New Jersey, New York, and Pennsylvania;
3) *East North Central:* Illinois, Indiana, Michigan, Ohio, and Wisconsin;
4) *West North Central:* Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota;
5) *South Atlantic:* Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia;
6) *East South Central:* Alabama, Kentucky, Mississippi, and Tennessee;
7) *West South Central:* Arkansas, Louisiana, Oklahoma, and Texas;
8) *Mountain:* Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming;
9) *Pacific:* Alaska, California, Hawaii, Oregon, and Washington.

Note: Each division is a sub-area within a broader Census Region. In some cases, the Pacific division is subdivided into the Pacific Contiguous area (California, Oregon, and Washington) and the Pacific Noncontiguous area (Alaska and Hawaii).

Coal: A readily combustible black or brownish-black rock whose composition, including inherent moisture, consists of more than 50 percent by weight and more than 70 percent by volume of carbonaceous material. It is formed from plant remains that have been compacted, hardened, chemically altered, and metamorphosed by heat and pressure over geologic time.

Coal synfuel: Coal-based solid fuel that has been processed by a coal synfuel plant; and coal-based fuels such as briquettes, pellets, or extrusions, which are formed from fresh or recycled coal and binding materials.

Coke (petroleum): A residue high in carbon content and low in hydrogen that is the final product of thermal decomposition in the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion is 5 barrels (of 42 U.S. gallons each) per short ton. Coke from petroleum has a heating value of 6.024 million Btu per barrel.

Combined cycle: An electric generating technology in which electricity is produced from otherwise lost waste heat exiting from one or more gas (combustion) turbine-generators. The exiting heat from the combustion turbine(s) is routed to a conventional boiler or to a heat recovery steam generator for utilization by a steam turbine in the production of additional electricity.

Combined heat and power (CHP): Includes plants designed to produce both heat and electricity from a single heat source. *Note:* This term is being used in place of the term "cogenerator" that was used by EIA in the past. CHP better describes the facilities because some of the plants included do not produce heat and power in a sequential fashion and, as a result, do not meet the legal definition of cogeneration specified in the Public Utility Regulatory Policies Act (PURPA).

Commercial sector: An energy-consuming sector that consists of service-providing facilities and equipment of: businesses; Federal, State, and local governments; and other private and public organizations, such as religious, social, or fraternal groups. The commercial sector includes institutional living quarters. It also includes sewage treatment facilities. Common uses of energy associated with this sector include space heating, water heating, air conditioning, lighting, refrigeration, cooking, and running a wide variety of other equipment. *Note:* This sector includes generators that produce electricity and/or useful thermal output primarily to support the activities of the above-mentioned commercial establishments.

Consumption (fuel): The use of energy as a source of heat or power or as a raw material input to a manufacturing process.

Cost: The amount paid to acquire resources, such as plant and equipment, fuel, or labor services.

Demand (electric): The rate at which electric energy is delivered to or by a system, part of a system, or piece of equipment, at a given instant or averaged over any designated period of time.

Diesel: A distillate fuel oil that is used in diesel engines such as those used for transportation and for electric power generation.

Distillate fuel oil: *A general classification for one of the petroleum fractions produced in conventional distillation operations. It includes diesel fuels and fuel oils. Products known as No. 1, No. 2, and No. 4 diesel fuel are used in on-highway diesel engines, such as those in trucks and automobiles, as well as off-highway engines, such as those in railroad locomotives and agricultural machinery. Products known as No. 1, No. 2, and No. 4 fuel oils are used primarily for space heating and electric power generation.*

1) *No. 1 Distillate:* A light petroleum distillate that can be used as either a diesel fuel (see No. 1 Diesel Fuel) or a fuel oil. See No. 1 Fuel Oil.

- *No. 1 Diesel fuel:* A light distillate fuel oil that has distillation temperatures of 550 degrees Fahrenheit at the 90-percent point and meets the specifications defined in ASTM Specification D 975. It is used in high-speed diesel engines, such as those in city buses and similar vehicles. See No. 1 Distillate above.
- *No. 1 Fuel oil:* A light distillate fuel oil that has distillation temperatures of 400 degrees Fahrenheit at the 10-percent recovery point and 550 degrees Fahrenheit at the 90-percent point and meets the specifications defined in ASTM Specification D 396. It is used primarily as fuel for portable outdoor stoves and portable outdoor heaters. See No. 1 Distillate above.

2) *No. 2 Distillate:* A petroleum distillate that can be used as either a diesel fuel (see No. 2 Diesel Fuel definition below) or a fuel oil. See No. 2 Fuel oil below.

- *No. 2 Diesel fuel:* A fuel that has distillation temperatures of 500 degrees Fahrenheit at the 10-percent recovery point and 640 degrees Fahrenheit at the 90-percent recovery point and meets the specifications defined in ASTM Specification D 396. It is used in atomizing type burners for domestic heating or for moderate capacity commercial/industrial burner units. See No. 2 Distillate above.

3) *No. 4 Fuel:* A distillate fuel oil made by blending distillate fuel oil and residual fuel oil stocks. It conforms with ASTM Specification D 396 or Federal Specification VV-F-815C and is used extensively in industrial plants and in commercial burner installations that are not equipped with preheating facilities. It also includes No. 4 diesel fuel used for low- and medium-speed diesel engines and conforms to ASTM Specification D 975.

- *No. 4 Diesel fuel and No. 4 Fuel oil:* See No. 4 Fuel above.

Electric industry restructuring: The process of replacing a monopolistic system of electric utility suppliers with competing sellers, allowing individual ultimate customers to choose their supplier but still receive delivery over the power lines of the local utility. It includes the reconfiguration of vertically integrated electric utilities.

Electric plant (physical): A facility containing prime movers, electric generators, and auxiliary equipment for converting mechanical, chemical, and/or fission energy into electric energy.

Electric power sector: An energy-consuming sector that consists of electricity-only and combined-heat-and-power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public-- i. e., North American Industry Classification System 22 plants.

Electric utility: A corporation, person, agency, authority, or other legal entity or instrumentality aligned with distribution facilities for delivery of electric energy for use primarily by the public. Included are investor-owned electric utilities, municipal and State utilities, Federal electric utilities, and rural electric cooperatives. A few entities that are tariff based and corporately aligned with companies that own distribution facilities are also included. Note: Due to the issuance of FERC Order 888 that required traditional electric utilities to functionally unbundle their generation, transmission, and distribution operations, "electric utility" currently has inconsistent interpretations from State to State.

Electricity: A form of energy characterized by the presence and motion of elementary charged particles generated by friction, induction, or chemical change.

Electricity generation: The process of producing electric energy or the amount of electric energy produced by transforming other forms of energy, commonly expressed in kilowatthours (kWh) or megawatthours (MWh).

Electricity generators: The facilities that produce only electricity, commonly expressed in kilowatthours (kWh) or megawatthours (MWh).

Energy: The capacity for doing work as measured by the capability of doing work (potential energy) or the conversion of this capability to motion (kinetic energy). Energy has several forms, some of which are easily convertible and can be changed to another form useful for work. Most of the world's convertible energy comes from fossil fuels that are burned to produce heat that is then used as a transfer medium to mechanical or other means in order to accomplish tasks. Electrical energy is usually measured in kilowatthours, while heat energy is usually measured in British thermal units.

Energy conservation features: This includes building shell conservation features, HVAC conservation features, lighting conservation features, any conservation features, and other conservation features incorporated by the building. However, this category does not include any demand-side management (DSM) program participation by the building. Any DSM program participation is included in the DSM Programs.

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

Energy service provider: An energy entity that provides service to an ultimate consumer.

Energy source: Any substance or natural phenomenon that can be consumed or transformed to supply heat or power. Examples include petroleum, coal, natural gas, nuclear, biomass, electricity, wind, sunlight, geothermal, water movement, and hydrogen in fuel cells.

Energy-only service: Sales services for ultimate consumers for which the company provided only the energy consumed, where another entity provides delivery services.

Fossil fuel: An energy source formed in the earths crust from decayed organic material. The common fossil fuels are petroleum, coal, and natural gas.

Franchised service area: A specified geographical area in which a utility has been granted the exclusive right to serve customers. A franchise allows an entity to use city streets, alleys and other public lands in order to provide, distribute, and sell services to the community.

Fuel: Any material substance that can be consumed to supply heat or power. Included are petroleum, coal, and natural gas (the fossil fuels), and other consumable materials, such as uranium, biomass, and hydrogen.

Gas: A fuel burned under boilers and by internal combustion engines for electric generation. These include natural, manufactured and waste gas.

Gas turbine plant: An electric generating facility in which the prime mover is a gas (combustion) turbine. A gas turbine typically consists of an air compressor and one or more combustion chambers where either liquid or gaseous fuel is burned. The resulting hot gases are passed through the turbine where they expand to drive both an electric generator and the compressor.

Generating unit: Any combination of physically connected generators, reactors, boilers, combustion turbines, or other prime movers operated together to produce electric power.

Generator: A machine that converts mechanical energy into electrical energy.

Generator capacity: The maximum output, commonly expressed in megawatts (MW), that generating equipment can supply to system load, adjusted for ambient conditions.

Generator nameplate capacity (installed): The maximum rated output of a generator, prime mover, or other electric power production equipment under specific conditions designated by the manufacturer. Installed generator nameplate capacity is commonly expressed in megawatts (MW) and is usually indicated on a nameplate physically attached to the generator.

Geothermal: Pertaining to heat within the Earth.

Geothermal energy: Hot water or steam extracted from geothermal reservoirs in the earth's crust. Water or steam extracted from geothermal reservoirs can be used for geothermal heat pumps, water heating, or electricity generation.

Gigawatt (GW): One billion watts.

Gigawatthour (GWh): One billion watthours.

Gross generation: The total amount of electric energy produced by generating units and measured at the generating terminal in kilowatthours (kWh) or megawatthours (MWh).

Heat content: The amount or number of British thermal units (Btu) produced by the combustion of fuel, measured in Btu/unit of measure.

Hydroelectric power: The production of electricity from the kinetic energy of falling water.

Hydroelectric power generation: Electricity generated by an electric power plant whose turbines are driven by falling water. It includes electric utility and industrial generation of hydroelectricity, unless otherwise specified. Generation is reported on a net basis, i.e., on the amount of electric energy generated after the electric energy consumed by station auxiliaries and the losses in the transformers that are considered integral parts of the station are deducted.

Hydroelectric pumped storage: Hydroelectricity that is generated during peak loads by using water previously pumped into an elevated storage reservoir during off-peak periods when excess generating capacity is available to do so. When additional generating capacity is needed, the water can be released from the reservoir through a conduit to turbine generators located in a power plant at a lower level.

Hydrogen: A colorless, odorless, highly flammable gaseous element. It is the lightest of all gases and the most abundant element in the universe, occurring chiefly in combination with oxygen in water and also in acids, bases, alcohols, petroleum, and other hydrocarbons.

Independent power producer: A corporation, person, agency, authority, or other legal entity or instrumentality that owns or operates facilities for the generation of electricity for use primarily by the public, and that is not an electric utility.

Industrial sector: An energy-consuming sector that consists of all facilities and equipment used for producing, processing, or assembling goods. The industrial sector encompasses the following types of activity: manufacturing (NAICS codes 31-33); agriculture, forestry, and hunting (NAICS code 11); mining, including oil and gas extraction (NAICS code 21); natural gas distribution (NAICS code 2212); and construction (NAICS code 23). Overall energy use in this sector is largely for process heat and cooling and powering machinery, with lesser amounts used for facility heating, air conditioning, and lighting. Fossil fuels are also used as raw material inputs to manufactured products. Note: This sector includes generators that produce electricity and/or useful thermal output primarily to support the above-mentioned industrial activities.

Interdepartmental service (electric): Interdepartmental service includes amounts charged by the electric department at tariff or other specified rates for electricity supplied by it to other utility departments.

Internal combustion plant: A plant in which the prime mover is an internal combustion engine. An internal combustion engine has one or more cylinders in which the process of combustion takes place, converting energy released from the rapid burning of a fuel-air mixture into mechanical energy. Diesel or gas-fired engines are the principal types used in electric plants. The plant is usually operated during periods of high demand for electricity.

Investor-owned utility (IOU): A privately-owned electric utility whose stock is publicly traded. It is rate regulated and authorized to achieve an allowed rate of return.

Jet fuel: A refined petroleum product used in jet aircraft engines. It includes kerosene-type jet fuel and naphtha-type jet fuel.

Kerosene: A light petroleum distillate that is used in space heaters, cook stoves, and water heaters and is suitable for use as a light source when burned in wick-fed lamps. Kerosene has a maximum distillation temperature of 400 degrees Fahrenheit at the 10-percent recovery point, a final boiling point of 572 degrees Fahrenheit, and a minimum flash point of 100 degrees Fahrenheit. Included are No. 1-K and No. 2-K, the two grades recognized by ASTM Specification D 3699 as well as all other grades of kerosene called range or stove oil, which have properties similar to those of No. 1 fuel oil.

Kilowatt (kW): One thousand watts.

Kilowatthour (kWh): One thousand watthours.

Light oil: Lighter fuel oils distilled off during the refining process. Virtually all petroleum used in internal combustion and gas-turbine engines is light oil.

Lignite: The lowest rank of coal, often referred to as brown coal, used almost exclusively as fuel for steam-electric power generation. It is brownish-black and has a high inherent moisture content, sometimes as high as 45 percent. The heat content of lignite ranges from 9 to 17 million Btu per ton on a moist, mineral-matter-free basis. The heat content of lignite consumed in the United States averages 13 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

Manufactured gas: A gas obtained by destructive distillation of coal, or by thermal decomposition of oil, or by the reaction of steam passing through a bed of heated coal or coke. Examples are coal gases, coke oven gases, producer gas, blast furnace gas, blue (water) gas, and carbureted water gas

Mcf: One thousand cubic feet.

Megawatt (MW): One million watts of electricity.

Megawatthour (MWh): One million watthours.

Municipal utility: A nonprofit utility, owned by a local municipality and operated as a department thereof, governed by a city council or an independently elected or appointed board; primarily involved in the distribution and/or sale of electric power to ultimate consumers.

Natural gas: A gaseous mixture of hydrocarbon compounds, the primary one being methane. Note: The Energy Information Administration measures wet natural gas and its two sources of production, associated/dissolved natural gas and nonassociated natural gas, and dry natural gas, which is produced from wet natural gas.

1) *Wet natural gas:* A mixture of hydrocarbon compounds and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in porous rock formations at reservoir conditions. The principal hydrocarbons normally contained in the mixture are methane, ethane, propane, butane, and pentane. Typical nonhydrocarbon gases that may be present in reservoir natural gas are water vapor, carbon dioxide, hydrogen sulfide, nitrogen and trace amounts of helium. Under reservoir conditions, natural gas and its associated liquefiable portions occur either in a single gaseous phase in the reservoir or in solution with crude oil and are not distinguishable at the time as separate substances. Note: The Securities and Exchange Commission and the Financial Accounting Standards Board refer to this product as natural gas.

- Associated-dissolved natural gas: Natural gas that occurs in crude oil reservoirs either as free gas (associated) or as gas in solution with crude oil (dissolved gas).
- Nonassociated natural gas: Natural gas that is not in contact with significant quantities of crude oil in the reservoir.

2) *Dry natural gas:* Natural gas which remains after: 1) the liquefiable hydrocarbon portion has been removed from the gas stream (i.e., gas after lease, field, and/or plant separation); and 2) any volumes of nonhydrocarbon gases have been removed where they occur in sufficient quantity to render the gas unmarketable. Note: Dry natural gas is also known as consumer-grade natural gas. The parameters for measurement are cubic feet at 60 degrees Fahrenheit and 14.73 pounds per square inch absolute.

Net generation: The amount of gross generation less the electrical energy consumed at the generating station(s) for station service or auxiliaries. Note: Electricity required for pumping at pumped-storage plants is regarded as electricity for station service and is deducted from gross generation.

Net summer capacity: The maximum output, commonly expressed in megawatts (MW), that generating equipment can supply to system load, as demonstrated by a multi-hour test, at the time of summer peak demand (period of May 1 through October 31). This output reflects a reduction in capacity due to electricity use for station service or auxiliaries.

Net winter capacity: The maximum output, commonly expressed in megawatts (MW), that generating equipment can supply to system load, as demonstrated by a multi-hour test, at the time of peak winter demand (period of November 1 though April 30). This output reflects a reduction in capacity due to electricity use for station service or auxiliaries.

North American Electric Reliability Council (NERC): A council formed in 1968 by the electric utility industry to promote the reliability and adequacy of bulk power supply in the electric utility systems of North America. The NERC Regions are:

1) Texas Regional Entity (TRE),
2) Florida Reliability Coordinating Council (FRCC),
3) Midwest Reliability Organization (MRO),
4) Northeast Power Coordinating Council (NPCC),
5) ReliabilityFirst Corporation (RFC),
6) Southeastern Electric Reliability Council (SERC),
7) Southwest Power Pool (SPP), and the
8) Western Energy Coordinating Council (WECC).

North American Industry Classification System (NAICS): A set of codes that describes the possible purposes of a facility.

Nuclear electric power: Electricity generated by an electric power plant whose turbines are driven by steam produced by the heat from the fission of nuclear fuel in a reactor.

Other customers: Includes public street and highway lighting, other sales to public authorities, sales to railroads and railways, sales for irrigation, and interdepartmental sales.

Other generation: Electricity originating from these sources: manufactured, supplemental gaseous fuel, propane, and waste gasses, excluding natural gas; biomass; geothermal; wind; solar thermal; photovoltaic; synthetic fuel; purchased steam; and waste oil energy sources.

Percent change: The relative change in a quantity over a specified time period. It is calculated as follows: the current value has the previous value subtracted from it; this new number is divided by the absolute value of the previous value; then this new number is multiplied by 100.

Petroleum: A broadly defined class of liquid hydrocarbon mixtures. Included are crude oil, lease condensate, unfinished oils, refined products obtained from the processing of crude oil, and natural gas plant liquids. Note: Volumes of finished petroleum products include nonhydrocarbon compounds, such as additives and detergents, after they have been blended into the products.

Petroleum coke: See Coke (petroleum).

Photovoltaic energy: Direct-current electricity generated from sunlight through solid-state semiconductor devices that have no moving parts.

Plant: A term commonly used either as a synonym for an industrial establishment or a generation facility or to refer to a particular process within an establishment.

Power: The rate at which energy is transferred. Electrical energy is usually measured in watts. Also used for a measurement of capacity.

Power production plant: All the land and land rights, structures and improvements, boiler or reactor vessel equipment, engines and engine-driven generator, turbo generator units, accessory electric equipment, and miscellaneous power plant equipment are grouped together for each individual facility.

Production (electric): Act or process of producing electric energy from other forms of energy; also, the amount of electric energy expressed in watthours (Wh).

Propane: A normally gaseous straight-chain hydrocarbon, (C3H8). It is a colorless paraffinic gas that boils at a temperature of -43.67 degrees Fahrenheit. It is extracted from natural gas or refinery gas streams. It includes all products covered by Gas Processors Association Specifications for commercial propane and HD-5 propane and ASTM Specification D 1835.

Public street and highway lighting service: Includes electricity supplied and services rendered for the purpose of lighting streets, highways, parks and other public places; or for traffic or other signal system service, for municipalities, or other divisions or agencies of State or Federal governments.

Railroad and railway electric service: Electricity supplied to railroads and interurban and street railways, for general railroad use, including the propulsion of cars or locomotives, where such electricity is supplied under separate and distinct rate schedules.

Receipts: Purchases of fuel.

Relative standard error: The standard deviation of a distribution divided by the arithmetic mean, sometimes multiplied by 100. It is used for the purpose of comparing the variabilities of frequency distributions but is sensitive to errors in the means.

Residential: An energy-consuming sector that consists of living quarters for private households. Common uses of energy associated with this sector include space heating, water heating, air conditioning, lighting, refrigeration, cooking, and running a variety of other appliances. The residential sector excludes institutional living quarters.

Residual fuel oil: A general classification for the heavier oils, known as No. 5 and No. 6 fuel oils, that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations. It conforms to ASTM Specifications D 396 and D 975 and Federal Specification VV-F-815C. No. 5, a residual fuel oil of medium viscosity, is also known as Navy Special and is defined in Military Specification MIL-F-859E, including Amendment 2 (NATO Symbol F-770). It is used in steam-powered vessels in government

service and inshore power plants. No. 6 fuel oil includes Bunker C fuel oil and is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes.

Retail: Sales covering electrical energy supplied for residential, commercial, and industrial end-use purposes. Other small classes, such as agriculture and street lighting, also are included in this category.

Revenues: The total amount of money received by a firm from sales of its products and/or services, gains from the sales or exchange of assets, interest and dividends earned on investments, and other increases in the owner's equity except those arising from capital adjustments.

Sales: The transfer of title to an energy commodity from a seller to a buyer for a price or the quantity transferred during a specified period.

Service classifications (sectors): Consumers grouped by similar characteristics in order to be identified for the purpose of setting a common rate for electric service. Usually classified into groups identified as residential, commercial, industrial and other.

Service to public authorities: Public authority service includes electricity supplied and services rendered to municipalities or divisions or agencies of State and Federal governments, under special contracts or agreements or service classifications applicable only to public authorities.

Solar energy: The radiant energy of the sun that can be converted into other forms of energy, such as heat or electricity. Electricity produced from solar energy heats a medium that powers an electricity-generating device.

State power authority: A nonprofit utility owned and operated by a state government agency, primarily involved in the generation, marketing, and/or transmission of wholesale electric power.

Steam-electric power plant (conventional): A plant in which the prime mover is a steam turbine. The steam used to drive the turbine is produced in a boiler where fossil fuels are burned.

Stocks of fuel: A supply of fuel accumulated for future use. This includes coal and fuel oil stocks at the plant site, in coal cars, tanks, or barges at the plant site, or in separate storage sites.

Subbituminous coal: A coal whose properties range from those of lignite to those of bituminous coal and used primarily as fuel for steam-electric power generation. It may be dull, dark brown to black, soft and crumbly, at the lower end of the range, to bright, jet black, hard, and relatively strong, at the upper end. Subbituminous coal contains 20 to 30 percent inherent moisture by weight. The heat content of subbituminous coal ranges from 17 to 24 million Btu per ton on a moist, mineral-matter-free basis. The heat content of subbituminous coal consumed in the United States averages 17 to 18 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

Sulfur: A yellowish nonmetallic element, sometimes known as "brimstone." It is present at various levels of concentration in many fossil fuels whose combustion releases sulfur compounds that are considered harmful to the environment. Some of the most commonly used fossil fuels are categorized according to their sulfur content, with lower sulfur fuels usually selling at a higher price. Note: No. 2 Distillate fuel is

currently reported as having either a 0.05 percent or lower sulfur level for on-highway vehicle use or a greater than 0.05 percent sulfur level for off-highway use, home heating oil, and commercial and industrial uses. Residual fuel, regardless of use, is classified as having either no more than 1 percent sulfur or greater than 1 percent sulfur. Coal is also classified as being low-sulfur at concentrations of 1 percent or less or high-sulfur at concentrations greater than 1 percent.

Sulfur content: The amount of sulfur contained in the fuel (except gas) in terms of percent by weight.

Supplemental gaseous fuel supplies: Synthetic natural gas, propane-air, coke oven gas, refinery gas, biomass gas, air injected for Btu stabilization, and manufactured gas commingled and distributed with natural gas.

Synthetic fuel: A gaseous, liquid, or solid fuel that does not occur naturally. Synfuels can be made from coal (coal gasification or coal liquefaction), petroleum products, oil shale, tar sands, or plant products. Among the synfuels are various fuel gases, including but not restricted to substitute natural gas, liquid fuels for engines (e.g., gasoline, diesel fuel, and alcohol fuels) and burner fuels (e.g., fuel heating oils).

Terrawatt: One trillion watts.

Terrawatthour: One trillion kilowatthours.

Ton: A unit of weight equal to 2,000 pounds.

Turbine: A machine for generating rotary mechanical power from the energy of a stream of fluid (such as water, steam, or hot gas). Turbines convert the kinetic energy of fluids to mechanical energy through the principles of impulse and reaction, or a mixture of the two.

Ultimate consumer: A consumer that purchases electricity for its own use and not for resale.

Useful thermal output: The thermal energy made available in a combined heat or power system for use in any industrial or commercial process, heating or cooling application, or delivered to other end users, i.e., total thermal energy made available for processes and applications other than electrical generation.

Waste coal: As a fuel for electric power generation, waste coal includes anthracite refuse or mine waste, waste from anthracite preparation plants, and coal recovered from previously mined sites.

Waste gases: As a fuel for electric power generation, waste gasses are those gasses that are produced from gasses recovered from a solid-waste or wastewater treatment facility, or the gaseous by-products of oil-refining processes.

Waste oil: As a fuel for electric power generation, waste oil includes recycled motor oil, and waste oil from transformers.

Watt (W): The unit of electrical power equal to one ampere under a pressure of one volt. A Watt is equal to 1/746 horsepower.

Watthour (Wh): The electrical energy unit of measure equal to one watt of power supplied to, or taken from, an electric circuit steadily for one hour.

Wind energy: The kinetic energy of wind converted into mechanical energy by wind turbines (i.e., blades rotating from the hub) that drive generators to produce electricity.

Year-to -date: The cumulative sum of each month's value starting with January and ending with the current month of the data.