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Electric Power Monthly
with Data for July 2019

October 3, 2019 - Table B.1, Major Disturbances and Unusual Occurrences, Year-to-Date 2019, has been updated to include July 2019 data, which was not available at the time of publication (September 24, 2019).

September 2019

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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 July														
		Total (All Sectors)			Electric Power Sector				Commercial		Industrial		Residential	
					Electric Utilities		Independent Power Producers							
Fuel	Facility Type	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
Net Generation (Thousand Megawatthours)														
Coal	Utility Scale Facilities	101,011	115,477	-12.5%	77,102	88,147	23,301	26,663	24	25	585	641	0	0
Petroleum Liquids	Utility Scale Facilities	1,004	970	3.5%	703	652	260	256	10	12	31	50	0	0
Petroleum Coke	Utility Scale Facilities	751	922	-18.6%	551	716	NM	135	0	0	118	71	0	0
Natural Gas	Utility Scale Facilities	174,063	167,250	4.1%	87,243	82,694	77,546	75,464	799	821	8,475	8,271	0	0
Other Gas	Utility Scale Facilities	1,166	1,105	5.5%	18	15	386	348	0	0	762	742	0	0
Nuclear	Utility Scale Facilities	72,199	72,456	-0.4%	39,023	38,293	33,176	34,163	0	0	0	0	0	0
Hydroelectric Conventional	Utility Scale Facilities	22,909	24,014	-4.6%	20,827	21,964	1,981	1,918	NM	NM	84	113	0	0
Renewable Sources Excluding Hydroelectric	Utility Scale Facilities	37,458	29,875	25.4%	4,279	3,233	30,437	23,805	299	283	2,443	2,555	0	0
... Wind	Utility Scale Facilities	22,470	16,014	40.3%	3,116	2,187	19,331	13,809	14	12	NM	NM	0	0
... Solar Thermal and Photovoltaic	Utility Scale Facilities	8,256	6,938	19.0%	662	512	7,520	6,349	62	68	11	9	0	0
... Wood and Wood-Derived Fuels	Utility Scale Facilities	3,539	3,690	-4.1%	314	326	857	890	16	9	2,351	2,465	0	0
... Other Biomass	Utility Scale Facilities	1,733	1,798	-3.6%	101	116	1,388	1,414	173	194	72	73	0	0
... Geothermal	Utility Scale Facilities	1,459	1,436	1.7%	86	92	1,340	1,343	33	0	0	0	0	0
Hydroelectric Pumped Storage	Utility Scale Facilities	-622	-644	-3.4%	-505	-522	-118	-123	0	0	0	0	0	0
Other Energy Sources	Utility Scale Facilities	1,086	1,116	-2.7%	37	57	581	593	82	91	386	376	0	0
All Energy Sources	Utility Scale Facilities	411,024	412,542	-0.4%	229,278	235,250	167,633	163,223	1,230	1,251	12,883	12,819	0	0
Estimated Small Scale Solar Photovoltaic	Small Scale Facilities	3,799	3,147	20.7%	0	0	0	0	1,204	1,032	322	276	2,273	1,839
Estimated Total Solar Photovoltaic	All Facilities	11,655	9,705	20.1%	661	506	7,122	5,974	1,266	1,100	332	286	2,273	1,839
Estimated Total Solar	All Facilities	12,055	10,085	19.5%	662	512	7,520	6,349	1,266	1,100	332	286	2,273	1,839
Consumption of Fossil Fuels for Electricity Generation														
Coal (1000 tons)	Utility Scale Facilities	56,002	63,805	-12.2%	42,251	48,286	13,532	15,283	7	7	212	230	0	0
Petroleum Liquids (1000 barrels)	Utility Scale Facilities	1,762	1,691	4.3%	1,263	1,177	441	430	25	28	33	56	0	0
Petroleum Coke (1000 tons)	Utility Scale Facilities	295	344	-14.2%	227	284	42	41	0	0	25	18	0	0
Natural Gas (1000 Mcf)	Utility Scale Facilities	1,288,980	1,254,838	2.7%	666,671	641,395	567,812	559,827	4,954	5,135	49,542	48,481	0	0
Consumption of Fossil Fuels for Useful Thermal Output														
Coal (1000 tons)	Utility Scale Facilities	962	1,071	-10.1%	205	201	88	82	34	40	636	748	0	0
Petroleum Liquids (1000 barrels)	Utility Scale Facilities	123	175	-29.5%	3	3	13	11	26	30	82	131	0	0
Petroleum Coke (1000 tons)	Utility Scale Facilities	73	72	1.7%	2	1	8	9	0	0	63	62	0	0
Natural Gas (1000 Mcf)	Utility Scale Facilities	105,316	107,012	-1.6%	4,827	4,154	27,774	30,257	8,554	9,006	64,162	63,596	0	0
Consumption of Fossil Fuels for Electricity Generation and Useful Thermal Output														
Coal (1000 tons)	Utility Scale Facilities	56,964	64,876	-12.2%	42,456	48,487	13,620	15,364	40	47	848	978	0	0
Petroleum Liquids (1000 barrels)	Utility Scale Facilities	1,886	1,865	1.1%	1,266	1,180	454	441	51	58	115	187	0	0
Petroleum Coke (1000 tons)	Utility Scale Facilities	368	416	-11.5%	230	285	50	50	0	0	89	80	0	0
Natural Gas (1000 Mcf)	Utility Scale Facilities	1,394,296	1,361,850	2.4%	671,498	645,550	595,586	590,084	13,508	14,140	113,704	112,077	0	0
Fuel Stocks (end-of-month)														
Coal (1000 tons)	Utility Scale Facilities	111,250	111,503	-0.2%	89,392	93,478	21,298	17,316	51	63	509	646	0	0
Petroleum Liquids (1000 barrels)	Utility Scale Facilities	26,182	27,718	-5.5%	16,643	17,978	8,012	7,984	353	374	1,174	1,382	0	0
Petroleum Coke (1000 tons)	Utility Scale Facilities	481	779	-38.2%	349	615	8	28	1	2	123	134	0	0

Sales, Revenue, and Average Price of Electricity to Ultimate Customers for July									
	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	July 2019	July 2018	Percentage Change	July 2019	July 2018	Percentage Change	July 2019	July 2018	Percentage Change
Residential	153,154	153,031	0.1%	20,322	20,094	1.1%	13.27	13.13	1.1%
Commercial	130,239	130,916	-0.5%	14,361	14,370	-0.1%	11.03	10.98	0.5%
Industrial	86,272	85,041	1.4%	6,192	6,243	-0.8%	7.18	7.34	-2.2%
Transportation	645	640	0.7%	63	65	-2.6%	9.85	10.19	-3.3%
All Sectors	370,309	369,629	0.2%	40,938	40,773	0.4%	11.06	11.03	0.3%

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 2019 and 2018

Net Generation and Consumption of Fuels for January through July														
		Total (All Sectors)			Electric Power Sector				Commercial		Industrial		Residential	
					Electric Utilities		Independent Power Producers							
Fuel	Facility Type	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
Net Generation (Thousand Megawatthours)														
Coal	Utility Scale Facilities	571,143	657,153	-13.1%	427,667	493,591	139,445	158,809	175	188	3,855	4,564	0	0
Petroleum Liquids	Utility Scale Facilities	6,559	10,791	-39.2%	4,567	6,302	1,661	4,058	64	98	268	333	0	0
Petroleum Coke	Utility Scale Facilities	4,668	5,131	-9.0%	3,439	4,035	801	653	4	4	425	440	0	0
Natural Gas	Utility Scale Facilities	871,266	824,607	5.7%	429,456	408,159	381,602	358,137	4,843	4,765	55,364	53,545	0	0
Other Gas	Utility Scale Facilities	7,230	7,105	1.8%	106	125	2,444	2,263	0	0	4,681	4,717	0	0
Nuclear	Utility Scale Facilities	472,203	475,069	-0.6%	251,610	248,359	220,593	226,709	0	0	0	0	0	0
Hydroelectric Conventional	Utility Scale Facilities	176,699	186,974	-5.5%	160,382	171,953	15,556	14,043	144	162	617	817	0	0
Renewable Sources Excluding Hydroelectric	Utility Scale Facilities	265,733	256,594	3.6%	32,480	29,121	215,065	208,430	2,011	1,889	16,176	17,155	0	0
... Wind	Utility Scale Facilities	176,809	169,016	4.6%	25,309	22,464	151,307	146,373	121	115	71	64	0	0
... Solar Thermal and Photovoltaic	Utility Scale Facilities	44,298	40,784	8.6%	3,986	3,143	39,898	37,207	355	380	58	54	0	0
... Wood and Wood-Derived Fuels	Utility Scale Facilities	23,055	24,582	-6.2%	1,932	2,051	5,569	6,011	54	44	15,499	16,476	0	0
... Other Biomass	Utility Scale Facilities	11,736	12,580	-6.7%	683	858	9,283	9,811	1,222	1,350	547	561	0	0
... Geothermal	Utility Scale Facilities	9,835	9,632	2.1%	569	605	9,008	9,027	259	0	0	0	0	0
Hydroelectric Pumped Storage	Utility Scale Facilities	-2,600	-3,197	-18.7%	-2,001	-2,573	-598	-624	0	0	0	0	0	0
Other Energy Sources	Utility Scale Facilities	7,204	7,569	-4.8%	257	330	3,821	3,948	561	598	2,564	2,693	0	0
All Energy Sources	Utility Scale Facilities	2,380,107	2,427,795	-2.0%	1,307,963	1,359,401	980,390	976,425	7,804	7,705	83,950	84,263	0	0
Estimated Small Scale Solar Photovoltaic	Small Scale Facilities	21,319	17,756	20.1%	0	0	0	0	6,850	5,876	1,825	1,570	12,644	10,310
Estimated Total Solar Photovoltaic	All Facilities	63,606	56,323	12.9%	3,958	3,108	37,915	35,024	7,205	6,257	1,884	1,624	12,644	10,310
Estimated Total Solar	All Facilities	65,616	58,540	12.1%	3,986	3,143	39,898	37,207	7,205	6,257	1,884	1,624	12,644	10,310
Consumption of Fossil Fuels for Electricity Generation														
Coal (1000 tons)	Utility Scale Facilities	318,281	362,420	-12.2%	236,698	270,246	80,167	90,472	50	54	1,366	1,648	0	0
Petroleum Liquids (1000 barrels)	Utility Scale Facilities	11,459	18,650	-38.6%	8,329	11,454	2,722	6,677	129	176	279	343	0	0
Petroleum Coke (1000 tons)	Utility Scale Facilities	1,757	1,932	-9.0%	1,379	1,614	267	214	1	1	110	103	0	0
Natural Gas (1000 Mcf)	Utility Scale Facilities	6,330,005	6,118,661	3.5%	3,247,691	3,142,419	2,726,611	2,631,724	30,298	29,810	325,405	314,708	0	0
Consumption of Fossil Fuels for Useful Thermal Output														
Coal (1000 tons)	Utility Scale Facilities	7,446	8,278	-10.0%	1,323	1,402	627	710	267	295	5,229	5,871	0	0
Petroleum Liquids (1000 barrels)	Utility Scale Facilities	1,450	1,737	-16.5%	44	72	139	184	281	239	986	1,242	0	0
Petroleum Coke (1000 tons)	Utility Scale Facilities	475	477	-0.3%	10	8	57	52	5	5	403	412	0	0
Natural Gas (1000 Mcf)	Utility Scale Facilities	726,345	711,529	2.1%	26,138	23,880	190,990	192,584	58,898	60,089	450,319	434,976	0	0
Consumption of Fossil Fuels for Electricity Generation and Useful Thermal Output														
Coal (1000 tons)	Utility Scale Facilities	325,727	370,698	-12.1%	238,020	271,648	80,794	91,181	317	350	6,595	7,519	0	0
Petroleum Liquids (1000 barrels)	Utility Scale Facilities	12,909	20,387	-36.7%	8,373	11,526	2,861	6,861	410	415	1,265	1,585	0	0
Petroleum Coke (1000 tons)	Utility Scale Facilities	2,233	2,409	-7.3%	1,389	1,622	324	266	7	6	513	514	0	0
Natural Gas (1000 Mcf)	Utility Scale Facilities	7,056,350	6,830,190	3.3%	3,273,829	3,166,299	2,917,601	2,824,308	89,196	89,900	775,724	749,684	0	0

Sales, Revenue, and Average Price of Electricity to Ultimate Customers for January through July									
	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	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	Percentage Change
Residential	824,997	850,333	-3.0%	107,377	109,337	-1.8%	13.02	12.86	1.2%
Commercial	781,199	792,520	-1.4%	82,926	84,290	-1.6%	10.62	10.64	-0.2%
Industrial	551,347	548,089	0.6%	37,322	37,914	-1.6%	6.77	6.92	-2.2%
Transportation	4,523	4,486	0.8%	441	436	1.2%	9.74	9.71	0.3%
All Sectors	2,162,067	2,195,427	-1.5%	228,066	231,977	-1.7%	10.55	10.57	-0.2%

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, 2019 and 2018

Total (All Sectors)										
							Year-to-Date			
	Receipts		Cost				Receipts		Cost	
	(Physical Units)		(Dollars / Physical Unit)		Number of Plants		(Physical Units)		(Dollars / Physical Unit)	
Fuel	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
Coal (1000 tons)	49,089	52,164	38.68	39.10	242	261	322,669	333,139	39.76	39.37
Petroleum Liquids (1000 barrels)	977	1,129	82.54	89.18	114	133	8,250	12,931	82.82	83.54
Petroleum Coke (1000 tons)	201	293	57.67	76.81	6	7	1,081	1,743	64.02	71.94
Natural Gas (1000 Mcf)	1,159,615	1,113,981	2.62	3.39	583	572	5,986,182	5,632,749	3.18	3.58

Electric Utilities										
							Year-to-Date			
	Receipts		Cost				Receipts		Cost	
	(Physical Units)		(Dollars / Physical Unit)		Number of Plants		(Physical Units)		(Dollars / Physical Unit)	
Fuel	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
Coal (1000 tons)	37,385	39,045	40.05	40.14	167	181	238,399	246,629	41.13	40.28
Petroleum Liquids (1000 barrels)	728	836	79.99	87.66	77	86	6,174	7,901	82.17	83.57
Petroleum Coke (1000 tons)	199	287	57.76	77.48	5	6	1,080	1,737	64.04	72.04
Natural Gas (1000 Mcf)	570,866	534,990	2.74	3.38	299	293	2,919,697	2,749,931	3.34	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	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
Coal (1000 tons)	11,154	12,416	33.51	35.17	57	63	79,999	81,697	34.98	35.86
Petroleum Liquids (1000 barrels)	236	271	90.86	93.81	29	38	1,907	4,809	85.03	83.62
Petroleum Coke (1000 tons)	0	0	--	--	0	0	0	0	--	--
Natural Gas (1000 Mcf)	522,062	513,551	2.46	3.45	237	231	2,612,220	2,450,606	2.98	3.44

Commercial Sector										
							Year-to-Date			
	Receipts		Cost				Receipts		Cost	
	(Physical Units)		(Dollars / Physical Unit)		Number of Plants		(Physical Units)		(Dollars / Physical Unit)	
Fuel	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
Coal (1000 tons)	0	0	67.69	--	1	0	5	6	65.77	66.44
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	760	3.26	3.52	3	3	5,314	5,134	3.41	3.66

Industrial Sector										
							Year-to-Date			
	Receipts		Cost				Receipts		Cost	
	(Physical Units)		(Dollars / Physical Unit)		Number of Plants		(Physical Units)		(Dollars / Physical Unit)	
Fuel	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
Coal (1000 tons)	551	703	50.57	49.82	17	17	4,266	4,807	53.04	51.81
Petroleum Liquids (1000 barrels)	13	22	74.33	89.87	8	9	168	221	81.55	80.94
Petroleum Coke (1000 tons)	2	6	46.96	45.10	1	1	2	6	46.96	45.10
Natural Gas (1000 Mcf)	65,986	64,680	2.57	3.10	44	45	448,951	427,078	3.11	3.23

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.

Table ES2.B. Summary Statistics: Receipts and Cost of Fossil Fuels for the Electric Power Industry by Sector, Btus, 2019 and 2018

Total (All Sectors)										
							Year-to-Date			
	Receipts		Cost				Receipts		Cost	
	(Billion Btu)		(Dollars / Million Btu)		Number of Plants		(Billion Btu)		(Dollars / Million Btu)	
Fuel	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
Coal	938,239	991,966	2.02	2.06	242	261	6,222,185	6,375,417	2.06	2.06
Petroleum Liquids	5,853	6,858	13.78	14.69	114	133	49,833	78,003	13.71	13.81
Petroleum Coke	5,766	8,307	2.01	2.71	6	7	30,954	49,215	2.24	2.55
Natural Gas	1,199,201	1,149,841	2.53	3.29	583	572	6,184,177	5,815,683	3.08	3.47
Fossil Fuels	2,149,059	2,156,971	2.33	2.73	727	730	12,487,150	12,318,317	2.59	2.77

Electric Utilities										
							Year-to-Date			
	Receipts		Cost				Receipts		Cost	
	(Billion Btu)		(Dollars / Million Btu)		Number of Plants		(Billion Btu)		(Dollars / Million Btu)	
Fuel	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
Coal	717,884	745,064	2.09	2.10	167	181	4,609,477	4,730,659	2.13	2.10
Petroleum Liquids	4,389	5,128	13.28	14.29	77	86	37,508	48,008	13.53	13.75
Petroleum Coke	5,723	8,147	2.01	2.73	5	6	30,912	49,055	2.24	2.55
Natural Gas	590,202	552,025	2.66	3.28	299	293	3,015,051	2,837,789	3.24	3.61
Fossil Fuels	1,318,199	1,310,364	2.38	2.65	398	400	7,692,948	7,665,511	2.62	2.73

Independent Power Producers										
							Year-to-Date			
	Receipts		Cost				Receipts		Cost	
	(Billion Btu)		(Dollars / Million Btu)		Number of Plants		(Billion Btu)		(Dollars / Million Btu)	
Fuel	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
Coal	208,969	232,451	1.79	1.88	57	63	1,524,275	1,544,742	1.83	1.90
Petroleum Liquids	1,384	1,592	15.49	15.97	29	38	11,290	28,620	14.37	13.99
Petroleum Coke	0	0	--	--	0	0	0	0	--	--
Natural Gas	540,331	530,641	2.37	3.34	237	231	2,701,311	2,533,004	2.88	3.33
Fossil Fuels	750,684	764,684	2.21	2.85	280	280	4,236,876	4,106,365	2.49	2.79

Commercial Sector										
							Year-to-Date			
	Receipts		Cost				Receipts		Cost	
	(Billion Btu)		(Dollars / Million Btu)		Number of Plants		(Billion Btu)		(Dollars / Million Btu)	
Fuel	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
Coal	1	0	2.97	--	1	0	119	130	2.90	2.92
Petroleum Liquids	0	0	--	--	0	0	0	0	--	--
Petroleum Coke	0	0	--	--	0	0	0	0	--	--
Natural Gas	721	790	3.17	3.39	3	3	5,503	5,290	3.30	3.55
Fossil Fuels	723	790	3.17	3.39	3	3	5,622	5,420	3.29	3.53

Industrial Sector										
							Year-to-Date			
	Receipts		Cost				Receipts		Cost	
	(Billion Btu)		(Dollars / Million Btu)		Number of Plants		(Billion Btu)		(Dollars / Million Btu)	
Fuel	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
Coal	11,385	14,451	2.45	2.42	17	17	88,314	99,886	2.56	2.49
Petroleum Liquids	80	138	11.99	14.64	8	9	1,034	1,375	13.26	12.98
Petroleum Coke	43	160	1.71	1.70	1	1	43	160	1.71	1.70
Natural Gas	67,946	66,384	2.49	3.02	44	45	462,313	439,600	3.02	3.13
Fossil Fuels	79,453	81,133	2.49	2.93	46	47	551,704	541,021	2.97	3.04

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), 2009-July 2019
(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															
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	13,096	4,034,271	23,990	74,007	77,276
2018	1,146,393	15,742	8,830	1,468,013	12,191	807,078	291,724	66,604	354,445	-5,905	12,695	4,177,810	29,543	92,555	96,147
Year 2017															
January	115,333	1,121	944	95,473	1,046	73,121	26,788	2,030	26,676	-435	1,094	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	289,653	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	1,050	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	404,387	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	1,034	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	5,291	952	110,046	994	74,649	25,596	3,407	33,882	-547	1,115	374,324	1,615	4,894	5,022
February	81,922	780	738	96,002	990	64,790	25,533	4,113	30,561	-315	1,001	306,115	1,762	5,684	5,875
March	80,612	811	648	104,933	1,064	67,033	25,951	5,203	34,103	-490	1,113	320,982	2,427	7,373	7,630
April	73,383	854	691	99,446	940	59,133	27,490	6,249	32,891	-377	1,038	301,739	2,736	8,670	8,984
May	85,311	1,022	415	116,107	1,000	67,320	30,434	7,070	30,331	-390	1,074	339,694	3,010	9,650	10,080
June	101,509	1,062	765	130,823	1,010	69,688	27,955	7,804	31,106	-433	1,111	372,398	3,060	10,347	10,863
July	115,477	970	922	167,250	1,105	72,456	24,014	6,938	22,937	-644	1,116	412,542	3,147	9,705	10,085
August	115,216	1,041	873	162,377	1,225	72,282	21,400	6,981	26,326	-747	1,007	407,981	3,018	9,590	9,999
Sept	96,742	1,039	835	142,772	1,001	64,725	18,665	6,469	24,283	-603	800	356,728	2,681	8,720	9,150
October	87,452	989	484	124,171	930	59,397	18,781	5,223	27,536	-492	1,091	325,563	2,400	7,349	7,624
November	93,005	952	699	107,109	933	63,948	22,176	3,958	28,890	-343	1,081	322,409	1,914	5,705	5,873
December	96,825	930	807	106,978	998	71,657	23,728	3,188	31,599	-522	1,147	337,334	1,774	4,870	4,962
Year 2019															
January	101,019	1,316	820	118,935	994	73,701	24,544	3,652	31,905	-323	1,129	357,690	1,938	5,479	5,590
February	80,008	790	722	110,428	1,015	64,715	22,031	3,913	29,121	-389	925	313,278	2,085	5,867	5,999
March	78,454	802	637	112,574	1,143	65,080	25,400	6,020	32,469	-409	1,018	323,187	2,968	8,728	8,988
April	60,099	772	450	102,936	947	60,581	25,422	6,949	36,110	-103	957	295,119	3,309	9,924	10,257
May	71,988	922	737	115,478	994	67,124	30,058	7,292	32,847	-368	1,053	328,124	3,582	10,538	10,874
June	78,564	954	551	136,853	972	68,805	26,336	8,216	29,782	-385	1,037	351,685	3,638	11,415	11,854
July	101,011	1,004	751	174,063	1,166	72,199	22,909	8,256	29,201	-622	1,086	411,024	3,799	11,655	12,055
Year to Date															
2017	700,837	6,679	5,435	723,985	7,178	458,155	198,190	31,117	194,407	-3,653	7,593	2,329,923	14,262	43,369	45,380
2018	657,153	10,791	5,131	824,607	7,105	475,069	186,974	40,784	215,810	-3,197	7,569	2,427,795	17,756	56,323	58,540
2019	571,143	6,559	4,668	871,266	7,230	472,203	176,699	44,298	221,435	-2,600	7,204	2,380,107	21,319	63,606	65,616
Rolling 12 Months Ending in July															
2018	1,162,150	16,526	8,672	1,397,036	12,396	821,863	289,118	62,953	354,394	-6,039	13,072	4,132,142	27,484	86,961	90,437
2019	1,060,383	11,511	8,367	1,514,672	12,317	804,212	281,449	70,117	360,070	-5,307	12,331	4,130,122	33,106	99,838	103,223

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 and 2019 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), 2009-July 2019
(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													
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
2018	274,952	63,012	3,592	41,411	11,336	7,163	2,854	16,728	291,724	712,773	29,543	92,555	96,147
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	26,862	3,279	128	3,759	989	590	275	1,407	25,596	62,885	1,615	4,894	5,022
February	24,096	3,922	191	3,379	941	561	259	1,326	25,533	60,208	1,762	5,684	5,875
March	27,283	4,945	258	3,535	999	599	272	1,414	25,951	65,257	2,427	7,373	7,630
April	26,783	5,935	314	3,096	941	570	256	1,246	27,490	66,630	2,736	8,670	8,984
May	23,603	6,640	430	3,550	932	574	238	1,434	30,434	67,835	3,010	9,650	10,080
June	24,376	7,287	517	3,573	927	630	230	1,369	27,955	66,864	3,060	10,347	10,863
July	16,014	6,558	380	3,690	945	640	212	1,436	24,014	53,890	3,147	9,705	10,085
August	19,530	6,572	409	3,570	951	632	214	1,429	21,400	54,707	3,018	9,590	9,999
Sept	17,977	6,039	430	3,284	880	563	191	1,388	18,665	49,417	2,681	8,720	9,150
October	21,147	4,949	275	3,277	929	597	240	1,347	18,781	51,541	2,400	7,349	7,624
November	22,457	3,790	168	3,284	936	588	227	1,397	22,176	55,024	1,914	5,705	5,873
December	24,825	3,096	92	3,414	967	619	239	1,535	23,728	58,515	1,774	4,870	4,962
Year 2019													
January	25,165	3,541	111	3,529	928	600	226	1,456	24,544	60,100	1,938	5,479	5,590
February	23,047	3,782	131	3,165	844	526	201	1,339	22,031	55,065	2,085	5,867	5,999
March	26,036	5,760	260	3,241	909	559	244	1,480	25,400	63,889	2,968	8,728	8,988
April	30,217	6,615	334	2,988	840	534	217	1,315	25,422	68,481	3,309	9,924	10,257
May	26,474	6,956	336	3,309	884	599	198	1,382	30,058	70,197	3,582	10,538	10,874
June	23,400	7,777	439	3,285	902	595	196	1,405	26,336	64,334	3,638	11,415	11,854
July	22,470	7,856	400	3,539	918	611	204	1,459	22,909	60,367	3,799	11,655	12,055
Year to Date													
2017	148,864	29,106	2,011	23,630	6,816	4,041	1,859	9,196	198,190	423,714	14,262	43,369	45,380
2018	169,016	38,566	2,218	24,582	6,673	4,164	1,742	9,632	186,974	443,568	17,756	56,323	58,540
2019	176,809	42,287	2,011	23,055	6,226	4,024	1,486	9,835	176,699	442,432	21,319	63,606	65,616
Rolling 12 Months Ending in July													
2018	274,455	59,477	3,476	42,103	11,400	7,074	2,999	16,364	289,118	706,465	27,484	86,961	90,437
2019	282,744	66,733	3,385	39,885	10,889	7,024	2,597	16,931	281,449	711,637	33,106	99,838	103,223

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 and 2019 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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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, 2009-July 2019
(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												
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	553	2,274,279
2018	860,325	9,805	6,817	714,303	151	424,251	265,480	5,252	43,026	-4,785	587	2,325,212
Year 2017												
January	85,985	810	743	45,702	13	38,425	24,717	136	3,161	-346	45	199,391
February	64,844	632	540	39,534	17	33,911	21,619	178	3,541	-418	39	164,438
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	205,300
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	46	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	2,359	770	55,197	26	39,366	23,664	288	4,417	-475	42	214,299
February	61,029	609	575	46,841	17	33,941	23,504	335	3,931	-226	40	170,598
March	58,552	585	491	50,592	16	35,262	23,793	453	4,181	-408	49	173,565
April	55,319	619	477	48,319	28	30,580	25,150	500	3,869	-295	42	164,609
May	64,011	730	336	58,571	11	34,479	28,051	490	3,350	-309	47	189,767
June	77,886	747	670	65,945	13	36,437	25,826	565	3,510	-339	52	211,313
July	88,147	652	716	82,694	15	38,293	21,964	512	2,721	-522	57	235,250
August	87,383	700	686	78,287	24	38,885	19,240	521	2,972	-626	58	228,131
Sept	73,136	763	639	68,926	3	34,377	16,649	496	3,052	-500	50	197,592
October	65,038	733	378	59,631	0	31,364	16,703	450	3,411	-405	46	177,349
November	69,011	673	477	50,518	0	33,043	19,806	342	3,552	-254	52	177,220
December	72,165	633	601	48,783	0	38,223	21,130	300	4,059	-426	51	185,519
Year 2019												
January	75,053	837	634	56,421	12	39,806	22,016	373	4,087	-247	41	199,033
February	59,594	552	564	53,702	22	34,243	19,887	400	3,524	-310	32	172,210
March	56,546	582	464	54,214	31	34,213	22,922	595	4,298	-309	32	173,588
April	44,051	524	276	49,847	0	32,063	23,079	652	4,934	-26	34	155,434
May	55,159	658	552	58,283	0	35,416	27,576	658	4,154	-305	41	182,191
June	60,160	712	398	69,747	23	36,847	24,076	647	3,880	-299	39	196,230
July	77,102	703	551	87,243	18	39,023	20,827	662	3,617	-505	37	229,278
Year to Date												
2017	522,912	4,901	4,104	351,161	99	241,870	181,595	1,852	24,368	-3,056	309	1,330,115
2018	493,591	6,302	4,035	408,159	125	248,359	171,953	3,143	25,978	-2,573	330	1,359,401
2019	427,667	4,567	3,439	429,456	106	251,610	160,382	3,986	28,494	-2,001	257	1,307,963
Rolling 12 Months Ending in July												
2018	864,319	9,968	6,643	680,833	174	430,974	266,034	4,639	44,374	-4,965	574	2,303,566
2019	794,400	8,069	6,220	735,601	132	427,502	253,910	6,096	45,542	-4,213	515	2,273,773

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 and 2019 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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Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report;
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Table 1.2.B Net Generation by Energy Source: Independent Power Producers, 2009-July 2019
(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												
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
2018	278,210	5,263	1,263	651,354	3,847	382,827	24,600	60,629	279,760	-1,119	6,406	1,693,041
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	522	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	1,798	3,087	26,708	-72	580	146,169
February	20,197	122	106	41,328	309	30,849	1,895	3,737	24,120	-89	549	123,123
March	21,359	177	100	46,383	330	31,770	2,012	4,698	27,241	-82	570	134,557
April	17,451	191	154	43,137	306	28,553	2,196	5,683	26,495	-82	535	124,619
May	20,649	244	23	49,389	349	32,841	2,232	6,506	24,259	-81	532	136,942
June	22,987	263	NM	56,379	317	33,251	1,992	7,147	24,944	-95	589	147,792
July	26,663	256	135	75,464	348	34,163	1,918	6,349	17,456	-123	593	163,223
August	27,171	293	124	74,840	369	33,398	2,037	6,378	20,663	-121	442	165,593
Sept	22,985	229	125	65,221	315	30,348	1,899	5,897	18,730	-103	311	145,957
October	21,843	212	43	56,160	259	28,033	1,950	4,715	21,578	-87	564	135,269
November	23,396	228	177	47,778	299	30,904	2,226	3,576	22,763	-88	559	131,818
December	24,007	244	142	49,219	342	33,434	2,446	2,856	24,804	-96	582	137,979
Year 2019												
January	25,311	420	129	53,209	365	33,895	2,413	3,244	25,162	-76	574	144,646
February	19,831	189	111	48,633	351	30,472	2,045	3,475	23,191	-79	500	128,719
March	21,336	173	126	49,878	345	30,867	2,366	5,364	25,559	-100	528	136,443
April	15,514	198	125	44,928	337	28,518	2,237	6,234	28,745	-78	503	127,261
May	16,288	222	131	48,821	338	31,708	2,363	6,568	26,229	-63	575	133,179
June	17,865	199	96	58,587	321	31,958	2,151	7,493	23,365	-86	561	142,509
July	23,301	260	NM	77,546	386	33,176	1,981	7,520	22,916	-118	581	167,633
Year to Date												
2017	173,234	1,468	862	314,896	2,260	216,285	15,551	28,937	151,966	-597	3,795	908,657
2018	158,809	4,058	653	358,137	2,263	226,709	14,043	37,207	171,223	-624	3,948	976,425
2019	139,445	1,661	801	381,602	2,444	220,593	15,556	39,898	175,167	-598	3,821	980,390
Rolling 12 Months Ending in July												
2018	289,774	5,870	NM	616,160	3,981	390,889	21,526	57,645	278,219	-1,073	6,680	1,670,942
2019	258,846	2,866	NM	674,819	4,028	376,710	26,114	63,320	283,705	-1,094	6,280	1,697,006

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 and 2019 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, 2009-July 2019
(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															
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
2018	327	147	7	8,343	0	0	240	629	2,605	0	1,020	13,318	9,756	10,386	10,386
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	673	0	0	23	28	226	0	85	1,124	547	575	575
February	32	8	1	635	0	0	23	35	202	0	73	1,008	599	635	635
March	26	8	1	651	0	0	NM	45	224	0	84	1,063	813	858	858
April	22	9	0	634	0	0	25	57	210	0	82	1,040	900	957	957
May	19	9	0	644	0	0	NM	65	216	0	91	1,070	986	1,052	1,052
June	21	8	0	706	0	0	NM	81	217	0	92	1,148	999	1,080	1,080
July	25	12	0	821	0	0	NM	68	214	0	91	1,251	1,032	1,100	1,100
August	30	10	0	831	0	0	NM	70	219	0	91	1,269	989	1,059	1,059
Sept	29	8	1	749	0	0	14	66	200	0	80	1,148	890	957	957
October	24	8	1	673	0	0	NM	50	217	0	84	1,070	786	836	836
November	27	12	1	641	0	0	NM	34	204	0	78	1,014	624	659	659
December	29	10	1	685	0	0	17	28	255	0	89	1,114	591	618	618
Year 2019															
January	35	14	1	717	0	0	NM	31	267	0	85	1,169	647	678	678
February	29	9	1	661	0	0	NM	33	237	0	72	1,060	688	721	721
March	33	9	1	689	0	0	NM	53	263	0	80	1,148	959	1,012	1,012
April	23	8	1	632	0	0	NM	55	217	0	79	1,035	1,067	1,122	1,122
May	18	8	0	665	0	0	NM	56	210	0	81	1,065	1,139	1,195	1,195
June	14	7	0	681	0	0	21	65	226	0	82	1,096	1,146	1,211	1,211
July	24	10	0	799	0	0	NM	62	236	0	82	1,230	1,204	1,266	1,266
Year to Date															
2017	191	54	4	4,628	0	0	133	304	1,599	0	624	7,538	4,561	4,865	4,865
2018	188	98	4	4,765	0	0	162	380	1,508	0	598	7,705	5,876	6,257	6,257
2019	175	64	4	4,843	0	0	144	355	1,656	0	561	7,804	6,850	7,205	7,205
Rolling 12 Months Ending in July															
2018	326	NM	8	8,179	0	0	NM	597	2,638	0	1,062	13,227	9,000	9,597	9,597
2019	314	113	8	8,421	0	0	NM	604	2,752	0	983	13,417	10,729	11,334	11,334

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 and 2019 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.D. Net Generation by Energy Source: Industrial Sector, 2009-July 2019
(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															
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
2018	7,531	527	743	94,012	8,193	0	1,403	92	29,055	0	4,682	146,239	2,641	2,733	2,733
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	82	66	8,119	665	0	112	4	2,531	0	408	12,732	146	150	150
February	664	41	55	7,197	665	0	112	5	2,309	0	339	11,387	154	160	160
March	676	41	56	7,307	718	0	122	7	2,457	0	410	11,796	220	227	227
April	591	35	59	7,356	607	0	119	8	2,316	0	379	11,471	240	248	248
May	632	40	55	7,503	640	0	125	9	2,507	0	405	11,915	266	275	275
June	615	43	77	7,793	680	0	114	11	2,435	0	376	12,144	267	278	278
July	641	50	71	8,271	742	0	113	9	2,546	0	376	12,819	276	286	286
August	633	37	63	8,419	832	0	106	11	2,472	0	416	12,989	268	278	278
Sept	592	38	70	7,876	682	0	103	10	2,301	0	359	12,031	245	255	255
October	547	37	63	7,707	671	0	115	8	2,331	0	397	11,876	223	231	231
November	572	39	44	8,172	634	0	127	6	2,370	0	391	12,357	176	182	182
December	623	43	63	8,292	656	0	135	4	2,480	0	426	12,723	159	163	163
Year 2019															
January	620	45	56	8,587	617	0	95	5	2,389	0	429	12,842	168	173	173
February	554	40	46	7,432	641	0	81	5	2,169	0	321	11,290	178	183	183
March	538	39	45	7,794	766	0	92	8	2,348	0	378	12,008	255	263	263
April	510	43	48	7,529	610	0	85	9	2,214	0	340	11,389	278	287	287
May	523	35	55	7,709	656	0	92	9	2,253	0	356	11,689	309	319	319
June	525	36	57	7,839	628	0	88	11	2,312	0	355	11,850	315	326	326
July	585	31	118	8,475	762	0	84	11	2,432	0	386	12,883	322	332	332
Year to Date															
2017	4,501	256	465	53,300	4,819	0	911	24	16,474	0	2,864	83,614	1,401	1,425	1,425
2018	4,564	333	440	53,545	4,717	0	817	54	17,101	0	2,693	84,263	1,570	1,624	1,624
2019	3,855	268	425	55,364	4,681	0	617	58	16,117	0	2,564	83,950	1,825	1,884	1,884
Rolling 12 Months Ending in July															
2018	7,731	541	750	91,865	8,241	0	1,289	72	29,163	0	4,756	144,408	2,533	2,605	2,605
2019	6,823	462	728	95,831	8,157	0	1,203	97	28,071	0	4,554	145,925	2,896	2,993	2,993

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 and 2019 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-July 2019 (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
2018	17,146
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	1,758
June	1,793
July	1,839
August	1,762
Sept	1,545
October	1,391
November	1,114
December	1,025
Year 2019	
January	1,122
February	1,219
March	1,754
April	1,963
May	2,134
June	2,178
July	2,273
Year to Date	
2017	8,301
2018	10,310
2019	12,644
Rolling 12 Months Ending in July	
2018	15,951
2019	19,480

See Glossary for definitions. Values for 2017 and prior years are final. Values for 2018 and 2019 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, July 2019 and 2018 (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	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	10,491	10,753	-2.4%	277	261	9,837	10,094	116	121	261	278
Connecticut	4,089	3,771	8.4%	5	6	3,983	3,666	39	37	62	61
Maine	940	996	-5.6%	0	0	770	803	10	14	159	178
Massachusetts	2,585	3,193	-19.1%	94	72	2,410	3,042	57	57	23	22
New Hampshire	1,870	1,844	1.4%	96	110	1,768	1,726	3	5	3	3
Rhode Island	807	767	5.3%	0	0	787	747	6	6	14	13
Vermont	200	182	10.1%	82	73	118	109	0	0	0	0
Middle Atlantic	44,540	41,810	6.5%	3,852	3,641	40,071	37,553	218	222	400	394
New Jersey	7,505	7,887	-4.9%	25	14	7,357	7,745	55	67	67	62
New York	14,184	13,365	6.1%	3,820	3,617	10,160	9,546	129	128	75	73
Pennsylvania	22,852	20,558	11.2%	6	9	22,554	20,262	34	27	258	259
East North Central	56,559	57,355	-1.4%	22,859	23,797	32,577	32,407	186	199	937	951
Illinois	17,333	17,598	-1.5%	824	704	16,191	16,571	59	57	260	266
Indiana	10,324	10,241	0.8%	7,576	7,713	2,357	2,142	29	26	362	360
Michigan	11,528	11,524	0.0%	8,106	8,590	3,232	2,728	60	77	129	130
Ohio	11,043	11,206	-1.5%	1,410	1,373	9,554	9,749	26	27	53	56
Wisconsin	6,331	6,786	-6.7%	4,942	5,418	1,243	1,216	12	13	133	140
West North Central	32,665	32,890	-0.7%	27,226	28,577	4,943	3,859	64	55	431	400
Iowa	6,232	5,580	11.7%	5,011	4,492	935	856	20	17	265	215
Kansas	5,029	4,949	1.6%	3,510	4,053	1,516	894	NM	NM	NM	NM
Minnesota	5,819	5,777	0.7%	4,636	4,699	1,049	929	24	17	110	131
Missouri	7,737	8,565	-9.7%	7,192	8,092	525	451	18	18	2	3
Nebraska	3,557	3,544	0.4%	3,103	3,240	415	270	1	2	37	32
North Dakota	3,327	3,509	-5.2%	2,923	3,134	389	359	NM	0	NM	16
South Dakota	965	966	-0.1%	852	867	113	99	NM	NM	0	0
South Atlantic	83,566	80,717	3.5%	68,585	66,101	13,122	12,827	162	164	1,697	1,625
Delaware	916	611	49.9%	14	6	777	489	0	NM	125	115
District of Columbia	6	9	-29.0%	0	0	NM	0	5	9	0	0
Florida	24,547	24,157	1.6%	22,865	22,368	1,213	1,358	6	6	464	424
Georgia	12,888	12,844	0.3%	10,421	10,492	1,999	1,889	1	NM	467	463
Maryland	4,182	3,947	5.9%	529	464	3,549	3,378	100	88	3	16
North Carolina	13,880	12,809	8.4%	11,855	11,093	1,869	1,566	22	25	135	124
South Carolina	9,652	9,812	-1.6%	9,286	8,977	196	658	0	0	170	178
Virginia	10,381	9,381	10.7%	8,148	7,179	1,989	1,955	29	34	216	213
West Virginia	7,114	7,147	-0.5%	5,467	5,522	1,530	1,533	0	0	117	92
East South Central	36,149	36,445	-0.8%	30,664	30,694	4,647	4,906	19	19	819	826
Alabama	13,493	14,511	-7.0%	9,368	10,143	3,704	3,971	0	0	421	397
Kentucky	7,111	7,768	-8.5%	6,976	7,629	83	87	0	0	52	52
Mississippi	7,199	6,102	18.0%	6,214	5,106	813	818	0	0	172	178
Tennessee	8,346	8,063	3.5%	8,105	7,816	46	29	19	19	175	199
West South Central	72,894	75,060	-2.9%	25,924	29,540	40,095	38,752	96	97	6,779	6,672
Arkansas	5,671	6,968	-18.6%	4,991	6,193	528	623	NM	NM	148	149
Louisiana	10,378	10,276	1.0%	6,973	6,653	703	1,079	15	16	2,686	2,528
Oklahoma	8,668	8,769	-1.1%	4,455	5,402	4,139	3,290	0	0	74	77
Texas	48,177	49,048	-1.8%	9,505	11,292	34,724	33,761	78	77	3,870	3,918
Mountain	36,395	37,456	-2.8%	28,373	29,874	7,727	7,253	83	51	213	278
Arizona	12,185	12,138	0.4%	10,240	9,965	1,931	2,158	14	14	0	0
Colorado	5,326	5,505	-3.2%	4,093	4,315	1,223	1,179	4	5	6	6
Idaho	1,494	1,578	-5.3%	943	1,039	492	485	4	4	55	49
Montana	2,267	1,805	25.6%	786	922	1,480	881	0	0	2	2
Nevada	4,296	4,592	-6.4%	3,053	3,397	1,148	1,120	46	14	49	61
New Mexico	3,444	3,282	4.9%	2,624	2,393	807	876	10	10	3	2
Utah	3,737	4,275	-12.6%	3,300	3,871	402	351	5	4	30	49
Wyoming	3,646	4,282	-14.8%	3,335	3,971	244	202	0	0	67	109
Pacific Contiguous	36,176	38,543	-6.1%	20,423	21,724	14,212	15,196	227	260	1,314	1,363
California	21,269	22,179	-4.1%	9,140	8,746	10,762	11,985	219	251	1,148	1,197
Oregon	5,352	5,663	-5.5%	3,519	3,963	1,767	1,637	7	7	59	56
Washington	9,555	10,702	-10.7%	7,764	9,015	1,683	1,574	NM	2	107	110
Pacific Noncontiguous	1,588	1,513	4.9%	1,094	1,040	403	377	60	64	31	32
Alaska	690	641	7.7%	635	582	NM	23	NM	NM	11	8
Hawaii	897	872	2.9%	459	458	382	354	36	35	20	24
U.S. Total	411,024	412,542	-0.4%	229,278	235,250	167,633	163,223	1,230	1,251	12,883	12,819

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NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values are preliminary. 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 July 2019 and 2018 (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	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	59,270	61,288	-3.3%	1,587	1,940	55,397	56,851	699	725	1,587	1,772
Connecticut	22,509	22,596	-0.4%	54	50	21,880	21,979	219	216	355	350
Maine	6,311	6,680	-5.5%	0	0	5,248	5,415	79	100	983	1,165
Massachusetts	14,509	16,251	-10.7%	377	391	13,655	15,363	326	336	152	161
New Hampshire	10,550	10,511	0.4%	605	943	9,889	9,512	39	37	17	18
Rhode Island	3,968	3,898	1.8%	0	0	3,855	3,787	33	33	80	78
Vermont	1,423	1,352	5.3%	552	555	870	795	2	2	0	0
Middle Atlantic	250,595	244,038	2.7%	20,794	21,093	226,006	219,050	1,317	1,386	2,478	2,509
New Jersey	40,972	44,108	-7.1%	81	69	40,134	43,231	334	414	424	395
New York	76,332	76,358	0.0%	20,632	20,939	54,439	54,146	754	748	506	525
Pennsylvania	133,291	123,572	7.9%	82	85	131,433	121,674	228	224	1,548	1,589
East North Central	344,467	354,268	-2.8%	128,801	142,237	208,381	204,603	1,102	1,163	6,183	6,266
Illinois	107,459	110,079	-2.4%	3,258	3,274	102,266	104,795	293	288	1,643	1,723
Indiana	60,746	64,668	-6.1%	42,837	49,066	15,474	13,223	152	156	2,284	2,223
Michigan	68,266	69,846	-2.3%	46,211	47,904	20,726	20,551	435	482	894	908
Ohio	71,006	70,575	0.6%	7,852	11,717	62,605	58,308	134	149	414	401
Wisconsin	36,991	39,101	-5.4%	28,644	30,276	7,309	7,726	88	87	949	1,011
West North Central	198,053	209,309	-5.4%	156,732	169,416	38,529	36,928	368	362	2,424	2,602
Iowa	37,899	37,122	2.1%	28,439	28,056	8,043	7,668	128	128	1,290	1,270
Kansas	30,222	30,760	-1.7%	19,199	20,072	10,962	10,638	NM	9	53	41
Minnesota	34,703	37,091	-6.4%	26,471	28,518	7,339	7,525	118	113	775	935
Missouri	45,183	50,483	-10.5%	41,783	47,149	3,278	3,206	104	101	19	27
Nebraska	20,912	21,775	-4.0%	16,943	18,636	3,770	2,901	10	11	190	226
North Dakota	22,457	24,730	-9.2%	18,406	20,779	3,952	3,848	NM	0	98	103
South Dakota	6,677	7,348	-9.1%	5,492	6,207	1,185	1,141	NM	NM	0	0
South Atlantic	467,828	473,667	-1.2%	386,799	386,530	68,889	75,224	1,098	958	11,041	10,955
Delaware	3,118	3,448	-9.6%	21	17	2,341	2,876	3	4	753	550
District of Columbia	55	53	3.8%	0	0	9	0	46	53	0	0
Florida	139,369	139,218	0.1%	130,020	129,104	6,345	7,091	39	42	2,965	2,980
Georgia	72,191	74,063	-2.5%	59,719	61,493	9,504	9,476	4	6	2,964	3,089
Maryland	23,349	25,389	-8.0%	2,641	2,120	19,953	22,652	629	458	125	159
North Carolina	74,588	78,170	-4.6%	62,714	68,117	10,685	8,805	162	163	1,027	1,085
South Carolina	59,653	57,653	3.5%	56,958	53,837	1,608	2,643	2	2	1,086	1,171
Virginia	57,059	55,290	3.2%	44,637	41,951	10,808	11,698	213	231	1,400	1,410
West Virginia	38,447	40,383	-4.8%	30,089	29,890	7,638	9,984	0	0	720	509
East South Central	209,347	214,324	-2.3%	178,273	181,802	25,689	27,064	108	125	5,276	5,333
Alabama	82,159	84,633	-2.9%	59,225	60,564	20,294	21,449	0	0	2,639	2,620
Kentucky	41,886	44,727	-6.4%	41,307	43,960	230	432	0	0	348	335
Mississippi	37,603	36,886	1.9%	31,625	30,765	4,908	5,001	0	6	1,070	1,115
Tennessee	47,699	48,077	-0.8%	46,117	46,513	256	182	108	119	1,218	1,264
West South Central	410,673	425,598	-3.5%	135,324	146,534	230,547	234,964	603	532	44,199	43,568
Arkansas	35,110	38,680	-9.2%	31,009	33,756	3,041	3,858	24	25	1,036	1,040
Louisiana	57,156	58,645	-2.5%	34,271	35,855	4,557	5,662	87	92	18,241	17,038
Oklahoma	47,533	51,672	-8.0%	22,358	24,432	24,706	26,709	0	0	469	531
Texas	270,874	276,601	-2.1%	47,687	52,492	198,242	198,735	492	416	24,454	24,959
Mountain	210,821	208,199	1.3%	161,160	160,114	47,454	45,928	587	328	1,620	1,829
Arizona	64,780	61,841	4.8%	55,049	53,785	9,644	7,965	87	91	0	0
Colorado	32,470	32,222	0.8%	24,808	24,026	7,597	8,130	23	21	42	44
Idaho	9,905	11,152	-11.2%	6,188	7,316	3,331	3,456	27	29	359	352
Montana	15,461	16,184	-4.5%	6,175	7,757	9,271	8,412	0	0	15	15
Nevada	22,686	22,624	0.3%	15,165	15,404	7,007	6,932	337	82	177	207
New Mexico	19,361	17,421	11.1%	12,950	10,506	6,343	6,847	64	61	4	6
Utah	22,428	20,948	7.1%	19,742	18,251	2,332	2,311	49	43	305	343
Wyoming	23,731	25,807	-8.0%	21,083	23,069	1,929	1,876	0	0	718	862
Pacific Contiguous	219,496	227,546	-3.5%	132,081	143,257	76,994	73,415	1,497	1,674	8,924	9,200
California	119,793	112,005	7.0%	51,403	44,081	59,161	58,340	1,440	1,608	7,789	7,976
Oregon	36,870	40,070	-8.0%	26,761	31,104	9,692	8,534	44	47	373	384
Washington	62,833	75,471	-16.7%	53,917	68,072	8,141	6,541	13	19	762	839
Pacific Noncontiguous	9,558	9,557	0.0%	6,411	6,479	2,505	2,397	425	451	217	231
Alaska	3,938	3,907	0.8%	3,547	3,469	138	149	184	228	69	60
Hawaii	5,620	5,650	-0.5%	2,864	3,010	2,366	2,247	241	223	149	170
U.S. Total	2,380,107	2,427,795	-2.0%	1,307,963	1,359,401	980,390	976,425	7,804	7,705	83,950	84,263

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Notes: See Glossary for definitions. Values are preliminary. 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, July 2019 and 2018 (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	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	39	55	-29.3%	34	36	3	19	0	0	NM	NM
Connecticut	0	16	-100.0%	0	0	0	16	0	0	0	0
Maine	5	3	59.9%	0	0	3	2	0	0	NM	NM
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	34	36	-5.0%	34	36	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	4,037	4,702	-14.2%	0	0	4,022	4,687	0	0	15	15
New Jersey	90	103	-12.4%	0	0	90	103	0	0	0	0
New York	43	125	-65.7%	0	0	43	125	0	0	0	0
Pennsylvania	3,904	4,474	-12.8%	0	0	3,888	4,459	0	0	15	15
East North Central	22,347	25,892	-13.7%	13,568	15,330	8,585	10,365	NM	8	185	191
Illinois	4,859	5,798	-16.2%	359	372	4,348	5,268	NM	NM	148	154
Indiana	6,647	6,854	-3.0%	6,210	6,453	432	396	4	5	0	0
Michigan	3,966	4,708	-15.8%	3,924	4,666	38	38	0	0	NM	NM
Ohio	4,305	5,289	-18.6%	537	626	3,767	4,663	0	0	0	0
Wisconsin	2,570	3,243	-20.7%	2,539	3,212	0	0	0	0	32	31
West North Central	16,825	19,184	-12.3%	16,573	18,934	0	0	7	5	245	245
Iowa	2,776	2,866	-3.1%	2,614	2,708	0	0	5	5	157	152
Kansas	1,920	2,455	-21.8%	1,920	2,455	0	0	0	0	0	0
Minnesota	1,890	2,115	-10.6%	1,847	2,065	0	0	1	0	41	50
Missouri	5,474	6,525	-16.1%	5,474	6,525	0	0	0	0	0	0
Nebraska	2,123	2,337	-9.2%	2,086	2,305	0	0	0	0	37	32
North Dakota	2,411	2,633	-8.4%	2,401	2,622	0	0	0	0	NM	NM
South Dakota	231	252	-8.4%	231	252	0	0	0	0	0	0
South Atlantic	19,545	19,344	1.0%	17,353	17,118	2,148	2,178	0	2	44	45
Delaware	80	74	7.2%	0	0	80	74	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	2,256	2,826	-20.2%	2,250	2,820	0	0	0	0	NM	6
Georgia	3,182	3,065	3.8%	3,167	3,051	0	0	0	0	NM	13
Maryland	839	766	9.4%	0	0	839	764	0	0	0	3
North Carolina	4,346	2,915	49.1%	4,329	2,895	8	8	0	2	10	10
South Carolina	1,615	1,958	-17.5%	1,614	1,957	0	0	0	0	0	1
Virginia	658	1,019	-35.4%	642	960	2	47	0	0	13	12
West Virginia	6,570	6,721	-2.2%	5,350	5,435	1,220	1,285	0	0	0	0
East South Central	10,562	12,317	-14.2%	10,282	11,954	235	302	0	0	46	61
Alabama	2,461	3,484	-29.4%	2,457	3,480	0	0	0	0	NM	4
Kentucky	5,116	5,870	-12.8%	5,116	5,870	0	0	0	0	0	0
Mississippi	507	558	-9.2%	272	256	235	302	0	0	0	0
Tennessee	2,479	2,405	3.1%	2,437	2,348	0	0	0	0	42	57
West South Central	13,178	17,799	-26.0%	7,178	10,384	5,987	7,394	0	0	12	21
Arkansas	2,383	3,123	-23.7%	2,002	2,644	377	475	0	0	3	3
Louisiana	772	1,530	-49.5%	766	987	7	542	0	0	0	0
Oklahoma	886	1,863	-52.4%	829	1,663	48	182	0	0	9	18
Texas	9,137	11,283	-19.0%	3,582	5,090	5,555	6,194	0	0	0	0
Mountain	13,242	15,025	-11.9%	11,760	14,088	1,449	899	0	0	33	39
Arizona	2,655	3,284	-19.2%	2,655	3,284	0	0	0	0	0	0
Colorado	2,128	2,649	-19.7%	2,128	2,649	0	0	0	0	0	0
Idaho	NM	NM	NM	0	0	0	0	0	0	NM	NM
Montana	1,291	700	84.4%	27	26	1,265	674	0	0	0	0
Nevada	250	398	-37.2%	166	273	84	125	0	0	0	0
New Mexico	1,534	1,469	4.4%	1,534	1,469	0	0	0	0	0	0
Utah	2,211	2,694	-17.9%	2,175	2,655	37	39	0	0	0	0
Wyoming	3,170	3,829	-17.2%	3,075	3,732	64	61	0	0	31	36
Pacific Contiguous	1,053	984	7.0%	314	282	735	678	0	0	3	24
California	2	23	-92.1%	0	0	0	0	0	0	2	23
Oregon	314	282	11.7%	314	282	0	0	0	0	0	0
Washington	736	679	8.5%	0	0	735	678	0	0	1	1
Pacific Noncontiguous	185	174	6.2%	NM	NM	137	142	NM	NM	0	0
Alaska	65	51	26.8%	NM	NM	NM	19	NM	NM	0	0
Hawaii	120	123	-2.4%	0	0	120	123	0	0	0	0
U.S. Total	101,011	115,477	-12.5%	77,102	88,147	23,301	26,663	24	25	585	641

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 are preliminary. 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 July 2019 and 2018 (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	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	345	789	-56.3%	241	497	94	277	0	0	NM	15
Connecticut	60	244	-75.4%	0	0	60	244	0	0	0	0
Maine	44	48	-8.4%	0	0	34	33	0	0	NM	15
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	241	497	-51.5%	241	497	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	24,745	28,343	-12.7%	0	0	24,645	28,226	0	0	99	118
New Jersey	623	723	-13.9%	0	0	623	723	0	0	0	0
New York	386	523	-26.4%	0	0	386	513	0	0	0	11
Pennsylvania	23,737	27,097	-12.4%	0	0	23,637	26,990	0	0	99	107
East North Central	136,293	157,642	-13.5%	79,583	95,109	55,422	61,092	44	47	1,243	1,393
Illinois	29,942	35,155	-14.8%	2,194	2,291	26,758	31,776	20	23	969	1,066
Indiana	37,877	44,504	-14.9%	35,623	42,312	2,230	2,167	24	25	0	0
Michigan	23,429	25,091	-6.6%	23,199	24,763	197	265	0	0	33	63
Ohio	29,289	33,938	-13.7%	3,049	7,050	26,238	26,884	0	0	3	4
Wisconsin	15,757	18,953	-16.9%	15,518	18,694	0	0	0	0	239	260
West North Central	95,473	108,492	-12.0%	94,028	106,871	0	0	46	47	1,399	1,575
Iowa	14,133	15,538	-9.0%	13,186	14,572	0	0	38	41	909	925
Kansas	9,954	11,730	-15.1%	9,954	11,730	0	0	0	0	0	0
Minnesota	11,103	12,828	-13.4%	10,862	12,470	0	0	2	1	239	357
Missouri	33,078	37,442	-11.7%	33,073	37,437	0	0	6	5	0	0
Nebraska	11,430	13,222	-13.5%	11,240	12,996	0	0	0	0	190	226
North Dakota	14,166	16,162	-12.3%	14,104	16,095	0	0	0	0	62	66
South Dakota	1,608	1,570	2.4%	1,608	1,570	0	0	0	0	0	0
South Atlantic	92,936	115,090	-19.2%	83,406	98,881	9,165	15,754	27	25	339	430
Delaware	110	202	-45.4%	0	0	110	202	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	11,990	16,841	-28.8%	11,951	16,774	0	7	0	0	39	60
Georgia	15,149	17,076	-11.3%	15,068	16,963	0	0	0	0	82	113
Maryland	3,119	6,914	-54.9%	0	0	3,087	6,873	0	0	32	40
North Carolina	16,515	19,686	-16.1%	16,364	19,520	49	60	23	20	79	86
South Carolina	8,580	11,033	-22.2%	8,573	11,021	0	0	0	0	7	12
Virginia	2,160	5,856	-63.1%	2,005	5,360	50	372	4	5	101	118
West Virginia	35,313	37,482	-5.8%	29,445	29,242	5,868	8,240	0	0	0	0
East South Central	58,897	69,332	-15.1%	56,963	67,198	1,640	1,702	0	0	294	432
Alabama	15,176	19,871	-23.6%	15,151	19,844	0	0	0	0	25	26
Kentucky	30,850	33,082	-6.7%	30,850	33,082	0	0	0	0	0	0
Mississippi	2,931	2,979	-1.6%	1,291	1,276	1,640	1,702	0	0	0	0
Tennessee	9,940	13,401	-25.8%	9,672	12,995	0	0	0	0	269	406
West South Central	77,903	93,246	-16.5%	41,848	51,551	35,962	41,530	0	0	93	166
Arkansas	13,296	15,943	-16.6%	11,194	13,036	2,079	2,880	0	0	23	27
Louisiana	4,646	6,695	-30.6%	3,472	4,218	1,174	2,477	0	0	0	0
Oklahoma	5,408	8,906	-39.3%	5,202	7,882	136	885	0	0	70	139
Texas	54,553	61,702	-11.6%	21,980	26,415	32,574	35,287	0	0	0	0
Mountain	79,041	81,141	-2.6%	70,235	73,017	8,587	7,869	0	0	219	254
Arizona	14,026	17,293	-18.9%	14,026	17,293	0	0	0	0	0	0
Colorado	14,127	14,552	-2.9%	14,123	14,544	0	0	0	0	4	7
Idaho	NM	15	NM	0	0	0	0	0	0	NM	15
Montana	7,559	6,810	11.0%	166	119	7,391	6,690	0	0	1	2
Nevada	1,526	1,009	51.2%	980	474	546	536	0	0	0	0
New Mexico	8,198	6,315	29.8%	8,198	6,315	0	0	0	0	0	0
Utah	13,774	13,465	2.3%	13,533	13,222	241	244	0	0	0	0
Wyoming	19,818	21,681	-8.6%	19,208	21,050	409	400	0	0	200	230
Pacific Contiguous	4,380	1,972	122.1%	1,119	311	3,101	1,480	0	0	160	181
California	145	169	-13.7%	0	0	0	0	0	0	145	169
Oregon	1,119	311	259.6%	1,119	311	0	0	0	0	0	0
Washington	3,115	1,492	108.8%	0	0	3,101	1,480	0	0	14	12
Pacific Noncontiguous	1,131	1,105	2.3%	244	157	828	880	59	69	0	0
Alaska	411	343	19.6%	244	157	108	118	59	69	0	0
Hawaii	720	762	-5.5%	0	0	720	762	0	0	0	0
U.S. Total	571,143	657,153	-13.1%	427,667	493,591	139,445	158,809	175	188	3,855	4,564

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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, July 2019 and 2018 (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	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	43	37	16.7%	5	8	36	26	2	2	NM	NM
Connecticut	7	10	-23.3%	1	0	7	9	NM	NM	0	0
Maine	8	10	-24.1%	0	0	6	9	0	0	NM	NM
Massachusetts	24	10	130.8%	NM	NM	21	7	1	NM	0	0
New Hampshire	3	6	-48.0%	2	5	NM	NM	1	1	0	0
Rhode Island	NM	NM	NM	0	0	NM	NM	0	0	0	0
Vermont	NM	NM	NM	NM	NM	0	0	0	0	0	0
Middle Atlantic	45	53	-15.8%	10	8	32	42	2	NM	1	3
New Jersey	1	NM	NM	0	0	NM	NM	0	0	0	0
New York	25	35	-26.4%	10	8	14	23	NM	NM	0	3
Pennsylvania	18	17	6.6%	0	0	17	16	1	0	1	NM
East North Central	38	42	-8.7%	23	26	14	13	0	1	NM	1
Illinois	3	4	-17.1%	1	NM	2	3	0	0	0	0
Indiana	9	10	-12.7%	9	9	0	0	0	0	0	1
Michigan	11	14	-22.9%	10	13	0	0	0	0	NM	NM
Ohio	13	12	10.1%	1	NM	12	10	0	0	0	0
Wisconsin	2	2	13.2%	2	2	0	0	0	0	NM	NM
West North Central	23	23	0.5%	23	23	NM	NM	0	0	0	0
Iowa	8	8	8.8%	8	8	NM	0	0	0	0	0
Kansas	5	5	-7.7%	5	5	0	0	0	0	0	0
Minnesota	NM	NM	NM	NM	NM	NM	NM	0	0	0	0
Missouri	5	5	-9.7%	5	5	0	0	0	0	0	0
Nebraska	NM	NM	NM	NM	NM	0	0	0	0	0	0
North Dakota	2	2	-15.6%	2	2	0	0	0	0	0	0
South Dakota	1	NM	NM	1	NM	0	0	NM	NM	0	0
South Atlantic	119	89	34.3%	89	56	19	19	6	8	5	7
Delaware	2	3	-27.5%	0	0	2	3	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	36	24	51.1%	35	22	NM	NM	0	0	NM	2
Georgia	8	NM	NM	3	NM	NM	NM	1	0	4	NM
Maryland	9	12	-21.6%	0	0	9	12	NM	NM	0	0
North Carolina	12	13	-11.9%	11	12	NM	NM	NM	NM	NM	NM
South Carolina	8	NM	NM	7	NM	0	0	NM	0	0	0
Virginia	27	17	57.1%	17	NM	6	3	5	7	NM	NM
West Virginia	17	8	104.2%	16	8	1	0	0	0	0	0
East South Central	22	26	-16.7%	21	25	NM	0	0	0	NM	NM
Alabama	2	6	-72.0%	1	5	NM	NM	0	0	NM	NM
Kentucky	5	7	-26.2%	5	7	0	0	0	0	0	0
Mississippi	1	NM	NM	1	NM	0	0	0	0	0	0
Tennessee	14	12	18.9%	14	12	0	0	0	0	0	0
West South Central	9	8	14.6%	6	NM	2	NM	0	0	0	1
Arkansas	3	2	113.6%	1	1	2	0	0	0	0	0
Louisiana	NM	NM	NM	NM	NM	0	0	0	0	0	0
Oklahoma	2	3	-28.5%	2	2	0	0	0	0	0	0
Texas	3	3	-1.1%	2	2	NM	NM	0	0	0	0
Mountain	17	16	7.3%	16	12	1	4	NM	0	0	0
Arizona	4	3	21.2%	4	3	0	0	NM	0	0	0
Colorado	NM	1	NM	NM	1	0	0	0	0	0	0
Idaho	0	0	-85.7%	0	0	0	0	0	0	0	0
Montana	1	4	-75.1%	NM	NM	1	4	0	0	0	0
Nevada	2	1	49.8%	2	1	0	0	0	0	0	0
New Mexico	2	3	-10.9%	2	3	0	0	0	0	0	0
Utah	2	1	57.0%	2	1	0	0	0	0	0	0
Wyoming	5	3	102.9%	5	3	0	0	0	0	0	0
Pacific Contiguous	6	29	-79.6%	4	5	1	6	NM	NM	NM	18
California	3	23	-85.5%	3	3	0	2	NM	NM	0	18
Oregon	1	1	-44.0%	1	1	0	0	NM	NM	0	0
Washington	NM	5	NM	NM	NM	1	4	0	0	NM	NM
Pacific Noncontiguous	681	647	5.3%	506	484	154	145	0	0	21	18
Alaska	72	57	27.3%	68	55	0	0	NM	NM	5	2
Hawaii	609	590	3.2%	438	429	154	145	0	0	16	15
U.S. Total	1,004	970	3.5%	703	652	260	256	10	12	31	50

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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 July 2019 and 2018 (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	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	186	1,182	-84.3%	22	182	130	947	22	31	12	NM
Connecticut	55	335	-83.5%	3	NM	48	329	3	NM	2	1
Maine	22	183	-87.9%	0	0	12	162	1	1	9	NM
Massachusetts	78	438	-82.1%	NM	82	59	339	8	NM	1	1
New Hampshire	17	161	-89.1%	8	92	NM	59	8	11	0	0
Rhode Island	NM	NM	NM	0	0	NM	NM	2	1	0	0
Vermont	NM	NM	NM	NM	NM	0	0	0	0	0	0
Middle Atlantic	522	2,046	-74.5%	168	543	328	1,456	9	NM	16	28
New Jersey	45	248	-82.0%	1	1	42	241	1	5	1	1
New York	373	1,362	-72.6%	167	540	189	785	NM	NM	12	24
Pennsylvania	104	437	-76.3%	0	2	97	429	2	3	4	NM
East North Central	292	383	-23.8%	167	192	115	173	1	3	9	14
Illinois	27	42	-35.7%	4	NM	23	34	0	0	0	0
Indiana	81	76	6.4%	76	64	0	0	0	0	4	11
Michigan	56	74	-24.7%	53	70	0	0	1	3	2	1
Ohio	110	176	-37.7%	21	35	86	138	0	1	3	2
Wisconsin	20	16	20.6%	13	15	7	1	0	0	NM	NM
West North Central	201	220	-8.7%	195	207	NM	NM	2	1	1	1
Iowa	62	68	-8.5%	62	67	0	0	0	0	0	0
Kansas	35	NM	NM	35	NM	0	0	0	0	0	0
Minnesota	22	NM	NM	17	15	NM	NM	2	1	1	1
Missouri	46	60	-23.4%	46	60	0	0	0	0	0	0
Nebraska	8	5	49.4%	8	5	0	0	0	0	0	0
North Dakota	24	19	25.6%	24	19	0	0	0	0	0	0
South Dakota	4	3	37.5%	4	3	0	0	NM	NM	0	0
South Atlantic	715	2,297	-68.9%	526	1,562	110	615	22	36	57	84
Delaware	16	143	-88.8%	0	6	16	137	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	188	326	-42.3%	177	298	1	12	0	0	10	NM
Georgia	72	156	-53.9%	33	NM	NM	46	2	4	35	NM
Maryland	47	226	-79.3%	0	2	45	219	NM	NM	1	2
North Carolina	129	414	-68.8%	120	379	3	NM	NM	NM	5	NM
South Carolina	51	231	-77.8%	45	186	2	38	NM	NM	4	7
Virginia	138	698	-80.3%	77	537	40	130	19	28	2	NM
West Virginia	75	103	-27.7%	74	93	1	10	0	0	0	0
East South Central	167	180	-7.0%	158	144	1	25	0	0	8	NM
Alabama	13	53	-75.7%	7	22	1	25	0	0	5	NM
Kentucky	43	50	-14.4%	43	50	0	0	0	0	0	0
Mississippi	10	NM	NM	9	NM	0	0	0	0	1	3
Tennessee	102	65	56.9%	100	64	0	0	0	0	2	1
West South Central	82	107	-23.0%	59	NM	18	NM	0	0	5	5
Arkansas	29	NM	NM	18	NM	9	3	0	0	1	2
Louisiana	8	NM	NM	8	NM	0	0	0	0	0	0
Oklahoma	12	11	15.8%	11	10	0	0	0	0	1	1
Texas	33	38	-14.2%	22	26	9	NM	0	0	2	2
Mountain	121	107	12.5%	111	94	10	13	0	0	0	0
Arizona	34	31	8.1%	34	31	0	0	NM	0	0	0
Colorado	5	7	-23.0%	5	7	0	0	0	0	0	0
Idaho	0	0	323.6%	0	0	0	0	0	0	0	0
Montana	9	11	-20.4%	NM	NM	7	11	0	0	0	0
Nevada	8	5	72.6%	6	3	2	2	0	0	0	0
New Mexico	20	9	116.5%	20	9	0	0	0	0	0	0
Utah	21	21	1.6%	20	20	1	1	0	0	0	0
Wyoming	23	23	0.4%	23	23	0	0	0	0	0	0
Pacific Contiguous	44	65	-32.9%	23	22	8	9	NM	NM	13	33
California	30	52	-42.5%	20	20	1	4	0	0	8	28
Oregon	2	NM	NM	2	2	0	0	NM	NM	0	0
Washington	12	11	7.8%	NM	NM	6	5	0	0	NM	5
Pacific Noncontiguous	4,230	4,202	0.6%	3,137	3,268	938	794	7	5	147	135
Alaska	460	454	1.3%	431	427	0	0	4	3	26	24
Hawaii	3,769	3,748	0.6%	2,707	2,841	938	794	3	2	122	111
U.S. Total	6,559	10,791	-39.2%	4,567	6,302	1,661	4,058	64	98	268	333

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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, July 2019 and 2018 (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	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
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	19	NM	0	0	0	0	0	0	NM	19
New Jersey	6	7	-17.7%	0	0	0	0	0	0	6	7
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	NM	NM	NM	0	0	0	0	0	0	NM	NM
East North Central	183	214	-14.4%	125	105	NM	94	0	0	17	15
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	130	106	22.0%	113	92	0	0	0	0	17	14
Ohio	NM	96	NM	0	0	NM	94	0	0	0	2
Wisconsin	12	12	2.8%	12	12	0	0	0	0	0	0
West North Central	58	0	--	0	0	0	0	0	0	58	0
Iowa	58	0	--	0	0	0	0	0	0	58	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	107	225	-52.5%	87	203	0	0	0	0	NM	NM
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	87	203	-57.0%	87	203	0	0	0	0	0	0
Georgia	NM	NM	NM	0	0	0	0	0	0	NM	NM
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	348	423	-17.8%	338	409	0	0	0	0	NM	15
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	338	416	-18.8%	338	409	0	0	0	0	0	8
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	NM	NM	NM	0	0	0	0	0	0	NM	NM
Mountain	41	41	-0.5%	0	0	41	41	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	41	41	-0.5%	0	0	41	41	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	751	922	-18.6%	551	716	NM	135	0	0	118	71

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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 July 2019 and 2018 (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	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 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	100	89	12.0%	0	0	0	0	0	0	100	89
New Jersey	39	30	31.6%	0	0	0	0	0	0	39	30
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	61	59	2.2%	0	0	0	0	0	0	61	59
East North Central	1,106	1,158	-4.5%	507	677	520	428	0	0	79	53
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	533	665	-19.8%	456	618	0	0	0	0	77	47
Ohio	522	435	20.0%	0	0	520	428	0	0	2	7
Wisconsin	51	59	-12.4%	51	59	0	0	0	0	0	0
West North Central	67	40	66.5%	0	0	0	0	4	4	62	36
Iowa	67	40	66.5%	0	0	0	0	4	4	62	36
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	886	1,037	-14.6%	769	912	0	0	0	0	117	125
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	769	912	-15.7%	769	912	0	0	0	0	0	0
Georgia	117	125	-6.3%	0	0	0	0	0	0	117	125
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	2,229	2,582	-13.7%	2,162	2,446	0	0	0	0	67	136
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	2,168	2,537	-14.6%	2,162	2,446	0	0	0	0	6	91
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	62	45	35.9%	0	0	0	0	0	0	62	45
Mountain	281	225	24.9%	0	0	281	225	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	281	225	24.9%	0	0	281	225	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	4,668	5,131	-9.0%	3,439	4,035	801	653	4	4	425	440

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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, July 2019 and 2018 (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	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	6,185	5,994	3.2%	62	58	5,883	5,702	101	97	140	138
Connecticut	2,386	2,051	16.3%	3	4	2,282	1,949	38	37	62	61
Maine	227	301	-24.6%	0	0	185	259	3	3	39	39
Massachusetts	2,205	2,329	-5.4%	56	42	2,074	2,216	52	51	23	21
New Hampshire	602	581	3.5%	3	13	595	565	1	1	3	3
Rhode Island	766	732	4.7%	0	0	746	713	6	6	14	13
Vermont	0	0	-30.1%	0	0	0	0	0	0	0	0
Middle Atlantic	22,222	18,779	18.3%	1,615	1,520	20,250	16,906	114	117	243	237
New Jersey	4,630	4,573	1.2%	NM	NM	4,545	4,490	14	21	38	37
New York	6,828	6,161	10.8%	1,582	1,494	5,104	4,529	88	85	54	53
Pennsylvania	10,764	8,045	33.8%	1	0	10,601	7,886	12	11	151	147
East North Central	17,136	14,181	20.8%	6,277	5,329	10,390	8,407	155	154	314	291
Illinois	2,961	2,368	25.1%	455	321	2,389	1,934	53	54	64	59
Indiana	2,998	2,749	9.1%	1,285	1,181	1,556	1,431	21	17	136	120
Michigan	3,818	2,932	30.2%	1,565	1,212	2,153	1,621	50	49	51	50
Ohio	4,943	3,968	24.6%	844	719	4,059	3,207	25	26	15	17
Wisconsin	2,414	2,163	11.6%	2,129	1,896	233	214	5	8	47	46
West North Central	4,956	4,311	14.9%	4,312	3,727	557	482	32	31	55	71
Iowa	1,191	1,032	15.4%	1,134	964	NM	NM	12	9	45	60
Kansas	532	599	-11.2%	530	597	0	0	0	0	NM	NM
Minnesota	1,550	1,318	17.6%	1,287	1,107	250	195	7	10	6	7
Missouri	1,018	885	15.0%	698	584	307	286	12	12	2	3
Nebraska	321	220	46.1%	320	219	0	0	1	0	0	0
North Dakota	126	97	30.2%	125	96	0	0	0	0	0	1
South Dakota	218	160	35.9%	218	160	0	0	0	0	0	0
South Atlantic	40,708	38,369	6.1%	32,894	30,770	7,229	7,088	105	99	479	412
Delaware	792	491	61.3%	13	6	685	401	0	0	93	84
District of Columbia	0	5	-100.0%	0	0	0	0	0	5	0	0
Florida	18,382	17,530	4.9%	17,368	16,389	862	996	1	2	150	143
Georgia	5,994	5,989	0.1%	4,233	4,313	1,696	1,626	0	0	65	50
Maryland	1,743	1,555	12.1%	529	463	1,115	1,000	96	85	3	7
North Carolina	4,226	4,758	-11.2%	3,307	4,040	896	698	NM	NM	17	12
South Carolina	2,710	2,586	4.8%	2,645	2,019	52	557	0	0	12	9
Virginia	6,591	5,278	24.9%	4,764	3,524	1,755	1,690	1	0	72	64
West Virginia	270	179	50.9%	36	16	168	119	0	0	66	43
East South Central	14,667	14,309	2.5%	10,142	9,587	4,269	4,480	18	18	238	223
Alabama	5,962	6,100	-2.3%	2,205	2,081	3,643	3,912	0	0	115	107
Kentucky	1,532	1,428	7.3%	1,433	1,324	81	85	0	0	18	19
Mississippi	5,480	5,239	4.6%	4,898	4,720	544	481	0	0	38	38
Tennessee	1,693	1,541	9.9%	1,606	1,462	2	2	18	18	67	60
West South Central	42,219	42,456	-0.6%	15,506	15,433	20,608	21,102	90	90	6,015	5,831
Arkansas	2,209	2,147	2.9%	2,067	2,009	113	112	NM	NM	25	23
Louisiana	7,199	6,366	13.1%	4,283	3,816	612	454	15	16	2,290	2,080
Oklahoma	5,392	5,375	0.3%	3,342	3,509	2,012	1,836	0	0	38	30
Texas	27,418	28,568	-4.0%	5,813	6,099	17,872	18,701	71	71	3,661	3,698
Mountain	13,126	13,042	0.6%	10,704	10,031	2,265	2,822	34	35	122	154
Arizona	5,282	4,869	8.5%	3,913	3,214	1,357	1,641	12	14	0	0
Colorado	1,999	1,914	4.4%	1,650	1,540	347	372	0	0	2	2
Idaho	498	456	9.3%	303	270	180	173	3	3	12	9
Montana	62	55	14.3%	50	39	12	16	0	0	0	0
Nevada	2,915	3,214	-9.3%	2,669	2,957	191	190	6	6	48	61
New Mexico	1,223	1,315	-7.0%	1,039	880	172	423	9	10	3	2
Utah	1,049	1,127	-6.9%	1,015	1,086	6	6	4	2	25	33
Wyoming	97	93	4.4%	65	45	0	0	0	0	31	48
Pacific Contiguous	12,417	15,419	-19.5%	5,309	5,855	6,094	8,476	150	180	863	909
California	8,505	11,721	-27.4%	3,029	3,732	4,478	6,918	145	173	853	898
Oregon	2,131	2,047	4.1%	1,101	1,050	1,019	985	4	5	7	7
Washington	1,780	1,651	7.8%	1,179	1,073	597	574	0	1	4	NM
Pacific Noncontiguous	428	390	9.8%	422	384	0	0	0	0	6	5
Alaska	428	390	9.8%	422	384	0	0	0	0	6	5
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	174,063	167,250	4.1%	87,243	82,694	77,546	75,464	799	821	8,475	8,271

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

by State, by Sector, Year-to-Date through July 2019 and 2018 (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	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	28,087	27,564	1.9%	117	141	26,626	26,079	550	545	794	800
Connecticut	11,948	10,432	14.5%	20	23	11,359	9,846	216	213	353	349
Maine	986	1,220	-19.1%	0	0	772	999	18	18	196	203
Massachusetts	9,772	10,914	-10.5%	93	102	9,250	10,379	282	282	148	152
New Hampshire	1,719	1,399	22.8%	4	15	1,691	1,362	7	4	17	18
Rhode Island	3,659	3,599	1.7%	0	0	3,553	3,493	27	27	80	78
Vermont	1	1	18.3%	1	0	0	0	1	1	0	0
Middle Atlantic	104,554	90,153	16.0%	6,059	6,047	96,415	81,997	633	682	1,447	1,427
New Jersey	23,180	21,403	8.3%	98	101	22,783	20,952	71	121	229	228
New York	27,684	27,272	1.5%	5,959	5,941	20,888	20,510	485	479	352	343
Pennsylvania	53,690	41,478	29.4%	2	5	52,744	40,534	78	82	866	856
East North Central	86,807	76,310	13.8%	28,706	26,688	55,113	46,713	876	875	2,112	2,035
Illinois	9,926	9,385	5.8%	1,001	911	8,280	7,820	266	259	379	395
Indiana	16,935	14,658	15.5%	6,649	6,224	9,273	7,485	104	106	909	843
Michigan	18,627	18,919	-1.5%	5,474	6,098	12,421	12,113	347	333	385	375
Ohio	29,212	23,353	25.1%	4,571	4,438	24,386	18,653	126	140	130	122
Wisconsin	12,107	9,994	21.1%	11,011	9,016	754	641	34	37	309	301
West North Central	18,542	18,606	-0.3%	15,708	15,909	2,204	2,077	199	187	431	434
Iowa	4,542	4,679	-2.9%	4,192	4,329	NM	NM	62	60	288	291
Kansas	1,938	2,507	-22.7%	1,888	2,469	0	0	0	0	51	38
Minnesota	6,182	5,628	9.8%	5,308	4,759	743	734	60	61	70	74
Missouri	4,202	4,107	2.3%	2,651	2,676	1,460	1,342	74	64	17	25
Nebraska	657	712	-7.8%	654	709	0	0	3	3	0	0
North Dakota	439	392	11.9%	434	386	0	0	0	0	5	6
South Dakota	582	580	0.3%	582	580	0	0	0	0	0	0
South Atlantic	218,624	203,541	7.4%	179,901	165,685	35,059	34,868	693	525	2,972	2,464
Delaware	2,811	2,891	-2.8%	17	7	2,156	2,475	0	0	638	409
District of Columbia	14	18	-22.9%	0	0	0	0	14	18	0	0
Florida	102,587	96,834	5.9%	97,757	91,516	3,880	4,418	11	12	939	887
Georgia	31,916	31,285	2.0%	23,739	23,198	7,795	7,726	0	0	382	362
Maryland	8,917	7,226	23.4%	2,636	2,111	5,629	4,624	608	436	44	55
North Carolina	24,005	24,822	-3.3%	18,880	21,247	4,977	3,444	51	50	98	81
South Carolina	13,768	11,109	23.9%	12,841	9,080	853	1,953	0	0	74	75
Virginia	33,682	28,665	17.5%	23,924	18,414	9,307	9,824	8	7	443	420
West Virginia	923	690	33.8%	108	112	461	404	0	0	355	174
East South Central	76,821	79,350	-3.2%	51,889	53,231	23,221	24,579	106	122	1,605	1,419
Alabama	32,462	33,709	-3.7%	11,789	11,929	19,927	21,066	0	0	746	714
Kentucky	8,072	8,576	-5.9%	7,719	8,044	215	418	0	0	137	114
Mississippi	27,057	30,338	-10.8%	23,720	26,985	3,068	3,085	0	6	269	262
Tennessee	9,230	6,727	37.2%	8,661	6,273	11	10	106	116	453	329
West South Central	211,722	210,067	0.8%	71,295	70,361	100,805	101,335	549	475	39,072	37,895
Arkansas	10,651	12,089	-11.9%	9,689	11,129	749	758	21	21	192	182
Louisiana	40,603	36,140	12.3%	22,195	19,508	2,762	2,595	87	92	15,559	13,945
Oklahoma	23,869	24,301	-1.8%	14,811	14,505	8,833	9,601	0	0	226	195
Texas	136,598	137,537	-0.7%	24,601	25,219	88,461	88,382	441	363	23,095	23,573
Mountain	63,110	55,600	13.5%	50,053	43,804	11,967	10,642	246	242	844	912
Arizona	24,239	17,841	35.9%	17,830	13,056	6,329	4,699	80	86	0	0
Colorado	10,022	9,776	2.5%	8,465	8,301	1,544	1,464	1	0	12	11
Idaho	2,029	1,536	32.1%	952	636	963	804	22	23	92	73
Montana	264	225	17.3%	178	190	84	34	0	0	1	1
Nevada	14,084	15,096	-6.7%	12,636	13,647	1,234	1,206	38	37	175	205
New Mexico	6,287	6,348	-1.0%	4,451	3,891	1,771	2,391	61	59	4	6
Utah	5,631	4,262	32.1%	5,326	3,945	42	43	43	36	220	239
Wyoming	554	516	7.4%	214	139	1	1	0	0	340	376
Pacific Contiguous	60,924	61,551	-1.0%	23,695	24,465	30,193	29,847	992	1,113	6,044	6,126
California	43,614	47,491	-8.2%	14,469	16,564	22,244	23,838	959	1,072	5,942	6,017
Oregon	10,738	8,453	27.0%	5,239	4,620	5,419	3,753	26	28	53	51
Washington	6,573	5,607	17.2%	3,987	3,281	2,530	2,256	7	13	50	57
Pacific Noncontiguous	2,076	1,864	11.4%	2,034	1,829	0	0	0	0	42	35
Alaska	2,076	1,864	11.4%	2,034	1,829	0	0	0	0	42	35
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	871,266	824,607	5.7%	429,456	408,159	381,602	358,137	4,843	4,765	55,364	53,545

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 are preliminary. 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), 2009-July 2019 (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						
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
2018	1,213,763	147,486	101,132	5,454	178	1,468,013
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	10,662	6,225	364	11	110,046
February	85,087	6,493	4,135	277	10	96,002
March	89,748	9,047	5,777	350	10	104,933
April	82,019	10,962	6,097	355	13	99,446
May	92,432	13,273	9,933	451	18	116,107
June	107,052	13,121	10,169	464	17	130,823
July	130,955	20,479	15,009	784	23	167,250
August	130,825	17,728	13,106	699	19	162,377
Sept	116,193	15,302	10,711	549	18	142,772
October	101,201	13,223	9,248	482	17	124,171
November	90,847	9,697	6,197	355	11	107,109
December	94,620	7,499	4,525	323	11	106,978
Year 2019						
January	104,656	8,402	5,496	371	10	118,935
February	97,378	7,604	5,041	396	9	110,428
March	97,557	8,138	6,475	394	10	112,574
April	84,986	10,332	7,227	377	14	102,936
May	95,426	10,588	9,061	389	15	115,478
June	114,599	11,534	10,248	458	16	136,853
July	138,452	19,586	15,221	784	20	174,063

Values for 2017 and prior years are final. Values for 2018 and 2019 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, July 2019 and 2018 (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	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
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	61	61	-0.3%	0	0	0	0	0	0	61	61
New Jersey	19	17	11.0%	0	0	0	0	0	0	19	17
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	42	44	-4.7%	0	0	0	0	0	0	42	44
East North Central	452	434	4.3%	18	15	211	171	0	0	223	248
Illinois	24	30	-20.4%	0	0	0	0	0	0	24	30
Indiana	189	205	-7.6%	0	0	0	0	0	0	189	205
Michigan	174	128	36.0%	18	15	156	113	0	0	0	0
Ohio	66	72	-8.2%	0	0	56	58	0	0	10	14
Wisconsin	0	0	--	0	0	0	0	0	0	0	0
West North Central	5	4	13.0%	0	0	0	0	0	0	5	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	5	4	13.0%	0	0	0	0	0	0	5	4
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	35	33	4.2%	0	0	0	0	0	0	35	33
Delaware	31	29	3.5%	0	0	0	0	0	0	31	29
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	0	1	-97.5%	0	0	0	0	0	0	0	1
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	4	3	27.7%	0	0	0	0	0	0	4	3
East South Central	1	1	6.7%	0	0	0	0	0	0	1	1
Alabama	0	NM	NM	0	0	0	0	0	0	0	NM
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	1	1	19.3%	0	0	0	0	0	0	1	1
West South Central	409	384	6.4%	0	0	139	139	0	0	269	245
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	172	146	18.3%	0	0	0	0	0	0	172	146
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	236	238	-0.8%	0	0	139	139	0	0	97	99
Mountain	3	20	-83.2%	0	0	1	2	0	0	2	19
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	2	-8.8%	0	0	1	2	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	2	2	24.3%	0	0	0	0	0	0	2	2
Wyoming	0	17	-99.7%	0	0	0	0	0	0	0	17
Pacific Contiguous	200	162	23.8%	0	0	34	36	0	0	166	125
California	166	125	32.4%	0	0	0	0	0	0	166	125
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	34	36	-6.1%	0	0	34	36	0	0	0	0
Pacific Noncontiguous	0	5	-98.2%	0	0	0	0	0	0	0	5
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	0	5	-98.2%	0	0	0	0	0	0	0	5
U.S. Total	1,166	1,105	5.5%	18	15	386	348	0	0	762	742

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 are preliminary. 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 July 2019 and 2018 (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	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 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	371	356	4.2%	0	0	NM	NM	0	0	371	356
New Jersey	122	124	-1.4%	0	0	0	0	0	0	122	124
New York	2	0	--	0	0	0	0	0	0	2	0
Pennsylvania	247	232	6.5%	0	0	NM	NM	0	0	247	232
East North Central	2,783	2,656	4.8%	106	125	1,277	1,169	0	0	1,400	1,363
Illinois	159	105	50.5%	0	0	0	0	0	0	159	105
Indiana	1,145	1,171	-2.2%	0	0	0	0	0	0	1,145	1,171
Michigan	1,052	989	6.3%	106	125	946	864	0	0	0	0
Ohio	427	390	9.5%	0	0	331	304	0	0	96	86
Wisconsin	0	0	--	0	0	0	0	0	0	0	0
West North Central	29	29	1.3%	0	0	0	0	0	0	29	29
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	29	29	1.3%	0	0	0	0	0	0	29	29
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	134	149	-10.1%	0	0	0	0	0	0	134	149
Delaware	109	134	-18.9%	0	0	0	0	0	0	109	134
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	0	3	-96.8%	0	0	0	0	0	0	0	3
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	25	12	107.4%	0	0	0	0	0	0	25	12
East South Central	7	6	6.2%	0	0	0	0	0	0	7	6
Alabama	0	1	-100.0%	0	0	0	0	0	0	0	1
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	7	6	18.1%	0	0	0	0	0	0	7	6
West South Central	2,696	2,520	7.0%	0	0	999	848	0	0	1,697	1,673
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	1,126	1,053	6.9%	0	0	0	0	0	0	1,126	1,053
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	1,570	1,468	7.0%	0	0	999	848	0	0	571	620
Mountain	152	215	-29.4%	0	0	5	7	0	0	147	208
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	5	7	-27.5%	0	0	5	7	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	8	3	196.8%	0	0	0	0	0	0	8	3
Wyoming	138	205	-32.6%	0	0	0	0	0	0	138	205
Pacific Contiguous	1,055	1,139	-7.4%	0	0	163	239	0	0	891	900
California	891	900	-1.0%	0	0	0	0	0	0	891	900
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	163	239	-31.8%	0	0	163	239	0	0	0	0
Pacific Noncontiguous	4	33	-89.2%	0	0	0	0	0	0	4	33
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	4	33	-89.2%	0	0	0	0	0	0	4	33
U.S. Total	7,230	7,105	1.8%	106	125	2,444	2,263	0	0	4,681	4,717

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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.A. Utility Scale Facility Net Generation from Nuclear Energy by State, by Sector, July 2019 and 2018 (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	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	2,465	2,959	-16.7%	0	0	2,465	2,959	0	0	0	0
Connecticut	1,538	1,538	0.0%	0	0	1,538	1,538	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	0	491	-100.0%	0	0	0	491	0	0	0	0
New Hampshire	927	930	-0.3%	0	0	927	930	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	13,817	14,074	-1.8%	0	0	13,817	14,074	0	0	0	0
New Jersey	2,513	2,938	-14.5%	0	0	2,513	2,938	0	0	0	0
New York	3,922	3,862	1.6%	0	0	3,922	3,862	0	0	0	0
Pennsylvania	7,382	7,274	1.5%	0	0	7,382	7,274	0	0	0	0
East North Central	13,773	14,121	-2.5%	2,325	2,427	11,448	11,695	0	0	0	0
Illinois	8,594	8,632	-0.4%	0	0	8,594	8,632	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	2,831	3,018	-6.2%	2,325	2,427	506	591	0	0	0	0
Ohio	1,452	1,580	-8.1%	0	0	1,452	1,580	0	0	0	0
Wisconsin	896	892	0.4%	0	0	896	892	0	0	0	0
West North Central	4,061	4,036	0.6%	3,620	3,609	441	427	0	0	0	0
Iowa	441	427	3.4%	0	0	441	427	0	0	0	0
Kansas	890	886	0.5%	890	886	0	0	0	0	0	0
Minnesota	1,263	1,261	0.2%	1,263	1,261	0	0	0	0	0	0
Missouri	889	887	0.2%	889	887	0	0	0	0	0	0
Nebraska	577	575	0.4%	577	575	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	18,342	18,291	0.3%	17,041	16,987	1,300	1,304	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	2,741	2,687	2.0%	2,741	2,687	0	0	0	0	0	0
Georgia	2,886	2,977	-3.1%	2,886	2,977	0	0	0	0	0	0
Maryland	1,300	1,304	-0.2%	0	0	1,300	1,304	0	0	0	0
North Carolina	3,842	3,777	1.7%	3,842	3,777	0	0	0	0	0	0
South Carolina	4,922	4,921	0.0%	4,922	4,921	0	0	0	0	0	0
Virginia	2,650	2,626	0.9%	2,650	2,626	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	8,330	7,276	14.5%	8,330	7,276	0	0	0	0	0	0
Alabama	3,926	3,824	2.7%	3,926	3,824	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	1,044	129	706.3%	1,044	129	0	0	0	0	0	0
Tennessee	3,359	3,322	1.1%	3,359	3,322	0	0	0	0	0	0
West South Central	5,949	6,434	-7.5%	2,246	2,729	3,704	3,705	0	0	0	0
Arkansas	660	1,289	-48.8%	660	1,289	0	0	0	0	0	0
Louisiana	1,586	1,440	10.1%	1,586	1,440	0	0	0	0	0	0
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	3,704	3,705	0.0%	0	0	3,704	3,705	0	0	0	0
Mountain	2,936	2,730	7.5%	2,936	2,730	0	0	0	0	0	0
Arizona	2,936	2,730	7.5%	2,936	2,730	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	2,525	2,535	-0.4%	2,525	2,535	0	0	0	0	0	0
California	1,687	1,686	0.0%	1,687	1,686	0	0	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	838	849	-1.2%	838	849	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	72,199	72,456	-0.4%	39,023	38,293	33,176	34,163	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 are preliminary. 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.B. Utility Scale Facility Net Generation from Nuclear Energy

by State, by Sector, Year-to-Date through July 2019 and 2018 (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	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	17,868	19,401	-7.9%	0	0	17,868	19,401	0	0	0	0
Connecticut	9,345	10,621	-12.0%	0	0	9,345	10,621	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	2,177	2,417	-9.9%	0	0	2,177	2,417	0	0	0	0
New Hampshire	6,346	6,363	-0.3%	0	0	6,346	6,363	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	90,249	93,406	-3.4%	0	0	90,249	93,406	0	0	0	0
New Jersey	15,415	19,983	-22.9%	0	0	15,415	19,983	0	0	0	0
New York	25,194	24,828	1.5%	0	0	25,194	24,828	0	0	0	0
Pennsylvania	49,640	48,595	2.2%	0	0	49,640	48,595	0	0	0	0
East North Central	92,320	92,102	0.2%	15,226	14,350	77,093	77,751	0	0	0	0
Illinois	58,181	57,150	1.8%	0	0	58,181	57,150	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	19,149	18,379	4.2%	15,226	14,350	3,923	4,028	0	0	0	0
Ohio	9,352	10,442	-10.4%	0	0	9,352	10,442	0	0	0	0
Wisconsin	5,638	6,130	-8.0%	0	0	5,638	6,130	0	0	0	0
West North Central	26,053	26,472	-1.6%	23,039	23,436	3,014	3,036	0	0	0	0
Iowa	3,014	3,036	-0.7%	0	0	3,014	3,036	0	0	0	0
Kansas	6,196	4,705	31.7%	6,196	4,705	0	0	0	0	0	0
Minnesota	8,109	8,809	-7.9%	8,109	8,809	0	0	0	0	0	0
Missouri	4,705	6,178	-23.8%	4,705	6,178	0	0	0	0	0	0
Nebraska	4,030	3,745	7.6%	4,030	3,745	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	119,581	119,744	-0.1%	111,081	111,263	8,501	8,480	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	16,786	17,923	-6.3%	16,786	17,923	0	0	0	0	0	0
Georgia	18,779	19,918	-5.7%	18,779	19,918	0	0	0	0	0	0
Maryland	8,501	8,480	0.2%	0	0	8,501	8,480	0	0	0	0
North Carolina	23,902	24,228	-1.3%	23,902	24,228	0	0	0	0	0	0
South Carolina	34,075	32,349	5.3%	34,075	32,349	0	0	0	0	0	0
Virginia	17,539	16,845	4.1%	17,539	16,845	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	53,915	47,587	13.3%	53,915	47,587	0	0	0	0	0	0
Alabama	25,127	22,881	9.8%	25,127	22,881	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	6,606	2,494	164.8%	6,606	2,494	0	0	0	0	0	0
Tennessee	22,183	22,212	-0.1%	22,183	22,212	0	0	0	0	0	0
West South Central	38,088	42,004	-9.3%	14,220	17,368	23,868	24,635	0	0	0	0
Arkansas	7,788	7,719	0.9%	7,788	7,719	0	0	0	0	0	0
Louisiana	6,432	9,649	-33.3%	6,432	9,649	0	0	0	0	0	0
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	23,868	24,635	-3.1%	0	0	23,868	24,635	0	0	0	0
Mountain	19,128	18,591	2.9%	19,128	18,591	0	0	0	0	0	0
Arizona	19,128	18,591	2.9%	19,128	18,591	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	15,000	15,763	-4.8%	15,000	15,763	0	0	0	0	0	0
California	10,366	10,249	1.1%	10,366	10,249	0	0	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	4,634	5,514	-16.0%	4,634	5,514	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	472,203	475,069	-0.6%	251,610	248,359	220,593	226,709	0	0	0	0

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Notes: See Glossary for definitions. Values are preliminary. 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 1.10.A. Utility Scale Facility Net Generation from Hydroelectric (Conventional) Power by State, by Sector, July 2019 and 2018 (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	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	642	622	3.1%	90	87	542	507	0	0	9	29
Connecticut	27	27	0.0%	NM	2	26	26	0	0	0	0
Maine	292	283	3.2%	0	0	283	254	0	0	9	29
Massachusetts	91	87	4.6%	22	22	68	65	0	0	0	0
New Hampshire	121	120	1.2%	30	29	91	91	0	0	0	0
Rhode Island	0	0	13.2%	0	0	0	0	0	0	0	0
Vermont	110	105	4.5%	37	35	73	71	0	0	0	0
Middle Atlantic	2,978	2,868	3.8%	2,259	2,172	713	693	0	0	5	3
New Jersey	2	1	68.9%	0	0	2	1	0	0	0	0
New York	2,709	2,603	4.1%	2,253	2,163	450	437	0	0	5	3
Pennsylvania	267	264	1.1%	6	9	262	256	0	0	0	0
East North Central	353	417	-15.4%	298	357	NM	NM	0	0	NM	NM
Illinois	12	12	1.2%	4	5	7	6	0	0	0	0
Indiana	26	26	2.4%	26	26	0	0	0	0	0	0
Michigan	105	130	-19.7%	96	120	NM	NM	0	0	NM	NM
Ohio	45	44	2.6%	24	23	NM	NM	0	0	0	0
Wisconsin	165	205	-19.7%	148	183	NM	NM	0	0	NM	NM
West North Central	855	1,017	-15.8%	831	981	NM	NM	0	0	9	16
Iowa	58	80	-26.7%	58	79	1	1	0	0	0	0
Kansas	0	3	-98.7%	0	0	0	3	0	0	0	0
Minnesota	76	102	-24.9%	53	70	NM	NM	0	0	9	16
Missouri	104	99	4.3%	104	99	0	0	0	0	0	0
Nebraska	95	118	-19.8%	95	118	0	0	0	0	0	0
North Dakota	164	201	-18.4%	164	201	0	0	0	0	0	0
South Dakota	358	413	-13.5%	358	413	0	0	0	0	0	0
South Atlantic	1,072	1,091	-1.8%	854	843	168	201	2	1	48	47
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	19	18	2.7%	19	18	0	0	0	0	0	0
Georgia	199	192	3.6%	197	190	NM	NM	0	0	1	1
Maryland	124	155	-20.0%	0	0	124	155	0	0	0	0
North Carolina	326	327	-0.1%	321	322	3	3	1	1	NM	NM
South Carolina	154	155	-0.8%	150	151	NM	4	0	0	0	0
Virginia	106	104	1.7%	103	99	NM	5	0	0	0	0
West Virginia	144	140	2.9%	65	63	33	32	0	0	47	45
East South Central	1,932	1,889	2.3%	1,931	1,888	NM	NM	0	0	0	0
Alabama	774	747	3.6%	774	747	0	0	0	0	0	0
Kentucky	405	408	-0.7%	404	407	NM	NM	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	753	734	2.6%	753	734	0	0	0	0	0	0
West South Central	606	592	2.3%	519	508	86	85	NM	NM	0	0
Arkansas	263	254	3.6%	257	248	NM	NM	0	0	0	0
Louisiana	78	76	3.0%	0	0	78	76	0	0	0	0
Oklahoma	174	171	1.7%	174	171	0	0	0	0	0	0
Texas	91	92	-1.0%	88	89	3	3	NM	NM	0	0
Mountain	2,566	2,861	-10.3%	2,463	2,738	102	121	2	3	0	0
Arizona	632	639	-1.1%	632	639	0	0	0	0	0	0
Colorado	153	155	-1.3%	130	131	NM	NM	2	3	0	0
Idaho	691	838	-17.5%	628	758	63	80	0	0	0	0
Montana	704	857	-17.8%	694	845	NM	NM	0	0	0	0
Nevada	216	166	29.8%	210	160	NM	NM	0	0	0	0
New Mexico	NM	NM	NM	NM	NM	0	0	0	0	0	0
Utah	80	101	-20.8%	80	101	0	0	0	0	0	0
Wyoming	75	90	-16.0%	74	88	2	2	0	0	0	0
Pacific Contiguous	11,788	12,517	-5.8%	11,481	12,273	306	243	NM	NM	0	0
California	4,410	3,173	39.0%	4,150	2,986	260	186	NM	NM	0	0
Oregon	1,940	2,505	-22.6%	1,920	2,481	NM	NM	0	0	0	0
Washington	5,438	6,839	-20.5%	5,412	6,806	NM	NM	0	0	0	0
Pacific Noncontiguous	118	140	-15.4%	100	118	2	3	NM	NM	NM	NM
Alaska	111	130	-14.8%	99	115	0	0	NM	NM	0	0
Hawaii	NM	NM	NM	1	3	2	3	0	0	NM	NM
U.S. Total	22,909	24,014	-4.6%	20,827	21,964	1,981	1,918	NM	NM	84	113

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Notes: See Glossary for definitions. Values are preliminary. 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 1.10.B. Utility Scale Facility Net Generation from Hydroelectric (Conventional) Power

by State, by Sector, Year-to-Date through July 2019 and 2018 (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	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	4,982	4,526	10.1%	728	650	4,180	3,651	4	2	71	223
Connecticut	249	211	18.1%	29	22	220	189	0	0	0	0
Maine	2,153	2,028	6.1%	0	0	2,082	1,809	0	0	71	219
Massachusetts	699	629	11.0%	182	159	513	464	4	2	0	4
New Hampshire	1,025	882	16.3%	213	204	812	678	0	0	0	0
Rhode Island	2	2	24.1%	0	0	2	2	0	0	0	0
Vermont	854	774	10.3%	304	265	551	509	0	0	0	0
Middle Atlantic	20,214	19,815	2.0%	14,761	14,786	5,408	4,988	5	4	40	38
New Jersey	24	19	21.9%	0	0	24	19	0	0	0	0
New York	18,029	17,862	0.9%	14,682	14,708	3,302	3,113	5	4	40	38
Pennsylvania	2,161	1,934	11.8%	79	78	2,082	1,856	0	0	0	0
East North Central	2,884	3,484	-17.2%	2,468	3,013	342	352	1	1	73	117
Illinois	74	80	-6.9%	25	31	48	48	1	1	0	0
Indiana	211	187	12.6%	211	187	0	0	0	0	0	0
Michigan	874	1,130	-22.6%	803	1,039	65	74	0	0	NM	17
Ohio	341	314	8.5%	190	170	151	144	0	0	0	0
Wisconsin	1,384	1,772	-21.9%	1,239	1,586	78	86	0	0	66	101
West North Central	7,079	8,609	-17.8%	6,878	8,376	143	154	0	0	58	78
Iowa	526	694	-24.2%	521	691	5	3	0	0	0	0
Kansas	11	14	-22.1%	0	0	11	14	0	0	0	0
Minnesota	649	824	-21.3%	463	609	127	137	0	0	58	78
Missouri	930	741	25.5%	930	741	0	0	0	0	0	0
Nebraska	793	1,027	-22.7%	793	1,027	0	0	0	0	0	0
North Dakota	1,356	1,746	-22.3%	1,356	1,746	0	0	0	0	0	0
South Dakota	2,814	3,564	-21.0%	2,814	3,564	0	0	0	0	0	0
South Atlantic	10,807	8,577	26.0%	8,340	6,447	2,104	1,788	12	7	351	335
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	145	132	9.3%	145	132	0	0	0	0	0	0
Georgia	2,005	1,469	36.5%	1,987	1,451	NM	NM	0	0	6	7
Maryland	1,712	1,436	19.2%	0	0	1,712	1,436	0	0	0	0
North Carolina	3,240	2,502	29.5%	3,188	2,463	35	29	11	6	NM	NM
South Carolina	1,700	1,298	31.0%	1,660	1,259	38	37	2	1	0	0
Virginia	936	738	26.7%	898	699	38	39	0	0	0	0
West Virginia	1,070	1,001	6.9%	462	443	268	235	0	0	340	322
East South Central	15,567	13,846	12.4%	15,560	13,840	NM	NM	0	0	0	0
Alabama	7,126	5,863	21.5%	7,126	5,863	0	0	0	0	0	0
Kentucky	2,592	2,666	-2.8%	2,585	2,660	NM	NM	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	5,849	5,318	10.0%	5,849	5,318	0	0	0	0	0	0
West South Central	5,368	4,383	22.5%	4,738	3,791	628	591	NM	NM	0	0
Arkansas	2,303	1,855	24.1%	2,272	1,823	31	32	0	0	0	0
Louisiana	572	538	6.3%	0	0	572	538	0	0	0	0
Oklahoma	1,521	1,272	19.6%	1,521	1,272	0	0	0	0	0	0
Texas	972	717	35.5%	944	695	26	21	NM	NM	0	0
Mountain	19,089	23,456	-18.6%	18,292	22,427	789	1,021	7	8	0	0
Arizona	3,642	4,376	-16.8%	3,642	4,376	0	0	0	0	0	0
Colorado	1,090	1,331	-18.1%	943	1,155	139	167	7	8	0	0
Idaho	5,648	7,259	-22.2%	5,130	6,570	519	689	0	0	0	0
Montana	5,776	7,424	-22.2%	5,695	7,319	81	105	0	0	0	0
Nevada	1,541	1,287	19.7%	1,506	1,237	36	50	0	0	0	0
New Mexico	107	132	-18.8%	107	132	0	0	0	0	0	0
Utah	684	881	-22.4%	675	877	9	5	0	0	0	0
Wyoming	600	765	-21.6%	595	760	6	5	0	0	0	0
Pacific Contiguous	89,785	99,088	-9.4%	87,826	97,613	1,945	1,466	NM	NM	0	0
California	26,888	16,820	59.9%	25,313	15,839	1,561	972	NM	NM	0	0
Oregon	19,806	25,489	-22.3%	19,640	25,276	165	213	0	0	0	0
Washington	43,091	56,780	-24.1%	42,873	56,499	219	281	0	0	0	0
Pacific Noncontiguous	926	1,191	-22.2%	791	1,010	11	26	101	130	24	NM
Alaska	885	1,126	-21.4%	784	996	0	0	101	130	0	0
Hawaii	41	66	-37.3%	6	15	11	26	0	0	24	NM
U.S. Total	176,699	186,974	-5.5%	160,382	171,953	15,556	14,043	144	162	617	817

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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.A. Utility Scale Facility Net Generation from Renewable Sources Excluding Hydroelectric by State, by Sector, July 2019 and 2018 (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	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	1,026	982	4.4%	86	72	832	796	9	16	99	99
Connecticut	86	82	4.8%	0	0	86	82	NM	NM	NM	NM
Maine	379	367	3.3%	0	0	278	263	4	6	98	98
Massachusetts	252	255	-1.3%	14	NM	234	244	3	5	NM	1
New Hampshire	179	168	6.4%	27	28	150	136	1	4	0	0
Rhode Island	40	34	17.9%	0	0	39	33	0	1	0	0
Vermont	90	76	18.1%	45	38	45	38	0	0	0	0
Middle Atlantic	1,272	1,196	6.4%	8	11	1,145	1,062	62	65	57	58
New Jersey	215	222	-3.3%	8	11	178	178	29	33	NM	NM
New York	600	544	10.3%	0	0	564	507	21	22	15	16
Pennsylvania	457	429	6.4%	0	0	403	378	13	11	41	41
East North Central	2,311	2,056	12.4%	330	290	1,835	1,607	16	22	131	137
Illinois	857	734	16.8%	NM	NM	851	729	NM	NM	0	0
Indiana	423	367	15.1%	46	43	369	315	2	2	6	7
Michigan	587	545	7.8%	165	128	363	346	5	14	54	57
Ohio	176	145	21.4%	NM	NM	146	117	1	1	25	23
Wisconsin	269	265	1.2%	111	112	105	100	7	NM	46	49
West North Central	5,833	4,288	36.0%	1,836	1,294	3,918	2,917	22	16	57	60
Iowa	1,699	1,169	45.4%	1,197	734	493	428	3	3	6	4
Kansas	1,682	1,001	68.0%	165	109	1,516	891	NM	NM	0	0
Minnesota	1,009	942	7.2%	174	176	773	705	11	NM	51	56
Missouri	229	177	29.7%	NM	NM	218	165	5	6	0	0
Nebraska	441	293	50.4%	25	21	415	270	0	1	0	0
North Dakota	616	568	8.5%	227	208	389	359	NM	0	0	0
South Dakota	157	140	12.2%	43	41	113	99	0	0	0	0
South Atlantic	3,582	3,293	8.8%	614	493	2,036	1,817	39	42	893	941
Delaware	11	13	-12.2%	NM	NM	9	10	0	NM	NM	1
District of Columbia	6	5	41.7%	0	0	NM	0	5	5	0	0
Florida	754	629	19.9%	365	229	223	229	4	5	162	166
Georgia	691	660	4.7%	33	33	302	261	NM	NM	355	366
Maryland	134	127	6.3%	NM	NM	130	116	4	3	0	6
North Carolina	1,082	990	9.3%	46	47	931	828	13	14	91	101
South Carolina	328	297	10.5%	36	38	139	95	0	0	153	164
Virginia	466	477	-2.3%	132	145	190	181	12	14	131	137
West Virginia	110	97	13.0%	0	0	110	97	0	0	0	0
East South Central	695	681	2.0%	19	19	142	123	NM	NM	533	538
Alabama	368	349	5.4%	NM	NM	62	59	0	0	302	285
Kentucky	49	49	1.1%	15	15	NM	NM	0	0	33	33
Mississippi	167	175	-4.2%	0	0	34	35	0	0	133	140
Tennessee	110	109	1.6%	NM	0	45	28	NM	NM	65	80
West South Central	10,116	6,876	47.1%	140	85	9,560	6,322	6	7	409	463
Arkansas	150	152	-1.2%	NM	NM	30	29	0	1	119	122
Louisiana	196	242	-18.9%	NM	NM	NM	NM	0	0	188	234
Oklahoma	2,225	1,369	62.5%	120	71	2,080	1,271	0	0	26	28
Texas	7,544	5,114	47.5%	20	NM	7,443	5,014	6	6	76	80
Mountain	4,405	3,655	20.5%	479	267	3,842	3,339	47	13	37	34
Arizona	647	588	10.1%	71	69	574	518	NM	NM	0	0
Colorado	1,060	806	31.6%	205	NM	853	784	NM	NM	0	0
Idaho	297	276	7.4%	NM	NM	250	233	1	1	35	32
Montana	143	122	17.2%	NM	NM	127	109	0	0	2	2
Nevada	911	809	12.6%	5	4	866	797	40	8	0	0
New Mexico	669	480	39.5%	34	26	635	453	NM	NM	0	0
Utah	383	330	16.2%	23	23	359	306	1	1	0	0
Wyoming	294	243	20.6%	115	104	178	139	0	0	0	0
Pacific Contiguous	8,073	6,725	20.0%	751	686	7,019	5,735	77	80	227	224
California	6,389	5,265	21.4%	232	250	6,011	4,867	73	77	73	71
Oregon	962	824	16.8%	184	149	723	623	3	3	52	49
Washington	721	636	13.5%	335	286	284	244	NM	NM	101	105
Pacific Noncontiguous	146	123	18.3%	15	16	109	87	22	21	NM	NM
Alaska	NM	13	NM	NM	NM	NM	NM	3	3	NM	NM
Hawaii	131	110	19.5%	7	9	106	83	18	18	0	0
U.S. Total	37,458	29,875	25.4%	4,279	3,233	30,437	23,805	299	283	2,443	2,555

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

by State, by Sector, Year-to-Date through July 2019 and 2018 (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	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	7,075	7,080	-0.1%	479	471	5,877	5,865	94	107	625	637
Connecticut	552	491	12.5%	2	2	550	488	NM	NM	NM	NM
Maine	2,905	2,983	-2.6%	0	0	2,252	2,308	31	42	622	634
Massachusetts	1,582	1,615	-2.0%	92	49	1,455	1,526	33	36	NM	4
New Hampshire	1,174	1,181	-0.6%	139	136	1,011	1,023	24	23	0	0
Rhode Island	295	238	24.2%	0	0	291	233	5	5	0	0
Vermont	567	572	-1.0%	246	285	319	286	1	1	0	0
Middle Atlantic	9,140	9,254	-1.2%	49	58	8,309	8,324	408	423	375	449
New Jersey	1,282	1,349	-5.0%	49	58	1,049	1,082	181	202	4	6
New York	4,362	4,250	2.6%	0	0	4,125	4,008	136	133	101	109
Pennsylvania	3,497	3,654	-4.3%	0	0	3,135	3,234	91	87	271	333
East North Central	21,918	20,418	7.3%	2,435	2,451	18,438	16,857	126	152	919	958
Illinois	9,020	8,014	12.6%	33	33	8,982	7,976	NM	NM	0	0
Indiana	4,299	3,907	10.0%	278	278	3,971	3,570	12	13	38	46
Michigan	4,837	4,821	0.3%	1,304	1,220	3,110	3,129	45	75	378	396
Ohio	1,746	1,521	14.8%	22	25	1,543	1,314	9	8	173	173
Wisconsin	2,015	2,155	-6.5%	798	894	832	869	55	51	330	342
West North Central	50,049	46,554	7.5%	16,441	14,465	33,093	31,569	104	105	411	415
Iowa	15,555	13,067	19.0%	10,478	8,397	5,024	4,628	23	24	31	17
Kansas	12,085	11,763	2.7%	1,126	1,130	10,951	10,624	NM	9	0	0
Minnesota	8,453	8,739	-3.3%	1,641	1,752	6,393	6,562	41	32	378	393
Missouri	1,876	1,932	-2.9%	32	35	1,818	1,864	24	32	1	2
Nebraska	3,994	3,065	30.3%	218	155	3,770	2,901	7	8	0	0
North Dakota	6,418	6,357	1.0%	2,463	2,507	3,952	3,848	NM	0	2	2
South Dakota	1,668	1,631	2.3%	483	490	1,185	1,141	0	0	0	0
South Atlantic	22,721	22,040	3.1%	3,948	3,180	12,498	12,245	258	275	6,017	6,340
Delaware	72	78	-7.1%	4	5	58	62	3	4	7	7
District of Columbia	40	34	18.3%	0	0	9	0	32	34	0	0
Florida	5,148	4,501	14.4%	2,437	1,548	1,559	1,746	27	30	1,124	1,177
Georgia	4,177	4,275	-2.3%	193	188	1,695	1,693	NM	NM	2,287	2,391
Maryland	896	915	-2.0%	5	6	821	827	21	20	49	61
North Carolina	6,480	6,202	4.5%	259	280	5,430	5,062	77	85	714	776
South Carolina	1,960	1,943	0.9%	267	274	712	610	0	0	981	1,059
Virginia	2,904	2,991	-2.9%	783	879	1,170	1,143	97	100	855	869
West Virginia	1,045	1,102	-5.2%	0	0	1,045	1,102	0	0	0	0
East South Central	4,297	4,332	-0.8%	116	118	820	752	3	3	3,358	3,459
Alabama	2,255	2,256	-0.1%	24	25	367	358	0	0	1,864	1,873
Kentucky	309	322	-3.9%	90	93	8	8	0	0	211	221
Mississippi	1,000	1,063	-5.9%	0	0	200	214	0	0	800	849
Tennessee	733	691	6.1%	NM	0	245	172	3	3	483	516
West South Central	72,043	70,073	2.8%	1,009	976	68,213	65,945	52	55	2,769	3,096
Arkansas	994	1,015	-2.0%	NM	NM	174	185	3	3	816	825
Louisiana	1,330	1,600	-16.9%	NM	NM	49	51	0	0	1,279	1,548
Oklahoma	16,773	17,230	-2.7%	867	837	15,737	16,199	0	0	169	193
Texas	52,947	50,228	5.4%	140	136	52,253	49,511	49	52	505	530
Mountain	29,613	28,567	3.7%	3,412	2,286	25,638	25,963	334	78	230	241
Arizona	3,719	3,689	0.8%	394	417	3,318	3,266	7	5	0	0
Colorado	7,303	6,697	9.1%	1,382	195	5,904	6,487	15	13	2	2
Idaho	2,175	2,304	-5.6%	106	111	1,849	1,963	5	6	215	225
Montana	1,396	1,305	7.0%	134	129	1,250	1,164	0	0	12	12
Nevada	5,515	5,210	5.9%	24	26	5,190	5,138	299	45	1	2
New Mexico	4,748	4,617	2.8%	173	159	4,573	4,456	NM	NM	0	0
Utah	2,200	2,180	0.9%	154	154	2,040	2,018	6	8	0	0
Wyoming	2,557	2,566	-0.4%	1,043	1,096	1,514	1,470	0	0	0	0
Pacific Contiguous	47,889	47,327	1.2%	4,474	5,004	41,452	40,212	491	551	1,471	1,560
California	37,489	35,772	4.8%	1,292	1,359	35,271	33,424	468	526	458	462
Oregon	5,192	5,791	-10.4%	760	896	4,093	4,544	18	19	320	333
Washington	5,208	5,764	-9.6%	2,421	2,749	2,088	2,245	5	6	693	764
Pacific Noncontiguous	987	948	4.1%	117	110	727	697	142	139	NM	NM
Alaska	107	121	-11.1%	56	61	30	32	20	27	NM	NM
Hawaii	880	827	6.4%	61	49	697	666	122	113	0	0
U.S. Total	265,733	256,594	3.6%	32,480	29,121	215,065	208,430	2,011	1,889	16,176	17,155

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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, July 2019 and 2018 (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	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	-53	-52	1.4%	0	0	-53	-52	0	0	0	0
Connecticut	0	0	16.6%	0	0	0	0	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	-53	-52	1.5%	0	0	-53	-52	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	-105	-139	-24.5%	-41	-69	-65	-70	0	0	0	0
New Jersey	-16	-22	-27.3%	-16	-22	0	0	0	0	0	0
New York	-25	-47	-47.4%	-25	-47	0	0	0	0	0	0
Pennsylvania	-65	-70	-8.2%	0	0	-65	-70	0	0	0	0
East North Central	-109	-82	31.8%	-109	-82	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	-109	-82	31.8%	-109	-82	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	18	-15	-225.0%	18	-15	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	18	-15	-225.0%	18	-15	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	-348	-369	-5.8%	-348	-369	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	-98	-74	33.6%	-98	-74	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	-89	-114	-21.7%	-89	-114	0	0	0	0	0	0
Virginia	-161	-182	-11.8%	-161	-182	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	-64	-62	4.1%	-64	-62	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	-64	-62	4.1%	-64	-62	0	0	0	0	0	0
West South Central	-10	-14	-27.8%	-10	-14	0	0	0	0	0	0
Arkansas	2	1	275.7%	2	1	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	-12	-14	-14.1%	-12	-14	0	0	0	0	0	0
Texas	0	0	--	0	0	0	0	0	0	0	0
Mountain	8	-1	NM	8	-1	0	0	0	0	0	0
Arizona	29	25	15.7%	29	25	0	0	0	0	0	0
Colorado	-20	-25	-19.8%	-20	-25	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	40	89	-55.4%	40	89	0	0	0	0	0	0
California	40	87	-54.3%	40	87	0	0	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	0	2	-112.2%	0	2	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	-622	-644	-3.4%	-505	-522	-118	-123	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 1.12.B. Utility Scale Facility Net Generation from Hydroelectric (Pumped Storage) Power

by State, by Sector, Year-to-Date through July 2019 and 2018 (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	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	-261	-260	0.1%	0	0	-261	-260	0	0	0	0
Connecticut	2	-4	-160.7%	0	0	2	-4	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	-263	-257	2.4%	0	0	-263	-257	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	-580	-705	-17.6%	-243	-341	-338	-364	0	0	0	0
New Jersey	-67	-92	-27.1%	-67	-92	0	0	0	0	0	0
New York	-176	-249	-29.5%	-176	-249	0	0	0	0	0	0
Pennsylvania	-338	-364	-7.1%	0	0	-338	-364	0	0	0	0
East North Central	-410	-381	7.7%	-410	-381	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	-410	-381	7.7%	-410	-381	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	346	22	NM	346	22	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	346	22	NM	346	22	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	-1,170	-1,401	-16.4%	-1,170	-1,401	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	-80	-285	-72.1%	-80	-285	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	-503	-331	52.0%	-503	-331	0	0	0	0	0	0
Virginia	-587	-784	-25.1%	-587	-784	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	-349	-348	0.2%	-349	-348	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	-349	-348	0.2%	-349	-348	0	0	0	0	0	0
West South Central	-7	-46	-84.0%	-7	-46	0	0	0	0	0	0
Arkansas	46	29	61.0%	46	29	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	-54	-75	-28.3%	-54	-75	0	0	0	0	0	0
Texas	0	0	--	0	0	0	0	0	0	0	0
Mountain	-117	-156	-25.3%	-117	-156	0	0	0	0	0	0
Arizona	-5	20	-124.7%	-5	20	0	0	0	0	0	0
Colorado	-112	-176	-36.6%	-112	-176	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	-51	78	-165.7%	-51	78	0	0	0	0	0	0
California	-53	50	-207.0%	-53	50	0	0	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	2	28	-93.1%	2	28	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	-2,600	-3,197	-18.7%	-2,001	-2,573	-598	-624	0	0	0	0

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Notes: See Glossary for definitions. Values are preliminary. 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, July 2019 and 2018 (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	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	145	155	-6.7%	0	0	130	138	4	6	11	11
Connecticut	44	46	-4.4%	0	0	44	46	0	0	0	0
Maine	30	32	-8.8%	0	0	15	16	4	6	11	11
Massachusetts	66	72	-8.1%	0	0	66	72	0	0	0	0
New Hampshire	4	4	8.1%	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	200	197	1.4%	0	0	156	159	40	38	4	0
New Jersey	45	46	-1.6%	0	0	28	34	12	12	4	0
New York	81	82	-0.9%	0	0	62	62	19	20	0	0
Pennsylvania	74	69	6.1%	0	0	65	64	8	6	0	0
East North Central	74	80	-7.3%	2	2	8	10	6	15	58	53
Illinois	23	22	8.7%	0	0	-1	-1	0	0	24	23
Indiana	32	30	9.8%	0	0	0	0	2	2	31	28
Michigan	15	26	-42.6%	0	0	8	11	5	13	2	1
Ohio	1	0	870.8%	0	0	0	0	0	0	2	0
Wisconsin	2	3	-32.3%	2	2	0	0	0	0	0	NM
West North Central	32	42	-23.2%	14	23	11	13	4	3	3	3
Iowa	0	0	--	0	0	0	0	0	0	0	0
Kansas	0	0	-0.7%	0	0	0	0	0	0	0	0
Minnesota	28	37	-25.3%	10	19	11	13	4	3	3	2
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	-5.7%	4	4	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	405	350	15.5%	0	0	222	221	11	13	172	117
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	272	240	13.4%	0	0	127	133	0	0	145	107
Georgia	8	7	13.6%	0	0	0	0	0	0	8	7
Maryland	32	29	10.4%	0	0	32	29	0	0	0	0
North Carolina	46	29	56.5%	0	0	30	29	0	0	16	0
South Carolina	4	4	10.2%	0	0	1	1	0	0	4	3
Virginia	43	42	1.9%	0	0	32	29	11	13	0	0
West Virginia	0	-1	-54.3%	0	0	0	-1	0	0	0	0
East South Central	4	8	-48.9%	3	7	0	0	0	0	NM	NM
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	3	7	-49.1%	3	7	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	NM	NM	NM	0	0	0	0	0	0	NM	NM
West South Central	71	102	-29.8%	0	0	8	5	0	0	64	97
Arkansas	1	1	-21.1%	0	0	0	0	0	0	1	1
Louisiana	36	61	-40.9%	0	0	0	0	0	0	36	61
Oklahoma	1	2	-63.4%	0	0	0	1	0	0	1	1
Texas	34	38	-10.3%	0	0	8	4	0	0	26	34
Mountain	51	66	-22.8%	7	8	25	25	0	0	19	32
Arizona	0	0	14.9%	0	0	0	0	0	0	0	0
Colorado	5	5	10.4%	0	0	2	1	0	0	4	4
Idaho	7	6	5.7%	0	0	0	0	0	0	7	6
Montana	23	24	-4.1%	0	0	23	24	0	0	0	0
Nevada	2	3	-22.1%	2	3	0	0	0	0	0	0
New Mexico	0	0	-488.9%	0	0	0	0	0	0	0	0
Utah	9	20	-58.2%	5	5	0	0	0	0	3	15
Wyoming	5	7	-30.7%	0	0	0	0	0	0	5	7
Pacific Contiguous	75	83	-9.7%	-1	0	22	21	0	0	55	62
California	67	74	-10.4%	-1	0	13	12	0	0	55	62
Oregon	4	3	13.0%	0	0	4	3	0	0	0	0
Washington	5	6	-15.3%	0	0	5	6	0	0	0	0
Pacific Noncontiguous	30	34	-12.3%	12	17	0	0	18	17	0	0
Alaska	0	0	45.3%	0	0	0	0	0	0	0	0
Hawaii	30	34	-11.9%	13	18	0	0	18	17	0	0
U.S. Total	1,086	1,116	-2.7%	37	57	581	593	82	91	386	376

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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 July 2019 and 2018 (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	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	988	1,006	-1.8%	0	0	883	891	30	40	75	75
Connecticut	296	265	11.6%	0	0	296	265	0	0	0	0
Maine	201	218	-8.1%	0	0	96	103	30	40	75	75
Massachusetts	463	495	-6.4%	0	0	463	495	0	0	0	0
New Hampshire	28	28	-0.4%	0	0	28	28	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	1,281	1,281	0.0%	0	0	990	1,018	262	257	29	6
New Jersey	310	321	-3.4%	0	0	199	230	82	86	29	6
New York	479	509	-6.0%	0	0	356	389	123	120	0	0
Pennsylvania	492	451	9.2%	0	0	435	399	57	52	0	0
East North Central	475	495	-4.1%	13	12	59	67	54	84	349	332
Illinois	130	148	-11.9%	0	0	-6	-9	0	0	136	157
Indiana	199	164	21.3%	0	0	0	0	12	12	187	152
Michigan	120	158	-24.1%	0	0	65	77	42	72	12	9
Ohio	8	6	41.2%	0	-1	0	0	0	0	8	7
Wisconsin	18	20	-9.2%	13	13	0	0	0	0	NM	NM
West North Central	214	265	-19.1%	96	130	73	81	13	19	31	35
Iowa	0	0	--	0	0	0	0	0	0	0	0
Kansas	3	3	-0.3%	0	0	0	0	0	0	3	3
Minnesota	186	236	-21.1%	71	104	73	81	13	19	28	32
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	25	25	-0.7%	25	25	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	2,594	2,592	0.0%	-1	0	1,453	1,475	86	90	1,055	1,027
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	1,757	1,745	0.7%	-1	0	905	909	0	0	853	837
Georgia	56	45	22.9%	0	0	0	0	0	0	56	45
Maryland	157	192	-18.0%	0	0	157	192	0	0	0	0
North Carolina	316	316	0.2%	0	0	190	188	0	0	126	127
South Carolina	23	22	2.0%	0	0	3	4	0	0	20	18
Virginia	288	280	3.0%	0	0	203	190	86	90	0	0
West Virginia	-4	-7	-48.3%	0	0	-4	-7	0	0	0	0
East South Central	24	39	-36.8%	20	32	0	0	0	0	4	6
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	20	32	-36.9%	20	32	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	4	6	-36.3%	0	0	0	0	0	0	4	6
West South Central	549	663	-17.1%	0	0	54	66	0	0	495	596
Arkansas	3	4	-35.7%	0	0	0	0	0	0	3	4
Louisiana	272	401	-32.2%	0	0	0	0	0	0	272	401
Oklahoma	4	28	-86.1%	0	0	1	25	0	0	3	3
Texas	271	229	18.2%	0	0	53	41	0	0	218	188
Mountain	404	454	-10.9%	46	51	178	188	0	0	181	214
Arizona	-2	-1	178.1%	0	0	-2	-1	0	0	0	0
Colorado	33	36	-6.4%	0	0	9	12	0	0	25	23
Idaho	40	39	2.1%	0	0	0	0	0	0	40	39
Montana	171	177	-3.4%	0	0	171	177	0	0	0	0
Nevada	12	17	-26.2%	12	17	0	0	0	0	0	0
New Mexico	0	0	255.5%	0	0	0	0	0	0	0	0
Utah	110	136	-18.6%	34	34	0	0	0	0	77	101
Wyoming	40	51	-20.7%	0	0	0	0	0	0	40	51
Pacific Contiguous	471	562	-16.2%	-5	0	131	161	0	0	345	400
California	423	503	-15.9%	-5	0	83	102	0	0	345	400
Oregon	14	24	-42.1%	0	0	14	24	0	0	0	0
Washington	34	35	-2.5%	0	0	34	35	0	0	0	0
Pacific Noncontiguous	204	213	-3.9%	88	104	0	0	117	108	0	0
Alaska	-2	-1	45.3%	-2	-1	0	0	0	0	0	0
Hawaii	206	214	-3.6%	90	106	0	0	117	108	0	0
U.S. Total	7,204	7,569	-4.8%	257	330	3,821	3,948	561	598	2,564	2,693

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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, July 2019 and 2018 (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	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	249	223	11.5%	NM	NM	231	206	NM	2	NM	0
Connecticut	NM	NM	NM	0	0	NM	NM	0	0	0	0
Maine	157	143	10.3%	0	0	157	143	0	0	0	0
Massachusetts	NM	14	NM	NM	NM	NM	NM	NM	NM	NM	0
New Hampshire	35	30	15.8%	0	0	35	30	0	0	0	0
Rhode Island	13	10	22.5%	0	0	12	10	0	1	0	0
Vermont	27	25	8.9%	NM	NM	14	14	0	0	0	0
Middle Atlantic	595	511	16.4%	0	0	594	511	NM	NM	NM	0
New Jersey	NM	NM	NM	0	0	NM	NM	0	0	0	0
New York	347	290	19.6%	0	0	346	290	NM	NM	NM	0
Pennsylvania	246	219	12.1%	0	0	246	219	0	0	0	0
East North Central	1,754	1,476	18.9%	232	185	1,515	1,284	NM	NM	NM	NM
Illinois	813	690	17.9%	NM	NM	812	689	NM	NM	0	0
Indiana	344	286	20.4%	0	0	344	286	0	0	0	0
Michigan	359	305	17.8%	152	115	207	190	0	0	0	0
Ohio	98	72	37.4%	NM	NM	92	66	0	0	NM	NM
Wisconsin	140	124	12.8%	77	69	60	53	NM	NM	0	0
West North Central	5,460	3,912	39.5%	1,790	1,237	3,666	2,673	NM	NM	0	0
Iowa	1,677	1,148	46.1%	1,193	730	484	417	0	0	0	0
Kansas	1,676	995	68.4%	165	109	1,510	886	NM	NM	0	0
Minnesota	700	633	10.7%	143	135	556	496	NM	NM	0	0
Missouri	203	149	36.5%	0	0	203	149	0	0	0	0
Nebraska	431	281	53.1%	19	NM	412	267	0	0	0	0
North Dakota	616	568	8.5%	227	208	389	359	NM	0	0	0
South Dakota	156	139	12.2%	43	41	113	98	0	0	0	0
South Atlantic	171	159	7.6%	0	0	171	159	0	0	0	0
Delaware	0	0	-50.7%	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	34	31	10.3%	0	0	34	31	0	0	0	0
North Carolina	27	30	-11.9%	0	0	27	30	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	110	97	13.0%	0	0	110	97	0	0	0	0
East South Central	NM	NM	NM	0	0	NM	NM	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	NM	NM	NM	0	0	NM	NM	0	0	0	0
West South Central	9,120	5,909	54.3%	132	77	8,981	5,827	5	NM	NM	NM
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	2,191	1,332	64.4%	113	64	2,078	1,268	0	0	0	0
Texas	6,929	4,577	51.4%	19	NM	6,903	4,559	5	NM	NM	NM
Mountain	2,195	1,666	31.8%	345	143	1,849	1,522	NM	NM	0	0
Arizona	62	39	58.9%	0	0	62	39	0	0	0	0
Colorado	909	680	33.8%	204	NM	703	661	NM	NM	0	0
Idaho	179	158	12.9%	NM	NM	168	149	0	0	0	0
Montana	137	116	18.0%	NM	NM	123	105	0	0	0	0
Nevada	36	24	52.3%	0	0	36	24	0	0	0	0
New Mexico	516	344	49.9%	0	0	516	344	NM	NM	0	0
Utah	86	61	40.0%	0	0	86	61	0	0	0	0
Wyoming	270	243	11.0%	115	104	155	139	0	0	0	0
Pacific Contiguous	2,860	2,110	35.6%	594	523	2,266	1,586	0	0	1	1
California	1,507	965	56.1%	106	118	1,400	847	0	0	1	1
Oregon	774	649	19.2%	178	143	596	506	0	0	0	0
Washington	579	495	17.0%	309	262	270	233	0	0	0	0
Pacific Noncontiguous	61	44	40.5%	NM	NM	54	37	0	0	0	0
Alaska	NM	NM	NM	NM	NM	NM	NM	0	0	0	0
Hawaii	50	34	47.9%	0	0	50	34	0	0	0	0
U.S. Total	22,470	16,014	40.3%	3,116	2,187	19,331	13,809	14	12	NM	NM

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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.B. Utility Scale Facility Net Generation from Wind

by State, by Sector, Year-to-Date through July 2019 and 2018 (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	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	2,214	2,256	-1.8%	140	150	2,053	2,084	19	20	NM	2
Connecticut	NM	NM	NM	0	0	NM	NM	0	0	0	0
Maine	1,439	1,486	-3.2%	0	0	1,439	1,486	0	0	0	0
Massachusetts	141	147	-4.4%	35	37	89	93	14	15	NM	2
New Hampshire	253	277	-8.4%	0	0	253	277	0	0	0	0
Rhode Island	138	96	43.7%	0	0	134	92	5	5	0	0
Vermont	235	241	-2.7%	105	113	130	128	0	0	0	0
Middle Atlantic	4,945	4,955	-0.2%	0	0	4,941	4,951	NM	NM	NM	2
New Jersey	13	14	-6.4%	0	0	13	14	0	0	0	0
New York	2,825	2,702	4.6%	0	0	2,821	2,697	NM	NM	NM	2
Pennsylvania	2,106	2,239	-6.0%	0	0	2,106	2,239	0	0	0	0
East North Central	18,278	16,598	10.1%	1,848	1,822	16,357	14,706	23	23	51	47
Illinois	8,742	7,707	13.4%	8	9	8,731	7,695	NM	NM	0	0
Indiana	3,819	3,401	12.3%	0	0	3,819	3,401	0	0	0	0
Michigan	3,313	3,242	2.2%	1,238	1,151	2,075	2,091	0	0	0	0
Ohio	1,256	1,022	22.9%	NM	9	1,199	968	2	2	47	43
Wisconsin	1,149	1,226	-6.3%	594	652	533	552	18	18	4	4
West North Central	47,871	44,262	8.2%	16,135	14,114	31,709	30,120	26	27	0	0
Iowa	15,411	12,929	19.2%	10,456	8,374	4,953	4,554	2	2	0	0
Kansas	12,047	11,723	2.8%	1,124	1,128	10,914	10,585	NM	9	0	0
Minnesota	6,677	6,856	-2.6%	1,437	1,506	5,224	5,334	15	16	0	0
Missouri	1,730	1,777	-2.6%	0	0	1,730	1,777	0	0	0	0
Nebraska	3,923	2,992	31.1%	172	110	3,751	2,882	0	0	0	0
North Dakota	6,416	6,355	1.0%	2,463	2,507	3,952	3,848	NM	0	0	0
South Dakota	1,667	1,630	2.3%	483	490	1,184	1,140	0	0	0	0
South Atlantic	1,689	1,782	-5.2%	0	0	1,686	1,779	3	3	0	0
Delaware	3	3	0.1%	0	0	0	0	3	3	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	321	335	-4.3%	0	0	321	335	0	0	0	0
North Carolina	320	342	-6.2%	0	0	320	342	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	1,045	1,102	-5.2%	0	0	1,045	1,102	0	0	0	0
East South Central	30	35	-12.9%	0	0	30	35	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	30	35	-12.9%	0	0	30	35	0	0	0	0
West South Central	66,086	64,251	2.9%	962	928	65,077	63,283	35	32	12	NM
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	16,553	16,983	-2.5%	827	796	15,726	16,187	0	0	0	0
Texas	49,534	47,268	4.8%	136	132	49,351	47,096	35	32	12	NM
Mountain	16,911	16,272	3.9%	2,654	1,518	14,247	14,748	NM	NM	2	2
Arizona	424	380	11.6%	0	0	424	380	0	0	0	0
Colorado	6,472	5,931	9.1%	1,379	191	5,086	5,736	NM	NM	2	2
Idaho	1,495	1,592	-6.1%	99	103	1,396	1,489	0	0	0	0
Montana	1,361	1,269	7.3%	134	129	1,228	1,140	0	0	0	0
Nevada	250	236	6.2%	0	0	250	236	0	0	0	0
New Mexico	3,901	3,798	2.7%	0	0	3,898	3,796	NM	NM	0	0
Utah	564	501	12.5%	0	0	564	501	0	0	0	0
Wyoming	2,443	2,566	-4.8%	1,043	1,096	1,400	1,470	0	0	0	0
Pacific Contiguous	18,342	18,166	1.0%	3,512	3,870	14,823	14,290	4	3	3	3
California	10,008	8,773	14.1%	536	517	9,465	8,250	4	3	3	3
Oregon	4,088	4,723	-13.4%	722	856	3,366	3,867	0	0	0	0
Washington	4,246	4,670	-9.1%	2,254	2,497	1,992	2,173	0	0	0	0
Pacific Noncontiguous	442	439	0.6%	56	61	385	378	0	0	0	0
Alaska	86	93	-7.6%	56	61	30	32	0	0	0	0
Hawaii	356	346	2.8%	0	0	356	346	0	0	0	0
U.S. Total	176,809	169,016	4.6%	25,309	22,464	151,307	146,373	121	115	71	64

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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, July 2019 and 2018 (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	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	591	585	0.9%	54	49	431	425	7	13	98	98
Connecticut	67	69	-2.4%	0	0	67	69	0	0	0	0
Maine	220	223	-1.1%	0	0	119	119	4	6	98	98
Massachusetts	96	101	-4.9%	0	0	94	98	2	3	0	0
New Hampshire	144	138	4.4%	27	28	116	106	1	4	0	0
Rhode Island	20	19	1.5%	0	0	20	19	0	0	0	0
Vermont	44	36	22.7%	27	22	16	14	0	0	0	0
Middle Atlantic	464	484	-4.2%	0	0	362	384	47	44	55	55
New Jersey	76	80	-5.3%	0	0	62	67	14	14	0	0
New York	185	204	-9.1%	0	0	150	168	20	21	15	15
Pennsylvania	202	200	1.3%	0	0	150	150	12	9	40	40
East North Central	462	490	-5.6%	64	74	262	265	11	19	125	132
Illinois	35	37	-4.1%	NM	NM	32	34	0	0	0	0
Indiana	38	40	-6.2%	26	28	4	4	2	2	6	7
Michigan	207	219	-5.6%	0	0	148	148	5	14	54	57
Ohio	60	58	3.2%	NM	NM	38	37	1	1	20	19
Wisconsin	123	136	-9.7%	33	43	40	42	4	3	45	49
West North Central	172	204	-15.7%	43	54	53	76	18	13	57	60
Iowa	19	19	2.7%	NM	NM	8	10	3	3	6	4
Kansas	NM	NM	NM	0	0	NM	NM	0	0	0	0
Minnesota	129	157	-17.9%	31	41	37	57	10	3	51	56
Missouri	13	15	-15.0%	NM	NM	NM	NM	5	6	0	0
Nebraska	NM	8	NM	NM	7	0	0	0	1	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	1,702	1,740	-2.2%	202	213	585	561	23	25	893	941
Delaware	NM	NM	NM	0	0	NM	NM	0	0	NM	1
District of Columbia	5	5	4.7%	0	0	0	0	5	5	0	0
Florida	395	409	-3.3%	62	51	169	188	3	4	161	165
Georgia	468	433	8.0%	0	0	113	67	0	0	355	366
Maryland	42	46	-7.9%	0	0	40	37	2	2	0	6
North Carolina	206	225	-8.4%	0	0	114	123	NM	1	91	101
South Carolina	226	235	-3.6%	36	37	38	33	0	0	153	164
Virginia	355	383	-7.4%	105	124	107	108	12	14	131	137
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	571	577	-1.1%	NM	9	30	31	0	0	532	538
Alabama	322	307	5.0%	0	0	21	22	0	0	302	285
Kentucky	43	43	0.8%	NM	9	NM	NM	0	0	33	33
Mississippi	134	141	-4.5%	0	0	NM	NM	0	0	133	140
Tennessee	71	87	-18.1%	0	0	NM	NM	0	0	64	80
West South Central	468	558	-16.1%	0	0	60	93	1	3	407	462
Arkansas	127	130	-2.3%	0	0	NM	8	0	1	119	122
Louisiana	196	241	-18.9%	0	0	NM	NM	0	0	188	234
Oklahoma	27	30	-9.3%	0	0	NM	NM	0	0	26	28
Texas	118	156	-24.7%	0	0	44	76	0	2	74	79
Mountain	95	94	1.5%	NM	NM	56	56	2	2	36	34
Arizona	16	16	3.3%	0	0	16	16	0	0	0	0
Colorado	14	14	3.9%	0	0	14	14	0	0	0	0
Idaho	48	48	1.8%	NM	NM	12	13	1	1	34	32
Montana	2	2	-8.4%	0	0	0	0	0	0	2	2
Nevada	NM	NM	NM	0	0	NM	NM	0	0	0	0
New Mexico	NM	2	NM	0	0	NM	2	0	0	0	0
Utah	NM	NM	NM	0	0	NM	NM	1	1	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	716	724	-1.1%	37	35	402	408	58	62	219	218
California	487	492	-1.1%	6	6	360	362	55	59	66	65
Oregon	92	91	0.9%	NM	NM	32	35	3	3	52	49
Washington	137	141	-2.4%	26	24	10	11	NM	NM	101	105
Pacific Noncontiguous	30	31	-2.8%	4	6	NM	NM	22	21	NM	NM
Alaska	3	4	-7.2%	0	0	0	0	3	3	NM	NM
Hawaii	27	28	-2.2%	4	6	NM	NM	18	18	0	0
U.S. Total	5,272	5,488	-3.9%	415	442	2,245	2,304	189	203	2,423	2,539

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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 July 2019 and 2018 (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	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	3,826	3,868	-1.1%	255	279	2,876	2,872	72	83	622	634
Connecticut	443	413	7.2%	0	0	443	413	0	0	0	0
Maine	1,458	1,489	-2.1%	0	0	805	814	31	42	622	634
Massachusetts	662	695	-4.7%	0	0	646	678	16	17	0	0
New Hampshire	920	905	1.7%	139	136	757	746	24	23	0	0
Rhode Island	117	119	-1.9%	0	0	117	119	0	0	0	0
Vermont	225	247	-8.8%	116	143	108	102	1	1	0	0
Middle Atlantic	3,059	3,257	-6.1%	0	0	2,382	2,515	312	308	365	435
New Jersey	523	571	-8.4%	0	0	428	472	95	99	0	0
New York	1,199	1,326	-9.6%	0	0	969	1,091	130	127	99	107
Pennsylvania	1,338	1,360	-1.7%	0	0	985	951	87	82	266	327
East North Central	3,138	3,342	-6.1%	411	462	1,766	1,847	95	124	867	910
Illinois	240	271	-11.3%	24	23	217	248	0	0	0	0
Indiana	253	276	-8.3%	174	188	29	29	12	13	38	46
Michigan	1,409	1,485	-5.1%	0	0	987	1,015	44	75	378	396
Ohio	399	410	-2.6%	9	9	261	267	5	4	125	129
Wisconsin	837	900	-7.0%	205	242	273	288	34	32	326	338
West North Central	1,137	1,406	-19.1%	289	336	360	578	77	77	411	415
Iowa	131	125	5.0%	14	15	66	71	21	22	31	17
Kansas	33	34	-2.7%	0	0	33	34	0	0	0	0
Minnesota	846	1,098	-22.9%	202	244	241	445	26	16	378	393
Missouri	75	92	-19.1%	30	32	20	28	23	31	1	2
Nebraska	50	54	-7.1%	43	45	0	0	7	8	0	0
North Dakota	2	2	-22.2%	0	0	0	0	0	0	2	2
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	11,320	11,998	-5.7%	1,329	1,389	3,811	4,093	169	179	6,012	6,338
Delaware	35	37	-3.9%	0	0	29	30	0	0	7	7
District of Columbia	32	34	-6.9%	0	0	0	0	32	34	0	0
Florida	2,806	3,045	-7.8%	419	360	1,242	1,485	23	26	1,122	1,174
Georgia	2,911	2,945	-1.1%	0	0	625	554	0	0	2,287	2,391
Maryland	265	322	-17.6%	0	0	204	248	12	12	49	61
North Carolina	1,492	1,596	-6.5%	0	0	772	814	6	6	714	776
South Carolina	1,466	1,572	-6.7%	264	272	224	241	0	0	979	1,059
Virginia	2,312	2,448	-5.6%	646	757	716	722	95	100	855	869
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	3,609	3,719	-3.0%	59	61	196	204	0	0	3,354	3,455
Alabama	2,001	2,016	-0.8%	0	0	137	144	0	0	1,864	1,873
Kentucky	277	288	-3.8%	59	61	7	6	0	0	211	221
Mississippi	806	856	-5.8%	0	0	NM	NM	0	0	800	849
Tennessee	525	559	-6.1%	0	0	46	47	0	0	479	512
West South Central	3,174	3,644	-12.9%	0	0	403	534	14	22	2,757	3,088
Arkansas	873	885	-1.4%	0	0	53	56	3	3	816	825
Louisiana	1,328	1,599	-16.9%	0	0	49	51	0	0	1,279	1,548
Oklahoma	180	205	-12.3%	0	0	11	12	0	0	169	193
Texas	794	956	-17.0%	0	0	290	416	11	19	493	522
Mountain	612	636	-3.8%	NM	8	368	378	11	13	225	237
Arizona	107	108	-1.1%	0	0	107	108	0	0	0	0
Colorado	94	95	-1.3%	0	0	94	95	0	0	0	0
Idaho	306	322	-5.0%	NM	8	80	83	5	6	214	225
Montana	12	12	-1.7%	0	0	0	0	0	0	12	12
Nevada	39	40	-3.1%	0	0	39	40	0	0	0	0
New Mexico	11	12	-10.9%	0	0	11	12	0	0	0	0
Utah	44	47	-5.9%	0	0	38	39	6	8	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	4,704	5,092	-7.6%	228	347	2,659	2,770	385	449	1,432	1,526
California	3,194	3,387	-5.7%	26	61	2,387	2,473	362	424	419	429
Oregon	574	612	-6.2%	35	35	201	225	18	19	320	333
Washington	936	1,094	-14.4%	167	251	70	72	5	6	693	764
Pacific Noncontiguous	210	199	5.9%	38	28	30	31	142	139	NM	NM
Alaska	21	27	-23.2%	0	0	0	0	20	27	NM	NM
Hawaii	189	171	10.6%	38	28	30	31	122	113	0	0
U.S. Total	34,791	37,161	-6.4%	2,616	2,909	14,852	15,822	1,277	1,394	16,046	17,037

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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, July 2019 and 2018 (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	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
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	393	351	11.8%	23	23	336	328	33	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	1.2%	0	0	7	7	0	0	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	341	303	12.5%	0	0	308	303	33	0	0	0
New Mexico	4	1	219.6%	0	0	4	1	0	0	0	0
Utah	41	40	2.1%	23	23	18	17	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	1,038	1,057	-1.7%	63	69	976	987	0	0	0	0
California	1,022	1,041	-1.8%	63	69	959	971	0	0	0	0
Oregon	17	16	3.4%	0	0	17	16	0	0	0	0
Washington	0	0	--	0	0	0	0	0	0	0	0
Pacific Noncontiguous	29	28	2.7%	0	0	29	28	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	29	28	2.7%	0	0	29	28	0	0	0	0
U.S. Total	1,459	1,436	1.7%	86	92	1,340	1,343	33	0	0	0

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Notes: See Glossary for definitions. Values are preliminary. 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 July 2019 and 2018 (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	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 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	2,696	2,392	12.7%	154	154	2,283	2,238	259	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	46	45	0.3%	0	0	46	45	0	0	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	2,345	2,070	13.3%	0	0	2,086	2,070	259	0	0	0
New Mexico	34	7	380.2%	0	0	34	7	0	0	0	0
Utah	271	269	0.6%	154	154	117	116	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	6,953	7,055	-1.4%	415	452	6,539	6,604	0	0	0	0
California	6,844	6,948	-1.5%	415	452	6,429	6,496	0	0	0	0
Oregon	109	108	1.2%	0	0	109	108	0	0	0	0
Washington	0	0	--	0	0	0	0	0	0	0	0
Pacific Noncontiguous	187	185	0.9%	0	0	187	185	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	187	185	0.9%	0	0	187	185	0	0	0	0
U.S. Total	9,835	9,632	2.1%	569	605	9,008	9,027	259	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 are preliminary. 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, July 2019 and 2018 (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	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	588	495	18.8%	186	173	403	322	15	8	170	164	NM	170	NM	1	212	169	15	13	0	0	14	12	176	140
Connecticut	89	71	26.4%	19	13	71	58	0	0	18	13	NM	NM	NM	NM	25	21	NM	NM	NM	NM	3	3	42	34
Maine	NM	7	NM	NM	NM	9	6	0	0	NM	NM	4	2	0	0	4	2	0	0	0	0	0	0	5	4
Massachusetts	412	361	14.1%	140	140	272	221	10	2	129	136	NM	133	NM	1	159	132	10	9	0	0	10	9	103	80
New Hampshire	15	12	19.3%	0	0	15	12	0	0	0	0	5	4	0	0	5	4	1	1	0	0	1	1	9	8
Rhode Island	27	14	93.8%	7	4	19	10	0	0	7	4	13	5	0	0	13	5	0	0	0	0	0	0	6	5
Vermont	36	30	19.1%	18	15	18	15	4	5	14	10	6	5	0	0	6	5	NM	NM	0	0	NM	NM	11	9
Middle Atlantic	733	644	13.9%	214	201	520	443	8	11	189	167	237	215	15	21	222	195	NM	24	NM	2	26	22	271	227
New Jersey	385	359	7.4%	137	140	248	218	8	11	114	110	127	126	14	19	113	107	NM	NM	NM	NM	17	13	118	98
New York	283	227	24.7%	68	50	215	177	0	0	67	50	NM	NM	NM	NM	90	71	2	2	0	0	2	2	123	104
Pennsylvania	65	58	12.0%	9	10	57	48	0	0	7	8	NM	NM	NM	NM	19	17	NM	NM	NM	NM	7	6	31	25
East North Central	179	148	21.0%	94	90	85	58	34	30	59	58	NM	NM	NM	NM	46	36	6	3	0	0	6	3	32	19
Illinois	30	18	67.9%	8	7	22	11	NM	NM	7	6	NM	NM	NM	NM	12	7	0	0	0	0	0	0	10	4
Indiana	55	52	5.3%	41	41	15	11	20	16	21	25	10	8	0	0	10	8	0	0	0	0	0	0	5	3
Michigan	35	31	12.7%	22	21	13	10	13	13	9	8	NM	5	NM	0	6	5	NM	0	0	0	NM	0	7	5
Ohio	42	33	26.0%	18	16	24	17	NM	NM	17	14	NM	NM	NM	NM	14	13	3	1	0	0	3	1	6	4
Wisconsin	18	14	27.7%	6	5	12	9	0	0	5	5	NM	NM	NM	NM	5	3	2	2	0	0	2	2	5	4
West North Central	271	225	20.4%	201	172	70	54	NM	NM	198	169	34	27	0	0	34	26	3	2	0	0	3	2	34	25
Iowa	NM	16	NM	NM	NM	18	14	NM	NM	NM	NM	11	9	0	0	11	9	1	0	0	0	1	0	6	5
Kansas	NM	4	NM	NM	NM	4	3	NM	NM	NM	NM	2	1	0	0	2	1	0	0	0	0	0	0	2	2
Minnesota	193	162	18.7%	181	153	12	10	NM	NM	180	152	4	4	0	0	4	4	1	1	0	0	1	1	7	5
Missouri	47	37	25.9%	13	13	34	25	1	1	12	12	16	12	0	0	16	12	1	0	0	0	1	0	17	12
Nebraska	5	5	16.3%	4	4	1	1	NM	0	3	4	1	0	0	0	1	0	0	0	0	0	0	0	1	1
North Dakota	0	0	119.5%	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	NM	0	0	0	0	NM	NM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
South Atlantic	2,014	1,630	23.5%	1,708	1,389	306	241	411	274	1,280	1,097	94	85	15	16	78	69	NM	NM	NM	NM	33	30	194	143
Delaware	20	19	1.6%	6	7	14	12	NM	NM	5	6	4	NM	0	NM	4	3	1	1	0	0	1	1	9	8
District of Columbia	NM	8	NM	NM	0	9	8	0	0	NM	0	4	5	0	0	4	5	0	0	0	0	0	0	5	3
Florida	420	254	65.7%	357	214	63	40	302	172	54	41	NM	NM	NM	NM	13	10	NM	NM	NM	NM	1	1	49	29
Georgia	NM	253	NM	223	227	NM	26	33	33	189	194	NM	NM	NM	NM	NM	NM	NM	NM	0	0	NM	NM	NM	2
Maryland	174	148	17.4%	58	50	116	98	NM	NM	56	47	NM	NM	NM	NM	30	25	4	4	0	0	4	4	82	69
North Carolina	876	756	15.9%	849	735	27	21	46	47	791	675	25	25	13	13	12	12	1	1	0	0	1	1	14	9
South Carolina	135	89	52.0%	102	63	33	26	NM	NM	101	62	8	7	0	0	8	7	NM	2	NM	0	3	2	22	17
Virginia	124	103	20.6%	111	94	13	9	27	21	83	73	NM	3	NM	0	4	3	0	0	0	0	0	0	9	6
West Virginia	1	1	27.9%	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
East South Central	135	115	18.0%	119	99	16	15	11	10	107	88	NM	NM	NM	NM	11	10	NM	NM	NM	NM	0	NM	5	5
Alabama	NM	43	NM	45	42	NM	NM	NM	NM	41	38	1	1	0	0	1	1	0	0	0	0	0	0	NM	NM
Kentucky	10	9	10.0%	6	6	4	3	6	6	NM	NM	2	2	0	0	2	2	0	0	0	0	0	0	2	1
Mississippi	34	35	-2.4%	33	34	1	1	0	0	33	34	1	1	0	0	1	1	NM	NM	0	0	NM	NM	1	0
Tennessee	44	27	62.0%	34	18	10	9	NM	0	33	17	NM	NM	NM	NM	7	7	NM	NM	NM	NM	NM	NM	3	3
West South Central	658	509	29.2%	528	410	130	99	9	8	519	401	NM	22	NM	0	26	22	0	0	0	0	0	0	104	77
Arkansas	26	24	8.8%	23	22	3	2	NM	NM	23	22	1	1	0	0	1	1	0	0	0	0	0	0	2	1
Louisiana	NM	22	NM	NM	NM	24	22	NM	NM	0	0	2	1	0	0	2	1	0	0	0	0	0	0	22	21
Oklahoma	9	8	9.2%	7	7	2	1	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Texas	598	454	31.7%	497	381	101	74	NM	NM	496	380	NM	20	NM	0	23	19	0	0	0	0	0	0	78	54
Mountain	2,086	1,816	14.9%	1,618	1,420	469	396	110	100	1,496	1,309	132	128	10	10	122	117	NM	7	NM	0	7	7	340	272
Arizona	726	661	9.9%	479	445	247	215	71	69	406	376	NM	NM	NM	NM	70	67	1	2	0	0	1	2	176	146
Colorado	203	172	18.0%	137	112	66	60	NM	NM	135	110	NM	NM	NM	NM	22	22	0	0	0	0	0	0	43	38
Idaho	69	67	2.8%	62	63	7	4	0	0	62	63	1	1	0	0	1	1	NM	0	NM	0	0	0	6	3
Montana	NM	6	NM	NM	NM	3	2	0	0	NM	NM	1	1	0	0	1	1	0	0	0	0	0	0	2	2
Nevada	583	489	19.2%	513	441	70	49	5	4	502	428	18	18	7	8	11	10	4	3	0	0	4	3	55	35
New Mexico	176	157	12.1%	148	133	28	24	34	26	114	106	8	9	0	0	8	9	0	0	0	0	0	0	20	16
Utah	297	263	13.2%	250	221	48	41	0	0	250	221	9	8	0	0	9	8	1	1	0	0	1	1	37	32
Wyoming	24	1	NM	23	0	1	1	0	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Pacific Contiguous	4,855	4,003	21.3%	3,164	2,583	1,691	1,420	58	58	3,082	2,502	429	366	18	18	411	349	237	205	6	5	231	200	1,049	872
California	4,710	3,889	21.1%	3,080	2,516	1,629	1,373	57	58	2,998	2,436	409	352	18	18	390	334	235	203	6	5	229	198	1,010	841
Oregon	114	94	20.5%	79	67	34	27	NM	NM	79	66	17	11	0	0	17	11	2	2	0	0	2	2	16	14
Washington	32	20	57.1%	5	0	27	20	0	0	NM	0	4	3	0	0	4	3	0	0	0	0	0	0	23	17
Pacific Noncontiguous	136	120	13.1%	26	21	110	99	3	3	23	17	42	39	0	0	42	39	0	0	0	0	0	0	67	59
Alaska	1	0	44.0%	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hawaii	135	120	13.0%	26	21	109	99	3	3	23	17	42	39	0	0	42	39	0	0	0	0	0	0	67	59
U.S. Total	11,655	9,705	20.1%	7,856	6,558	3,799	3,147	661	506	7,122	5,974	1,266	1,100	62	68	1,204	1,032	332	286	11	9	322	276	2,273	1,839

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 are preliminary. 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 July 2019 and 2018 (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	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	3,185	2,681	18.8%	1,036	957	2,149	1,724	84	42	948	908	1,154	941	2	5	1,151	937	87	72	2	2	85	70	913	718
Connecticut	477	375	27.3%	102	69	375	305	2	2	99	67	141	118	NM	NM	141	118	18	16	NM	NM	18	16	217	172
Maine	54	42	29.7%	7	8	47	34	0	0	7	8	19	11	0	0	19	11	0	0	0	0	0	0	27	22
Massachusetts	2,230	1,954	14.1%	780	773	1,451	1,182	57	12	719	756	866	734	2	4	864	730	62	50	1	2	61	48	526	403
New Hampshire	80	67	19.2%	0	0	80	67	0	0	0	0	25	19	0	0	25	19	5	4	0	0	5	4	51	43
Rhode Island	142	77	84.4%	40	23	102	54	0	0	40	23	67	28	0	0	67	28	0	0	0	0	0	0	35	26
Vermont	202	167	21.4%	107	84	96	82	25	29	82	56	36	30	0	0	36	30	2	1	0	0	2	1	58	51
Middle Atlantic	3,979	3,422	16.3%	1,136	1,042	2,843	2,380	49	58	986	859	1,346	1,181	93	112	1,253	1,069	153	138	8	12	144	125	1,445	1,186
New Jersey	2,134	1,960	8.9%	745	764	1,389	1,196	49	58	607	596	747	705	86	103	661	602	98	84	4	6	95	78	634	516
New York	1,488	1,149	29.5%	338	223	1,150	926	0	0	335	219	493	377	3	3	490	374	11	11	0	0	11	11	649	541
Pennsylvania	357	313	14.1%	53	55	304	258	0	0	44	43	106	98	4	6	102	93	44	43	5	6	39	37	163	129
East North Central	924	782	18.1%	501	479	422	304	177	167	315	304	247	195	9	6	239	189	30	17	1	1	29	16	154	99
Illinois	137	93	47.2%	38	37	99	56	1	1	35	33	59	39	NM	NM	56	36	1	1	0	0	1	1	42	19
Indiana	306	289	5.9%	228	231	78	58	104	91	123	140	52	39	0	0	52	39	2	2	0	0	2	2	24	18
Michigan	177	143	24.3%	115	93	63	49	66	69	48	24	30	26	NM	0	29	26	2	1	0	0	2	1	32	23
Ohio	213	183	16.3%	91	89	122	94	5	7	83	79	79	72	NM	NM	77	70	16	5	1	1	14	4	30	20
Wisconsin	91	75	21.0%	30	29	61	46	0	0	26	28	27	19	NM	NM	24	18	11	9	0	0	11	9	27	19
West North Central	1,400	1,175	19.1%	1,041	887	359	289	16	15	1,024	871	171	142	1	1	170	141	15	11	0	0	15	11	174	136
Iowa	108	88	22.8%	13	12	95	76	8	8	5	NM	59	48	0	0	59	48	3	2	0	0	3	2	32	26
Kansas	26	21	25.9%	5	6	21	15	NM	NM	4	4	8	6	0	0	8	6	0	0	0	0	0	0	13	10
Minnesota	994	835	19.0%	930	785	65	51	NM	NM	928	783	21	18	0	0	21	18	7	6	0	0	7	6	36	26
Missouri	239	203	17.7%	71	63	169	140	3	3	67	59	79	68	1	1	78	67	3	2	0	0	3	2	87	71
Nebraska	30	26	15.2%	22	20	8	6	NM	0	18	20	3	2	0	0	3	2	1	0	0	0	1	0	5	3
North Dakota	0	0	93.8%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
South Dakota	2	2	-1.6%	NM	NM	1	1	0	0	NM	NM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
South Atlantic	11,450	9,607	19.2%	9,684	8,226	1,767	1,381	2,591	1,756	7,001	6,373	558	493	87	93	471	400	211	189	5	NM	206	186	1,089	795
Delaware	111	105	5.9%	34	38	78	68	4	5	30	32	22	21	0	NM	22	20	5	6	0	0	5	6	51	42
District of Columbia	59	42	39.7%	9	0	50	42	0	0	9	0	25	25	0	0	25	25	0	0	0	0	0	0	25	17
Florida	2,698	1,668	61.8%	2,313	1,422	385	246	1,990	1,154	317	261	86	69	4	4	82	65	9	9	NM	NM	6	7	296	175
Georgia	1,453	1,494	-2.7%	1,265	1,330	188	164	193	188	1,070	1,139	27	23	NM	NM	26	21	150	133	0	0	150	133	12	10
Maryland	936	790	18.4%	310	257	626	533	5	6	296	243	177	150	9	8	168	142	23	23	0	0	23	23	435	368
North Carolina	4,829	4,390	10.0%	4,668	4,264	161	125	259	280	4,337	3,906	145	149	71	78	75	71	5	4	0	0	5	4	82	51
South Carolina	688	516	33.5%	493	372	195	144	NM	NM	488	370	49	36	0	0	49	36	18	12	NM	0	16	12	130	95
Virginia	669	596	12.3%	593	543	76	53	137	122	454	421	24	19	NM	0	23	19	1	1	0	0	1	1	52	33
West Virginia	7	6	26.9%	0	0	7	6	0	0	0	0	2	1	0	0	2	1	0	0	0	0	0	0	5	4
East South Central	754	666	13.3%	658	578	96	87	57	58	594	513	67	63	3	3	64	59	6	5	NM	NM	2	1	31	27
Alabama	262	246	6.2%	254	240	8	6	24	25	230	215	5	4	0	0	5	4	1	0	0	0	1	0	2	2
Kentucky	56	53	6.5%	32	34	24	19	31	32	NM	NM	13	11	0	0	13	11	1	0	0	0	1	0	10	8
Mississippi	202	214	-5.7%	194	207	8	7	0	0	194	207	5	4	0	0	5	4	0	0	0	0	0	0	3	3
Tennessee	235	153	53.7%	178	97	57	55	NM	0	169	90	43	43	3	3	41	40	4	4	NM	NM	0	0	16	15
West South Central	3,516	2,747	28.0%	2,782	2,177	734	570	47	48	2,733	2,128	152	126	NM	1	149	125	3	1	0	0	3	1	581	444
Arkansas	139	142	-2.1%	121	130	18	12	NM	NM	120	129	5	4	0	0	5	4	2	1	0	0	2	1	11	7
Louisiana	152	138	10.5%	NM	NM	151	136	NM	NM	0	0	10	8	0	0	10	8	0	0	0	0	0	0	140	128
Oklahoma	49	48	2.3%	40	41	9	6	40	41	0	0	3	2	0	0	3	2	0	0	0	0	0	0	6	4
Texas	3,176	2,419	31.3%	2,619	2,004	556	415	NM	NM	2,613	1,999	134	111	NM	1	132	110	0	0	0	0	0	0	424	304
Mountain	11,730	11,062	6.0%	8,774	8,611	2,956	2,450	595	606	8,120	7,943	859	816	56	60	803	756	44	42	2	2	42	40	2,112	1,654
Arizona	4,368	4,098	6.6%	2,688	2,711	1,680	1,386	394	417	2,287	2,289	497	454	7	5	490	449	10	15	0	0	10	15	1,180	923
Colorado	1,119	1,028	8.9%	737	671	382	357	NM	NM	725	656	142	145	9	11	133	134	2	1	0	0	2	1	247	221
Idaho	361	363	-0.5%	329	345	33	18	0	0	328	345	4	3	0	0	4	3	2	0	NM	0	1	0	28	15
Montana	37	36	4.1%	23	24	15	12	0	0	23	24	4	3	0	0	4	3	0	0	0	0	0	0	10	8
Nevada	3,154	2,984	5.7%	2,760	2,697	394	287	24	26	2,694	2,626	105	107	40	45	65	63	24	20	1	2	23	18	306	206
New Mexico	979	955	2.5%	803	800	176	155	173	159	629	641	52	55	0	0	52	55	1	1	0	0	1	1	123	99
Utah	1,593	1,595	-0.1%	1,321	1,363	272	232	0	0	1,321	1,363	53	47	0	0	53	47	5	5	0	0	5	5	213	180
Wyoming	119	4	NM	114	0	5	4	0	0	114	0	1	1	0	0	1	1	0	0	0	0	0	0	4	2
Pacific Contiguous	25,859	23,440	10.3%	16,526	15,484	9,333	7,955	319	335	16,069	15,021	2,391	2,058	102	99	2,289	1,959	1,333	1,149	36	30	1,297	1,118	5,747	4,878
California	25,129	22,872	9.9%	16,080	15,136	9,049	7,737	315	330	15,627	14,676	2,298	1,990	102	99	2,196	1,891	1,323	1,139	36	30	1,287	1,109	5,567	4,737
Oregon	579	475	21.9%	420	348	158	126	4	4	417	344	74	53	0	0	74	53	10	9	0	0	10	9	75	64
Washington	151	92	63.3%	26	0	125	92	0	0	26	0	19	15	0	0	19	15	0	0	0	0	0	0	105	77
Pacific Noncontiguous	808	741	9.1%	148	125	660	616	23	21	125	104	260	241	0	0	260	241	2	2	0	0	2	2	398	373
Alaska	3	2	44.4%	0	0	3	2	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	2	1
Hawaii	806	739	9.0%	148	125	657	614	23	21	125	104	259	241	0	0	259	241	2	2	0	0	2	2	396	372
U.S. Total	63,606	56,323	12.9%	42,287	38,566	21,319	17,756	3,958	3,108	37,915	35,024	7,205	6,257	355	380	6,850	5,876	1,884	1,624	58	54	1,825	1,570	12,644	10,310

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 are preliminary. 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, July 2019 and 2018 (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	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
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	6	-78.0%	1	6	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	6	-78.0%	1	6	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	105	124	-15.2%	0	0	105	124	0	0	0	0
Arizona	89	87	2.6%	0	0	89	87	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	15	36	-57.9%	0	0	15	36	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	294	251	17.0%	0	0	294	251	0	0	0	0
California	294	251	17.0%	0	0	294	251	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	400	380	5.1%	1	6	398	374	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 are preliminary. 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 July 2019 and 2018 (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	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 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	28	35	-18.5%	28	35	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	28	35	-18.5%	28	35	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	620	655	-5.4%	0	0	620	655	0	0	0	0
Arizona	499	489	2.1%	0	0	499	489	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	120	166	-27.6%	0	0	120	166	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	1,363	1,528	-10.8%	0	0	1,363	1,528	0	0	0	0
California	1,363	1,528	-10.8%	0	0	1,363	1,528	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	2,011	2,218	-9.3%	28	35	1,983	2,183	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 are preliminary. 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, 2009-July 2019 (Thousand Tons)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2018	635,833	473,564	159,452	94	2,723
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	11,470	9	243
March	44,388	32,273	11,864	8	243
April	40,554	30,358	9,980	6	210
May	47,470	35,222	12,012	6	230
June	56,031	42,467	13,339	6	219
July	63,805	48,286	15,283	7	230
August	63,710	47,867	15,612	9	223
Sept	53,945	40,309	13,416	8	212
October	48,488	35,607	12,682	7	191
November	51,720	38,008	13,488	7	216
December	55,549	41,527	13,782	8	232
Year 2019					
January	55,769	41,294	14,239	10	226
February	44,982	33,360	11,407	8	207
March	43,971	31,669	12,115	9	177
April	33,391	24,388	8,826	6	170
May	40,051	30,247	9,609	5	190
June	44,115	33,489	10,438	4	184
July	56,002	42,251	13,532	7	212
Year to Date					
2017	384,082	282,345	100,028	55	1,653
2018	362,420	270,246	90,472	54	1,648
2019	318,281	236,698	80,167	50	1,366
Rolling 12 Months Ending in July					
2018	642,249	472,290	167,087	93	2,778
2019	591,693	440,015	149,146	90	2,441

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 and 2019 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, 2009-July 2019 (Thousand Tons)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2018	13,721	2,321	1,162	493	9,745
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	1,267	215	139	45	868
March	1,243	205	97	43	898
April	1,108	183	80	39	805
May	1,097	171	80	35	811
June	1,089	192	91	36	770
July	1,071	201	82	40	748
August	1,032	195	78	41	720
Sept	1,080	193	80	42	765
October	1,008	164	67	35	742
November	1,136	184	110	41	802
December	1,186	183	118	39	846
Year 2019					
January	1,274	219	134	48	873
February	1,122	207	77	45	792
March	1,103	207	86	45	765
April	1,008	159	76	32	741
May	972	144	65	35	728
June	1,005	182	101	27	695
July	962	205	88	34	636
Year to Date					
2017	8,581	1,646	661	307	5,966
2018	8,278	1,402	710	295	5,871
2019	7,446	1,323	627	267	5,229
Rolling 12 Months Ending in July					
2018	14,364	2,558	1,206	504	10,096
2019	12,890	2,241	1,079	465	9,104

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.
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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, 2009-July 2019 (Thousand Tons)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2018	649,554	475,884	160,613	587	12,468
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	45,631	32,478	11,961	51	1,140
April	41,662	30,541	10,060	45	1,016
May	48,567	35,393	12,092	41	1,041
June	57,119	42,659	13,430	42	989
July	64,876	48,487	15,364	47	978
August	64,743	48,061	15,690	49	942
Sept	55,025	40,502	13,496	51	977
October	49,496	35,772	12,749	42	933
November	52,856	38,191	13,598	48	1,018
December	56,735	41,710	13,900	47	1,078
Year 2019					
January	57,043	41,512	14,373	58	1,099
February	46,104	33,567	11,484	53	999
March	45,074	31,876	12,201	55	942
April	34,399	24,547	8,902	39	911
May	41,023	30,391	9,675	40	918
June	45,120	33,671	10,539	32	879
July	56,964	42,456	13,620	40	848
Year to Date					
2017	392,663	283,992	100,689	362	7,620
2018	370,698	271,648	91,181	350	7,519
2019	325,727	238,020	80,794	317	6,595
Rolling 12 Months Ending in July					
2018	656,613	474,848	168,294	597	12,874
2019	604,583	442,257	150,226	555	11,545

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 and 2019 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, 2009-July 2019 (Thousand Barrels)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2018	27,245	17,733	8,692	281	539
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	9,046	4,361	4,541	66	78
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	1,691	1,177	430	28	56
August	1,816	1,258	495	25	38
Sept	1,775	1,346	372	20	37
October	1,732	1,318	359	17	38
November	1,654	1,207	384	23	40
December	1,618	1,150	405	20	43
Year 2019					
January	2,293	1,554	672	23	45
February	1,363	995	312	14	41
March	1,398	1,049	294	16	39
April	1,355	969	324	15	46
May	1,609	1,200	353	18	37
June	1,680	1,299	325	18	38
July	1,762	1,263	441	25	33
Year to Date					
2017	11,684	8,850	2,467	100	267
2018	18,650	11,454	6,677	176	343
2019	11,459	8,329	2,722	129	279
Rolling 12 Months Ending in July					
2018	28,661	18,171	9,671	268	551
2019	20,055	14,608	4,738	234	475

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 and 2019 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, 2009-July 2019 (Thousand Barrels)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2018	2,694	92	320	363	1,919
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	717	49	107	108	453
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	175	3	11	30	131
August	167	4	12	25	127
Sept	170	6	12	17	135
October	169	5	16	17	131
November	182	2	16	30	133
December	270	3	80	36	151
Year 2019					
January	377	18	40	46	272
February	187	8	18	28	133
March	176	4	19	29	124
April	164	3	17	18	127
May	274	5	16	121	132
June	148	3	16	14	115
July	123	3	13	26	82
Year to Date					
2017	1,002	40	109	135	718
2018	1,737	72	184	239	1,242
2019	1,450	44	139	281	986
Rolling 12 Months Ending in July					
2018	2,747	104	295	341	2,007
2019	2,407	64	275	405	1,662

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 and 2019 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, 2009-July 2019 (Thousand Barrels)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2018	29,940	17,825	9,013	644	2,457
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	9,764	4,410	4,648	175	531
February	1,516	1,095	229	40	151
March	1,574	1,062	310	35	168
April	1,676	1,132	361	35	149
May	1,944	1,300	438	37	169
June	2,048	1,348	435	36	229
July	1,865	1,180	441	58	187
August	1,984	1,262	508	50	165
Sept	1,945	1,352	384	36	173
October	1,900	1,323	375	34	168
November	1,836	1,210	400	53	173
December	1,888	1,153	485	57	194
Year 2019					
January	2,670	1,572	712	69	317
February	1,550	1,003	331	42	175
March	1,574	1,053	313	46	163
April	1,519	972	341	34	173
May	1,883	1,205	370	139	169
June	1,828	1,302	342	31	153
July	1,886	1,266	454	51	115
Year to Date					
2017	12,687	8,890	2,576	235	985
2018	20,387	11,526	6,861	415	1,585
2019	12,909	8,373	2,861	410	1,265
Rolling 12 Months Ending in July					
2018	31,408	18,276	9,966	609	2,558
2019	22,462	14,672	5,013	640	2,137

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 and 2019 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, 2009-July 2019 (Thousand Tons)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2018	3,311	2,740	388	2	181
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	344	284	41	0	18
August	327	272	40	0	16
Sept	316	259	39	0	18
October	190	158	15	0	16
November	247	196	38	0	13
December	299	241	41	0	17
Year 2019					
January	312	258	39	0	14
February	269	222	35	0	12
March	247	193	40	0	13
April	159	107	36	0	15
May	276	219	41	0	15
June	200	151	34	0	15
July	295	227	42	0	25
Year to Date					
2017	2,100	1,660	315	1	124
2018	1,932	1,614	214	1	103
2019	1,757	1,379	267	1	110
Rolling 12 Months Ending in July					
2018	3,322	2,686	441	2	193
2019	3,137	2,505	441	2	188

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 and 2019 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, 2009-July 2019 (Thousand Tons)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2018	833	12	93	10	717
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	72	1	9	0	62
August	68	1	9	0	58
Sept	72	1	7	1	63
October	75	0	9	1	64
November	65	1	8	2	55
December	76	1	8	2	65
Year 2019					
January	67	1	8	2	57
February	60	1	8	1	49
March	70	1	9	1	59
April	67	2	9	1	54
May	71	1	9	0	62
June	66	1	7	0	58
July	73	2	8	0	63
Year to Date					
2017	570	4	69	7	490
2018	477	8	52	5	412
2019	475	10	57	5	403
Rolling 12 Months Ending in July					
2018	884	14	98	13	758
2019	831	14	98	10	709

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 and 2019 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, 2009-July 2019 (Thousand Tons)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2018	4,144	2,752	481	12	898
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	416	285	50	0	80
August	395	273	49	0	73
Sept	389	260	47	1	81
October	264	159	24	1	80
November	312	196	46	2	68
December	376	242	50	2	82
Year 2019					
January	380	260	47	2	71
February	329	224	43	1	61
March	317	194	48	2	73
April	226	110	45	1	70
May	347	220	50	0	77
June	266	152	41	0	73
July	368	230	50	0	89
Year to Date					
2017	2,670	1,664	384	8	614
2018	2,409	1,622	266	6	514
2019	2,233	1,389	324	7	513
Rolling 12 Months Ending in July					
2018	4,206	2,700	539	16	951
2019	3,968	2,519	540	12	897

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 and 2019 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 2.4.A. Natural Gas: Consumption for Electricity Generation, by Sector, 2009-July 2019 (Million Cubic Feet)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2018	10,855,155	5,494,870	4,756,881	51,844	551,560
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	804,466	420,245	332,392	4,152	47,678
February	717,482	356,680	314,828	3,965	42,008
March	770,858	387,882	336,121	4,114	42,741
April	726,713	369,332	309,650	3,908	43,822
May	872,155	456,439	367,191	4,104	44,420
June	972,150	510,445	411,715	4,433	45,557
July	1,254,838	641,395	559,827	5,135	48,481
August	1,216,432	606,866	555,026	5,164	49,377
Sept	1,064,493	536,030	477,656	4,666	46,142
October	914,106	458,225	406,569	4,288	45,024
November	777,300	384,952	340,874	3,818	47,656
December	764,161	366,377	345,032	4,098	48,654
Year 2019					
January	853,956	422,019	377,276	4,446	50,215
February	786,953	398,141	341,156	4,138	43,518
March	809,964	409,158	350,891	4,285	45,631
April	743,607	381,653	313,765	3,978	44,212
May	844,004	441,667	351,997	4,163	46,177
June	1,002,542	528,383	423,715	4,335	46,109
July	1,288,980	666,671	567,812	4,954	49,542
Year to Date					
2017	5,302,123	2,674,756	2,283,603	28,718	315,046
2018	6,118,661	3,142,419	2,631,724	29,810	314,708
2019	6,330,005	3,247,691	2,726,611	30,298	325,405
Rolling 12 Months Ending in July					
2018	10,324,298	5,222,546	4,510,108	51,152	540,492
2019	11,066,499	5,600,142	4,851,768	52,332	562,257

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
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Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
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, 2009-July 2019 (Million Cubic Feet)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2018	1,235,703	41,038	332,905	103,286	758,474
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	109,088	3,577	29,046	9,474	66,991
February	97,799	3,169	26,576	8,610	59,444
March	103,896	3,312	28,085	8,710	63,789
April	97,057	2,981	25,424	8,135	60,517
May	97,070	3,150	26,420	7,928	59,572
June	99,605	3,536	26,776	8,226	61,067
July	107,012	4,154	30,257	9,006	63,596
August	106,322	4,161	29,287	8,884	63,990
Sept	101,127	3,498	27,324	8,293	62,012
October	100,725	3,211	26,980	8,319	62,215
November	105,970	3,060	27,410	8,659	66,841
December	110,030	3,229	29,319	9,042	68,440
Year 2019					
January	114,580	3,570	31,252	9,527	70,231
February	102,027	3,447	26,437	8,577	63,565
March	106,560	3,648	28,565	8,684	65,663
April	97,747	3,140	25,490	7,758	61,359
May	99,181	3,377	25,052	7,838	62,915
June	100,934	4,128	26,421	7,960	62,425
July	105,316	4,827	27,774	8,554	64,162
Year to Date					
2017	669,396	22,651	179,538	58,850	408,357
2018	711,529	23,880	192,584	60,089	434,976
2019	726,345	26,138	190,990	58,898	450,319
Rolling 12 Months Ending in July					
2018	1,210,983	39,969	322,990	105,563	742,461
2019	1,250,519	43,296	331,311	102,095	773,817

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
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Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
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, 2009-July 2019 (Million Cubic Feet)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2018	12,090,858	5,535,908	5,089,786	155,131	1,310,034
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	913,555	423,822	361,438	13,625	114,669
February	815,281	359,850	341,404	12,575	101,452
March	874,754	391,194	364,206	12,824	106,530
April	823,770	372,313	335,075	12,043	104,340
May	969,225	459,589	393,611	12,032	103,992
June	1,071,754	513,981	438,490	12,659	106,624
July	1,361,850	645,550	590,084	14,140	112,077
August	1,322,754	611,027	584,313	14,048	113,366
Sept	1,165,621	539,527	504,980	12,959	108,154
October	1,014,832	461,437	433,550	12,607	107,239
November	883,270	388,012	368,284	12,477	114,497
December	874,192	369,606	374,352	13,139	117,094
Year 2019					
January	968,536	425,589	408,527	13,973	120,446
February	888,980	401,588	367,594	12,715	107,083
March	916,524	412,806	379,456	12,969	111,294
April	841,354	384,793	339,255	11,736	105,570
May	943,185	445,043	377,049	12,000	109,092
June	1,103,476	532,512	450,135	12,295	108,534
July	1,394,296	671,498	595,586	13,508	113,704
Year to Date					
2017	5,971,519	2,697,407	2,463,142	87,568	723,403
2018	6,830,190	3,166,299	2,824,308	89,900	749,684
2019	7,056,350	3,273,829	2,917,601	89,196	775,724
Rolling 12 Months Ending in July					
2018	11,535,281	5,262,515	4,833,098	156,715	1,282,953
2019	12,317,018	5,643,438	5,183,079	154,427	1,336,074

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
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Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
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, 2009-July 2019 (Million Cubic Feet)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2018	284,667	25,646	236,388	19,466	3,167
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	23,948	2,006	20,218	1,492	232
August	24,699	2,059	20,932	1,494	214
Sept	21,204	1,702	17,849	1,454	198
October	23,068	1,909	19,210	1,704	246
November	22,951	1,907	19,077	1,715	252
December	23,800	1,940	19,859	1,746	255
Year 2019					
January	23,042	1,866	19,139	1,759	278
February	20,928	1,672	17,454	1,549	253
March	23,336	1,898	19,451	1,692	294
April	21,066	1,723	18,124	960	259
May	21,512	1,838	18,878	566	229
June	22,143	1,781	19,040	1,099	224
July	23,004	1,844	19,656	1,283	221
Year to Date					
2017	164,167	14,903	135,191	11,777	2,295
2018	168,946	16,130	139,461	11,354	2,001
2019	155,029	12,621	131,743	8,907	1,759
Rolling 12 Months Ending in July					
2018	282,890	26,301	233,320	19,697	3,573
2019	270,751	22,138	228,670	17,019	2,924

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
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Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
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, 2009-July 2019 (Million Cubic Feet)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2018	4,032	8	2,242	911	871
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
December	353	0	219	71	63
Year 2019					
January	405	0	247	84	74
February	375	1	242	67	65
March	429	1	267	80	81
April	384	1	202	102	79
May	232	1	94	64	73
June	247	1	112	77	57
July	253	1	137	42	73
Year to Date					
2017	2,321	1	1,131	644	545
2018	2,380	5	1,325	507	544
2019	2,325	4	1,301	516	503
Rolling 12 Months Ending in July					
2018	3,999	6	2,141	962	889
2019	3,976	7	2,219	920	830

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
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Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
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, 2009-July 2019 (Million Cubic Feet)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2018	288,699	25,655	238,630	20,377	4,038
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	24,212	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	23,449	1,909	19,421	1,799	319
November	23,320	1,908	19,297	1,788	327
December	24,153	1,940	20,078	1,817	318
Year 2019					
January	23,446	1,866	19,386	1,842	352
February	21,304	1,672	17,697	1,616	318
March	23,764	1,899	19,718	1,772	376
April	21,450	1,723	18,327	1,062	338
May	21,744	1,839	18,973	630	302
June	22,390	1,781	19,152	1,176	281
July	23,256	1,845	19,793	1,325	294
Year to Date					
2017	166,488	14,904	136,323	12,421	2,840
2018	171,326	16,135	140,786	11,860	2,545
2019	157,354	12,625	133,044	9,423	2,261
Rolling 12 Months Ending in July					
2018	286,889	26,307	235,461	20,659	4,462
2019	274,727	22,145	230,889	17,939	3,754

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 and 2019 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, 2009-July 2019 (Thousand Tons)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2018	16,557	467	13,702	2,379	9
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
December	1,398	37	1,157	204	0
Year 2019					
January	1,363	31	1,131	200	1
February	1,194	21	995	177	1
March	1,299	21	1,088	189	1
April	1,283	29	1,057	196	1
May	1,389	28	1,162	199	1
June	1,372	26	1,145	200	1
July	1,411	29	1,188	194	1
Year to Date					
2017	9,568	239	7,856	1,469	4
2018	9,656	264	8,009	1,377	6
2019	9,310	184	7,767	1,354	6
Rolling 12 Months Ending in July					
2018	16,437	447	13,533	2,446	11
2019	16,210	386	13,460	2,355	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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Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
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Table 2.6.B. Biogenic Municipal Solid Waste: Consumption for Useful Thermal Output, by Sector, 2009-July 2019 (Thousand Tons)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2018	1,898	0	752	957	189
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
December	172	0	70	90	13
Year 2019					
January	172	0	69	87	16
February	156	0	66	74	16
March	154	0	70	67	17
April	114	0	58	39	17
May	126	0	67	47	13
June	135	0	67	53	15
July	134	0	70	47	17
Year to Date					
2017	1,286	0	488	678	120
2018	1,112	0	430	575	107
2019	992	0	468	412	111
Rolling 12 Months Ending in July					
2018	1,951	0	757	999	196
2019	1,777	0	790	795	192

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
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Totals may not equal sum of components because of independent rounding.
Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
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, 2009-July 2019 (Thousand Tons)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2018	18,454	467	14,454	3,336	197
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
December	1,570	37	1,227	293	13
Year 2019					
January	1,535	31	1,201	287	17
February	1,349	21	1,061	251	17
March	1,453	21	1,159	256	17
April	1,397	29	1,116	234	19
May	1,515	28	1,228	245	14
June	1,507	26	1,212	252	16
July	1,545	29	1,258	241	18
Year to Date					
2017	10,853	239	8,344	2,147	123
2018	10,768	264	8,439	1,952	113
2019	10,302	184	8,235	1,766	117
Rolling 12 Months Ending in July					
2018	18,388	447	14,290	3,444	206
2019	17,988	386	14,250	3,150	201

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 2.7.A. Wood / Wood Waste Biomass: Consumption for Electricity Generation, by Sector, 2009-July 2019 (Billion Btus)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2018	351,162	45,112	136,005	520	169,526
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	31,979	4,532	12,715	63	14,669
February	28,612	3,645	11,446	42	13,478
March	30,009	4,010	11,542	36	14,422
April	25,684	2,208	9,889	16	13,570
May	30,567	3,455	12,161	32	14,920
June	30,862	4,157	12,369	53	14,283
July	31,531	4,337	12,285	59	14,851
August	30,192	4,299	11,379	69	14,444
Sept	27,655	3,607	10,584	52	13,412
October	27,526	3,491	10,643	27	13,365
November	27,289	3,610	9,892	20	13,767
December	29,256	3,760	11,100	51	14,345
Year 2019					
January	31,235	4,596	12,490	52	14,096
February	27,338	3,844	10,578	57	12,858
March	27,746	3,568	10,216	72	13,890
April	25,617	3,065	9,554	24	12,974
May	29,033	4,067	11,527	18	13,422
June	27,863	3,202	10,984	31	13,645
July	30,206	4,274	11,372	101	14,459
Year to Date					
2017	209,432	25,343	86,867	287	96,935
2018	209,244	26,344	82,406	301	100,193
2019	199,038	26,617	76,721	355	95,344
Rolling 12 Months Ending in July					
2018	363,783	43,807	147,416	474	172,086
2019	340,956	45,385	130,320	574	164,677

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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Table 2.7.B. Wood / Wood Waste Biomass: Consumption for Useful Thermal Output, by Sector, 2009-July 2019 (Billion Btus)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2018	1,036,410	10,876	23,113	4,806	997,615
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	88,492	859	2,066	454	85,114
February	83,159	832	2,113	474	79,741
March	85,663	994	2,038	493	82,138
April	84,822	913	1,804	339	81,765
May	84,790	946	1,812	319	81,712
June	85,430	968	1,799	402	82,261
July	88,879	914	2,037	382	85,545
August	90,762	847	2,033	417	87,465
Sept	82,313	918	1,647	336	79,411
October	86,305	979	1,956	329	83,042
November	85,248	749	1,879	343	82,278
December	90,548	957	1,930	518	87,143
Year 2019					
January	88,336	1,099	1,971	544	84,722
February	79,831	936	1,714	478	76,703
March	80,367	1,008	1,914	436	77,009
April	81,350	981	1,809	344	78,216
May	81,349	1,064	1,799	356	78,131
June	80,471	941	1,782	342	77,405
July	83,274	922	1,729	403	80,220
Year to Date					
2017	598,482	6,862	12,857	2,526	576,237
2018	601,235	6,427	13,668	2,863	578,277
2019	574,977	6,951	12,717	2,903	552,406
Rolling 12 Months Ending in July					
2018	1,039,180	11,221	23,797	4,859	999,303
2019	1,010,153	11,400	22,162	4,846	971,745

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Table 2.7.C. Wood / Wood Waste Biomass: Consumption for Electricity Generation and Useful Thermal Output, by Sector, 2009-July 2019 (Billion Btus)

		Electric Power Sector			
Period	Total (all sectors)	Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2018	1,387,573	55,988	159,118	5,326	1,167,141
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	120,471	5,391	14,781	517	99,783
February	111,770	4,477	13,559	516	93,218
March	115,672	5,004	13,579	528	96,560
April	110,506	3,122	11,693	356	95,336
May	115,358	4,401	13,973	351	96,632
June	116,292	5,124	14,167	455	96,545
July	120,410	5,251	14,322	441	100,396
August	120,953	5,146	13,412	486	101,909
Sept	109,968	4,525	12,231	388	92,823
October	113,831	4,470	12,599	356	96,406
November	112,538	4,359	11,771	363	96,045
December	119,804	4,717	13,030	569	101,488
Year 2019					
January	119,571	5,696	14,461	596	98,818
February	107,168	4,781	12,292	535	89,561
March	108,114	4,576	12,130	508	90,899
April	106,967	4,046	11,363	368	91,190
May	110,382	5,130	13,326	374	91,553
June	108,333	4,143	12,766	373	91,051
July	113,480	5,196	13,100	505	94,680
Year to Date					
2017	807,914	32,205	99,724	2,813	673,172
2018	810,479	32,771	96,075	3,164	678,470
2019	774,015	33,568	89,439	3,258	647,751
Rolling 12 Months Ending in July					
2018	1,402,963	55,028	171,213	5,333	1,171,389
2019	1,351,109	56,785	152,482	5,420	1,136,422

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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Table 2.8.A. Consumption of Coal for Electricity Generation by State, by Sector, July 2019 and July 2018 (Thousand Tons)

Census Division and State	All Sectors			Electric Power Sector							
				Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	17	30	-42.0%	16	17	1	13	0	0	NM	NM
Connecticut	0	12	-100.0%	0	0	0	12	0	0	0	0
Maine	1	1	58.0%	0	0	1	1	0	0	NM	NM
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	16	17	-2.7%	16	17	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	2,041	2,384	-14.0%	0	0	2,035	2,380	0	0	6	5
New Jersey	39	43	-9.5%	0	0	39	43	0	0	0	0
New York	21	49	-58.0%	0	0	21	49	0	0	0	0
Pennsylvania	1,981	2,292	-14.0%	0	0	1,975	2,287	0	0	6	5
East North Central	12,054	13,831	-13.0%	7,302	8,225	4,686	5,541	2	2	63	64
Illinois	2,997	3,625	-17.0%	196	210	2,752	3,364	1	1	47	49
Indiana	3,456	3,482	-0.8%	3,252	3,283	203	198	1	1	0	0
Michigan	2,195	2,638	-17.0%	2,174	2,618	19	18	0	0	2	2
Ohio	1,962	2,234	-12.0%	251	274	1,712	1,960	0	0	0	0
Wisconsin	1,443	1,852	-22.0%	1,429	1,839	0	0	0	0	14	13
West North Central	10,716	11,944	-10.0%	10,608	11,836	0	0	2	1	106	107
Iowa	1,582	1,625	-2.7%	1,533	1,577	0	0	1	1	48	47
Kansas	1,272	1,542	-17.0%	1,272	1,542	0	0	0	0	0	0
Minnesota	1,096	1,236	-11.0%	1,075	1,212	0	0	0	0	21	24
Missouri	3,275	3,799	-14.0%	3,275	3,799	0	0	0	0	0	0
Nebraska	1,389	1,448	-4.1%	1,355	1,417	0	0	0	0	34	32
North Dakota	1,957	2,137	-8.4%	1,953	2,133	0	0	0	0	3	4
South Dakota	144	157	-7.7%	144	157	0	0	0	0	0	0
South Atlantic	8,537	8,587	-0.6%	7,612	7,627	914	943	0	1	12	16
Delaware	45	41	11.0%	0	0	45	41	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	1,030	1,261	-18.0%	1,029	1,260	0	0	0	0	NM	1
Georgia	1,671	1,671	0.0%	1,668	1,668	0	0	0	0	NM	3
Maryland	366	342	7.1%	0	0	366	341	0	0	0	1
North Carolina	1,743	1,190	46.0%	1,738	1,185	NM	3	0	1	2	2
South Carolina	690	811	-15.0%	690	811	0	0	0	0	0	0
Virginia	335	508	-34.0%	327	476	3	22	0	0	6	9
West Virginia	2,656	2,764	-3.9%	2,160	2,227	496	537	0	0	0	0
East South Central	5,460	6,254	-13.0%	5,190	5,923	259	318	0	0	10	13
Alabama	1,353	1,780	-24.0%	1,352	1,779	0	0	0	0	NM	1
Kentucky	2,467	2,784	-11.0%	2,467	2,784	0	0	0	0	0	0
Mississippi	421	483	-13.0%	162	165	259	318	0	0	0	0
Tennessee	1,219	1,206	1.0%	1,210	1,194	0	0	0	0	9	12
West South Central	8,868	11,668	-24.0%	4,756	6,704	4,105	4,953	0	0	6	10
Arkansas	1,405	1,834	-23.0%	1,194	1,583	210	251	0	0	1	1
Louisiana	575	1,070	-46.0%	571	694	4	376	0	0	0	0
Oklahoma	600	1,203	-50.0%	556	1,079	39	115	0	0	5	10
Texas	6,288	7,561	-17.0%	2,436	3,348	3,852	4,213	0	0	0	0
Mountain	7,520	8,360	-10.0%	6,549	7,757	962	594	0	0	8	10
Arizona	1,450	1,766	-18.0%	1,450	1,766	0	0	0	0	0	0
Colorado	1,221	1,515	-19.0%	1,221	1,515	0	0	0	0	0	0
Idaho	NM	NM	NM	0	0	0	0	0	0	NM	NM
Montana	858	469	83.0%	27	26	831	443	0	0	0	0
Nevada	143	201	-29.0%	94	131	49	70	0	0	0	0
New Mexico	846	822	2.8%	846	822	0	0	0	0	0	0
Utah	1,037	1,256	-18.0%	1,001	1,220	35	37	0	0	0	0
Wyoming	1,965	2,329	-16.0%	1,910	2,276	47	44	0	0	8	9
Pacific Contiguous	673	642	4.8%	181	179	491	458	0	0	1	5
California	1	5	-87.0%	0	0	0	0	0	0	1	5
Oregon	181	179	1.1%	181	179	0	0	0	0	0	0
Washington	492	458	7.3%	0	0	491	458	0	0	0	0
Pacific Noncontiguous	116	104	11.0%	NM	NM	78	83	3	3	0	0
Alaska	51	37	39.0%	NM	NM	NM	15	3	3	0	0
Hawaii	65	68	-3.8%	0	0	65	68	0	0	0	0
U.S. Total	56,002	63,805	-12.0%	42,251	48,286	13,532	15,283	7	7	212	230

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 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 2.8.B. Consumption of Coal for Electricity Generation by State, by Sector, Year-to-Date through July 2019 and July 2018 (Thousand Tons)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	163	390	-58.0%	108	222	53	166	0	0	2	2
Connecticut	46	158	-71.0%	0	0	46	158	0	0	0	0
Maine	9	10	-4.4%	0	0	7	7	0	0	2	2
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	108	222	-51.0%	108	222	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	12,710	14,683	-13.0%	0	0	12,678	14,642	0	0	32	41
New Jersey	263	302	-13.0%	0	0	263	302	0	0	0	0
New York	168	213	-21.0%	0	0	168	210	0	0	0	4
Pennsylvania	12,279	14,167	-13.0%	0	0	12,247	14,130	0	0	32	37
East North Central	72,183	83,973	-14.0%	43,030	51,206	28,727	32,291	12	13	413	464
Illinois	18,192	21,227	-14.0%	1,210	1,284	16,669	19,603	7	8	307	333
Indiana	19,482	22,431	-13.0%	18,406	21,327	1,071	1,098	5	6	0	0
Michigan	13,278	14,381	-7.7%	13,167	14,221	98	130	0	0	12	30
Ohio	12,264	14,620	-16.0%	1,375	3,160	10,889	11,460	0	0	0	1
Wisconsin	8,966	11,313	-21.0%	8,873	11,214	0	0	0	0	94	100
West North Central	60,959	68,204	-11.0%	60,325	67,471	0	0	12	12	622	722
Iowa	8,125	8,786	-7.5%	7,825	8,480	0	0	10	10	291	295
Kansas	6,634	7,498	-12.0%	6,634	7,498	0	0	0	0	0	0
Minnesota	6,454	7,455	-13.0%	6,340	7,277	0	0	1	0	114	178
Missouri	19,539	21,978	-11.0%	19,538	21,977	0	0	1	1	0	0
Nebraska	7,578	8,373	-9.5%	7,383	8,148	0	0	0	0	195	225
North Dakota	11,625	13,141	-12.0%	11,603	13,117	0	0	0	0	22	24
South Dakota	1,003	974	3.0%	1,003	974	0	0	0	0	0	0
South Atlantic	41,128	50,261	-18.0%	37,036	43,288	3,984	6,826	7	7	101	141
Delaware	72	115	-37.0%	0	0	72	115	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	5,410	7,485	-28.0%	5,403	7,471	0	3	0	0	7	12
Georgia	8,317	9,012	-7.7%	8,300	8,990	0	0	0	0	17	22
Maryland	1,420	3,018	-53.0%	0	0	1,412	3,008	0	0	8	10
North Carolina	6,679	7,760	-14.0%	6,639	7,717	18	21	6	6	15	17
South Carolina	3,649	4,613	-21.0%	3,648	4,611	0	0	0	0	1	2
Virginia	1,187	2,904	-59.0%	1,099	2,655	35	170	1	1	52	78
West Virginia	14,394	15,353	-6.3%	11,947	11,845	2,446	3,509	0	0	0	0
East South Central	30,566	35,238	-13.0%	28,829	33,347	1,673	1,797	0	0	64	95
Alabama	8,008	10,043	-20.0%	8,001	10,034	0	0	0	0	8	8
Kentucky	14,990	15,915	-5.8%	14,990	15,915	0	0	0	0	0	0
Mississippi	2,472	2,592	-4.6%	799	796	1,673	1,797	0	0	0	0
Tennessee	5,095	6,688	-24.0%	5,039	6,602	0	0	0	0	57	86
West South Central	52,290	61,300	-15.0%	27,466	33,227	24,781	27,990	0	0	43	83
Arkansas	7,755	9,184	-16.0%	6,584	7,614	1,167	1,565	0	0	4	5
Louisiana	3,195	4,578	-30.0%	2,373	2,864	822	1,714	0	0	0	0
Oklahoma	3,585	5,745	-38.0%	3,444	5,092	102	576	0	0	39	77
Texas	37,754	41,793	-9.7%	15,065	17,658	22,689	24,136	0	0	0	0
Mountain	44,771	46,453	-3.6%	39,023	41,156	5,693	5,233	0	0	55	64
Arizona	7,609	9,443	-19.0%	7,609	9,443	0	0	0	0	0	0
Colorado	8,119	8,464	-4.1%	8,118	8,462	0	0	0	0	1	2
Idaho	3	3	-13.0%	0	0	0	0	0	0	3	3
Montana	4,990	4,505	11.0%	165	119	4,825	4,386	0	0	1	1
Nevada	872	576	51.0%	551	264	321	312	0	0	0	0
New Mexico	4,418	3,561	24.0%	4,418	3,561	0	0	0	0	0	0
Utah	6,592	6,503	1.4%	6,349	6,265	244	239	0	0	0	0
Wyoming	12,167	13,398	-9.2%	11,813	13,042	304	297	0	0	51	58
Pacific Contiguous	2,794	1,251	123.0%	664	197	2,096	1,016	0	0	34	37
California	30	34	-12.0%	0	0	0	0	0	0	30	34
Oregon	664	197	236.0%	664	197	0	0	0	0	0	0
Washington	2,100	1,019	106.0%	0	0	2,096	1,016	0	0	4	3
Pacific Noncontiguous	717	666	7.6%	215	132	483	512	19	22	0	0
Alaska	318	246	30.0%	215	132	84	91	19	22	0	0
Hawaii	399	421	-5.2%	0	0	399	421	0	0	0	0
U.S. Total	318,281	362,420	-12.0%	236,698	270,246	80,167	90,472	50	54	1,366	1,648

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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, July 2019 and July 2018 (Thousand Barrels)

				Electric Power Sector							
Census Division and State	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	84	71	18.0%	10	17	71	51	2	2	1	1
Connecticut	18	19	-7.5%	1	1	17	18	NM	NM	0	0
Maine	14	17	-17.0%	0	0	13	15	1	0	1	1
Massachusetts	44	21	113.0%	NM	NM	40	15	1	NM	0	0
New Hampshire	5	11	-54.0%	5	10	NM	NM	0	1	0	0
Rhode Island	NM	NM	NM	0	0	NM	NM	0	0	0	0
Vermont	NM	NM	NM	NM	NM	0	0	0	0	0	0
Middle Atlantic	99	109	-8.9%	21	16	73	85	3	NM	3	5
New Jersey	NM	NM	NM	0	0	NM	NM	0	0	0	0
New York	52	65	-21.0%	21	16	29	45	NM	NM	0	3
Pennsylvania	45	40	11.0%	0	0	41	37	2	1	2	2
East North Central	74	79	-6.5%	48	53	25	24	0	1	0	1
Illinois	7	8	-8.4%	2	NM	5	6	0	0	0	0
Indiana	19	20	-5.5%	18	19	0	0	0	0	0	1
Michigan	19	25	-23.0%	19	25	0	0	0	0	0	NM
Ohio	23	21	9.5%	3	NM	20	18	0	0	0	0
Wisconsin	6	NM	NM	6	NM	0	0	0	0	NM	NM
West North Central	40	39	2.9%	39	37	NM	NM	0	0	0	0
Iowa	9	7	27.0%	8	7	NM	0	0	0	0	0
Kansas	10	10	-3.1%	10	10	0	0	0	0	0	0
Minnesota	NM	NM	NM	NM	NM	NM	NM	0	0	0	0
Missouri	10	10	-1.9%	10	10	0	0	0	0	0	0
Nebraska	NM	NM	NM	NM	NM	0	0	0	0	0	0
North Dakota	3	4	-18.0%	3	4	0	0	0	0	0	0
South Dakota	3	NM	NM	3	NM	0	0	NM	NM	0	0
South Atlantic	220	175	26.0%	157	108	40	39	19	21	5	6
Delaware	5	7	-31.0%	0	0	5	7	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	50	45	11.0%	48	43	NM	NM	0	0	1	2
Georgia	13	9	52.0%	8	NM	NM	NM	2	0	3	2
Maryland	22	26	-16.0%	0	0	21	25	NM	NM	0	0
North Carolina	21	25	-12.0%	20	23	NM	NM	NM	NM	1	1
South Carolina	16	NM	NM	16	NM	0	0	NM	0	0	0
Virginia	64	41	56.0%	36	NM	11	6	17	21	NM	NM
West Virginia	30	15	106.0%	29	14	1	0	0	0	0	0
East South Central	38	48	-21.0%	38	47	NM	0	0	0	NM	1
Alabama	3	12	-74.0%	3	11	NM	NM	0	0	NM	NM
Kentucky	10	13	-26.0%	10	13	0	0	0	0	0	0
Mississippi	1	NM	NM	1	NM	0	0	0	0	0	0
Tennessee	24	21	16.0%	24	20	0	0	0	0	0	0
West South Central	16	13	21.0%	12	NM	4	NM	0	0	0	1
Arkansas	6	NM	NM	2	NM	3	0	0	0	0	0
Louisiana	NM	NM	NM	NM	NM	0	0	0	0	0	0
Oklahoma	3	4	-23.0%	3	4	0	0	0	0	0	0
Texas	5	5	12.0%	5	3	NM	NM	0	0	0	0
Mountain	33	31	5.8%	31	23	3	8	NM	0	0	0
Arizona	7	6	18.0%	7	6	0	0	NM	0	0	0
Colorado	NM	2	NM	NM	2	0	0	0	0	0	0
Idaho	0	0	-79.0%	0	0	0	0	0	0	0	0
Montana	2	8	-75.0%	NM	NM	2	8	0	0	0	0
Nevada	4	3	51.0%	3	2	1	0	0	0	0	0
New Mexico	5	5	-16.0%	5	5	0	0	0	0	0	0
Utah	4	2	61.0%	4	2	0	0	0	0	0	0
Wyoming	10	5	113.0%	10	5	0	0	0	0	0	0
Pacific Contiguous	11	46	-76.0%	8	10	2	13	NM	NM	NM	23
California	7	35	-81.0%	6	6	0	7	NM	NM	0	22
Oregon	1	3	-49.0%	1	3	0	0	NM	NM	0	0
Washington	3	9	-65.0%	NM	NM	2	7	0	0	NM	NM
Pacific Noncontiguous	1,147	1,079	6.3%	901	854	222	204	0	1	22	19
Alaska	127	112	13.0%	121	108	0	0	0	0	6	4
Hawaii	1,019	967	5.5%	781	746	222	204	0	1	16	15
U.S. Total	1,762	1,691	4.3%	1,263	1,177	441	430	25	28	33	56

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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 July 2019 and July 2018 (Thousand Barrels)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	364	1,941	-81.0%	54	335	278	1,559	23	30	9	17
Connecticut	127	538	-76.0%	5	NM	118	529	3	NM	2	1
Maine	32	295	-89.0%	0	0	21	275	4	3	7	16
Massachusetts	147	735	-80.0%	NM	135	118	586	6	NM	1	1
New Hampshire	32	264	-88.0%	22	175	NM	80	8	10	0	0
Rhode Island	20	NM	NM	0	0	NM	NM	1	1	0	0
Vermont	NM	NM	NM	NM	NM	0	0	0	0	0	0
Middle Atlantic	947	3,490	-73.0%	320	966	585	2,461	16	NM	25	35
New Jersey	73	376	-81.0%	3	3	69	368	1	4	1	1
New York	634	2,262	-72.0%	317	961	297	1,261	NM	NM	11	24
Pennsylvania	240	853	-72.0%	0	2	219	832	7	8	14	NM
East North Central	552	688	-20.0%	345	402	196	269	3	5	8	13
Illinois	59	92	-35.0%	9	NM	50	75	0	0	0	0
Indiana	154	133	15.0%	150	122	0	1	0	0	4	10
Michigan	104	157	-34.0%	102	153	0	0	2	4	1	1
Ohio	198	269	-26.0%	54	75	141	191	0	1	2	2
Wisconsin	37	37	-1.9%	30	35	5	2	1	0	NM	NM
West North Central	370	408	-9.2%	361	371	NM	NM	2	1	1	1
Iowa	74	79	-6.2%	73	77	1	1	0	0	0	0
Kansas	71	NM	NM	71	NM	0	0	0	0	0	0
Minnesota	41	62	-34.0%	33	27	NM	NM	2	1	1	1
Missouri	111	129	-14.0%	111	129	0	0	0	0	0	0
Nebraska	17	12	42.0%	17	12	0	0	0	0	0	0
North Dakota	47	36	28.0%	47	36	0	0	0	0	0	0
South Dakota	10	7	45.0%	10	7	0	0	NM	NM	0	0
South Atlantic	1,316	4,251	-69.0%	969	2,968	227	1,106	71	103	50	74
Delaware	28	226	-87.0%	0	12	28	214	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	309	596	-48.0%	296	555	3	25	0	0	10	16
Georgia	105	295	-65.0%	70	NM	NM	NM	4	6	26	33
Maryland	113	453	-75.0%	2	7	108	440	NM	NM	1	2
North Carolina	242	813	-70.0%	229	756	7	NM	NM	NM	5	10
South Carolina	97	383	-75.0%	89	NM	4	43	NM	NM	4	7
Virginia	289	1,300	-78.0%	149	979	71	226	65	89	4	NM
West Virginia	133	186	-28.0%	132	166	2	19	0	0	0	0
East South Central	330	363	-9.2%	320	295	2	58	0	0	7	11
Alabama	21	119	-82.0%	15	54	1	57	0	0	5	7
Kentucky	94	99	-5.1%	94	99	0	0	0	0	0	0
Mississippi	18	NM	NM	17	NM	0	0	0	0	1	2
Tennessee	196	122	60.0%	194	121	0	0	0	0	2	1
West South Central	153	NM	NM	114	NM	33	NM	1	1	5	5
Arkansas	50	NM	NM	32	NM	16	5	0	0	1	2
Louisiana	17	NM	NM	17	NM	0	0	0	0	0	0
Oklahoma	24	19	25.0%	22	18	0	0	0	0	2	1
Texas	62	72	-14.0%	42	48	17	NM	1	1	2	2
Mountain	239	213	12.0%	219	186	20	27	0	0	0	0
Arizona	66	60	9.5%	66	60	0	0	NM	0	0	0
Colorado	15	18	-19.0%	15	18	0	0	0	0	0	0
Idaho	0	0	112.0%	0	0	0	0	0	0	0	0
Montana	19	24	-20.0%	NM	NM	16	23	0	0	0	0
Nevada	16	11	52.0%	13	8	3	3	0	0	0	0
New Mexico	41	19	113.0%	41	19	0	0	0	0	0	0
Utah	37	36	2.1%	36	35	1	1	0	0	0	0
Wyoming	45	45	0.5%	45	45	0	0	0	0	0	0
Pacific Contiguous	78	109	-28.0%	44	44	16	22	NM	NM	17	42
California	54	87	-38.0%	38	37	5	13	1	NM	11	35
Oregon	4	NM	NM	4	4	0	0	NM	NM	0	0
Washington	20	18	11.0%	NM	NM	11	9	0	0	6	6
Pacific Noncontiguous	7,111	6,983	1.8%	5,583	5,716	1,358	1,114	14	8	157	145
Alaska	859	814	5.6%	820	777	0	0	4	3	35	34
Hawaii	6,252	6,169	1.3%	4,763	4,939	1,358	1,114	9	5	122	111
U.S. Total	11,459	18,650	-39.0%	8,329	11,454	2,722	6,677	129	176	279	343

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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, July 2019 and July 2018 (Thousand Tons)

Census Division and State	All Sectors			Electric Power Sector: Electric Utilities		Electric Power Sector: Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
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	NM	NM	0	0	0	0	0	0	NM	NM
New Jersey	1	1	-16.0%	0	0	0	0	0	0	1	1
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	NM	NM	NM	0	0	0	0	0	0	NM	NM
East North Central	96	85	14.0%	61	52	27	27	0	0	8	6
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	64	53	22.0%	56	47	0	0	0	0	8	6
Ohio	27	27	1.0%	0	0	27	27	0	0	0	0
Wisconsin	5	5	0.4%	5	5	0	0	0	0	0	0
West North Central	8	0	--	0	0	0	0	0	0	8	0
Iowa	8	0	--	0	0	0	0	0	0	8	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	35	80	-57.0%	31	76	0	0	0	0	3	NM
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	31	76	-59.0%	31	76	0	0	0	0	0	0
Georgia	3	NM	NM	0	0	0	0	0	0	3	NM
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	138	162	-15.0%	134	156	0	0	0	0	4	5
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	134	158	-15.0%	134	156	0	0	0	0	0	1
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	4	4	-3.7%	0	0	0	0	0	0	4	4
Mountain	15	15	2.1%	0	0	15	15	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	15	2.1%	0	0	15	15	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	295	344	-14.0%	227	284	42	41	0	0	25	18

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

Table 2.10.B. Consumption of Petroleum Coke for Electricity Generation by State, by Sector, Year-to-Date through July 2019 and July 2018 (Thousand Tons)

				Electric Power Sector							
Census Division and State	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 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	13	12	6.6%	0	0	0	0	0	0	13	12
New Jersey	4	3	20.0%	0	0	0	0	0	0	4	3
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	9	9	1.3%	0	0	0	0	0	0	9	9
East North Central	460	505	-8.9%	259	348	167	134	0	0	35	23
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	270	344	-21.0%	236	322	0	0	0	0	34	22
Ohio	167	134	24.0%	0	0	167	134	0	0	0	1
Wisconsin	23	26	-12.0%	23	26	0	0	0	0	0	0
West North Central	10	6	63.0%	0	0	0	0	1	1	9	5
Iowa	10	6	63.0%	0	0	0	0	1	1	9	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	299	356	-16.0%	280	335	0	0	0	0	20	21
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	280	335	-17.0%	280	335	0	0	0	0	0	0
Georgia	20	21	-7.1%	0	0	0	0	0	0	20	21
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	874	972	-10.0%	841	931	0	0	0	0	34	41
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	842	947	-11.0%	841	931	0	0	0	0	1	16
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	33	25	30.0%	0	0	0	0	0	0	33	25
Mountain	101	81	25.0%	0	0	101	81	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	101	81	25.0%	0	0	101	81	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	1,757	1,932	-9.0%	1,379	1,614	267	214	1	1	110	103

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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, July 2019 and July 2018 (Million Cubic Feet)

				Electric Power Sector							
Census Division and State	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	45,604	44,015	3.6%	585	583	43,704	42,165	509	490	806	777
Connecticut	16,743	14,577	15.0%	20	34	16,159	13,995	206	197	359	350
Maine	1,731	2,192	-21.0%	0	0	1,536	2,001	13	13	181	177
Massachusetts	16,787	17,309	-3.0%	534	397	15,886	16,566	256	250	112	96
New Hampshire	4,271	4,206	1.5%	30	150	4,219	4,037	6	2	16	17
Rhode Island	6,070	5,729	6.0%	0	0	5,904	5,566	28	27	138	137
Vermont	2	3	-13.0%	2	2	0	0	0	1	0	0
Middle Atlantic	164,062	140,547	17.0%	15,299	14,325	146,643	124,104	759	772	1,361	1,346
New Jersey	33,494	32,722	2.4%	NM	NM	32,906	32,184	75	111	197	187
New York	54,809	50,129	9.3%	14,977	14,081	38,874	35,088	613	603	345	357
Pennsylvania	75,759	57,695	31.0%	5	3	74,863	56,832	71	58	819	802
East North Central	133,180	109,805	21.0%	51,682	43,089	78,516	63,908	851	851	2,130	1,956
Illinois	27,632	22,564	22.0%	3,594	2,599	23,325	19,265	313	317	400	382
Indiana	22,608	19,896	14.0%	11,009	9,228	10,393	9,637	107	89	1,099	941
Michigan	28,961	22,110	31.0%	13,463	10,307	14,959	11,269	264	255	274	280
Ohio	35,928	28,980	24.0%	7,881	6,862	27,850	21,911	124	130	73	77
Wisconsin	18,050	16,255	11.0%	15,734	14,093	1,990	1,825	43	60	284	276
West North Central	36,218	31,113	16.0%	31,637	27,068	4,177	3,586	167	151	237	308
Iowa	7,810	6,508	20.0%	7,560	6,220	NM	NM	65	46	184	242
Kansas	4,228	4,807	-12.0%	4,219	4,797	0	0	0	0	9	10
Minnesota	10,557	8,742	21.0%	8,776	7,355	1,718	1,304	33	45	31	38
Missouri	8,417	7,352	14.0%	5,889	5,002	2,459	2,281	63	60	6	9
Nebraska	2,411	1,628	48.0%	2,404	1,626	0	0	7	1	0	0
North Dakota	1,131	870	30.0%	1,125	861	0	0	0	0	6	9
South Dakota	1,664	1,207	38.0%	1,664	1,207	0	0	0	0	0	0
South Atlantic	296,982	290,845	2.1%	237,823	231,564	55,497	55,881	1,036	1,065	2,626	2,335
Delaware	5,943	3,742	59.0%	143	62	5,333	3,256	0	0	467	425
District of Columbia	53	59	-11.0%	0	0	0	0	53	59	0	0
Florida	134,138	133,096	0.8%	126,527	123,819	6,819	8,521	8	10	784	746
Georgia	42,833	43,187	-0.8%	30,163	30,967	12,271	11,905	0	0	398	315
Maryland	12,705	11,759	8.1%	3,568	3,270	8,228	7,544	893	907	17	37
North Carolina	31,426	38,338	-18.0%	24,523	32,758	6,757	5,434	76	88	69	59
South Carolina	20,407	20,490	-0.4%	19,876	15,547	453	4,886	0	0	78	57
Virginia	47,177	38,655	22.0%	32,618	24,962	14,002	13,166	5	0	553	527
West Virginia	2,299	1,518	52.0%	405	179	1,634	1,168	0	0	260	170
East South Central	108,853	105,932	2.8%	76,987	72,891	30,546	31,784	89	88	1,231	1,169
Alabama	43,905	44,066	-0.4%	17,359	15,967	25,924	27,502	0	0	622	597
Kentucky	11,893	11,032	7.8%	10,812	9,988	1,006	969	0	0	75	75
Mississippi	40,565	39,300	3.2%	36,780	35,820	3,602	3,296	0	0	183	184
Tennessee	12,490	11,535	8.3%	12,036	11,116	14	16	89	88	351	314
West South Central	308,569	313,189	-1.5%	126,555	126,179	146,919	153,085	480	467	34,615	33,458
Arkansas	16,023	15,672	2.2%	15,238	14,902	624	620	NM	NM	124	113
Louisiana	54,119	46,583	16.0%	35,211	30,828	5,112	3,347	68	70	13,728	12,337
Oklahoma	41,517	41,840	-0.8%	26,885	28,207	14,296	13,372	0	0	336	261
Texas	196,910	209,094	-5.8%	49,221	52,242	126,886	135,745	376	360	20,427	20,747
Mountain	101,636	101,334	0.3%	83,370	79,094	17,064	20,721	188	187	1,014	1,332
Arizona	40,962	37,300	9.8%	30,904	25,564	10,005	11,676	54	60	0	0
Colorado	15,045	14,494	3.8%	12,177	11,399	2,839	3,066	0	0	29	29
Idaho	3,671	3,294	11.0%	2,234	1,970	1,366	1,268	14	14	57	43
Montana	601	524	15.0%	489	383	112	141	0	0	0	0
Nevada	21,806	25,468	-14.0%	20,042	23,577	1,328	1,345	24	24	411	522
New Mexico	10,921	10,782	1.3%	9,464	7,530	1,369	3,178	47	48	40	26
Utah	7,918	8,827	-10.0%	7,552	8,344	45	45	48	41	273	397
Wyoming	713	645	10.0%	509	328	0	1	0	0	204	316
Pacific Contiguous	89,535	114,048	-21.0%	38,415	42,615	44,746	64,595	875	1,062	5,498	5,776
California	61,978	88,156	-30.0%	22,244	27,712	33,445	53,693	854	1,040	5,436	5,711
Oregon	14,863	14,160	5.0%	7,645	7,189	7,156	6,908	21	17	41	45
Washington	12,694	11,733	8.2%	8,527	7,714	4,145	3,994	0	5	21	21
Pacific Noncontiguous	4,340	4,010	8.2%	4,316	3,987	0	0	0	0	24	22
Alaska	4,340	4,010	8.2%	4,316	3,987	0	0	0	0	24	22
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	1,288,980	1,254,838	2.7%	666,671	641,395	567,812	559,827	4,954	5,135	49,542	48,481

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Table 2.11.B. Consumption of Nautral Gas for Electricity Generation by State, by Sector, Year-to-Date through July 2019 and July 2018 (Million Cubic Feet)

				Electric Power Sector							
Census Division and State	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	203,268	207,919	-2.2%	1,113	1,580	194,698	198,963	2,796	2,755	4,661	4,621
Connecticut	82,889	75,013	10.0%	186	214	79,481	71,656	1,154	1,136	2,067	2,007
Maine	7,311	11,170	-35.0%	0	0	6,316	10,147	85	87	909	936
Massachusetts	71,975	82,472	-13.0%	871	NM	68,948	79,163	1,395	1,380	761	768
New Hampshire	12,438	10,208	22.0%	46	199	12,256	9,877	28	17	108	115
Rhode Island	28,642	29,047	-1.4%	0	0	27,696	28,120	130	132	816	794
Vermont	13	10	31.0%	9	7	0	0	3	3	0	0
Middle Atlantic	744,052	674,305	10.0%	55,627	57,956	675,934	603,654	4,360	4,507	8,131	8,189
New Jersey	161,803	155,580	4.0%	950	NM	159,230	152,605	454	640	1,169	1,160
New York	214,226	221,674	-3.4%	54,658	56,735	153,835	159,172	3,489	3,435	2,244	2,332
Pennsylvania	368,023	297,052	24.0%	19	47	362,869	291,877	418	431	4,718	4,696
East North Central	640,881	590,938	8.5%	223,404	218,624	397,817	353,005	4,905	4,852	14,755	14,457
Illinois	92,662	96,448	-3.9%	7,371	8,217	81,268	83,940	1,614	1,582	2,409	2,709
Indiana	121,118	110,849	9.3%	50,896	51,435	61,970	51,609	532	550	7,720	7,255
Michigan	135,955	139,953	-2.9%	45,444	51,711	86,588	84,421	1,828	1,740	2,096	2,081
Ohio	203,129	168,976	20.0%	39,699	39,907	162,184	127,795	631	693	614	582
Wisconsin	88,016	74,712	18.0%	79,994	67,355	5,807	5,240	299	287	1,916	1,830
West North Central	135,916	142,921	-4.9%	115,680	124,097	17,249	15,954	1,019	935	1,968	1,935
Iowa	29,579	30,849	-4.1%	28,071	29,344	NM	NM	323	301	1,184	1,204
Kansas	15,923	20,970	-24.0%	15,621	20,759	0	0	0	0	302	211
Minnesota	42,947	39,554	8.6%	36,624	33,410	5,684	5,523	288	272	352	350
Missouri	33,203	37,274	-11.0%	21,194	26,415	11,565	10,429	380	336	64	94
Nebraska	5,613	5,846	-4.0%	5,585	5,820	0	0	28	27	0	0
North Dakota	4,365	3,852	13.0%	4,299	3,775	0	0	0	0	66	77
South Dakota	4,287	4,575	-6.3%	4,287	4,575	0	0	0	0	0	0
South Atlantic	1,587,964	1,511,832	5.0%	1,304,293	1,221,386	260,278	270,270	6,679	5,857	16,714	14,319
Delaware	19,616	21,949	-11.0%	196	85	16,147	19,768	0	0	3,274	2,096
District of Columbia	354	384	-7.9%	0	0	0	0	354	384	0	0
Florida	756,120	720,917	4.9%	719,706	679,089	31,426	37,095	63	68	4,925	4,666
Georgia	226,050	221,722	2.0%	168,229	164,492	55,479	54,932	1	0	2,341	2,298
Maryland	63,633	59,500	6.9%	17,832	14,670	39,914	39,743	5,674	4,817	213	270
North Carolina	177,183	188,874	-6.2%	140,335	161,904	35,842	26,017	542	549	464	404
South Carolina	102,032	86,866	17.0%	95,439	70,831	6,124	15,568	0	1	468	466
Virginia	235,915	205,654	15.0%	161,359	129,089	70,877	73,095	45	38	3,634	3,433
West Virginia	7,062	5,966	18.0%	1,197	1,226	4,469	4,053	0	0	1,396	686
East South Central	557,477	587,696	-5.1%	386,219	407,937	162,364	171,659	510	610	8,384	7,490
Alabama	232,449	239,768	-3.1%	88,650	89,475	139,644	146,255	0	0	4,155	4,038
Kentucky	59,038	68,152	-13.0%	56,034	63,137	2,441	4,551	0	0	564	464
Mississippi	198,534	223,699	-11.0%	177,057	201,653	20,190	20,745	0	39	1,287	1,262
Tennessee	67,456	56,077	20.0%	64,478	53,673	90	107	510	571	2,378	1,726
West South Central	1,518,471	1,507,353	0.7%	578,185	570,064	711,701	717,426	2,931	2,462	225,654	217,401
Arkansas	76,354	86,385	-12.0%	71,025	81,062	4,148	4,191	238	240	943	892
Louisiana	296,881	257,223	15.0%	181,606	154,965	21,147	19,553	383	401	93,744	82,304
Oklahoma	181,037	184,596	-1.9%	115,855	114,612	63,254	68,351	0	0	1,928	1,632
Texas	964,198	979,149	-1.5%	209,698	219,426	623,152	625,331	2,309	1,821	129,039	132,572
Mountain	487,092	429,885	13.0%	390,066	342,298	88,636	78,534	1,314	1,275	7,076	7,778
Arizona	188,455	139,502	35.0%	141,987	105,695	46,116	33,432	351	375	0	0
Colorado	74,477	72,134	3.2%	61,727	59,673	12,544	12,270	7	0	198	190
Idaho	14,376	11,282	27.0%	7,222	4,915	6,632	5,928	96	99	426	339
Montana	2,748	2,390	15.0%	1,985	2,073	756	311	0	0	7	6
Nevada	105,054	112,998	-7.0%	94,769	102,607	8,633	8,502	159	154	1,493	1,734
New Mexico	55,363	54,455	1.7%	41,744	36,314	13,253	17,771	315	296	50	74
Utah	42,728	33,533	27.0%	38,947	29,934	693	311	385	352	2,703	2,937
Wyoming	3,891	3,592	8.3%	1,683	1,086	10	9	0	0	2,198	2,497
Pacific Contiguous	433,920	446,660	-2.9%	172,319	179,476	217,934	222,259	5,784	6,555	37,884	38,370
California	312,396	347,895	-10.0%	107,116	123,677	162,367	180,065	5,626	6,372	37,287	37,781
Oregon	73,985	58,371	27.0%	35,578	31,482	37,946	26,450	128	130	333	309
Washington	47,538	40,393	18.0%	29,624	24,317	17,621	15,744	29	53	264	279
Pacific Noncontiguous	20,963	19,153	9.4%	20,787	19,001	0	0	0	2	176	150
Alaska	20,963	19,153	9.4%	20,787	19,001	0	0	0	2	176	150
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	6,330,005	6,118,661	3.5%	3,247,691	3,142,419	2,726,611	2,631,724	30,298	29,810	325,405	314,708

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Notes: See Glossary for definitions. Values 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 2.12.A. Consumption of Landfill Gas for Electricity Generation by State, by Sector, July 2019 and July 2018 (Million Cubic Feet)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	947	938	1.0%	0	0	940	917	7	21	0	0
Connecticut	NM	NM	NM	0	0	NM	NM	0	0	0	0
Maine	NM	NM	NM	0	0	NM	NM	0	0	0	0
Massachusetts	326	329	-0.9%	0	0	326	329	0	0	0	0
New Hampshire	NM	96	NM	0	0	NM	NM	7	21	0	0
Rhode Island	406	385	5.5%	0	0	406	385	0	0	0	0
Vermont	NM	NM	NM	0	0	NM	NM	0	0	0	0
Middle Atlantic	4,531	4,755	-4.7%	0	0	4,417	4,648	NM	40	72	67
New Jersey	644	667	-3.4%	0	0	625	646	NM	NM	0	0
New York	1,484	1,552	-4.4%	0	0	1,484	1,552	0	0	0	0
Pennsylvania	2,403	2,536	-5.2%	0	0	2,308	2,450	NM	19	72	67
East North Central	5,291	5,368	-1.4%	716	782	4,525	4,555	27	10	22	21
Illinois	777	816	-4.8%	NM	NM	714	757	0	0	0	0
Indiana	750	831	-9.7%	652	723	98	108	0	0	0	0
Michigan	1,902	1,836	3.6%	0	0	1,902	1,836	0	0	0	0
Ohio	900	959	-6.1%	0	0	900	959	0	0	0	0
Wisconsin	960	926	3.7%	0	0	911	895	27	10	22	21
West North Central	865	1,079	-20.0%	343	384	521	696	0	0	0	0
Iowa	175	215	-18.0%	0	0	175	215	0	0	0	0
Kansas	NM	NM	NM	0	0	NM	NM	0	0	0	0
Minnesota	NM	334	NM	NM	NM	NM	NM	0	0	0	0
Missouri	NM	NM	NM	NM	NM	NM	NM	0	0	0	0
Nebraska	NM	NM	NM	NM	NM	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	4,469	4,637	-3.6%	417	477	3,832	3,906	NM	109	126	144
Delaware	NM	NM	NM	0	0	NM	NM	0	0	NM	NM
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	732	806	-9.1%	NM	167	626	639	0	0	0	0
Georgia	668	646	3.4%	0	0	657	626	0	0	12	NM
Maryland	NM	261	NM	0	0	NM	NM	NM	79	0	0
North Carolina	939	952	-1.4%	0	0	922	935	NM	NM	0	0
South Carolina	446	456	-2.3%	303	305	NM	NM	0	0	105	112
Virginia	1,347	1,396	-3.5%	7	4	1,327	1,379	NM	NM	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	527	527	-0.1%	NM	NM	310	311	0	0	0	0
Alabama	NM	NM	NM	0	0	NM	NM	0	0	0	0
Kentucky	NM	NM	NM	NM	NM	NM	NM	0	0	0	0
Mississippi	NM	NM	NM	0	0	NM	NM	0	0	0	0
Tennessee	NM	NM	NM	0	0	NM	NM	0	0	0	0
West South Central	1,119	1,268	-12.0%	0	0	1,119	1,227	0	42	0	0
Arkansas	NM	NM	NM	0	0	NM	NM	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	NM	NM	NM	0	0	NM	NM	0	0	0	0
Texas	932	1,079	-14.0%	0	0	932	1,038	0	42	0	0
Mountain	604	616	-2.0%	NM	NM	539	542	42	52	0	0
Arizona	NM	NM	NM	0	0	NM	NM	0	0	0	0
Colorado	NM	NM	NM	0	0	NM	NM	0	0	0	0
Idaho	NM	NM	NM	NM	NM	NM	NM	13	20	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	NM	NM	NM	0	0	NM	NM	0	0	0	0
New Mexico	NM	NM	NM	0	0	NM	NM	0	0	0	0
Utah	NM	NM	NM	0	0	NM	NM	29	32	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	4,588	4,692	-2.2%	NM	NM	3,452	3,416	1,007	1,153	0	0
California	3,984	4,108	-3.0%	NM	NM	2,997	2,975	978	1,123	0	0
Oregon	490	469	4.4%	NM	NM	341	324	NM	NM	0	0
Washington	NM	NM	NM	0	0	NM	NM	0	0	0	0
Pacific Noncontiguous	63	66	-4.4%	0	0	0	0	63	66	0	0
Alaska	63	66	-4.4%	0	0	0	0	63	66	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	23,004	23,948	-3.9%	1,844	2,006	19,656	20,218	1,283	1,492	221	232

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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.B. Consumption of Landfill Gas for Electricity Generation by State, by Sector, Year-to-Date through July 2019 and July 2018 (Million Cubic Feet)

				Electric Power Sector							
Census Division and State	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	5,981	6,139	-2.6%	0	0	5,851	6,018	130	121	0	0
Connecticut	264	281	-5.8%	0	0	264	281	0	0	0	0
Maine	426	451	-5.7%	0	0	426	451	0	0	0	0
Massachusetts	2,139	2,250	-4.9%	0	0	2,139	2,250	0	0	0	0
New Hampshire	657	657	0.0%	0	0	527	536	130	121	0	0
Rhode Island	2,348	2,346	0.1%	0	0	2,348	2,346	0	0	0	0
Vermont	NM	NM	NM	0	0	NM	NM	0	0	0	0
Middle Atlantic	30,789	32,676	-5.8%	0	0	29,719	31,418	449	473	621	784
New Jersey	4,569	4,828	-5.4%	0	0	4,398	4,644	171	185	0	0
New York	10,024	10,416	-3.8%	0	0	10,024	10,416	0	0	0	0
Pennsylvania	16,196	17,431	-7.1%	0	0	15,297	16,358	278	289	621	784
East North Central	36,162	37,677	-4.0%	4,839	5,404	30,936	31,915	239	210	148	148
Illinois	5,327	6,148	-13.0%	483	502	4,844	5,646	0	0	0	0
Indiana	5,023	5,614	-11.0%	4,356	4,902	667	712	0	0	0	0
Michigan	12,991	12,769	1.7%	0	0	12,991	12,769	0	0	0	0
Ohio	6,313	6,416	-1.6%	0	0	6,313	6,416	0	0	0	0
Wisconsin	6,509	6,731	-3.3%	0	0	6,121	6,373	239	210	148	148
West North Central	6,014	7,450	-19.0%	2,388	2,643	3,626	4,807	0	0	0	0
Iowa	1,368	1,532	-11.0%	0	0	1,368	1,532	0	0	0	0
Kansas	823	863	-4.6%	0	0	823	863	0	0	0	0
Minnesota	1,484	2,310	-36.0%	583	632	901	1,678	0	0	0	0
Missouri	1,367	1,654	-17.0%	832	921	535	733	0	0	0	0
Nebraska	973	1,090	-11.0%	973	1,090	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	31,043	32,847	-5.5%	2,976	3,231	26,258	27,660	819	888	989	1,069
Delaware	770	816	-5.7%	0	0	706	746	0	0	64	70
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	5,097	5,461	-6.7%	918	1,048	4,179	4,413	0	0	0	0
Georgia	4,599	4,792	-4.0%	0	0	4,518	4,704	0	0	81	87
Maryland	1,583	1,863	-15.0%	0	0	1,027	1,255	556	608	0	0
North Carolina	6,423	6,612	-2.9%	0	0	6,270	6,451	152	160	0	0
South Carolina	3,109	3,324	-6.5%	2,015	2,150	NM	262	0	0	845	912
Virginia	9,462	9,980	-5.2%	43	33	9,308	9,828	111	119	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	3,453	3,600	-4.1%	1,425	1,491	2,028	2,110	0	0	0	0
Alabama	626	655	-4.4%	0	0	626	655	0	0	0	0
Kentucky	1,579	1,636	-3.5%	1,425	1,491	153	145	0	0	0	0
Mississippi	NM	NM	NM	0	0	NM	NM	0	0	0	0
Tennessee	1,101	1,156	-4.7%	0	0	1,101	1,156	0	0	0	0
West South Central	7,904	8,697	-9.1%	0	0	7,715	8,354	189	343	0	0
Arkansas	944	985	-4.2%	0	0	944	985	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	276	290	-4.8%	0	0	276	290	0	0	0	0
Texas	6,685	7,422	-9.9%	0	0	6,496	7,079	189	343	0	0
Mountain	3,961	4,210	-5.9%	NM	NM	3,568	3,747	239	299	0	0
Arizona	568	595	-4.5%	0	0	568	595	0	0	0	0
Colorado	655	685	-4.3%	0	0	655	685	0	0	0	0
Idaho	484	513	-5.6%	NM	NM	237	246	92	104	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	1,075	1,136	-5.4%	0	0	1,075	1,136	0	0	0	0
New Mexico	NM	NM	NM	0	0	NM	NM	0	0	0	0
Utah	1,119	1,211	-7.6%	0	0	973	1,016	146	195	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	29,332	35,158	-17.0%	838	3,198	22,042	23,432	6,452	8,528	0	0
California	25,352	29,660	-15.0%	NM	831	19,077	20,551	6,218	8,278	0	0
Oregon	3,226	3,273	-1.4%	781	805	2,211	2,218	233	250	0	0
Washington	754	2,224	-66.0%	0	1,562	754	663	0	0	0	0
Pacific Noncontiguous	390	493	-21.0%	0	0	0	0	390	493	0	0
Alaska	390	493	-21.0%	0	0	0	0	390	493	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	155,029	168,946	-8.2%	12,621	16,130	131,743	139,461	8,907	11,354	1,759	2,001

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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, July 2019 and July 2018 (Thousand Tons)

				Electric Power Sector							
Census Division and State	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	290	300	-3.4%	0	0	279	287	10	13	0	0
Connecticut	99	104	-5.4%	0	0	99	104	0	0	0	0
Maine	21	23	-11.0%	0	0	10	10	10	13	0	0
Massachusetts	160	162	-1.1%	0	0	160	162	0	0	0	0
New Hampshire	10	11	-2.0%	0	0	10	11	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	469	474	-1.0%	0	0	373	380	96	94	0	0
New Jersey	115	123	-6.6%	0	0	85	93	30	30	0	0
New York	180	179	0.7%	0	0	136	134	44	45	0	0
Pennsylvania	174	173	1.1%	0	0	152	153	22	20	0	0
East North Central	16	22	-29.0%	3	3	0	0	12	18	0	0
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	2	2	-4.6%	0	0	0	0	2	2	0	0
Michigan	11	17	-37.0%	0	0	0	0	11	17	0	0
Ohio	0	0	--	0	0	0	0	0	0	0	0
Wisconsin	3	3	1.4%	3	3	0	0	0	0	0	0
West North Central	46	66	-31.0%	25	44	20	22	NM	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	46	66	-31.0%	25	44	20	22	NM	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	489	499	-2.1%	0	0	455	463	33	36	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	331	337	-1.7%	0	0	331	337	0	0	0	0
Georgia	0	0	--	0	0	0	0	0	0	0	0
Maryland	60	62	-3.0%	0	0	60	62	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	101	-2.7%	0	0	64	64	33	36	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	1	1	-1.4%	0	0	0	0	0	0	1	1
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	1	1	-1.4%	0	0	0	0	0	0	1	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	60	57	4.0%	0	0	60	57	0	0	0	0
California	34	32	6.3%	0	0	34	32	0	0	0	0
Oregon	11	10	10.0%	0	0	11	10	0	0	0	0
Washington	14	15	-4.9%	0	0	14	15	0	0	0	0
Pacific Noncontiguous	42	38	10.0%	0	0	0	0	42	38	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	42	38	10.0%	0	0	0	0	42	38	0	0
U.S. Total	1,411	1,458	-3.2%	29	48	1,188	1,208	194	200	1	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 July 2019 and July 2018 (Thousand Tons)

				Electric Power Sector							
Census Division and State	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	1,978	2,041	-3.1%	0	0	1,890	1,936	89	105	0	0
Connecticut	686	678	1.1%	0	0	686	678	0	0	0	0
Maine	155	171	-9.8%	0	0	66	66	89	105	0	0
Massachusetts	1,066	1,120	-4.7%	0	0	1,066	1,120	0	0	0	0
New Hampshire	71	72	-1.4%	0	0	71	72	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	3,035	3,104	-2.2%	0	0	2,403	2,471	631	633	0	0
New Jersey	773	841	-8.1%	0	0	572	635	201	206	0	0
New York	1,110	1,133	-2.1%	0	0	823	847	287	286	0	0
Pennsylvania	1,152	1,130	1.9%	0	0	1,009	988	143	141	0	0
East North Central	115	137	-16.0%	21	20	0	0	94	117	0	0
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	11	12	-6.9%	0	0	0	0	11	12	0	0
Michigan	83	105	-21.0%	0	0	0	0	83	105	0	0
Ohio	0	0	--	0	0	0	0	0	0	0	0
Wisconsin	21	20	7.1%	21	20	0	0	0	0	0	0
West North Central	283	379	-25.0%	162	244	120	134	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	283	379	-25.0%	162	244	120	134	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	3,225	3,315	-2.7%	0	0	2,963	3,049	262	266	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	2,145	2,247	-4.5%	0	0	2,145	2,247	0	0	0	0
Georgia	0	0	--	0	0	0	0	0	0	0	0
Maryland	378	377	0.4%	0	0	378	377	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	701	691	1.4%	0	0	439	425	262	266	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	6	6	0.8%	0	0	0	0	0	0	6	6
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	6	6	0.8%	0	0	0	0	0	0	6	6
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	391	418	-6.5%	0	0	391	418	0	0	0	0
California	231	258	-11.0%	0	0	231	258	0	0	0	0
Oregon	68	67	1.1%	0	0	68	67	0	0	0	0
Washington	93	94	-0.9%	0	0	93	94	0	0	0	0
Pacific Noncontiguous	278	256	8.7%	0	0	0	0	278	256	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	278	256	8.7%	0	0	0	0	278	256	0	0
U.S. Total	9,310	9,656	-3.6%	184	264	7,767	8,009	1,354	1,377	6	6

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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, July 2019 and July 2018 (Billion Btus)

Census Division and State	All Sectors			Electric Power Sector: Electric Utilities		Electric Power Sector: Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	4,588	4,460	2.9%	907	775	3,209	3,216	1	0	470	469
Connecticut	223	239	-6.9%	0	0	223	239	0	0	0	0
Maine	1,678	1,717	-2.3%	0	0	1,207	1,248	0	0	470	469
Massachusetts	183	166	10.0%	0	0	183	166	0	0	0	0
New Hampshire	1,903	1,831	4.0%	488	439	1,416	1,391	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	601	508	18.0%	420	336	180	172	1	0	0	0
Middle Atlantic	760	915	-17.0%	0	0	475	627	0	0	286	287
New Jersey	0	0	--	0	0	0	0	0	0	0	0
New York	555	711	-22.0%	0	0	474	627	0	0	81	84
Pennsylvania	206	203	1.2%	0	0	1	0	0	0	205	203
East North Central	2,089	2,236	-6.6%	419	499	1,069	1,106	0	0	601	631
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	1,354	1,408	-3.9%	0	0	1,058	1,096	0	0	296	312
Ohio	101	97	4.8%	0	0	11	10	0	0	90	86
Wisconsin	634	732	-13.0%	419	499	0	0	0	0	215	233
West North Central	599	792	-24.0%	169	165	119	332	85	45	225	250
Iowa	7	0	--	0	0	0	0	7	0	0	0
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	563	757	-26.0%	169	165	119	332	49	10	225	250
Missouri	29	35	-17.0%	0	0	0	0	29	35	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	10,615	10,989	-3.4%	2,424	2,546	2,761	2,748	15	13	5,415	5,682
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	1,667	1,921	-13.0%	785	633	137	526	0	0	745	762
Georgia	3,235	2,791	16.0%	0	0	1,070	558	0	0	2,165	2,233
Maryland	15	52	-71.0%	0	0	0	0	15	13	0	40
North Carolina	1,209	1,401	-14.0%	0	0	753	888	0	0	457	513
South Carolina	1,567	1,598	-1.9%	141	152	545	498	0	0	880	947
Virginia	2,922	3,226	-9.4%	1,497	1,761	257	276	0	0	1,168	1,189
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	3,331	3,337	-0.2%	0	0	177	189	0	0	3,154	3,148
Alabama	2,230	2,126	4.9%	0	0	177	189	0	0	2,053	1,936
Kentucky	158	157	0.9%	0	0	0	0	0	0	158	157
Mississippi	626	660	-5.2%	0	0	0	0	0	0	626	660
Tennessee	316	394	-20.0%	0	0	0	0	0	0	316	394
West South Central	2,297	3,007	-24.0%	0	0	80	486	0	0	2,217	2,522
Arkansas	598	612	-2.2%	0	0	0	0	0	0	598	612
Louisiana	1,106	1,362	-19.0%	0	0	0	0	0	0	1,106	1,362
Oklahoma	138	156	-12.0%	0	0	0	7	0	0	138	149
Texas	455	877	-48.0%	0	0	80	478	0	0	375	399
Mountain	527	506	4.2%	0	0	353	340	0	0	174	166
Arizona	211	205	3.1%	0	0	211	205	0	0	0	0
Colorado	113	103	9.9%	0	0	113	103	0	0	0	0
Idaho	182	175	3.7%	0	0	29	33	0	0	153	143
Montana	21	23	-8.5%	0	0	0	0	0	0	21	23
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	5,400	5,288	2.1%	355	352	3,129	3,240	0	0	1,917	1,696
California	3,722	3,585	3.8%	0	0	2,922	3,017	0	0	800	568
Oregon	613	621	-1.4%	0	0	207	223	0	0	405	398
Washington	1,066	1,082	-1.5%	355	352	0	0	0	0	711	730
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	30,206	31,531	-4.2%	4,274	4,337	11,372	12,285	101	59	14,459	14,851

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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 2.14.B. Consumption of Wood / Wood Waste Biomass for Electricity Generation by State, by Sector, Year-to-Date through July 2019 and July 2018 (Billion Btus)

				Electric Power Sector							
Census Division and State	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	29,349	29,069	1.0%	4,319	4,294	22,041	21,722	6	14	2,983	3,040
Connecticut	1,453	1,483	-2.1%	0	0	1,453	1,483	0	0	0	0
Maine	11,358	11,453	-0.8%	0	0	8,375	8,404	0	9	2,983	3,040
Massachusetts	1,273	1,198	6.2%	0	0	1,273	1,198	0	0	0	0
New Hampshire	12,210	11,613	5.1%	2,523	2,180	9,687	9,433	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	3,055	3,321	-8.0%	1,796	2,114	1,253	1,202	6	5	0	0
Middle Atlantic	5,214	7,205	-28.0%	0	0	3,361	4,055	0	0	1,853	3,151
New Jersey	0	0	--	0	0	0	0	0	0	0	0
New York	3,900	4,637	-16.0%	0	0	3,360	4,053	0	0	539	584
Pennsylvania	1,315	2,568	-49.0%	0	0	1	1	0	0	1,314	2,566
East North Central	13,868	14,365	-3.5%	2,726	2,964	6,993	7,059	0	0	4,149	4,341
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	8,959	9,117	-1.7%	0	0	6,915	6,974	0	0	2,044	2,142
Ohio	641	679	-5.6%	0	0	78	85	0	0	563	594
Wisconsin	4,268	4,569	-6.6%	2,726	2,964	0	0	0	0	1,542	1,605
West North Central	3,807	6,041	-37.0%	1,096	1,101	781	3,002	264	207	1,666	1,730
Iowa	38	1	NM	0	0	0	0	38	1	0	0
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	3,640	5,868	-38.0%	1,096	1,101	781	3,002	97	34	1,666	1,730
Missouri	129	172	-25.0%	0	0	0	0	129	172	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	70,584	73,512	-4.0%	16,060	15,621	18,276	19,805	85	80	36,164	38,007
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	11,899	12,830	-7.3%	5,164	3,893	1,911	3,841	0	0	4,825	5,096
Georgia	19,890	19,660	1.2%	0	0	5,965	5,004	0	0	13,925	14,655
Maryland	342	411	-17.0%	0	0	0	0	85	80	257	331
North Carolina	9,039	9,674	-6.6%	0	0	5,328	5,679	0	0	3,711	3,995
South Carolina	10,117	10,756	-5.9%	1,080	1,123	3,404	3,573	0	0	5,633	6,059
Virginia	19,296	20,182	-4.4%	9,816	10,604	1,668	1,707	0	0	7,813	7,870
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	21,019	21,691	-3.1%	0	0	1,184	1,248	0	0	19,835	20,443
Alabama	13,875	14,088	-1.5%	0	0	1,184	1,248	0	0	12,691	12,840
Kentucky	1,003	1,049	-4.4%	0	0	0	0	0	0	1,003	1,049
Mississippi	3,770	4,017	-6.1%	0	0	0	0	0	0	3,770	4,017
Tennessee	2,371	2,537	-6.6%	0	0	0	0	0	0	2,371	2,537
West South Central	15,457	18,690	-17.0%	0	0	374	1,801	0	0	15,083	16,888
Arkansas	4,072	4,135	-1.5%	0	0	0	0	0	0	4,072	4,135
Louisiana	7,553	9,022	-16.0%	0	0	0	0	0	0	7,553	9,022
Oklahoma	956	1,109	-14.0%	0	0	0	10	0	0	956	1,098
Texas	2,877	4,424	-35.0%	0	0	374	1,791	0	0	2,502	2,633
Mountain	3,442	3,419	0.7%	0	0	2,348	2,270	0	0	1,094	1,149
Arizona	1,453	1,406	3.4%	0	0	1,453	1,406	0	0	0	0
Colorado	719	684	5.1%	0	0	719	684	0	0	0	0
Idaho	1,132	1,189	-4.8%	0	0	176	180	0	0	956	1,009
Montana	138	140	-1.7%	0	0	0	0	0	0	138	140
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	36,297	35,253	3.0%	2,416	2,365	21,364	21,444	0	0	12,517	11,444
California	25,225	23,695	6.5%	0	0	20,016	20,066	0	0	5,210	3,629
Oregon	3,891	4,031	-3.5%	0	0	1,348	1,378	0	0	2,543	2,652
Washington	7,181	7,527	-4.6%	2,416	2,365	0	0	0	0	4,764	5,163
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	199,038	209,244	-4.9%	26,617	26,344	76,721	82,406	355	301	95,344	100,193

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Chapter 3

Fossil-Fuel Stocks for Electricity Generation

Table 3.1. Stocks of Coal, Petroleum Liquids, and Petroleum Coke: Electric Power Sector, 2009 - July 2019

	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									
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
2018	102,786	25,082	541	84,605	16,729	522	18,181	8,353	19
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	123,723	26,506	721	104,206	18,503	579	19,517	8,003	141
February	121,019	27,239	689	101,983	18,924	562	19,035	8,315	127
March	126,532	27,126	717	106,845	18,987	614	19,687	8,140	103
April	129,071	26,979	710	108,308	18,935	648	20,763	8,045	62
May	128,454	27,053	715	107,594	18,978	649	20,859	8,075	66
June	121,529	26,578	583	101,926	18,547	527	19,603	8,031	55
July	110,794	25,962	643	93,478	17,978	615	17,316	7,984	28
August	104,172	24,828	607	88,284	17,129	581	15,888	7,698	26
Sept	100,781	24,594	576	85,004	16,898	558	15,777	7,696	19
October	105,209	24,502	517	87,660	16,668	513	17,549	7,833	5
November	104,324	24,537	546	86,379	16,527	542	17,946	8,010	5
December	102,786	25,082	541	84,605	16,729	522	18,181	8,353	19
Year 2019, End of Month Stocks									
January	99,201	24,935	529	81,392	16,691	520	17,809	8,244	9
February	98,744	24,958	507	81,099	16,717	497	17,645	8,242	11
March	97,127	24,920	500	79,490	16,770	484	17,637	8,150	16
April	107,961	25,004	512	87,765	16,867	502	20,196	8,137	10
May	114,947	25,194	446	92,516	17,070	436	22,432	8,125	10
June	116,480	25,007	390	92,880	16,902	383	23,600	8,105	7
July	110,690	24,655	357	89,392	16,643	349	21,298	8,012	8

Notes: See Glossary for definitions. Values for 2017 and prior years are final. Values for 2018 and 2019 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, July 2019 and 2018

Census Division and State	Coal (Thousand Tons)			Petroleum Liquids (Thousand Barrels)			Petroleum Coke (Thousand Tons)		
	July 2019	July 2018	Percentage Change	July 2019	July 2018	Percentage Change	July 2019	July 2018	Percentage Change
New England	W	702	W	2,882	2,894	-0.4%	0	0	--
Connecticut	W	W	W	820	956	-14.3%	0	0	--
Maine	0	0	--	268	201	33.5%	0	0	--
Massachusetts	W	W	W	1,267	1,324	-4.3%	0	0	--
New Hampshire	W	W	W	354	232	52.4%	0	0	--
Rhode Island	0	W	W	133	138	-3.2%	0	0	--
Vermont	0	0	--	40	43	-6.2%	0	0	--
Middle Atlantic	4,199	2,691	56.1%	4,717	4,603	2.5%	0	0	--
New Jersey	W	W	W	604	667	-9.5%	0	0	--
New York	W	W	W	2,966	2,974	-0.3%	0	0	--
Pennsylvania	4,040	2,501	61.5%	1,147	962	19.3%	0	0	--
East North Central	22,836	21,770	4.9%	996	1,098	-9.2%	72	88	-17.7%
Illinois	4,606	4,558	1.0%	98	79	23.6%	0	0	--
Indiana	6,667	6,994	-4.7%	83	170	-51.5%	W	W	W
Michigan	3,680	3,385	8.7%	270	309	-12.6%	W	W	W
Ohio	4,618	3,563	29.6%	362	330	9.6%	0	W	W
Wisconsin	3,265	3,270	-0.2%	185	210	-12.0%	W	W	W
West North Central	17,928	21,909	-18.2%	803	870	-7.6%	0	0	--
Iowa	3,068	4,715	-34.9%	121	131	-7.8%	0	0	--
Kansas	2,902	3,326	-12.7%	94	104	-9.4%	0	0	--
Minnesota	3,237	2,423	33.6%	108	107	1.1%	0	0	--
Missouri	5,116	7,573	-32.5%	317	345	-8.1%	0	0	--
Nebraska	2,308	2,363	-2.3%	101	110	-8.7%	0	0	--
North Dakota	W	W	W	22	27	-17.9%	0	0	--
South Dakota	W	W	W	40	45	-11.2%	0	0	--
South Atlantic	20,762	18,142	14.4%	9,479	10,411	-9.0%	W	W	W
Delaware	W	W	W	335	372	-9.9%	0	0	--
District of Columbia	0	0	--	0	0	--	0	0	--
Florida	3,027	3,604	-16.0%	3,802	4,696	-19.1%	W	W	W
Georgia	3,896	3,979	-2.1%	675	715	-5.6%	0	0	--
Maryland	1,703	848	101.0%	658	576	14.2%	0	0	--
North Carolina	3,907	3,254	20.1%	1,127	1,151	-2.1%	0	0	--
South Carolina	2,506	2,596	-3.5%	520	568	-8.4%	0	0	--
Virginia	W	768	W	2,217	2,217	0.0%	0	0	--
West Virginia	4,554	W	W	145	114	26.5%	W	W	W
East South Central	10,592	10,142	4.4%	1,340	1,546	-13.4%	0	W	W
Alabama	W	2,365	W	207	194	6.6%	0	0	--
Kentucky	5,322	4,818	10.5%	227	247	-7.9%	0	W	W
Mississippi	W	W	W	175	475	-63.2%	0	0	--
Tennessee	2,810	W	W	731	631	15.9%	0	0	--
West South Central	14,898	15,479	-3.8%	1,426	1,605	-11.2%	W	W	W
Arkansas	3,263	2,557	27.6%	147	168	-12.8%	0	0	--
Louisiana	2,445	2,012	21.5%	333	360	-7.5%	W	W	W
Oklahoma	2,378	3,121	-23.8%	94	104	-9.4%	0	0	--
Texas	6,811	7,789	-12.6%	851	972	-12.5%	0	0	--
Mountain	17,189	18,766	-8.4%	354	388	-8.8%	W	W	W
Arizona	3,482	3,177	9.6%	134	136	-1.7%	0	0	--
Colorado	4,107	4,448	-7.7%	115	128	-10.2%	0	0	--
Idaho	0	0	--	0	0	-33.6%	0	0	--
Montana	W	W	W	13	14	-8.1%	W	W	W
Nevada	W	W	W	3	3	-10.8%	0	0	--
New Mexico	W	W	W	16	32	-49.8%	0	0	--
Utah	3,057	4,554	-32.9%	46	40	15.1%	0	0	--
Wyoming	4,104	3,971	3.4%	27	35	-20.5%	0	0	--
Pacific Contiguous	W	W	W	334	352	-5.1%	0	0	--
California	0	0	--	167	186	-9.9%	0	0	--
Oregon	W	W	W	69	69	0.5%	0	0	--
Washington	W	W	W	97	97	0.3%	0	0	--
Pacific Noncontiguous	W	W	W	2,324	2,196	5.8%	0	0	--
Alaska	0	0	--	48	114	-57.7%	0	0	--
Hawaii	W	W	W	2,276	2,082	9.3%	0	0	--
U.S. Total	110,690	110,794	-0.1%	24,655	25,962	-5.0%	357	643	-44.6%

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.
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values are preliminary. 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, July 2019 and 2018

	Electric Power Sector			Electric Utilities		Independent Power Producers	
Census Division	**July 2019**	**July 2018**	**Percentage Change**	**July 2019**	**July 2018**	**July 2019**	**July 2018**
Coal (Thousand Tons)							
New England	W	702	W	W	W	W	W
Middle Atlantic	4,199	2,691	56.1%	0	W	4,199	W
East North Central	22,836	21,770	4.9%	14,620	14,746	8,216	7,024
West North Central	17,928	21,909	-18.2%	17,928	21,909	0	0
South Atlantic	20,762	18,142	14.4%	17,902	16,584	2,860	1,558
East South Central	10,592	10,142	4.4%	10,592	10,142	0	0
West South Central	14,898	15,479	-3.8%	11,265	11,523	3,633	3,956
Mountain	17,189	18,766	-8.4%	W	W	W	W
Pacific Contiguous	W	W	W	W	W	W	W
Pacific Noncontiguous	W	W	W	0	0	W	W
U.S. Total	**110,690**	**110,794**	**-0.1%**	**89,392**	**93,478**	**21,298**	**17,316**
Petroleum Liquids (Thousand Barrels)							
New England	2,882	2,894	-0.4%	451	415	2,432	2,479
Middle Atlantic	4,717	4,603	2.5%	1,923	1,838	2,794	2,765
East North Central	996	1,098	-9.2%	648	696	349	401
West North Central	803	870	-7.6%	780	858	23	12
South Atlantic	9,479	10,411	-9.0%	7,619	8,655	1,860	1,756
East South Central	1,340	1,546	-13.4%	1,249	1,473	91	73
West South Central	1,426	1,605	-11.2%	1,106	1,264	320	341
Mountain	354	388	-8.8%	327	361	27	27
Pacific Contiguous	334	352	-5.1%	255	261	79	91
Pacific Noncontiguous	2,324	2,196	5.8%	2,285	2,155	39	40
U.S. Total	**24,655**	**25,962**	**-5.0%**	**16,643**	**17,978**	**8,012**	**7,984**
Petroleum Coke (Thousand Tons)							
New England	0	0	--	0	0	0	0
Middle Atlantic	0	0	--	0	0	0	0
East North Central	72	88	-17.7%	72	W	0	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	**357**	**643**	**-44.6%**	**349**	**615**	**8**	**28**

W = Withheld to avoid disclosure of individual company data.
Notes: See Glossary for definitions. Values are preliminary. 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, 2009 - July 2019

	Electric Power Sector			
Period	Bituminous Coal	Subbituminous Coal	Lignite Coal	Total
End of Year Stocks				
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
2018	42,006	57,742	3,039	102,786
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	48,395	72,254	3,074	123,723
February	48,130	69,980	2,909	121,019
March	49,518	73,801	3,213	126,532
April	50,964	74,782	3,324	129,071
May	51,794	73,448	3,212	128,454
June	48,853	69,484	3,191	121,529
July	44,916	63,030	2,847	110,794
August	42,779	58,578	2,816	104,172
Sept	40,787	57,150	2,845	100,781
October	43,017	59,176	3,016	105,209
November	42,833	58,383	3,108	104,324
December	42,006	57,742	3,039	102,786
Year 2019, End of Month Stocks				
January	40,430	55,888	2,883	99,201
February	41,719	54,287	2,738	98,744
March	44,763	49,137	3,054	97,127
April	49,608	54,998	3,344	107,961
May	52,498	59,091	3,347	114,947
June	54,402	59,114	2,625	116,480
July	50,266	57,402	2,558	110,690

Notes: See Glossary for definitions.
Values for 2017 and prior years are final. Values for 2018 and 2019 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 4.1. Receipts, Average Cost, and Quality of Fossil Fuels: Total (All Sectors), 2009 - July 2019

	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												
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
2018	11,357,521	594,683	2.06	39.38	1.31	91.6	118,873	19,717	14.26	86.12	0.42	65.9
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	118.6
March	939,471	48,770	2.04	39.36	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	892,834	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	6,858	1,129	14.69	89.18	0.33	60.6
August	1,075,669	56,419	2.06	39.28	1.30	87.1	6,522	1,079	15.26	92.25	0.38	54.4
Sept	945,615	49,944	2.05	38.87	1.25	90.8	7,457	1,240	15.31	92.07	0.38	63.8
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	948,007	49,881	2.06	39.21	1.32	94.4	7,922	1,325	15.73	94.08	0.46	72.2
December	1,012,118	52,977	2.12	40.45	1.30	93.4	10,295	1,708	13.83	83.38	0.47	90.5
Year 2019												
January	1,003,542	52,346	2.10	40.34	1.32	91.8	8,642	1,430	12.41	74.98	0.46	53.6
February	847,217	44,418	2.07	39.54	1.28	96.3	8,421	1,380	13.15	80.25	0.48	89.1
March	820,726	41,993	2.08	40.69	1.51	93.2	6,949	1,148	14.27	86.40	0.47	72.9
April	864,431	44,576	2.07	40.16	1.37	129.6	6,683	1,106	14.77	89.26	0.52	72.8
May	883,506	45,571	2.05	39.75	1.38	111.1	6,550	1,089	14.46	86.97	0.50	57.8
June	864,524	44,676	2.03	39.26	1.35	99.0	6,735	1,120	13.66	82.15	0.49	61.3
July	938,239	49,089	2.02	38.68	1.28	86.2	5,853	977	13.78	82.54	0.48	51.8
Year to Date												
2017	7,092,606	370,301	2.07	39.70	1.30	94.3	55,320	9,232	11.48	68.81	0.49	72.8
2018	6,375,417	333,139	2.06	39.37	1.31	89.9	78,003	12,931	13.81	83.54	0.41	63.4
2019	6,222,185	322,669	2.06	39.76	1.35	99.1	49,833	8,250	13.71	82.82	0.49	63.9
Rolling 12 Months Ending in July												
2018	11,543,841	605,201	2.05	39.06	1.29	92.2	119,660	19,826	13.30	80.43	0.44	63.1
2019	11,204,289	584,214	2.06	39.60	1.33	96.6	90,703	15,036	14.32	86.42	0.46	66.9

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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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- 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."

Chapter 4

Receipts and Cost of Fossil Fuels

Table 4.1. Receipts, Average Cost, and Quality of Fossil Fuels: Total (All Sectors), 2009 - July 2019 (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												
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
2018	85,122	3,010	2.54	71.76	5.74	72.6	10,366,144	10,039,232	3.55	3.67	83.0	2.80
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	82.6	3.50
February	7,769	277	2.43	68.09	5.49	81.9	688,539	667,072	3.61	3.72	81.8	2.79
March	7,841	281	2.54	70.89	5.54	91.6	749,405	725,132	3.18	3.29	82.9	2.57
April	6,564	232	2.56	72.38	6.09	71.7	706,952	685,216	3.13	3.23	83.2	2.58
May	4,344	152	2.41	68.58	6.09	67.7	814,786	789,317	3.04	3.14	81.4	2.56
June	7,382	260	2.73	77.61	5.97	68.7	927,153	897,864	3.11	3.21	83.8	2.61
July	8,307	293	2.71	76.81	5.73	70.4	1,149,841	1,113,981	3.29	3.39	81.8	2.73
August	8,443	298	2.79	78.94	5.67	75.4	1,130,270	1,095,233	3.28	3.38	82.8	2.69
Sept	8,158	288	2.94	83.35	5.63	74.1	1,002,984	970,993	3.11	3.21	83.3	2.62
October	5,892	208	2.48	70.32	5.77	78.8	881,837	854,142	3.39	3.50	84.2	2.71
November	6,696	235	2.21	63.10	5.87	75.3	764,243	740,250	4.16	4.29	83.8	3.01
December	6,718	238	2.03	57.24	5.90	63.5	771,128	745,864	4.73	4.89	85.3	3.25
Year 2019												
January	5,447	192	2.08	59.13	5.93	50.5	858,607	831,137	4.01	4.14	85.8	2.98
February	4,486	155	2.27	65.75	5.78	47.2	786,645	758,901	3.64	3.77	85.4	2.85
March	3,725	130	2.43	69.63	6.15	41.0	802,316	777,031	3.45	3.56	84.8	2.78
April	3,159	111	2.71	76.93	5.65	49.3	729,027	706,381	2.88	2.98	84.0	2.48
May	4,631	162	2.24	63.78	5.41	46.8	835,996	810,857	2.77	2.86	86.0	2.43
June	3,740	130	2.18	62.61	5.15	48.9	972,385	942,261	2.59	2.67	85.4	2.36
July	5,766	201	2.01	57.67	5.22	54.6	1,199,201	1,159,615	2.53	2.62	83.2	2.33
Year to Date												
2017	53,046	1,891	2.07	57.98	5.54	70.8	5,578,792	5,398,364	3.45	3.57	90.4	2.69
2018	49,215	1,743	2.55	71.94	5.72	72.4	5,815,683	5,632,749	3.47	3.58	82.5	2.77
2019	30,954	1,081	2.24	64.02	5.60	48.4	6,184,177	5,986,182	3.08	3.18	84.8	2.59
Rolling 12 Months Ending in July												
2018	89,006	3,161	2.40	67.68	5.66	75.2	10,188,705	9,863,118	3.38	3.49	85.5	2.70
2019	66,861	2,349	2.39	68.06	5.69	59.2	10,734,638	10,392,666	3.32	3.43	84.4	2.70

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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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Table 4.2. Receipts, Average Cost, and Quality of Fossil Fuels: Electric Utilities, 2009 - July 2019

	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												
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
2018	8,386,175	438,023	2.11	40.39	1.18	92.0	74,884	12,324	14.22	86.46	0.37	69.1
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	699,005	36,379	2.10	40.26	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	658,792	34,012	2.09	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	70.9
August	806,053	42,128	2.11	40.46	1.18	87.7	4,686	769	15.08	91.87	0.34	60.9
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	688,957	36,216	2.10	40.01	1.17	94.8	4,765	789	15.74	94.99	0.41	65.3
December	741,030	38,682	2.17	41.58	1.17	92.7	6,239	1,026	13.70	83.32	0.43	89.0
Year 2019												
January	735,197	38,212	2.16	41.64	1.18	92.1	6,100	1,008	12.56	76.05	0.42	64.1
February	628,506	32,866	2.14	40.93	1.15	97.9	6,343	1,033	12.99	79.78	0.46	103.0
March	585,094	29,813	2.14	42.07	1.37	93.5	5,584	917	14.15	86.20	0.42	87.1
April	642,276	33,093	2.13	41.42	1.21	134.8	5,087	837	14.60	88.81	0.47	86.1
May	654,777	33,745	2.11	41.03	1.21	111.0	4,877	804	14.09	85.48	0.48	66.7
June	645,744	33,285	2.11	40.91	1.20	98.9	5,129	848	13.26	80.17	0.47	65.1
July	717,884	37,385	2.09	40.05	1.16	88.1	4,389	728	13.28	79.99	0.46	57.5
Year to Date												
2017	5,203,509	268,800	2.13	41.25	1.18	94.7	41,970	6,969	11.32	68.16	0.48	78.4
2018	4,730,659	246,629	2.10	40.28	1.18	90.8	48,008	7,901	13.75	83.57	0.36	68.5
2019	4,609,477	238,399	2.13	41.13	1.21	100.2	37,508	6,174	13.53	82.17	0.45	73.7
Rolling 12 Months Ending in July												
2018	8,538,780	445,424	2.10	40.26	1.16	93.8	76,460	12,572	13.10	79.72	0.40	68.8
2019	8,264,993	429,793	2.12	40.86	1.19	97.2	64,384	10,598	14.17	86.09	0.42	72.2

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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.

- Values for 2017 and prior years are final. Values for 2018 and 2019 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.
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Table 4.2. Receipts, Average Cost, and Quality of Fossil Fuels: Electric Utilities, 2009 - July 2019 (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												
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
2018	83,211	2,940	2.56	72.34	5.74	106.8	4,976,093	4,822,698	3.69	3.81	87.1	2.76
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	88.3	3.29
February	7,769	277	2.43	68.09	5.49	117.9	330,518	320,418	3.81	3.93	89.0	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	552,025	534,990	3.28	3.38	82.9	2.65
August	8,183	288	2.82	80.03	5.67	105.4	534,991	518,832	3.34	3.45	84.9	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	421,712	408,928	3.56	3.67	88.6	2.71
November	6,524	229	2.23	63.55	5.88	116.4	355,558	345,025	4.25	4.38	88.9	2.89
December	6,541	232	2.04	57.52	5.91	96.0	350,009	339,020	4.95	5.11	91.7	3.12
Year 2019												
January	5,447	192	2.08	59.13	5.93	73.8	401,692	389,481	4.19	4.32	91.5	2.93
February	4,486	155	2.27	65.75	5.78	69.4	377,502	363,249	3.80	3.94	90.5	2.82
March	3,725	130	2.43	69.63	6.15	66.9	383,043	371,475	3.66	3.77	90.0	2.81
April	3,159	111	2.71	76.93	5.65	101.5	352,341	341,468	3.07	3.17	88.7	2.53
May	4,631	162	2.24	63.78	5.41	73.8	418,290	406,239	2.96	3.04	91.3	2.49
June	3,740	130	2.18	62.61	5.15	85.7	491,980	476,918	2.76	2.84	89.6	2.44
July	5,723	199	2.01	57.76	5.22	86.8	590,202	570,866	2.66	2.74	85.0	2.38
Year to Date												
2017	52,521	1,872	2.07	58.21	5.54	112.5	2,705,337	2,618,827	3.66	3.78	97.1	2.69
2018	49,055	1,737	2.55	72.04	5.72	107.1	2,837,789	2,749,931	3.61	3.73	86.9	2.73
2019	30,912	1,080	2.24	64.04	5.60	77.8	3,015,051	2,919,697	3.24	3.34	89.2	2.62
Rolling 12 Months Ending in July												
2018	87,014	3,089	2.42	68.18	5.65	114.4	4,926,835	4,771,931	3.59	3.71	90.7	2.70
2019	65,068	2,283	2.41	68.65	5.69	90.6	5,153,354	4,992,464	3.47	3.57	88.5	2.69

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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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- 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, 2009 - July 2019

	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												
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
2018	2,805,911	148,687	1.89	35.76	1.70	92.6	41,671	7,021	14.38	85.59	0.45	77.9
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	58.3
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	1,592	271	15.97	93.81	0.45	61.5
August	256,223	13,648	1.87	35.05	1.68	87.0	1,701	288	15.85	93.45	0.41	56.8
Sept	232,368	12,512	1.82	33.92	1.56	92.7	1,887	318	15.00	88.95	0.39	82.9
October	270,387	14,235	1.89	35.93	1.72	111.7	2,723	464	15.61	91.70	0.40	123.7
November	245,201	12,983	1.92	36.34	1.73	95.5	2,951	503	15.83	93.00	0.42	125.6
December	256,990	13,613	1.95	36.83	1.68	97.9	3,789	639	14.06	83.33	0.46	131.7
Year 2019												
January	255,058	13,482	1.90	36.07	1.76	93.8	2,359	393	11.93	71.58	0.50	55.3
February	205,832	10,934	1.83	34.49	1.67	95.2	1,879	314	13.63	81.50	0.46	95.1
March	222,160	11,549	1.88	36.18	1.88	94.7	1,239	210	14.88	87.69	0.54	67.2
April	209,175	10,854	1.84	35.47	1.87	121.9	1,373	233	15.69	92.33	0.51	68.5
May	216,008	11,203	1.83	35.24	1.92	115.8	1,581	270	15.62	91.40	0.49	73.1
June	207,073	10,824	1.75	33.55	1.85	102.7	1,476	250	15.09	89.05	0.48	73.2
July	208,969	11,154	1.79	33.51	1.69	81.9	1,384	236	15.49	90.86	0.48	52.0
Year to Date												
2017	1,775,096	96,067	1.87	34.65	1.64	95.4	12,372	2,106	12.07	70.94	0.46	81.8
2018	1,544,742	81,697	1.90	35.86	1.71	89.6	28,620	4,809	13.99	83.62	0.46	70.1
2019	1,524,275	79,999	1.83	34.98	1.80	99.0	11,290	1,907	14.37	85.03	0.49	66.7
Rolling 12 Months Ending in July												
2018	2,825,861	151,196	1.86	34.80	1.68	89.8	40,952	6,894	13.74	81.92	0.47	69.2
2019	2,785,444	146,990	1.86	35.28	1.75	97.8	24,342	4,119	14.79	87.37	0.45	82.2

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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 4.3. Receipts, Average Cost, and Quality of Fossil Fuels: Independent Power Producers, 2009 - July 2019 (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												
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
2018	0	0	--	--	--	0.0	4,608,011	4,456,582	3.41	3.52	87.6	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	86.6	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	87.1	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	530,641	513,551	3.34	3.45	87.0	2.85
August	0	0	--	--	--	0.0	527,203	510,315	3.21	3.32	87.3	2.74
Sept	0	0	--	--	--	0.0	460,133	444,978	2.88	2.98	88.1	2.51
October	0	0	--	--	--	0.0	395,265	382,024	3.16	3.27	88.1	2.64
November	0	0	--	--	--	0.0	338,095	326,516	4.09	4.24	88.7	3.15
December	0	0	--	--	--	0.0	354,311	342,143	4.48	4.64	91.4	3.37
Year 2019												
January	0	0	--	--	--	0.0	383,596	370,465	3.83	3.96	90.7	3.01
February	0	0	--	--	--	0.0	344,458	333,039	3.47	3.60	90.6	2.83
March	0	0	--	--	--	0.0	352,850	341,038	3.25	3.36	89.9	2.69
April	0	0	--	--	--	0.0	312,071	302,090	2.63	2.72	89.1	2.32
May	0	0	--	--	--	0.0	351,590	340,361	2.51	2.60	90.3	2.26
June	0	0	--	--	--	0.0	416,414	403,165	2.33	2.41	89.6	2.15
July	0	0	--	--	--	0.0	540,331	522,062	2.37	2.46	87.7	2.21
Year to Date												
2017	0	0	--	--	--	0.0	2,396,035	2,316,877	3.21	3.32	94.1	2.60
2018	0	0	--	--	--	0.0	2,533,004	2,450,606	3.33	3.44	86.8	2.79
2019	0	0	--	--	--	0.0	2,701,311	2,612,220	2.88	2.98	89.5	2.49
Rolling 12 Months Ending in July												
2018	0	0	--	--	--	0.0	4,483,124	4,335,301	3.14	3.25	89.7	2.64
2019	0	0	--	--	--	0.0	4,776,318	4,618,197	3.14	3.25	89.1	2.65

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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.
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Table 4.4. Receipts, Average Cost, and Quality of Fossil Fuels: Commercial Sector, 2009 - July 2019

	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												
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
2018	290	13	2.94	66.52	3.04	2.2	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
December	46	2	2.97	66.83	3.05	4.3	0	0	--	--	--	0.0
Year 2019												
January	27	1	2.90	65.89	3.00	2.1	0	0	--	--	--	0.0
February	37	2	2.90	65.51	2.95	3.1	0	0	--	--	--	0.0
March	48	2	2.90	65.86	2.94	3.9	0	0	--	--	--	0.0
April	2	0	2.90	65.28	2.90	0.3	0	0	--	--	--	0.0
May	0	0	--	--	--	0.0	0	0	--	--	--	0.0
June	2	0	2.90	66.38	3.02	0.3	0	0	--	--	--	0.0
July	1	0	2.97	67.69	2.94	0.1	0	0	--	--	--	0.0
Year to Date												
2017	336	15	2.77	63.19	3.00	4.1	0	0	--	--	--	0.0
2018	130	6	2.92	66.44	3.13	1.6	0	0	--	--	--	0.0
2019	119	5	2.90	65.77	2.96	1.7	0	0	--	--	--	0.0
Rolling 12 Months Ending in July												
2018	342	15	2.84	64.62	3.04	2.5	0	0	--	--	--	0.0
2019	278	12	2.93	66.24	2.96	2.2	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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- 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: Commerical Sector, 2009 - July 2019 (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												
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
2018	0	0	--	--	--	0.0	9,090	8,823	3.49	3.59	5.7	3.47
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	6.0	3.56
February	0	0	--	--	--	0.0	709	688	3.72	3.84	5.5	3.69
March	0	0	--	--	--	0.0	768	746	3.59	3.69	5.8	3.58
April	0	0	--	--	--	0.0	732	713	3.49	3.58	5.9	3.49
May	0	0	--	--	--	0.0	776	758	3.47	3.55	6.3	3.47
June	0	0	--	--	--	0.0	670	650	3.57	3.67	5.1	3.57
July	0	0	--	--	--	0.0	790	760	3.39	3.52	5.4	3.39
August	0	0	--	--	--	0.0	786	764	3.42	3.52	5.4	3.42
Sept	0	0	--	--	--	0.0	744	723	3.38	3.48	5.6	3.38
October	0	0	--	--	--	0.0	792	770	3.36	3.45	6.1	3.33
November	0	0	--	--	--	0.0	723	701	3.41	3.52	5.6	3.37
December	0	0	--	--	--	0.0	756	732	3.41	3.52	5.6	3.39
Year 2019												
January	0	0	--	--	--	0.0	778	751	3.40	3.52	5.4	3.38
February	0	0	--	--	--	0.0	772	745	3.37	3.50	5.9	3.35
March	0	0	--	--	--	0.0	839	812	3.36	3.47	6.3	3.33
April	0	0	--	--	--	0.0	775	748	3.30	3.41	6.4	3.29
May	0	0	--	--	--	0.0	811	782	3.26	3.38	6.5	3.26
June	0	0	--	--	--	0.0	807	776	3.23	3.36	6.3	3.22
July	0	0	--	--	--	0.0	721	701	3.17	3.26	5.2	3.17
Year to Date												
2017	0	0	--	--	--	0.0	4,237	4,105	3.90	4.02	4.7	3.81
2018	0	0	--	--	--	0.0	5,290	5,134	3.55	3.66	5.7	3.53
2019	0	0	--	--	--	0.0	5,503	5,314	3.30	3.41	6.0	3.29
Rolling 12 Months Ending in July												
2018	0	0	--	--	--	0.0	8,893	8,622	3.62	3.74	5.5	3.60
2019	0	0	--	--	--	0.0	9,303	9,003	3.34	3.45	5.8	3.32

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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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Table 4.5. Receipts, Average Cost, and Quality of Fossil Fuels: Industrial Sector, 2009 - July 2019

	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												
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
2018	165,145	7,960	2.49	51.58	1.24	63.8	2,319	372	13.46	83.97	1.35	15.1
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	12.2
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	63.3	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	71.8	138	22	14.64	89.87	1.42	12.0
August	13,393	643	2.50	52.09	1.23	68.2	135	22	14.45	89.97	1.39	13.2
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
December	14,052	680	2.35	48.52	1.41	63.0	268	43	13.75	85.58	1.46	22.2
Year 2019												
January	13,260	650	2.54	51.79	1.12	59.1	183	29	13.34	83.33	1.29	9.2
February	12,842	617	2.61	54.43	1.16	61.7	199	33	13.77	82.99	1.45	18.9
March	13,424	629	2.68	57.20	1.49	66.8	126	21	13.43	82.27	1.63	12.7
April	12,978	629	2.63	54.29	1.15	69.1	223	36	12.89	79.74	1.54	20.8
May	12,720	623	2.51	51.21	0.97	67.9	92	15	14.12	86.68	1.48	8.9
June	11,705	567	2.49	51.38	1.22	64.6	131	21	13.04	79.96	1.55	14.0
July	11,385	551	2.45	50.57	1.32	65.0	80	13	11.99	74.33	1.41	11.2
Year to Date												
2017	113,666	5,420	2.50	52.40	1.28	71.1	978	157	11.14	69.44	1.22	15.9
2018	99,886	4,807	2.49	51.81	1.22	63.9	1,375	221	12.98	80.94	1.32	13.9
2019	88,314	4,266	2.56	53.04	1.20	64.7	1,034	168	13.26	81.55	1.48	13.3
Rolling 12 Months Ending in July												
2018	178,857	8,566	2.49	51.95	1.32	66.5	2,247	361	12.30	76.57	1.46	14.1
2019	153,573	7,419	2.53	52.27	1.23	64.3	1,978	319	13.69	84.79	1.44	14.9

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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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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, 2009 - July 2019 (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												
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
2018	1,911	71	1.75	47.47	5.74	7.9	772,950	751,129	3.36	3.46	57.3	3.23
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	57.4	3.42
February	0	0	--	--	--	0.0	59,419	57,646	3.42	3.52	56.8	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	58.5	3.03
July	160	6	1.70	45.10	5.83	7.5	66,384	64,680	3.02	3.10	57.7	2.93
August	260	10	1.78	46.99	5.55	13.4	67,289	65,321	3.11	3.21	57.6	3.03
Sept	664	25	1.78	47.54	6.02	30.8	66,074	64,330	3.11	3.19	59.5	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	59.4	3.75
December	178	6	1.70	47.00	5.53	7.8	66,052	63,969	4.70	4.85	54.6	4.31
Year 2019												
January	0	0	--	--	--	0.0	72,541	70,439	3.77	3.89	58.5	3.60
February	0	0	--	--	--	0.0	63,912	61,868	3.45	3.56	57.8	3.34
March	0	0	--	--	--	0.0	65,584	63,706	3.13	3.22	57.2	3.07
April	0	0	--	--	--	0.0	63,841	62,075	2.85	2.93	58.8	2.84
May	0	0	--	--	--	0.0	65,305	63,475	2.75	2.83	58.2	2.73
June	0	0	--	--	--	0.0	63,184	61,402	2.63	2.71	56.6	2.63
July	43	2	1.71	46.96	5.81	1.8	67,946	65,986	2.49	2.57	58.0	2.49
Year to Date												
2017	525	19	1.25	35.18	5.80	3.0	473,183	458,555	3.25	3.35	63.4	3.12
2018	160	6	1.70	45.10	5.83	1.2	439,600	427,078	3.13	3.23	57.0	3.04
2019	43	2	1.71	46.96	5.81	0.3	462,313	448,951	3.02	3.11	57.9	2.97
Rolling 12 Months Ending in July												
2018	1,991	72	1.69	46.45	5.85	7.6	769,853	747,264	3.11	3.20	58.2	3.01
2019	1,794	66	1.76	47.67	5.73	7.4	795,663	773,002	3.29	3.39	57.9	3.19

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 and 2019 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 4.6.A. Receipts of Coal Delivered for Electricity Generation by State, July 2019 and 2018 (Thousand Tons)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	3	41	-91.0%	0	0	3	41	0	0	0	0
Connecticut	0	38	-100.0%	0	0	0	38	0	0	0	0
Maine	3	3	33.0%	0	0	3	3	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	1,183	1,417	-16.0%	0	0	1,172	1,417	0	0	11	0
New Jersey	43	24	81.0%	0	0	43	24	0	0	0	0
New York	0	28	-100.0%	0	0	0	28	0	0	0	0
Pennsylvania	1,140	1,365	-16.0%	0	0	1,129	1,365	0	0	11	0
East North Central	10,743	11,640	-7.7%	6,714	6,757	3,886	4,733	0	0	144	149
Illinois	2,786	3,370	-17.0%	631	460	2,012	2,761	0	0	143	149
Indiana	2,500	2,575	-2.9%	2,364	2,384	135	191	0	0	0	0
Michigan	2,143	2,087	2.7%	2,125	2,069	18	18	0	0	1	0
Ohio	1,929	1,961	-1.6%	208	197	1,721	1,764	0	0	0	0
Wisconsin	1,386	1,647	-16.0%	1,386	1,647	0	0	0	0	0	0
West North Central	9,428	10,235	-7.9%	9,179	9,889	0	0	0	0	250	347
Iowa	1,452	1,244	17.0%	1,264	1,036	0	0	0	0	188	207
Kansas	664	1,214	-45.0%	664	1,214	0	0	0	0	0	0
Minnesota	1,239	986	26.0%	1,239	926	0	0	0	0	0	60
Missouri	2,656	3,297	-19.0%	2,656	3,297	0	0	0	0	0	0
Nebraska	1,144	1,260	-9.2%	1,082	1,181	0	0	0	0	62	80
North Dakota	2,132	2,093	1.9%	2,132	2,093	0	0	0	0	0	0
South Dakota	142	142	0.1%	142	142	0	0	0	0	0	0
South Atlantic	6,331	6,487	-2.4%	5,654	5,606	618	817	0	0	58	64
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	668	893	-25.0%	659	893	0	0	0	0	9	0
Georgia	1,394	1,295	7.7%	1,383	1,283	0	0	0	0	11	12
Maryland	185	329	-44.0%	0	0	185	317	0	0	0	12
North Carolina	1,143	1,057	8.1%	1,112	1,037	13	2	0	0	18	18
South Carolina	672	463	45.0%	668	458	0	0	0	0	4	5
Virginia	295	442	-33.0%	258	372	21	53	0	0	16	17
West Virginia	1,972	2,008	-1.8%	1,574	1,563	398	445	0	0	0	0
East South Central	5,002	5,106	-2.0%	4,695	4,720	259	318	0	0	48	69
Alabama	1,324	1,404	-5.7%	1,324	1,404	0	0	0	0	0	0
Kentucky	2,537	2,626	-3.4%	2,537	2,626	0	0	0	0	0	0
Mississippi	374	489	-24.0%	115	171	259	318	0	0	0	0
Tennessee	768	587	31.0%	720	518	0	0	0	0	48	69
West South Central	8,403	9,586	-12.0%	4,456	5,292	3,929	4,274	0	0	19	19
Arkansas	1,385	1,543	-10.0%	1,249	1,340	132	199	0	0	4	4
Louisiana	555	610	-9.0%	490	413	65	197	0	0	0	0
Oklahoma	420	766	-45.0%	347	636	59	115	0	0	15	14
Texas	6,042	6,666	-9.3%	2,370	2,903	3,673	3,763	0	0	0	0
Mountain	7,435	7,210	3.1%	6,502	6,658	933	552	0	0	0	0
Arizona	1,285	1,587	-19.0%	1,285	1,587	0	0	0	0	0	0
Colorado	1,100	1,205	-8.7%	1,100	1,205	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	830	421	97.0%	26	26	804	394	0	0	0	0
Nevada	155	173	-11.0%	109	96	46	77	0	0	0	0
New Mexico	903	820	10.0%	903	820	0	0	0	0	0	0
Utah	1,143	1,051	8.7%	1,107	1,015	35	37	0	0	0	0
Wyoming	2,021	1,954	3.4%	1,973	1,909	47	44	0	0	0	0
Pacific Contiguous	529	366	45.0%	154	110	353	201	0	0	22	55
California	22	55	-60.0%	0	0	0	0	0	0	22	55
Oregon	154	110	40.0%	154	110	0	0	0	0	0	0
Washington	353	201	76.0%	0	0	353	201	0	0	0	0
Pacific Noncontiguous	32	76	-58.0%	32	13	0	63	0	0	0	0
Alaska	32	13	147.0%	32	13	0	0	0	0	0	0
Hawaii	0	63	-100.0%	0	0	0	63	0	0	0	0
U.S. Total	49,089	52,164	-5.9%	37,385	39,045	11,154	12,416	0	0	551	703

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Notes:
See Glossary for definitions. Values 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.
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) July 2019 and 2018 (Thousand Tons)

Census Division and State	All Sectors			Electric Power Sector							
				Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	87	187	-53.0%	49	45	39	142	0	0	0	0
Connecticut	0	105	-100.0%	0	0	0	105	0	0	0	0
Maine	39	37	5.4%	0	0	39	37	0	0	0	0
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	49	45	7.6%	49	45	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	11,253	11,204	0.4%	0	0	11,209	11,141	0	0	43	63
New Jersey	345	344	0.3%	0	0	345	344	0	0	0	0
New York	69	228	-70.0%	0	0	69	220	0	0	0	9
Pennsylvania	10,839	10,632	1.9%	0	0	10,796	10,577	0	0	43	55
East North Central	72,512	75,607	-4.1%	42,172	44,792	29,284	29,686	0	0	1,056	1,130
Illinois	21,118	23,728	-11.0%	4,119	4,492	15,972	18,150	0	0	1,027	1,086
Indiana	17,153	16,982	1.0%	15,987	15,825	1,166	1,156	0	0	0	0
Michigan	12,090	11,216	7.8%	11,996	11,114	94	98	0	0	1	4
Ohio	13,540	13,061	3.7%	1,489	2,780	12,051	10,281	0	0	0	0
Wisconsin	8,610	10,621	-19.0%	8,582	10,581	0	0	0	0	28	40
West North Central	59,165	64,063	-7.6%	57,356	62,118	0	0	5	6	1,804	1,940
Iowa	8,886	8,165	8.8%	7,598	6,835	0	0	0	0	1,288	1,330
Kansas	6,083	6,652	-8.6%	6,083	6,652	0	0	0	0	0	0
Minnesota	7,059	6,472	9.1%	6,991	6,353	0	0	0	0	68	119
Missouri	16,436	20,758	-21.0%	16,431	20,752	0	0	5	6	0	0
Nebraska	7,285	7,180	1.5%	6,838	6,689	0	0	0	0	447	490
North Dakota	12,439	13,867	-10.0%	12,439	13,867	0	0	0	0	0	0
South Dakota	978	970	0.7%	978	970	0	0	0	0	0	0
South Atlantic	45,244	44,033	2.7%	40,200	37,439	4,538	6,043	0	0	506	552
Delaware	71	0	--	0	0	71	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	5,344	6,539	-18.0%	5,311	6,489	0	0	0	0	33	50
Georgia	8,916	7,795	14.0%	8,834	7,715	0	0	0	0	83	81
Maryland	1,678	2,476	-32.0%	0	0	1,586	2,359	0	0	92	117
North Carolina	7,520	6,539	15.0%	7,348	6,351	35	39	0	0	138	149
South Carolina	4,711	3,264	44.0%	4,696	3,255	0	0	0	0	15	9
Virginia	1,737	2,828	-39.0%	1,395	2,371	196	310	0	0	146	147
West Virginia	15,266	14,593	4.6%	12,617	11,258	2,650	3,335	0	0	0	0
East South Central	31,712	32,996	-3.9%	29,854	30,656	1,491	1,795	0	0	367	545
Alabama	7,953	9,167	-13.0%	7,953	9,167	0	0	0	0	0	0
Kentucky	17,721	17,709	0.1%	17,721	17,709	0	0	0	0	0	0
Mississippi	2,300	2,696	-15.0%	809	901	1,491	1,795	0	0	0	0
Tennessee	3,739	3,424	9.2%	3,371	2,879	0	0	0	0	367	545
West South Central	52,989	57,485	-7.8%	27,960	31,036	24,901	26,231	0	0	128	218
Arkansas	7,978	8,962	-11.0%	6,758	7,329	1,181	1,580	0	0	38	53
Louisiana	3,621	3,972	-8.8%	2,838	2,561	783	1,411	0	0	0	0
Oklahoma	3,020	5,212	-42.0%	2,728	4,474	201	573	0	0	90	165
Texas	38,371	39,339	-2.5%	15,635	16,672	22,736	22,667	0	0	0	0
Mountain	45,247	45,377	-0.3%	39,731	40,317	5,516	5,060	0	0	0	0
Arizona	8,435	9,441	-11.0%	8,435	9,441	0	0	0	0	0	0
Colorado	8,152	8,355	-2.4%	8,152	8,355	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	4,786	4,331	10.0%	162	119	4,624	4,213	0	0	0	0
Nevada	1,091	493	121.0%	747	182	344	311	0	0	0	0
New Mexico	4,810	3,840	25.0%	4,810	3,840	0	0	0	0	0	0
Utah	6,341	6,528	-2.9%	6,098	6,289	244	239	0	0	0	0
Wyoming	11,631	12,389	-6.1%	11,327	12,093	304	297	0	0	0	0
Pacific Contiguous	3,910	1,656	136.0%	889	124	2,661	1,173	0	0	361	359
California	361	359	0.3%	0	0	0	0	0	0	361	359
Oregon	889	124	618.0%	889	124	0	0	0	0	0	0
Washington	2,661	1,173	127.0%	0	0	2,661	1,173	0	0	0	0
Pacific Noncontiguous	550	530	3.8%	189	103	361	427	0	0	0	0
Alaska	189	103	83.0%	189	103	0	0	0	0	0	0
Hawaii	361	427	-15.0%	0	0	361	427	0	0	0	0
U.S. Total	322,669	333,139	-3.1%	238,399	246,629	79,999	81,697	5	6	4,266	4,807

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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 4.7.A. Receipts of Petroleum Liquids Delivered for Electricity Generation by State, July 2019 and 2018 (Thousand Barrels)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	2	3	-50.0%	0	1	2	3	0	0	0	0
Connecticut	0	2	-92.0%	0	0	0	2	0	0	0	0
Maine	2	0	488.0%	0	0	2	0	0	0	0	0
Massachusetts	0	0	-100.0%	0	0	0	0	0	0	0	0
New Hampshire	0	1	-100.0%	0	1	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	19	43	-57.0%	0	0	12	33	0	0	6	10
New Jersey	1	1	-20.0%	0	0	1	1	0	0	0	0
New York	2	6	-68.0%	0	0	2	2	0	0	0	4
Pennsylvania	16	37	-56.0%	0	0	10	30	0	0	6	7
East North Central	68	39	73.0%	46	22	21	16	0	0	1	1
Illinois	5	6	-25.0%	0	0	5	6	0	0	0	0
Indiana	28	17	67.0%	28	17	0	0	0	0	0	0
Michigan	15	5	221.0%	14	5	0	0	0	0	1	0
Ohio	18	12	55.0%	1	1	17	9	0	0	0	1
Wisconsin	2	0	--	2	0	0	0	0	0	0	0
West North Central	24	28	-16.0%	24	28	0	0	0	0	0	0
Iowa	7	7	5.3%	7	7	0	0	0	0	0	0
Kansas	5	7	-28.0%	5	7	0	0	0	0	0	0
Minnesota	1	2	-43.0%	1	2	0	0	0	0	0	0
Missouri	10	9	8.2%	10	9	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	1	3	-80.0%	1	3	0	0	0	0	0	0
South Dakota	0	1	-100.0%	0	1	0	0	0	0	0	0
South Atlantic	109	186	-42.0%	93	146	11	30	0	0	5	11
Delaware	2	4	-50.0%	0	0	2	4	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	38	24	56.0%	37	18	0	0	0	0	1	7
Georgia	9	6	50.0%	7	5	0	0	0	0	2	1
Maryland	8	7	26.0%	0	0	8	7	0	0	0	0
North Carolina	15	17	-9.6%	14	14	0	0	0	0	2	3
South Carolina	7	3	130.0%	7	3	0	0	0	0	0	0
Virginia	5	115	-96.0%	4	95	0	20	0	0	0	0
West Virginia	24	11	121.0%	24	11	0	0	0	0	0	0
East South Central	23	31	-23.0%	23	31	0	0	0	0	0	0
Alabama	3	12	-74.0%	3	12	0	0	0	0	0	0
Kentucky	9	10	-14.0%	9	10	0	0	0	0	0	0
Mississippi	2	1	268.0%	2	1	0	0	0	0	0	0
Tennessee	10	9	16.0%	10	9	0	0	0	0	0	0
West South Central	12	21	-41.0%	7	15	5	6	0	0	0	0
Arkansas	4	0	--	0	0	4	0	0	0	0	0
Louisiana	1	2	-20.0%	1	2	0	0	0	0	0	0
Oklahoma	1	5	-87.0%	1	5	0	0	0	0	0	0
Texas	6	14	-54.0%	5	8	1	6	0	0	0	0
Mountain	18	32	-44.0%	17	27	1	5	0	0	0	0
Arizona	2	11	-81.0%	2	11	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	5	-100.0%	0	0	0	5	0	0	0	0
Nevada	3	3	0.0%	2	2	1	0	0	0	0	0
New Mexico	4	5	-17.0%	4	5	0	0	0	0	0	0
Utah	2	2	16.0%	2	2	0	0	0	0	0	0
Wyoming	7	8	-5.7%	7	8	0	0	0	0	0	0
Pacific Contiguous	3	4	-24.0%	0	0	3	4	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	3	4	-24.0%	0	0	3	4	0	0	0	0
Pacific Noncontiguous	699	741	-5.6%	518	566	182	175	0	0	0	0
Alaska	3	2	91.0%	3	2	0	0	0	0	0	0
Hawaii	696	739	-5.8%	514	564	182	175	0	0	0	0
U.S. Total	977	1,129	-13.0%	728	836	236	271	0	0	13	22

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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) July 2019 and 2018 (Thousand Barrels)

				Electric Power Sector							
Census Division and State	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	193	1,142	-83.0%	8	116	185	1,027	0	0	0	0
Connecticut	6	185	-97.0%	0	0	6	185	0	0	0	0
Maine	128	254	-49.0%	0	0	128	254	0	0	0	0
Massachusetts	51	420	-88.0%	0	12	51	408	0	0	0	0
New Hampshire	8	183	-95.0%	8	104	0	80	0	0	0	0
Rhode Island	0	100	-100.0%	0	0	0	100	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	650	2,735	-76.0%	295	839	315	1,838	0	0	40	58
New Jersey	23	217	-89.0%	0	0	23	217	0	0	0	0
New York	381	1,905	-80.0%	295	839	86	1,050	0	0	0	15
Pennsylvania	246	613	-60.0%	0	0	206	571	0	0	40	43
East North Central	550	457	20.0%	313	254	213	187	0	0	23	17
Illinois	53	49	8.3%	2	2	51	46	0	0	0	0
Indiana	135	104	29.0%	135	103	0	1	0	0	0	0
Michigan	84	88	-4.6%	75	84	0	0	0	0	9	4
Ohio	253	175	45.0%	84	34	155	129	0	0	15	12
Wisconsin	25	42	-40.0%	17	31	8	11	0	0	0	0
West North Central	295	298	-0.9%	295	298	0	0	0	0	0	0
Iowa	71	80	-11.0%	71	80	0	0	0	0	0	0
Kansas	54	55	-2.5%	54	55	0	0	0	0	0	0
Minnesota	21	17	25.0%	21	17	0	0	0	0	0	0
Missouri	93	100	-6.6%	93	100	0	0	0	0	0	0
Nebraska	11	3	215.0%	11	3	0	0	0	0	0	0
North Dakota	45	38	18.0%	45	38	0	0	0	0	0	0
South Dakota	0	4	-100.0%	0	4	0	0	0	0	0	0
South Atlantic	809	2,759	-71.0%	617	1,949	91	666	0	0	101	144
Delaware	3	78	-97.0%	0	0	3	78	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	123	294	-58.0%	102	264	0	0	0	0	21	30
Georgia	123	169	-27.0%	71	113	1	25	0	0	50	30
Maryland	75	394	-81.0%	0	0	75	394	0	0	0	0
North Carolina	171	662	-74.0%	155	631	0	0	0	0	16	30
South Carolina	62	266	-77.0%	57	191	0	43	0	0	5	33
Virginia	112	727	-85.0%	91	602	12	105	0	0	9	21
West Virginia	141	168	-16.0%	141	148	0	20	0	0	0	0
East South Central	181	233	-22.0%	170	173	8	58	0	0	3	2
Alabama	20	110	-81.0%	12	52	8	58	0	0	0	0
Kentucky	84	71	19.0%	84	71	0	0	0	0	0	0
Mississippi	17	12	38.0%	17	12	0	0	0	0	0	0
Tennessee	60	40	49.0%	56	38	0	0	0	0	3	2
West South Central	139	114	21.0%	101	88	37	26	0	0	0	0
Arkansas	42	29	48.0%	25	22	17	7	0	0	0	0
Louisiana	7	7	2.0%	7	7	0	0	0	0	0	0
Oklahoma	22	21	2.5%	22	21	0	0	0	0	0	0
Texas	67	57	18.0%	47	38	20	19	0	0	0	0
Mountain	239	176	35.0%	222	160	17	17	0	0	0	0
Arizona	83	59	42.0%	83	59	0	0	0	0	0	0
Colorado	2	4	-46.0%	2	4	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	13	13	5.2%	0	0	13	13	0	0	0	0
Nevada	17	11	60.0%	14	8	3	3	0	0	0	0
New Mexico	29	14	108.0%	29	14	0	0	0	0	0	0
Utah	57	43	32.0%	57	42	0	1	0	0	0	0
Wyoming	37	33	11.0%	37	33	0	0	0	0	0	0
Pacific Contiguous	17	7	148.0%	6	0	10	7	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	17	7	148.0%	6	0	10	7	0	0	0	0
Pacific Noncontiguous	5,179	5,010	3.4%	4,148	4,025	1,031	985	0	0	0	0
Alaska	13	2	556.0%	13	2	0	0	0	0	0	0
Hawaii	5,165	5,008	3.1%	4,134	4,023	1,031	985	0	0	0	0
U.S. Total	8,250	12,931	-36.0%	6,174	7,901	1,907	4,809	0	0	168	221

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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 4.8.A. Receipts of Petroleum Coke Delivered for Electricity Generation by State, July 2019 and 2018 (Thousand Tons)

Census Division and State	All Sectors			Electric Power Sector							
				Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
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	47	60	-22.0%	47	60	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	44	54	-18.0%	44	54	0	0	0	0	0	0
Ohio	0	0	--	0	0	0	0	0	0	0	0
Wisconsin	3	6	-52.0%	3	6	0	0	0	0	0	0
West North Central	2	6	-74.0%	0	0	0	0	0	0	2	6
Iowa	2	6	-74.0%	0	0	0	0	0	0	2	6
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	37	94	-60.0%	37	94	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	37	94	-60.0%	37	94	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	115	133	-13.0%	115	133	0	0	0	0	0	0
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	115	133	-13.0%	115	133	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	201	293	-31.0%	199	287	0	0	0	0	2	6

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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 4.8.B. Receipts of Petroleum Coke Delivered for Electricity Generation by State, (Year-to-Date) July 2019 and 2018 (Thousand Tons)

Census Division and State	All Sectors			Electric Power Sector							
				Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 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	176	363	-51.0%	176	363	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	153	328	-53.0%	153	328	0	0	0	0	0	0
Ohio	0	0	--	0	0	0	0	0	0	0	0
Wisconsin	23	35	-34.0%	23	35	0	0	0	0	0	0
West North Central	2	6	-74.0%	0	0	0	0	0	0	2	6
Iowa	2	6	-74.0%	0	0	0	0	0	0	2	6
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	266	544	-51.0%	266	544	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	266	544	-51.0%	266	544	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	638	830	-23.0%	638	830	0	0	0	0	0	0
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	638	830	-23.0%	638	830	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	1,081	1,743	-38.0%	1,080	1,737	0	0	0	0	2	6

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Petroleum Coke includes petroleum coke-derived synthesis gas.
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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, July 2019 and 2018
(Million Cubic Feet)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	37,488	37,288	0.5%	284	323	37,204	36,965	0	0	0	0
Connecticut	15,024	13,091	15.0%	0	0	15,024	13,091	0	0	0	0
Maine	865	1,400	-38.0%	0	0	865	1,400	0	0	0	0
Massachusetts	13,489	14,983	-10.0%	255	173	13,234	14,810	0	0	0	0
New Hampshire	4,249	4,188	1.5%	30	150	4,220	4,038	0	0	0	0
Rhode Island	3,862	3,626	6.5%	0	0	3,862	3,626	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	149,154	126,965	17.0%	14,216	13,089	134,091	112,989	0	0	847	887
New Jersey	29,729	29,684	0.2%	0	0	29,729	29,684	0	0	0	0
New York	47,486	43,491	9.2%	14,216	13,089	32,630	29,759	0	0	641	642
Pennsylvania	71,939	53,790	34.0%	0	0	71,733	53,546	0	0	206	245
East North Central	104,556	86,714	21.0%	36,931	31,779	66,141	53,255	524	591	961	1,088
Illinois	14,518	11,127	30.0%	1,818	1,286	12,697	9,835	0	0	3	6
Indiana	19,091	16,962	13.0%	8,746	7,231	10,345	9,732	0	0	0	0
Michigan	26,555	20,852	27.0%	9,694	7,618	15,976	12,194	524	591	361	449
Ohio	31,321	25,363	23.0%	5,984	5,320	24,970	19,616	0	0	366	427
Wisconsin	13,072	12,411	5.3%	10,688	10,325	2,153	1,879	0	0	231	207
West North Central	20,843	18,887	10.0%	17,881	15,923	2,397	2,222	177	169	389	574
Iowa	7,466	7,084	5.4%	7,081	6,524	0	0	0	0	385	560
Kansas	2,413	1,968	23.0%	2,413	1,968	0	0	0	0	0	0
Minnesota	4,720	4,495	5.0%	4,464	4,259	251	222	2	1	4	13
Missouri	5,562	4,893	14.0%	3,241	2,725	2,146	2,000	175	168	0	0
Nebraska	488	372	31.0%	488	372	0	0	0	0	0	0
North Dakota	194	75	158.0%	194	75	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	269,532	253,865	6.2%	220,525	205,364	46,023	45,285	0	0	2,984	3,216
Delaware	4,447	2,583	72.0%	0	0	4,447	2,583	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	123,054	116,634	5.5%	117,804	110,104	4,824	6,130	0	0	426	400
Georgia	35,904	33,896	5.9%	26,358	25,895	8,885	7,265	0	0	661	736
Maryland	10,834	10,298	5.2%	3,598	3,270	7,236	6,791	0	0	0	237
North Carolina	29,050	34,540	-16.0%	23,111	30,880	5,680	3,447	0	0	259	213
South Carolina	19,467	19,644	-0.9%	19,183	14,047	187	5,550	0	0	96	46
Virginia	44,371	34,542	28.0%	30,079	21,018	13,439	12,627	0	0	853	896
West Virginia	2,404	1,730	39.0%	392	149	1,324	893	0	0	689	687
East South Central	102,798	98,948	3.9%	69,427	65,076	31,176	32,139	0	0	2,196	1,733
Alabama	41,694	41,277	1.0%	15,130	13,409	26,564	27,868	0	0	0	0
Kentucky	10,686	10,098	5.8%	9,680	9,129	1,006	969	0	0	0	0
Mississippi	37,384	35,758	4.5%	33,778	32,456	3,605	3,302	0	0	0	0
Tennessee	13,034	11,815	10.0%	10,838	10,082	0	0	0	0	2,196	1,733
West South Central	312,630	309,566	1.0%	104,949	100,138	151,040	154,686	0	0	56,642	54,743
Arkansas	14,116	13,012	8.5%	12,768	11,763	1,139	1,090	0	0	210	159
Louisiana	55,039	46,395	19.0%	31,388	26,273	5,259	3,279	0	0	18,392	16,843
Oklahoma	37,450	37,218	0.6%	22,767	23,665	14,138	13,179	0	0	545	375
Texas	206,025	212,941	-3.2%	38,026	38,437	130,504	137,139	0	0	37,495	37,366
Mountain	92,573	89,230	3.7%	79,194	72,513	13,345	16,675	0	0	34	41
Arizona	40,439	35,759	13.0%	30,465	24,195	9,973	11,564	0	0	0	0
Colorado	13,964	13,053	7.0%	11,779	10,861	2,186	2,192	0	0	0	0
Idaho	1,383	1,373	0.7%	1,383	1,373	0	0	0	0	0	0
Montana	262	231	13.0%	262	231	0	0	0	0	0	0
Nevada	20,014	23,602	-15.0%	20,014	23,602	0	0	0	0	0	0
New Mexico	9,333	7,722	21.0%	8,147	4,804	1,186	2,918	0	0	0	0
Utah	6,834	7,260	-5.9%	6,800	7,219	0	0	0	0	34	41
Wyoming	343	229	50.0%	343	228	0	1	0	0	0	0
Pacific Contiguous	69,957	92,501	-24.0%	27,377	30,767	40,646	59,335	0	0	1,934	2,400
California	50,622	73,814	-31.0%	17,935	21,715	30,752	49,699	0	0	1,934	2,400
Oregon	11,383	11,081	2.7%	4,414	4,304	6,969	6,776	0	0	0	0
Washington	7,953	7,607	4.6%	5,028	4,748	2,925	2,859	0	0	0	0
Pacific Noncontiguous	83	18	371.0%	83	18	0	0	0	0	0	0
Alaska	83	18	371.0%	83	18	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	1,159,615	1,113,981	4.1%	570,866	534,990	522,062	513,551	701	760	65,986	64,680

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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.

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) July 2019 and 2018 (Million Cubic Feet)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	172,326	168,539	2.2%	339	477	171,987	168,062	0	0	0	0
Connecticut	77,271	67,413	15.0%	0	0	77,271	67,413	0	0	0	0
Maine	4,142	5,825	-29.0%	0	0	4,142	5,825	0	0	0	0
Massachusetts	60,291	67,891	-11.0%	293	278	59,998	67,613	0	0	0	0
New Hampshire	12,322	10,098	22.0%	46	199	12,275	9,899	0	0	0	0
Rhode Island	18,300	17,311	5.7%	0	0	18,300	17,311	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	701,971	602,991	16.0%	53,269	51,273	642,885	545,600	0	0	5,816	6,119
New Jersey	153,399	140,675	9.0%	0	0	153,399	140,675	0	0	0	0
New York	195,192	188,569	3.5%	53,269	51,273	137,580	132,934	0	0	4,343	4,361
Pennsylvania	353,380	273,748	29.0%	0	0	351,906	271,990	0	0	1,474	1,757
East North Central	564,074	489,412	15.0%	189,217	177,135	362,375	299,623	4,096	3,897	8,385	8,757
Illinois	48,364	41,395	17.0%	5,002	4,214	43,346	37,156	0	0	17	24
Indiana	108,244	93,090	16.0%	45,313	42,907	62,931	50,184	0	0	0	0
Michigan	137,502	142,556	-3.5%	35,283	41,996	94,596	92,764	4,096	3,897	3,526	3,899
Ohio	193,792	151,206	28.0%	35,497	34,137	154,876	113,883	0	0	3,418	3,186
Wisconsin	76,173	61,164	25.0%	68,123	53,881	6,626	5,636	0	0	1,424	1,648
West North Central	103,581	98,830	4.8%	89,339	84,868	10,446	9,963	1,217	1,237	2,579	2,763
Iowa	36,253	36,608	-1.0%	33,729	33,883	0	0	0	0	2,524	2,725
Kansas	11,072	13,747	-19.0%	11,072	13,747	0	0	0	0	0	0
Minnesota	25,848	21,226	22.0%	25,359	20,491	431	692	4	4	54	38
Missouri	27,463	25,405	8.1%	16,236	14,902	10,014	9,271	1,213	1,232	0	0
Nebraska	1,814	1,468	24.0%	1,814	1,468	0	0	0	0	0	0
North Dakota	1,130	375	201.0%	1,130	375	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	1,486,016	1,386,651	7.2%	1,238,569	1,139,394	226,447	226,634	0	0	21,000	20,623
Delaware	14,431	17,497	-18.0%	0	0	14,431	17,497	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	708,514	670,946	5.6%	684,506	642,703	21,386	25,941	0	0	2,622	2,302
Georgia	203,497	192,498	5.7%	153,697	146,183	44,998	40,983	0	0	4,802	5,332
Maryland	56,160	45,868	22.0%	17,927	10,509	37,081	33,771	0	0	1,151	1,588
North Carolina	168,771	175,888	-4.0%	136,019	156,409	30,980	17,816	0	0	1,771	1,663
South Carolina	100,418	83,652	20.0%	94,775	67,140	5,020	15,987	0	0	622	525
Virginia	225,358	192,530	17.0%	150,444	115,304	68,836	71,497	0	0	6,079	5,728
West Virginia	8,868	7,772	14.0%	1,201	1,146	3,714	3,141	0	0	3,953	3,485
East South Central	544,187	558,056	-2.5%	363,684	374,057	164,647	172,728	0	0	15,857	11,272
Alabama	218,925	220,004	-0.5%	76,906	72,608	142,018	147,396	0	0	0	0
Kentucky	55,116	62,900	-12.0%	52,675	58,349	2,441	4,551	0	0	0	0
Mississippi	193,420	215,501	-10.0%	173,233	194,720	20,188	20,781	0	0	0	0
Tennessee	76,727	59,651	29.0%	60,870	48,379	0	0	0	0	15,857	11,272
West South Central	1,639,391	1,595,157	2.8%	491,973	469,526	767,729	764,761	0	0	379,689	360,871
Arkansas	72,183	79,247	-8.9%	62,747	70,123	7,831	7,769	0	0	1,604	1,355
Louisiana	312,540	269,783	16.0%	160,935	132,842	23,254	21,342	0	0	128,351	115,599
Oklahoma	167,174	170,135	-1.7%	101,831	100,589	62,415	67,482	0	0	2,928	2,065
Texas	1,087,495	1,075,993	1.1%	166,460	165,972	674,229	668,169	0	0	246,807	241,852
Mountain	434,873	379,546	15.0%	367,428	319,579	67,334	59,581	0	0	111	386
Arizona	180,084	131,144	37.0%	134,328	97,881	45,756	33,264	0	0	0	0
Colorado	69,316	67,919	2.1%	60,023	58,338	9,293	9,580	0	0	0	0
Idaho	5,212	2,484	110.0%	5,212	2,484	0	0	0	0	0	0
Montana	1,486	1,540	-3.5%	1,486	1,540	0	0	0	0	0	0
Nevada	94,263	102,268	-7.8%	94,263	102,268	0	0	0	0	0	0
New Mexico	46,963	46,068	1.9%	34,689	29,340	12,274	16,728	0	0	0	0
Utah	36,110	27,346	32.0%	35,998	26,960	0	0	0	0	111	386
Wyoming	1,439	777	85.0%	1,429	768	10	9	0	0	0	0
Pacific Contiguous	339,382	352,743	-3.8%	125,498	132,799	198,371	203,655	0	0	15,514	16,289
California	252,382	285,575	-12.0%	87,091	101,846	149,776	167,440	0	0	15,514	16,289
Oregon	58,945	44,576	32.0%	21,504	18,475	37,442	26,101	0	0	0	0
Washington	28,055	22,592	24.0%	16,903	12,478	11,152	10,115	0	0	0	0
Pacific Noncontiguous	381	822	-54.0%	381	822	0	0	0	0	0	0
Alaska	381	822	-54.0%	381	822	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	5,986,182	5,632,749	6.3%	2,919,697	2,749,931	2,612,220	2,450,606	5,314	5,134	448,951	427,078

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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, July 2019 and 2018
(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018
New England	W	W	W	--	--	W	W
Connecticut	--	W	W	--	--	--	W
Maine	W	W	W	--	--	W	W
Massachusetts	--	--	--	--	--	--	--
New Hampshire	--	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--
Middle Atlantic	1.93	2.04	-5.4%	--	--	1.93	2.04
New Jersey	W	W	W	--	--	W	W
New York	--	W	W	--	--	--	W
Pennsylvania	W	W	W	--	--	W	W
East North Central	2.00	1.99	0.5%	2.12	2.12	1.81	1.82
Illinois	W	1.78	W	1.96	1.90	W	1.76
Indiana	W	W	W	2.16	2.13	W	W
Michigan	W	W	W	2.08	2.07	W	W
Ohio	1.79	W	W	1.77	1.72	1.79	W
Wisconsin	2.26	2.30	-1.7%	2.26	2.30	--	--
West North Central	1.62	1.70	-4.7%	1.62	1.70	--	--
Iowa	1.53	1.65	-7.3%	1.53	1.65	--	--
Kansas	1.57	1.73	-9.2%	1.57	1.73	--	--
Minnesota	2.00	2.22	-9.9%	2.00	2.22	--	--
Missouri	1.65	1.81	-8.8%	1.65	1.81	--	--
Nebraska	1.24	1.24	0.0%	1.24	1.24	--	--
North Dakota	1.58	1.50	5.3%	1.58	1.50	--	--
South Dakota	1.92	2.04	-5.9%	1.92	2.04	--	--
South Atlantic	2.58	2.61	-1.1%	2.60	2.66	2.43	2.27
Delaware	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--
Florida	2.82	2.82	0.0%	2.82	2.82	--	--
Georgia	2.73	2.72	0.4%	2.73	2.72	--	--
Maryland	2.61	2.49	4.8%	--	--	2.61	2.49
North Carolina	W	W	W	2.68	3.16	W	W
South Carolina	3.16	3.20	-1.2%	3.16	3.20	--	--
Virginia	W	W	W	2.64	2.60	W	W
West Virginia	W	W	W	2.12	2.08	W	W
East South Central	W	W	W	2.06	2.11	W	W
Alabama	2.34	2.40	-2.5%	2.34	2.40	--	--
Kentucky	1.89	1.93	-2.1%	1.89	1.93	--	--
Mississippi	W	W	W	3.10	2.43	W	W
Tennessee	2.03	2.20	-7.7%	2.03	2.20	--	--
West South Central	1.85	1.87	-1.1%	2.10	2.04	1.55	1.64
Arkansas	W	W	W	1.86	2.00	W	W
Louisiana	W	W	W	3.49	2.74	W	W
Oklahoma	W	W	W	1.63	1.78	W	W
Texas	1.70	1.78	-4.5%	2.01	2.02	1.49	1.58
Mountain	W	W	W	2.07	2.06	W	W
Arizona	2.59	2.46	5.3%	2.59	2.46	--	--
Colorado	1.78	1.67	6.6%	1.78	1.67	--	--
Idaho	--	--	--	--	--	--	--
Montana	W	W	W	1.92	2.24	W	W
Nevada	W	W	W	2.86	2.61	W	W
New Mexico	2.49	2.69	-7.4%	2.49	2.69	--	--
Utah	1.99	2.04	-2.5%	1.99	2.04	--	--
Wyoming	W	W	W	1.67	1.65	W	W
Pacific Contiguous	W	W	W	2.43	2.27	W	W
California	--	--	--	--	--	--	--
Oregon	2.43	2.27	7.0%	2.43	2.27	--	--
Washington	W	W	W	--	--	W	W
Pacific Noncontiguous	3.55	W	W	3.55	3.53	--	W
Alaska	3.55	3.53	0.6%	3.55	3.53	--	--
Hawaii	--	W	W	--	--	--	W
U.S. Total	2.02	2.05	-1.5%	2.09	2.10	1.79	1.88

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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) July 2019 and 2018
(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	W	W	W	3.54	3.61	W	W
Connecticut	--	W	W	--	--	--	W
Maine	W	W	W	--	--	W	W
Massachusetts	--	--	--	--	--	--	--
New Hampshire	3.54	3.61	-1.9%	3.54	3.61	--	--
Rhode Island	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--
Middle Atlantic	1.97	2.29	-14.0%	--	--	1.97	2.29
New Jersey	W	W	W	--	--	W	W
New York	W	W	W	--	--	W	W
Pennsylvania	1.91	2.22	-14.0%	--	--	1.91	2.22
East North Central	1.99	1.98	0.5%	2.12	2.09	1.81	1.80
Illinois	W	1.76	W	1.97	1.86	W	1.73
Indiana	W	W	W	2.15	2.11	W	W
Michigan	W	W	W	2.08	2.11	W	W
Ohio	1.81	W	W	1.83	1.77	1.80	W
Wisconsin	2.25	2.26	-0.4%	2.25	2.26	--	--
West North Central	1.63	1.72	-5.2%	1.63	1.72	--	--
Iowa	1.55	1.69	-8.3%	1.55	1.69	--	--
Kansas	1.63	1.70	-4.1%	1.63	1.70	--	--
Minnesota	2.03	2.15	-5.6%	2.03	2.15	--	--
Missouri	1.68	1.83	-8.2%	1.68	1.83	--	--
Nebraska	1.22	1.25	-2.4%	1.22	1.25	--	--
North Dakota	1.60	1.52	5.3%	1.60	1.52	--	--
South Dakota	1.83	1.93	-5.2%	1.83	1.93	--	--
South Atlantic	2.61	2.63	-0.8%	2.64	2.69	2.36	2.26
Delaware	W	--	W	--	--	W	--
District of Columbia	--	--	--	--	--	--	--
Florida	2.89	2.88	0.3%	2.89	2.88	--	--
Georgia	2.73	2.79	-2.2%	2.73	2.79	--	--
Maryland	2.69	2.52	6.7%	--	--	2.69	2.52
North Carolina	W	W	W	2.93	3.08	W	W
South Carolina	3.25	3.33	-2.4%	3.25	3.33	--	--
Virginia	W	W	W	2.75	2.65	W	W
West Virginia	W	W	W	2.11	2.14	W	W
East South Central	W	W	W	2.09	2.09	W	W
Alabama	2.37	2.30	3.0%	2.37	2.30	--	--
Kentucky	1.93	1.96	-1.5%	1.93	1.96	--	--
Mississippi	W	W	W	3.14	2.61	W	W
Tennessee	2.18	2.16	0.9%	2.18	2.16	--	--
West South Central	1.90	1.85	2.7%	2.15	2.00	1.61	1.66
Arkansas	W	W	W	2.01	1.94	W	W
Louisiana	W	W	W	3.29	2.48	W	W
Oklahoma	W	W	W	1.75	1.76	W	W
Texas	1.77	1.78	-0.6%	2.07	2.02	1.56	1.59
Mountain	W	W	W	2.12	2.02	W	W
Arizona	2.65	2.45	8.2%	2.65	2.45	--	--
Colorado	1.79	1.65	8.5%	1.79	1.65	--	--
Idaho	--	--	--	--	--	--	--
Montana	W	W	W	1.98	1.97	W	W
Nevada	W	W	W	2.82	2.80	W	W
New Mexico	2.48	2.42	2.5%	2.48	2.42	--	--
Utah	1.98	2.05	-3.4%	1.98	2.05	--	--
Wyoming	W	W	W	1.80	1.74	W	W
Pacific Contiguous	W	W	W	2.23	2.26	W	W
California	--	--	--	--	--	--	--
Oregon	2.23	2.26	-1.3%	2.23	2.26	--	--
Washington	W	W	W	--	--	W	W
Pacific Noncontiguous	W	W	W	3.45	3.37	W	W
Alaska	3.45	3.37	2.4%	3.45	3.37	--	--
Hawaii	W	W	W	--	--	W	W
U.S. Total	2.05	2.05	0.0%	2.13	2.10	1.83	1.90

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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 4.11.A. Average Cost of Petroleum Liquids Delivered for Electricity Generation by State, July 2019 and 2018
(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018
New England	W	16.79	W	--	12.45	W	17.85
Connecticut	W	W	W	--	--	W	W
Maine	W	W	W	--	--	W	W
Massachusetts	--	W	W	--	--	--	W
New Hampshire	--	12.45	--	--	12.45	--	--
Rhode Island	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--
Middle Atlantic	14.51	16.70	-13.0%	--	--	14.51	16.70
New Jersey	W	W	W	--	--	W	W
New York	W	W	W	--	--	W	W
Pennsylvania	14.73	16.63	-11.0%	--	--	14.73	16.63
East North Central	14.68	16.73	-12.0%	14.26	16.84	15.57	16.56
Illinois	W	W	W	--	--	W	W
Indiana	14.42	W	W	14.42	16.64	--	W
Michigan	13.87	16.90	-18.0%	13.87	16.90	--	--
Ohio	W	16.69	W	14.67	20.50	W	16.35
Wisconsin	14.58	--	--	14.58	--	--	--
West North Central	14.67	16.58	-12.0%	14.67	16.58	--	--
Iowa	14.29	16.81	-15.0%	14.29	16.81	--	--
Kansas	14.75	16.38	-10.0%	14.75	16.38	--	--
Minnesota	18.92	17.39	8.8%	18.92	17.39	--	--
Missouri	14.32	16.83	-15.0%	14.32	16.83	--	--
Nebraska	--	--	--	--	--	--	--
North Dakota	14.81	14.84	-0.2%	14.81	14.84	--	--
South Dakota	--	17.13	--	--	17.13	--	--
South Atlantic	15.05	W	W	15.06	12.14	14.88	W
Delaware	W	W	W	--	--	W	W
District of Columbia	--	--	--	--	--	--	--
Florida	15.10	16.75	-9.9%	15.10	16.75	--	--
Georgia	15.23	15.62	-2.5%	15.23	15.62	--	--
Maryland	W	W	W	--	--	W	W
North Carolina	14.51	16.18	-10.0%	14.51	16.18	--	--
South Carolina	14.77	16.58	-11.0%	14.77	16.58	--	--
Virginia	W	W	W	15.14	10.08	W	W
West Virginia	15.35	15.50	-1.0%	15.35	15.50	--	--
East South Central	14.16	16.22	-13.0%	14.16	16.22	--	--
Alabama	15.14	16.80	-9.9%	15.14	16.80	--	--
Kentucky	14.14	16.03	-12.0%	14.14	16.03	--	--
Mississippi	14.10	15.68	-10.0%	14.10	15.68	--	--
Tennessee	13.90	15.70	-11.0%	13.90	15.70	--	--
West South Central	W	W	W	14.93	16.04	W	W
Arkansas	W	--	W	26.89	--	W	--
Louisiana	14.05	15.99	-12.0%	14.05	15.99	--	--
Oklahoma	15.63	16.09	-2.9%	15.63	16.09	--	--
Texas	W	W	W	14.69	16.03	W	W
Mountain	W	W	W	16.39	17.39	W	W
Arizona	16.91	16.25	4.1%	16.91	16.25	--	--
Colorado	--	--	--	--	--	--	--
Idaho	--	--	--	--	--	--	--
Montana	--	W	W	--	--	--	W
Nevada	W	W	W	17.44	17.41	W	W
New Mexico	19.28	18.49	4.3%	19.28	18.49	--	--
Utah	14.31	20.65	-31.0%	14.31	20.65	--	--
Wyoming	14.88	17.58	-15.0%	14.88	17.58	--	--
Pacific Contiguous	W	W	W	--	--	W	W
California	--	--	--	--	--	--	--
Oregon	--	--	--	--	--	--	--
Washington	W	W	W	--	--	W	W
Pacific Noncontiguous	W	W	W	12.67	14.35	W	W
Alaska	15.64	17.43	-10.0%	15.64	17.43	--	--
Hawaii	W	W	W	12.65	14.35	W	W
U.S. Total	13.81	14.69	-6.0%	13.28	14.29	15.49	15.97

Displayed values of zero may represent small values that round to zero.
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W = Withheld to avoid disclosure of individual company data.

Notes:
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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 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) July 2019 and 2018
(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	10.34	W	W	16.92	11.39	10.06	W
Connecticut	W	16.94	W	--	--	W	16.94
Maine	W	W	W	--	--	W	W
Massachusetts	W	W	W	--	15.00	W	W
New Hampshire	16.92	W	W	16.92	11.00	--	W
Rhode Island	--	W	W	--	--	--	W
Vermont	--	--	--	--	--	--	--
Middle Atlantic	12.91	13.57	-4.9%	11.93	12.28	13.87	14.34
New Jersey	W	15.07	W	--	--	W	15.07
New York	12.59	13.05	-3.5%	11.93	12.28	14.94	13.73
Pennsylvania	W	15.87	W	--	--	W	15.87
East North Central	W	16.07	W	14.76	16.27	W	15.78
Illinois	16.73	W	W	15.63	15.85	16.78	W
Indiana	14.77	W	W	14.77	16.18	--	W
Michigan	13.86	15.73	-12.0%	13.86	15.73	--	--
Ohio	W	15.81	W	15.56	16.38	W	15.66
Wisconsin	W	17.94	W	14.77	17.94	W	--
West North Central	14.71	16.11	-8.7%	14.71	16.11	--	--
Iowa	14.65	16.10	-9.0%	14.65	16.10	--	--
Kansas	15.04	16.22	-7.3%	15.04	16.22	--	--
Minnesota	15.47	16.71	-7.4%	15.47	16.71	--	--
Missouri	14.53	16.02	-9.3%	14.53	16.02	--	--
Nebraska	14.91	16.00	-6.8%	14.91	16.00	--	--
North Dakota	14.36	15.80	-9.1%	14.36	15.80	--	--
South Dakota	--	17.15	--	--	17.15	--	--
South Atlantic	14.77	14.21	3.9%	14.87	14.29	14.11	13.96
Delaware	W	W	W	--	--	W	W
District of Columbia	--	--	--	--	--	--	--
Florida	14.90	16.07	-7.3%	14.90	16.07	--	--
Georgia	W	W	W	14.86	15.42	W	W
Maryland	14.33	14.28	0.4%	--	--	14.33	14.28
North Carolina	14.72	17.05	-14.0%	14.72	17.05	--	--
South Carolina	15.23	16.83	-9.5%	15.23	16.83	--	--
Virginia	W	W	W	14.05	9.71	W	W
West Virginia	15.39	W	W	15.39	16.65	--	W
East South Central	W	W	W	14.54	15.86	W	W
Alabama	W	W	W	15.12	16.26	W	W
Kentucky	14.60	15.80	-7.6%	14.60	15.80	--	--
Mississippi	14.40	15.22	-5.4%	14.40	15.22	--	--
Tennessee	14.37	15.63	-8.1%	14.37	15.63	--	--
West South Central	W	15.96	W	14.55	15.95	W	16.00
Arkansas	W	W	W	15.04	15.99	W	W
Louisiana	14.64	15.04	-2.7%	14.64	15.04	--	--
Oklahoma	15.56	15.98	-2.6%	15.56	15.98	--	--
Texas	W	W	W	13.80	16.08	W	W
Mountain	W	W	W	16.71	17.82	W	W
Arizona	16.89	16.18	4.4%	16.89	16.18	--	--
Colorado	17.36	17.17	1.1%	17.36	17.17	--	--
Idaho	--	--	--	--	--	--	--
Montana	W	W	W	--	--	W	W
Nevada	W	W	W	15.77	18.35	W	W
New Mexico	18.53	17.97	3.1%	18.53	17.97	--	--
Utah	16.32	W	W	16.32	19.10	--	W
Wyoming	15.82	18.90	-16.0%	15.82	18.90	--	--
Pacific Contiguous	W	W	W	16.52	--	W	W
California	--	--	--	--	--	--	--
Oregon	--	--	--	--	--	--	--
Washington	W	W	W	16.52	--	W	W
Pacific Noncontiguous	W	W	W	13.05	13.29	W	W
Alaska	15.58	17.74	-12.0%	15.58	17.74	--	--
Hawaii	W	W	W	13.05	13.29	W	W
U.S. Total	13.72	13.83	-0.8%	13.53	13.75	14.37	13.99

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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:
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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, July 2019 and 2018
(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018
New England	--	--	--	--	--	--	--
Connecticut	--	--	--	--	--	--	--
Maine	--	--	--	--	--	--	--
Massachusetts	--	--	--	--	--	--	--
New Hampshire	--	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--
Middle Atlantic	--	--	--	--	--	--	--
New Jersey	--	--	--	--	--	--	--
New York	--	--	--	--	--	--	--
Pennsylvania	--	--	--	--	--	--	--
East North Central	1.55	1.39	12.0%	1.55	1.39	--	--
Illinois	--	--	--	--	--	--	--
Indiana	--	--	--	--	--	--	--
Michigan	1.53	1.35	13.0%	1.53	1.35	--	--
Ohio	--	--	--	--	--	--	--
Wisconsin	1.83	1.75	4.6%	1.83	1.75	--	--
West North Central	--	--	--	--	--	--	--
Iowa	--	--	--	--	--	--	--
Kansas	--	--	--	--	--	--	--
Minnesota	--	--	--	--	--	--	--
Missouri	--	--	--	--	--	--	--
Nebraska	--	--	--	--	--	--	--
North Dakota	--	--	--	--	--	--	--
South Dakota	--	--	--	--	--	--	--
South Atlantic	2.71	3.41	-21.0%	2.71	3.41	--	--
Delaware	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--
Florida	2.71	3.41	-21.0%	2.71	3.41	--	--
Georgia	--	--	--	--	--	--	--
Maryland	--	--	--	--	--	--	--
North Carolina	--	--	--	--	--	--	--
South Carolina	--	--	--	--	--	--	--
Virginia	--	--	--	--	--	--	--
West Virginia	--	--	--	--	--	--	--
East South Central	--	--	--	--	--	--	--
Alabama	--	--	--	--	--	--	--
Kentucky	--	--	--	--	--	--	--
Mississippi	--	--	--	--	--	--	--
Tennessee	--	--	--	--	--	--	--
West South Central	1.97	2.83	-30.0%	1.97	2.83	--	--
Arkansas	--	--	--	--	--	--	--
Louisiana	1.97	2.83	-30.0%	1.97	2.83	--	--
Oklahoma	--	--	--	--	--	--	--
Texas	--	--	--	--	--	--	--
Mountain	--	--	--	--	--	--	--
Arizona	--	--	--	--	--	--	--
Colorado	--	--	--	--	--	--	--
Idaho	--	--	--	--	--	--	--
Montana	--	--	--	--	--	--	--
Nevada	--	--	--	--	--	--	--
New Mexico	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--
Wyoming	--	--	--	--	--	--	--
Pacific Contiguous	--	--	--	--	--	--	--
California	--	--	--	--	--	--	--
Oregon	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--
Pacific Noncontiguous	--	--	--	--	--	--	--
Alaska	--	--	--	--	--	--	--
Hawaii	--	--	--	--	--	--	--
U.S. Total	2.01	2.73	-26.0%	2.01	2.73	--	--

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Notes:
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Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Petroleum 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) July 2019 and 2018
(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	--	--	--	--	--	--	--
Connecticut	--	--	--	--	--	--	--
Maine	--	--	--	--	--	--	--
Massachusetts	--	--	--	--	--	--	--
New Hampshire	--	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--
Middle Atlantic	--	--	--	--	--	--	--
New Jersey	--	--	--	--	--	--	--
New York	--	--	--	--	--	--	--
Pennsylvania	--	--	--	--	--	--	--
East North Central	1.58	1.52	3.9%	1.58	1.52	--	--
Illinois	--	--	--	--	--	--	--
Indiana	--	--	--	--	--	--	--
Michigan	1.54	1.50	2.7%	1.54	1.50	--	--
Ohio	--	--	--	--	--	--	--
Wisconsin	1.88	1.77	6.2%	1.88	1.77	--	--
West North Central	--	--	--	--	--	--	--
Iowa	--	--	--	--	--	--	--
Kansas	--	--	--	--	--	--	--
Minnesota	--	--	--	--	--	--	--
Missouri	--	--	--	--	--	--	--
Nebraska	--	--	--	--	--	--	--
North Dakota	--	--	--	--	--	--	--
South Dakota	--	--	--	--	--	--	--
South Atlantic	2.75	3.07	-10.0%	2.75	3.07	--	--
Delaware	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--
Florida	2.75	3.07	-10.0%	2.75	3.07	--	--
Georgia	--	--	--	--	--	--	--
Maryland	--	--	--	--	--	--	--
North Carolina	--	--	--	--	--	--	--
South Carolina	--	--	--	--	--	--	--
Virginia	--	--	--	--	--	--	--
West Virginia	--	--	--	--	--	--	--
East South Central	--	--	--	--	--	--	--
Alabama	--	--	--	--	--	--	--
Kentucky	--	--	--	--	--	--	--
Mississippi	--	--	--	--	--	--	--
Tennessee	--	--	--	--	--	--	--
West South Central	2.20	2.64	-17.0%	2.20	2.64	--	--
Arkansas	--	--	--	--	--	--	--
Louisiana	2.20	2.64	-17.0%	2.20	2.64	--	--
Oklahoma	--	--	--	--	--	--	--
Texas	--	--	--	--	--	--	--
Mountain	--	--	--	--	--	--	--
Arizona	--	--	--	--	--	--	--
Colorado	--	--	--	--	--	--	--
Idaho	--	--	--	--	--	--	--
Montana	--	--	--	--	--	--	--
Nevada	--	--	--	--	--	--	--
New Mexico	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--
Wyoming	--	--	--	--	--	--	--
Pacific Contiguous	--	--	--	--	--	--	--
California	--	--	--	--	--	--	--
Oregon	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--
Pacific Noncontiguous	--	--	--	--	--	--	--
Alaska	--	--	--	--	--	--	--
Hawaii	--	--	--	--	--	--	--
U.S. Total	2.24	2.55	-12.0%	2.24	2.55	--	--

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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, July 2019 and 2018
(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	July 2019	July 2018	Percentage Change	July 2019	July 2018	July 2019	July 2018
New England	W	W	W	2.63	4.28	W	W
Connecticut	2.40	2.96	-19.0%	--	--	2.40	2.96
Maine	W	W	W	--	--	W	W
Massachusetts	3.20	2.81	14.0%	2.47	3.21	3.22	2.81
New Hampshire	W	W	W	4.07	5.50	W	W
Rhode Island	W	W	W	--	--	W	W
Vermont	--	--	--	--	--	--	--
Middle Atlantic	2.29	2.71	-15.0%	2.36	3.09	2.28	2.66
New Jersey	2.50	2.63	-4.9%	--	--	2.50	2.63
New York	2.32	3.00	-23.0%	2.36	3.09	2.30	2.95
Pennsylvania	2.18	2.53	-14.0%	--	--	2.18	2.53
East North Central	2.34	2.93	-20.0%	2.46	3.07	2.27	2.85
Illinois	W	3.05	W	2.32	2.96	W	3.06
Indiana	2.35	2.91	-19.0%	2.45	3.03	2.27	2.83
Michigan	2.42	3.06	-21.0%	2.56	3.25	2.34	2.95
Ohio	2.19	2.82	-22.0%	2.28	3.25	2.17	2.70
Wisconsin	W	2.88	W	2.52	2.88	W	--
West North Central	W	W	W	2.26	2.81	W	W
Iowa	2.05	2.53	-19.0%	2.05	2.53	--	--
Kansas	2.44	3.13	-22.0%	2.44	3.13	--	--
Minnesota	W	W	W	2.46	3.04	W	W
Missouri	W	W	W	2.18	2.82	W	W
Nebraska	2.61	3.04	-14.0%	2.61	3.04	--	--
North Dakota	3.40	5.59	-39.0%	3.40	5.59	--	--
South Dakota	--	--	--	--	--	--	--
South Atlantic	3.06	3.61	-15.0%	3.15	3.70	2.53	3.04
Delaware	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--
Florida	W	W	W	3.41	3.99	W	W
Georgia	W	W	W	2.62	3.32	W	W
Maryland	2.61	3.21	-19.0%	2.52	3.29	2.66	3.17
North Carolina	W	W	W	3.38	3.46	W	W
South Carolina	2.88	W	W	2.88	3.41	--	W
Virginia	2.60	3.10	-16.0%	2.68	3.24	2.33	2.75
West Virginia	W	W	W	2.23	2.80	W	W
East South Central	2.57	2.95	-13.0%	2.60	2.93	2.47	3.01
Alabama	W	W	W	2.62	3.11	W	W
Kentucky	W	W	W	2.88	3.06	W	W
Mississippi	W	W	W	2.49	2.87	W	W
Tennessee	2.63	2.73	-3.7%	2.63	2.73	--	--
West South Central	2.22	2.84	-22.0%	2.19	2.80	2.25	2.88
Arkansas	W	W	W	2.31	2.89	W	W
Louisiana	W	W	W	2.48	2.99	W	W
Oklahoma	W	W	W	2.14	2.49	W	W
Texas	2.16	2.88	-25.0%	1.94	2.83	2.24	2.89
Mountain	2.13	2.90	-27.0%	2.04	2.87	2.81	3.34
Arizona	W	W	W	1.85	2.93	W	W
Colorado	W	W	W	2.54	2.92	W	W
Idaho	2.22	2.63	-16.0%	2.22	2.63	--	--
Montana	1.13	1.20	-5.8%	1.13	1.20	--	--
Nevada	2.42	2.96	-18.0%	2.42	2.96	--	--
New Mexico	0.82	2.47	-67.0%	0.82	2.47	--	--
Utah	2.22	2.63	-16.0%	2.22	2.63	--	--
Wyoming	2.04	W	W	2.04	2.69	--	W
Pacific Contiguous	2.91	6.39	-54.0%	3.04	4.40	2.80	7.88
California	3.27	7.67	-57.0%	3.60	5.40	3.01	9.07
Oregon	W	W	W	1.61	1.80	W	W
Washington	W	W	W	2.59	2.74	W	W
Pacific Noncontiguous	7.87	7.76	1.4%	7.87	7.76	--	--
Alaska	7.87	7.76	1.4%	7.87	7.76	--	--
Hawaii	--	--	--	--	--	--	--
U.S. Total	2.53	3.31	-24.0%	2.66	3.28	2.37	3.34

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 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 4.13.B. Average Cost of Natural Gas Delivered for Electricity Generation by State, (Year-to-Date) July 2019 and 2018
(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	July 2019 YTD	July 2018 YTD	Percentage Change	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	W	W	W	3.31	4.25	W	W
Connecticut	3.63	4.74	-23.0%	--	--	3.63	4.74
Maine	W	W	W	--	--	W	W
Massachusetts	5.18	5.26	-1.5%	2.89	3.29	5.19	5.27
New Hampshire	W	W	W	5.96	5.60	W	W
Rhode Island	W	W	W	--	--	W	W
Vermont	--	--	--	--	--	--	--
Middle Atlantic	2.90	3.33	-13.0%	3.58	4.19	2.83	3.23
New Jersey	3.08	3.22	-4.3%	--	--	3.08	3.22
New York	3.29	3.86	-15.0%	3.58	4.19	3.16	3.71
Pennsylvania	2.61	3.02	-14.0%	--	--	2.61	3.02
East North Central	2.73	3.01	-9.3%	2.89	3.16	2.65	2.92
Illinois	W	3.17	W	2.72	3.24	W	3.17
Indiana	2.77	3.09	-10.0%	2.91	3.25	2.67	2.95
Michigan	2.77	3.05	-9.2%	2.90	3.30	2.72	2.94
Ohio	2.60	2.84	-8.5%	2.73	2.93	2.57	2.81
Wisconsin	W	3.13	W	2.97	3.13	W	--
West North Central	W	W	W	2.79	2.90	W	W
Iowa	2.55	2.64	-3.4%	2.55	2.64	--	--
Kansas	2.99	2.96	1.0%	2.99	2.96	--	--
Minnesota	W	W	W	3.15	3.29	W	W
Missouri	W	W	W	2.54	2.74	W	W
Nebraska	2.98	3.56	-16.0%	2.98	3.56	--	--
North Dakota	3.93	5.80	-32.0%	3.93	5.80	--	--
South Dakota	--	--	--	--	--	--	--
South Atlantic	3.63	4.25	-15.0%	3.73	4.33	2.94	3.67
Delaware	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--
Florida	W	W	W	3.91	4.31	W	W
Georgia	W	W	W	3.12	3.65	W	W
Maryland	3.23	3.98	-19.0%	3.57	3.25	3.08	4.21
North Carolina	W	W	W	3.92	4.74	W	W
South Carolina	W	W	W	3.27	3.80	W	W
Virginia	3.47	4.50	-23.0%	3.68	5.15	2.77	2.96
West Virginia	W	W	W	2.64	3.21	W	W
East South Central	2.98	3.15	-5.4%	3.02	3.14	2.86	3.15
Alabama	W	W	W	3.00	3.19	W	W
Kentucky	W	W	W	3.48	3.45	W	W
Mississippi	W	W	W	2.90	3.08	W	W
Tennessee	2.99	2.95	1.4%	2.99	2.95	--	--
West South Central	2.56	2.96	-14.0%	2.55	2.95	2.57	2.98
Arkansas	W	W	W	2.69	3.03	W	W
Louisiana	W	W	W	2.80	3.17	W	W
Oklahoma	W	W	W	2.60	2.60	W	W
Texas	2.50	2.98	-16.0%	2.23	2.95	2.58	2.99
Mountain	2.69	2.97	-9.4%	2.65	2.94	3.03	3.50
Arizona	W	W	W	2.00	2.90	W	W
Colorado	W	W	W	3.19	3.57	W	W
Idaho	5.58	2.62	113.0%	5.58	2.62	--	--
Montana	1.71	1.39	23.0%	1.71	1.39	--	--
Nevada	3.28	2.82	16.0%	3.28	2.82	--	--
New Mexico	1.08	2.53	-57.0%	1.08	2.53	--	--
Utah	3.33	2.71	23.0%	3.33	2.71	--	--
Wyoming	W	W	W	2.66	2.89	W	W
Pacific Contiguous	3.98	3.99	-0.3%	4.17	3.65	3.81	4.31
California	4.17	4.44	-6.1%	4.61	4.07	3.82	4.76
Oregon	W	W	W	2.70	2.08	W	W
Washington	W	W	W	4.05	3.02	W	W
Pacific Noncontiguous	7.80	8.07	-3.3%	7.80	8.07	--	--
Alaska	7.80	8.07	-3.3%	7.80	8.07	--	--
Hawaii	--	--	--	--	--	--	--
U.S. Total	3.09	3.50	-12.0%	3.24	3.61	2.88	3.33

Displayed values of zero may represent small values that round to zero.
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W = Withheld to avoid disclosure of individual company data.

Notes:
See Glossary for definitions. Values 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, July 2019

	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	3	0.80	10.0	0	--	--	0	--	--
Connecticut	0	--	--	0	--	--	0	--	--
Maine	3	0.80	10.0	0	--	--	0	--	--
Massachusetts	0	--	--	0	--	--	0	--	--
New Hampshire	0	--	--	0	--	--	0	--	--
Rhode Island	0	--	--	0	--	--	0	--	--
Vermont	0	--	--	0	--	--	0	--	--
Middle Atlantic	1,008	2.62	9.3	0	--	--	0	--	--
New Jersey	43	1.60	8.3	0	--	--	0	--	--
New York	0	--	--	0	--	--	0	--	--
Pennsylvania	964	2.66	9.4	0	--	--	0	--	--
East North Central	5,172	3.24	10.2	5,571	0.24	4.7	0	--	--
Illinois	762	3.32	19.0	2,023	0.21	4.6	0	--	--
Indiana	2,258	2.89	9.1	241	0.25	4.7	0	--	--
Michigan	207	2.23	7.5	1,936	0.25	4.6	0	--	--
Ohio	1,929	3.70	8.9	0	--	--	0	--	--
Wisconsin	16	2.40	7.8	1,371	0.24	4.8	0	--	--
West North Central	89	3.17	9.0	7,208	0.26	5.0	2,112	0.78	9.8
Iowa	42	3.52	7.8	1,409	0.24	4.7	0	--	--
Kansas	11	3.41	12.0	653	0.31	5.2	0	--	--
Minnesota	0	--	--	1,239	0.31	5.8	0	--	--
Missouri	36	2.69	9.5	2,621	0.24	4.8	0	--	--
Nebraska	0	--	--	1,144	0.23	4.9	0	--	--
North Dakota	0	--	--	0	--	--	2,112	0.78	9.8
South Dakota	0	--	--	142	0.28	5.4	0	--	--
South Atlantic	5,581	2.32	9.9	715	0.35	4.7	0	--	--
Delaware	0	--	--	0	--	--	0	--	--
District of Columbia	0	--	--	0	--	--	0	--	--
Florida	668	2.26	7.9	0	--	--	0	--	--
Georgia	679	2.44	8.0	715	0.35	4.7	0	--	--
Maryland	185	2.31	11.4	0	--	--	0	--	--
North Carolina	1,143	1.77	9.3	0	--	--	0	--	--
South Carolina	672	1.70	9.6	0	--	--	0	--	--
Virginia	295	1.04	20.6	0	--	--	0	--	--
West Virginia	1,937	2.98	10.1	0	--	--	0	--	--
East South Central	3,138	2.57	9.1	1,605	0.28	5.2	259	0.52	13.6
Alabama	426	1.07	10.9	897	0.29	5.2	0	--	--
Kentucky	2,023	2.95	9.1	514	0.27	5.4	0	--	--
Mississippi	36	0.41	7.6	78	0.29	5.2	259	0.52	13.6
Tennessee	652	2.45	8.4	116	0.28	5.0	0	--	--
West South Central	51	2.22	16.8	6,183	0.26	5.0	2,169	1.05	17.3
Arkansas	4	0.48	8.2	1,381	0.22	4.9	0	--	--
Louisiana	31	2.98	9.3	372	0.28	5.0	153	0.57	16.1
Oklahoma	17	0.93	37.2	404	0.21	4.6	0	--	--
Texas	0	--	--	4,026	0.28	5.1	2,016	1.09	17.4
Mountain	2,102	0.63	13.3	5,272	0.56	9.3	26	0.56	9.6
Arizona	553	0.57	11.0	732	0.75	11.2	0	--	--
Colorado	108	0.45	11.1	991	0.32	5.8	0	--	--
Idaho	0	--	--	0	--	--	0	--	--
Montana	0	--	--	804	0.71	9.9	26	0.56	9.6
Nevada	48	0.42	12.1	107	0.41	7.2	0	--	--
New Mexico	318	1.03	25.5	585	0.90	19.6	0	--	--
Utah	1,075	0.59	11.6	33	0.84	8.2	0	--	--
Wyoming	0	--	--	2,021	0.45	7.1	0	--	--
Pacific Contiguous	22	0.43	9.2	507	0.28	7.3	0	--	--
California	22	0.43	9.2	0	--	--	0	--	--
Oregon	0	--	--	154	0.22	5.4	0	--	--
Washington	0	--	--	353	0.30	8.2	0	--	--
Pacific Noncontiguous	0	--	--	0	--	--	21	0.14	9.7
Alaska	0	--	--	0	--	--	21	0.14	9.7
Hawaii	0	--	--	0	--	--	0	--	--
U.S. Total	17,165	2.47	10.2	27,061	0.32	5.8	4,587	0.89	13.5

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 and 2019 are preliminary. 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, July 2019

	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	2,724	2.91	9.0	3,990	0.24	4.7	0	--	--
Illinois	189	2.47	9.9	442	0.21	4.5	0	--	--
Indiana	2,123	2.88	9.1	241	0.25	4.7	0	--	--
Michigan	189	2.37	7.6	1,936	0.25	4.6	0	--	--
Ohio	208	4.07	8.9	0	--	--	0	--	--
Wisconsin	16	2.40	7.8	1,371	0.24	4.8	0	--	--
West North Central	46	2.86	10.1	7,000	0.26	5.0	2,112	0.78	9.8
Iowa	0	--	--	1,264	0.24	4.8	0	--	--
Kansas	11	3.41	12.0	653	0.31	5.2	0	--	--
Minnesota	0	--	--	1,239	0.31	5.8	0	--	--
Missouri	35	2.69	9.5	2,621	0.24	4.8	0	--	--
Nebraska	0	--	--	1,082	0.23	4.9	0	--	--
North Dakota	0	--	--	0	--	--	2,112	0.78	9.8
South Dakota	0	--	--	142	0.28	5.4	0	--	--
South Atlantic	4,939	2.30	10.0	715	0.35	4.7	0	--	--
Delaware	0	--	--	0	--	--	0	--	--
District of Columbia	0	--	--	0	--	--	0	--	--
Florida	659	2.28	8.0	0	--	--	0	--	--
Georgia	668	2.47	7.9	715	0.35	4.7	0	--	--
Maryland	0	--	--	0	--	--	0	--	--
North Carolina	1,112	1.80	9.4	0	--	--	0	--	--
South Carolina	668	1.71	9.6	0	--	--	0	--	--
Virginia	258	1.07	23.4	0	--	--	0	--	--
West Virginia	1,574	2.99	10.5	0	--	--	0	--	--
East South Central	3,089	2.60	9.2	1,605	0.28	5.2	0	--	--
Alabama	426	1.07	10.9	897	0.29	5.2	0	--	--
Kentucky	2,023	2.95	9.1	514	0.27	5.4	0	--	--
Mississippi	36	0.41	7.6	78	0.29	5.2	0	--	--
Tennessee	604	2.56	8.4	116	0.28	5.0	0	--	--
West South Central	31	2.98	9.3	3,754	0.25	5.0	670	1.44	19.8
Arkansas	0	--	--	1,249	0.22	4.9	0	--	--
Louisiana	31	2.98	9.3	307	0.28	5.0	153	0.57	16.1
Oklahoma	0	--	--	347	0.21	4.6	0	--	--
Texas	0	--	--	1,852	0.26	5.2	518	1.74	21.1
Mountain	2,102	0.63	13.3	4,375	0.53	9.3	26	0.56	9.6
Arizona	553	0.57	11.0	732	0.75	11.2	0	--	--
Colorado	108	0.45	11.1	991	0.32	5.8	0	--	--
Idaho	0	--	--	0	--	--	0	--	--
Montana	0	--	--	0	--	--	26	0.56	9.6
Nevada	48	0.42	12.1	61	0.45	8.7	0	--	--
New Mexico	318	1.03	25.5	585	0.90	19.6	0	--	--
Utah	1,075	0.59	11.6	33	0.84	8.2	0	--	--
Wyoming	0	--	--	1,973	0.45	7.2	0	--	--
Pacific Contiguous	0	--	--	154	0.22	5.4	0	--	--
California	0	--	--	0	--	--	0	--	--
Oregon	0	--	--	154	0.22	5.4	0	--	--
Washington	0	--	--	0	--	--	0	--	--
Pacific Noncontiguous	0	--	--	0	--	--	21	0.14	9.7
Alaska	0	--	--	0	--	--	21	0.14	9.7
Hawaii	0	--	--	0	--	--	0	--	--
U.S. Total	12,932	2.25	10.1	21,593	0.31	5.8	2,829	0.92	12.1

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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 and 2019 are preliminary. 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, July 2019

	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	3	0.80	10.0	0	--	--	0	--	--
Connecticut	0	--	--	0	--	--	0	--	--
Maine	3	0.80	10.0	0	--	--	0	--	--
Massachusetts	0	--	--	0	--	--	0	--	--
New Hampshire	0	--	--	0	--	--	0	--	--
Rhode Island	0	--	--	0	--	--	0	--	--
Vermont	0	--	--	0	--	--	0	--	--
Middle Atlantic	997	2.62	9.3	0	--	--	0	--	--
New Jersey	43	1.60	8.3	0	--	--	0	--	--
New York	0	--	--	0	--	--	0	--	--
Pennsylvania	953	2.67	9.4	0	--	--	0	--	--
East North Central	2,351	3.61	11.5	1,535	0.22	4.6	0	--	--
Illinois	477	3.71	26.4	1,535	0.22	4.6	0	--	--
Indiana	135	3.03	9.0	0	--	--	0	--	--
Michigan	18	0.36	5.9	0	--	--	0	--	--
Ohio	1,721	3.66	8.9	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	583	2.61	9.1	0	--	--	0	--	--
Delaware	0	--	--	0	--	--	0	--	--
District of Columbia	0	--	--	0	--	--	0	--	--
Florida	0	--	--	0	--	--	0	--	--
Georgia	0	--	--	0	--	--	0	--	--
Maryland	185	2.31	11.4	0	--	--	0	--	--
North Carolina	13	0.69	6.0	0	--	--	0	--	--
South Carolina	0	--	--	0	--	--	0	--	--
Virginia	21	0.98	6.1	0	--	--	0	--	--
West Virginia	363	2.94	8.2	0	--	--	0	--	--
East South Central	0	--	--	0	--	--	259	0.52	13.6
Alabama	0	--	--	0	--	--	0	--	--
Kentucky	0	--	--	0	--	--	0	--	--
Mississippi	0	--	--	0	--	--	259	0.52	13.6
Tennessee	0	--	--	0	--	--	0	--	--
West South Central	17	0.93	37.2	2,413	0.29	5.1	1,499	0.90	16.2
Arkansas	0	--	--	132	0.23	5.5	0	--	--
Louisiana	0	--	--	65	0.30	4.8	0	--	--
Oklahoma	17	0.93	37.2	42	0.21	4.6	0	--	--
Texas	0	--	--	2,174	0.29	5.0	1,499	0.90	16.2
Mountain	0	--	--	898	0.68	9.4	0	--	--
Arizona	0	--	--	0	--	--	0	--	--
Colorado	0	--	--	0	--	--	0	--	--
Idaho	0	--	--	0	--	--	0	--	--
Montana	0	--	--	804	0.71	9.9	0	--	--
Nevada	0	--	--	46	0.36	5.2	0	--	--
New Mexico	0	--	--	0	--	--	0	--	--
Utah	0	--	--	0	--	--	0	--	--
Wyoming	0	--	--	47	0.41	5.4	0	--	--
Pacific Contiguous	0	--	--	353	0.30	8.2	0	--	--
California	0	--	--	0	--	--	0	--	--
Oregon	0	--	--	0	--	--	0	--	--
Washington	0	--	--	353	0.30	8.2	0	--	--
Pacific Noncontiguous	0	--	--	0	--	--	0	--	--
Alaska	0	--	--	0	--	--	0	--	--
Hawaii	0	--	--	0	--	--	0	--	--
U.S. Total	3,951	3.18	10.6	5,199	0.33	5.9	1,758	0.85	15.9

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NM = Not meaningful due to large relative standard error or excessive percentage change.
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Notes:
Bituminous coal includes anthracite coal and coal-derived synthesis gas.
See Glossary for definitions. Values for 2018 and 2019 are preliminary. 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, July 2019

	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	0	2.94	8.5	0	--	--	0	--	--
Iowa	0	--	--	0	--	--	0	--	--
Kansas	0	--	--	0	--	--	0	--	--
Minnesota	0	--	--	0	--	--	0	--	--
Missouri	0	2.94	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	0	2.94	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 and 2019 are preliminary. 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, July 2019

	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	11	2.28	8.1	0	--	--	0	--	--
New Jersey	0	--	--	0	--	--	0	--	--
New York	0	--	--	0	--	--	0	--	--
Pennsylvania	11	2.28	8.1	0	--	--	0	--	--
East North Central	97	3.48	8.8	47	0.22	5.5	0	--	--
Illinois	96	3.50	8.8	47	0.22	5.5	0	--	--
Indiana	0	--	--	0	--	--	0	--	--
Michigan	1	0.87	9.8	0	--	--	0	--	--
Ohio	0	--	--	0	--	--	0	--	--
Wisconsin	0	--	--	0	--	--	0	--	--
West North Central	42	3.52	7.8	207	0.21	4.4	0	--	--
Iowa	42	3.52	7.8	146	0.20	4.4	0	--	--
Kansas	0	--	--	0	--	--	0	--	--
Minnesota	0	--	--	0	--	--	0	--	--
Missouri	0	--	--	0	--	--	0	--	--
Nebraska	0	--	--	62	0.21	4.4	0	--	--
North Dakota	0	--	--	0	--	--	0	--	--
South Dakota	0	--	--	0	--	--	0	--	--
South Atlantic	58	0.76	7.4	0	--	--	0	--	--
Delaware	0	--	--	0	--	--	0	--	--
District of Columbia	0	--	--	0	--	--	0	--	--
Florida	9	0.70	6.6	0	--	--	0	--	--
Georgia	11	0.80	11.3	0	--	--	0	--	--
Maryland	0	--	--	0	--	--	0	--	--
North Carolina	18	0.80	6.1	0	--	--	0	--	--
South Carolina	4	0.69	6.5	0	--	--	0	--	--
Virginia	16	0.74	7.1	0	--	--	0	--	--
West Virginia	0	--	--	0	--	--	0	--	--
East South Central	48	1.16	7.4	0	--	--	0	--	--
Alabama	0	--	--	0	--	--	0	--	--
Kentucky	0	--	--	0	--	--	0	--	--
Mississippi	0	--	--	0	--	--	0	--	--
Tennessee	48	1.16	7.4	0	--	--	0	--	--
West South Central	4	0.48	8.2	15	0.20	5.7	0	--	--
Arkansas	4	0.48	8.2	0	--	--	0	--	--
Louisiana	0	--	--	0	--	--	0	--	--
Oklahoma	0	--	--	15	0.20	5.7	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	22	0.43	9.2	0	--	--	0	--	--
California	22	0.43	9.2	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	282	2.11	8.1	269	0.21	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 and 2019 are preliminary. 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, 2009 - July 2019 (Thousand Megawatthours)

Period	Residential	Commercial	Industrial	Transportation	All Sectors
Annual Totals					
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
2018	1,464,373	1,376,741	953,076	7,738	3,801,928
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	114,618	76,061	751	340,408
February	113,383	102,001	71,948	643	287,975
March	106,939	107,886	76,811	625	292,262
April	95,128	102,922	75,241	608	273,898
May	103,395	112,597	81,461	591	298,044
June	129,478	121,578	81,527	628	333,212
July	153,031	130,916	85,041	640	369,629
August	152,951	134,479	89,632	686	377,748
Sept	128,459	121,581	81,192	648	331,881
October	106,638	115,861	81,023	636	304,157
November	103,372	104,622	76,927	622	285,543
December	122,620	107,678	76,213	660	307,171
Year 2019					
January	132,989	111,613	78,033	664	323,300
February	116,311	102,690	72,371	677	292,049
March	112,384	107,422	77,007	685	297,498
April	90,821	103,166	76,430	617	271,034
May	99,820	110,823	80,706	610	291,959
June	119,518	115,246	80,528	626	315,918
July	153,154	130,239	86,272	645	370,309
Year to Date					
2017	794,726	778,052	569,111	4,377	2,146,265
2018	850,333	792,520	548,089	4,486	2,195,427
2019	824,997	781,199	551,347	4,523	2,162,067
Rolling 12 Months Ending in July					
2018	1,434,255	1,367,355	963,276	7,632	3,772,518
2019	1,439,037	1,365,421	956,335	7,775	3,768,568

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 2019 and 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, 2009 - July 2019 (Million Dollars)

Period	Residential	Commercial	Industrial	Transportation	All Sectors
Annual Totals					
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
2018	188,742	146,696	66,090	756	402,283
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	18,252	12,023	5,292	71	35,638
February	14,353	10,860	4,899	63	30,176
March	13,893	11,315	5,118	59	30,386
April	12,256	10,746	4,954	58	28,013
May	13,600	11,821	5,553	56	31,029
June	16,889	13,156	5,854	64	35,963
July	20,094	14,370	6,243	65	40,773
August	20,306	14,794	6,464	66	41,631
Sept	16,710	12,986	5,757	67	35,519
October	13,720	12,452	5,596	63	31,830
November	13,384	11,051	5,293	60	29,789
December	15,285	11,122	5,066	64	31,538
Year 2019					
January	16,580	11,484	5,138	65	33,266
February	14,768	10,801	4,838	68	30,474
March	14,414	11,219	5,184	64	30,882
April	12,044	10,848	4,988	59	27,939
May	13,300	11,666	5,415	58	30,439
June	15,949	12,547	5,568	63	34,127
July	20,322	14,361	6,192	63	40,938
Year to Date					
2017	102,136	82,532	38,944	424	224,036
2018	109,337	84,290	37,914	436	231,977
2019	107,377	82,926	37,322	441	228,066
Rolling 12 Months Ending in July					
2018	184,862	146,000	66,661	741	398,263
2019	186,781	145,332	65,498	761	398,372

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 2019 and 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, 2009 - July 2019 (Cents per Kilowatthour)

Period	Residential	Commercial	Industrial	Transportation	All Sectors
Annual Totals					
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
2018	12.89	10.66	6.93	9.77	10.58
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	6.96	9.44	10.47
February	12.66	10.65	6.81	9.84	10.48
March	12.99	10.49	6.66	9.43	10.40
April	12.88	10.44	6.58	9.48	10.23
May	13.15	10.50	6.82	9.46	10.41
June	13.04	10.82	7.18	10.16	10.79
July	13.13	10.98	7.34	10.19	11.03
August	13.28	11.00	7.21	9.69	11.02
Sept	13.01	10.68	7.09	10.30	10.70
October	12.87	10.75	6.91	9.84	10.46
November	12.95	10.56	6.88	9.72	10.43
December	12.47	10.33	6.65	9.72	10.27
Year 2019					
January	12.47	10.29	6.58	9.80	10.29
February	12.70	10.52	6.68	10.01	10.43
March	12.83	10.44	6.73	9.33	10.38
April	13.26	10.51	6.53	9.58	10.31
May	13.32	10.53	6.71	9.51	10.43
June	13.34	10.89	6.91	10.13	10.80
July	13.27	11.03	7.18	9.85	11.06
Year to Date					
2017	12.85	10.61	6.84	9.68	10.44
2018	12.86	10.64	6.92	9.71	10.57
2019	13.02	10.62	6.77	9.74	10.55
Rolling 12 Months Ending in July					
2018	12.89	10.68	6.92	9.70	10.56
2019	12.98	10.64	6.85	9.79	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 2019 and 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 5.4.A. Sales of Electricity to Ultimate Customers by End-Use Sector, by State, July 2019 and 2018 (Thousand Megawatthours)

Census Division and State	Residential		Commercial		Industrial		Transportation		All Sectors	
	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	4,964	4,917	4,987	4,966	1,482	1,392	45	47	11,478	11,322
Connecticut	1,501	1,462	1,232	1,220	280	268	16	16	3,028	2,967
Maine	395	367	365	345	296	233	0	0	1,057	946
Massachusetts	2,068	2,070	2,407	2,427	535	539	28	29	5,038	5,064
New Hampshire	463	466	421	421	176	164	0	0	1,059	1,051
Rhode Island	351	361	375	364	69	66	2	2	798	793
Vermont	185	191	188	189	125	122	0	0	498	502
Middle Atlantic	14,929	14,268	14,342	14,786	6,745	6,447	312	316	36,328	35,817
New Jersey	3,990	3,684	3,808	3,653	581	627	25	26	8,404	7,990
New York	5,486	5,407	7,121	7,175	1,631	1,534	239	235	14,476	14,353
Pennsylvania	5,454	5,176	3,413	3,958	4,533	4,286	48	54	13,448	13,474
East North Central	21,191	20,302	17,783	17,443	16,160	16,187	50	48	55,184	53,980
Illinois	5,605	5,232	4,791	4,728	3,802	3,846	45	44	14,243	13,850
Indiana	3,461	3,384	2,302	2,339	3,611	3,582	2	2	9,377	9,307
Michigan	3,953	3,945	3,745	3,720	2,463	2,476	1	1	10,162	10,142
Ohio	5,811	5,468	4,681	4,413	4,165	4,100	2	2	14,660	13,984
Wisconsin	2,361	2,273	2,264	2,243	2,118	2,181	0	0	6,742	6,698
West North Central	10,607	10,756	9,587	9,736	7,891	7,917	4	4	28,089	28,413
Iowa	1,472	1,393	1,132	1,086	2,065	1,960	0	0	4,670	4,439
Kansas	1,585	1,661	1,478	1,581	1,005	1,004	0	0	4,068	4,247
Minnesota	2,082	2,083	2,108	2,147	1,790	1,867	2	2	5,982	6,099
Missouri	3,678	3,823	3,007	3,055	994	1,038	2	2	7,681	7,918
Nebraska	1,042	1,044	871	894	1,006	1,073	0	0	2,919	3,011
North Dakota	343	348	546	529	781	718	0	0	1,670	1,595
South Dakota	404	403	446	443	248	257	0	0	1,099	1,103
South Atlantic	39,251	37,791	30,641	29,933	12,233	12,529	124	120	82,250	80,374
Delaware	529	516	457	425	164	193	0	0	1,150	1,135
District of Columbia	300	263	780	794	17	18	37	32	1,134	1,107
Florida	13,175	12,983	9,028	9,023	1,399	1,482	7	7	23,609	23,496
Georgia	6,438	6,323	4,608	4,564	2,745	2,828	15	15	13,806	13,731
Maryland	3,005	2,771	2,881	2,776	331	360	52	47	6,268	5,955
North Carolina	6,277	6,106	4,870	4,783	2,514	2,498	2	2	13,663	13,387
South Carolina	3,434	3,343	2,238	2,165	2,379	2,434	0	0	8,051	7,942
Virginia	5,063	4,506	5,047	4,709	1,405	1,524	12	17	11,527	10,757
West Virginia	1,030	980	732	693	1,279	1,192	0	0	3,040	2,865
East South Central	12,493	12,734	9,021	9,141	8,196	8,290	0	0	29,710	30,165
Alabama	3,429	3,465	2,218	2,250	2,858	2,972	0	0	8,504	8,688
Kentucky	2,790	2,723	1,916	1,859	2,340	2,198	0	0	7,046	6,779
Mississippi	1,997	2,076	1,359	1,412	1,437	1,483	0	0	4,793	4,970
Tennessee	4,277	4,471	3,529	3,620	1,561	1,638	0	0	9,367	9,728
West South Central	24,797	25,942	19,055	19,856	17,129	15,862	17	19	60,998	61,679
Arkansas	1,841	2,036	1,157	1,239	1,536	1,651	0	0	4,534	4,926
Louisiana	3,436	3,507	2,408	2,433	2,976	2,925	1	1	8,821	8,866
Oklahoma	2,713	2,812	1,945	2,086	1,812	1,596	0	0	6,469	6,494
Texas	16,807	17,586	13,546	14,099	10,805	9,691	16	17	41,174	41,393
Mountain	11,729	12,152	9,620	9,775	8,073	7,997	16	14	29,438	29,937
Arizona	4,713	4,706	3,102	3,102	1,267	1,249	1	1	9,083	9,057
Colorado	2,010	2,052	1,925	1,999	1,500	1,460	9	8	5,444	5,518
Idaho	734	785	580	599	1,252	1,276	0	0	2,566	2,661
Montana	363	383	415	425	439	390	0	0	1,217	1,198
Nevada	1,792	1,976	1,287	1,299	1,113	1,131	1	1	4,193	4,407
New Mexico	763	794	883	875	805	726	0	0	2,451	2,396
Utah	1,132	1,232	1,109	1,158	854	852	4	4	3,099	3,246
Wyoming	221	223	319	319	845	913	0	0	1,385	1,454
Pacific Contiguous	12,791	13,789	14,714	14,794	7,933	7,985	76	72	35,514	36,640
California	8,922	9,669	10,870	10,720	4,669	4,660	65	69	24,526	25,118
Oregon	1,416	1,556	1,428	1,533	1,134	1,167	2	2	3,980	4,258
Washington	2,453	2,565	2,415	2,541	2,130	2,158	9	1	7,008	7,264
Pacific Noncontiguous	403	381	488	487	430	434	0	0	1,321	1,301
Alaska	141	141	221	218	100	109	0	0	462	467
Hawaii	263	240	267	269	329	325	0	0	859	834
U.S. Total	153,154	153,031	130,239	130,916	86,272	85,041	645	640	370,309	369,629

See Technical notes for additional information on the Commercial, Industrial, and Transportation sectors.
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Notes: - See Glossary for definitions. - Values 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 July 2019 and 2018 (Thousand Megawatthours)

	Residential		Commercial		Industrial		Transportation		All Sectors	
Census Division and State	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	27,279	27,621	29,913	30,075	9,059	9,128	328	327	66,580	67,151
Connecticut	7,437	7,595	7,064	7,144	1,724	1,753	110	105	16,335	16,598
Maine	2,831	2,722	2,371	2,288	1,541	1,571	0	0	6,744	6,581
Massachusetts	11,387	11,619	14,714	14,798	3,480	3,454	202	206	29,783	30,077
New Hampshire	2,662	2,687	2,501	2,545	1,106	1,117	0	0	6,269	6,350
Rhode Island	1,735	1,762	2,121	2,137	406	436	16	16	4,277	4,351
Vermont	1,227	1,235	1,143	1,163	801	796	0	0	3,171	3,195
Middle Atlantic	77,890	79,091	89,208	91,047	41,953	41,813	2,249	2,326	211,300	214,277
New Jersey	16,775	16,860	22,026	22,272	3,861	4,044	181	184	42,842	43,360
New York	28,881	29,337	43,022	43,632	9,710	9,765	1,668	1,728	83,281	84,462
Pennsylvania	32,235	32,893	24,160	25,144	28,382	28,004	400	414	85,177	86,455
East North Central	109,360	113,689	105,400	107,942	106,344	108,139	395	357	321,500	330,126
Illinois	26,578	27,750	28,781	29,611	24,254	24,844	355	317	79,968	82,521
Indiana	19,162	20,108	13,730	14,141	24,027	23,951	12	12	56,932	58,213
Michigan	19,755	20,613	22,116	22,689	16,887	17,344	4	4	58,763	60,650
Ohio	30,792	31,997	27,068	27,485	27,377	27,766	24	24	85,260	87,272
Wisconsin	13,073	13,220	13,704	14,016	13,799	14,233	1	0	40,577	41,469
West North Central	62,117	65,065	59,366	60,826	50,967	50,807	29	30	172,479	176,727
Iowa	8,546	8,781	7,105	7,198	13,588	13,338	0	0	29,239	29,317
Kansas	7,807	8,454	8,882	9,185	6,328	6,284	0	0	23,016	23,924
Minnesota	13,051	13,361	13,186	13,641	11,857	12,084	15	15	38,109	39,101
Missouri	20,559	22,102	17,810	18,397	6,518	6,617	14	14	44,900	47,130
Nebraska	6,128	6,326	5,515	5,637	5,858	6,069	0	0	17,501	18,032
North Dakota	3,029	3,053	3,943	3,842	5,248	4,811	0	0	12,221	11,706
South Dakota	2,997	2,988	2,926	2,924	1,570	1,604	0	0	7,493	7,517
South Atlantic	211,942	215,080	182,145	181,324	79,970	80,802	793	759	474,850	477,965
Delaware	2,918	2,970	2,568	2,513	1,071	1,235	0	0	6,557	6,717
District of Columbia	1,505	1,491	4,638	4,756	116	106	195	189	6,454	6,542
Florida	70,635	69,460	54,792	54,228	9,399	9,534	51	47	134,877	133,269
Georgia	33,717	34,485	27,089	27,366	18,276	18,431	97	100	79,179	80,382
Maryland	16,400	16,660	16,879	17,074	2,148	2,162	329	303	35,756	36,199
North Carolina	34,579	36,029	28,312	28,364	15,525	15,532	11	5	78,426	79,931
South Carolina	17,953	18,647	12,603	12,664	15,511	15,762	0	0	46,067	47,073
Virginia	27,626	28,301	30,842	29,823	9,497	9,830	110	115	68,075	68,070
West Virginia	6,609	7,036	4,422	4,537	8,427	8,210	0	0	19,458	19,783
East South Central	68,968	73,192	52,559	53,909	55,513	55,193	0	0	177,040	182,293
Alabama	18,438	19,227	12,891	13,250	19,094	19,699	0	0	50,423	52,177
Kentucky	15,543	16,517	11,204	11,361	15,999	15,077	0	0	42,746	42,956
Mississippi	10,624	11,235	7,733	8,024	9,550	9,780	0	0	27,907	29,040
Tennessee	24,363	26,212	20,731	21,273	10,869	10,636	0	0	55,963	58,121
West South Central	126,522	133,694	112,508	114,937	109,112	103,369	112	113	348,254	352,113
Arkansas	10,527	11,254	6,682	6,985	9,894	10,212	0	0	27,104	28,450
Louisiana	17,478	18,453	13,912	14,274	20,244	19,913	7	7	51,641	52,647
Oklahoma	13,604	14,494	11,228	12,147	11,559	10,489	0	0	36,391	37,130
Texas	84,913	89,493	80,687	81,532	67,415	62,755	104	105	233,118	233,885
Mountain	56,866	57,614	56,178	56,647	48,426	47,588	108	93	161,579	161,942
Arizona	19,503	19,770	16,753	17,039	7,812	7,873	6	5	44,073	44,686
Colorado	10,929	11,119	11,845	11,894	9,196	9,151	67	54	32,037	32,218
Idaho	5,015	4,910	3,676	3,696	5,232	5,342	0	0	13,923	13,948
Montana	3,148	3,095	2,895	2,913	2,761	2,479	0	0	8,804	8,487
Nevada	7,260	7,657	6,903	6,925	7,199	6,826	5	5	21,367	21,413
New Mexico	3,896	3,987	5,238	5,286	4,956	4,555	0	0	14,089	13,828
Utah	5,399	5,428	6,729	6,730	5,287	5,350	30	30	17,445	17,538
Wyoming	1,717	1,649	2,140	2,164	5,984	6,012	0	0	9,841	9,825
Pacific Contiguous	81,397	82,581	90,681	92,507	47,290	48,448	509	482	219,877	224,019
California	48,378	49,662	64,137	65,646	26,149	27,452	445	462	139,109	143,223
Oregon	11,316	11,375	9,522	9,548	6,959	6,751	16	15	27,813	27,689
Washington	21,702	21,544	17,022	17,313	14,182	14,245	48	5	52,955	53,107
Pacific Noncontiguous	2,655	2,706	3,241	3,306	2,713	2,802	0	0	8,609	8,815
Alaska	1,148	1,182	1,563	1,585	692	773	0	0	3,403	3,540
Hawaii	1,507	1,524	1,678	1,722	2,021	2,029	0	0	5,206	5,275
U.S. Total	824,997	850,333	781,199	792,520	551,347	548,089	4,523	4,486	2,162,067	2,195,427

See Technical notes for additional information on the Commercial, Industrial, and Transportation sectors.
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Changes from year to year in consumer counts, sales and revenues, particularly involving the commercial and industrial consumer sectors, may result from respondent implementation of changes in the definitions of consumers, and reclassifications.
Totals may not equal sum of components because of independent rounding.
Source: U.S. Energy Information Administration, Form EIA-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, July 2019 and 2018 (Million Dollars)

	Residential		Commercial		Industrial		Transportation		All Sectors	
Census Division and State	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	1,006	980	792	791	187	179	4	4	1,989	1,954
Connecticut	316	305	197	193	37	36	2	2	552	537
Maine	71	60	46	41	26	21	0	0	143	122
Massachusetts	432	427	398	405	77	78	2	2	909	912
New Hampshire	90	88	64	66	22	22	0	0	176	175
Rhode Island	66	66	56	57	10	10	0	0	132	133
Vermont	32	34	30	28	14	13	0	0	75	75
Middle Atlantic	2,418	2,343	1,872	1,960	441	445	36	38	4,768	4,786
New Jersey	643	571	483	462	64	63	2	2	1,193	1,099
New York	1,023	1,048	1,087	1,152	93	96	31	31	2,234	2,328
Pennsylvania	752	724	302	346	284	285	3	4	1,341	1,359
East North Central	2,802	2,673	1,799	1,770	1,128	1,143	4	3	5,733	5,589
Illinois	672	615	427	423	250	255	3	3	1,352	1,296
Indiana	423	408	247	241	262	257	0	0	933	906
Michigan	649	630	429	427	182	186	0	0	1,260	1,242
Ohio	718	694	440	434	260	273	0	0	1,418	1,401
Wisconsin	340	325	257	245	174	172	0	0	770	743
West North Central	1,388	1,442	1,015	1,045	639	652	0	0	3,043	3,139
Iowa	214	202	135	127	172	164	0	0	521	493
Kansas	204	227	156	170	71	76	0	0	430	473
Minnesota	292	296	238	237	146	153	0	0	677	686
Missouri	468	502	310	333	78	86	0	0	856	921
Nebraska	117	124	81	85	85	90	0	0	283	299
North Dakota	42	41	53	50	67	62	0	0	162	153
South Dakota	50	50	43	42	20	21	0	0	112	113
South Atlantic	4,755	4,508	2,874	2,775	835	844	10	9	8,474	8,136
Delaware	65	62	43	39	12	15	0	0	119	116
District of Columbia	37	32	93	91	1	1	3	3	134	126
Florida	1,578	1,466	853	805	110	113	1	1	2,542	2,385
Georgia	806	776	463	440	192	173	1	1	1,462	1,390
Maryland	376	373	273	281	26	29	4	4	679	687
North Carolina	722	698	444	428	167	171	0	0	1,333	1,297
South Carolina	437	433	236	232	152	158	0	0	825	822
Virginia	616	555	408	395	98	105	1	1	1,123	1,057
West Virginia	118	112	63	64	75	78	0	0	257	254
East South Central	1,435	1,413	968	943	492	494	0	0	2,896	2,849
Alabama	443	425	261	251	184	186	0	0	888	862
Kentucky	297	282	188	175	128	121	0	0	613	577
Mississippi	226	228	140	141	86	91	0	0	453	459
Tennessee	469	478	379	377	94	97	0	0	942	951
West South Central	2,783	2,812	1,536	1,612	941	945	1	2	5,261	5,370
Arkansas	187	203	102	92	99	95	0	0	388	390
Louisiana	334	339	210	213	161	164	0	0	706	717
Oklahoma	284	290	163	169	97	85	0	0	544	545
Texas	1,977	1,979	1,061	1,137	584	601	1	1	3,623	3,719
Mountain	1,441	1,487	973	983	546	557	1	1	2,961	3,029
Arizona	600	608	349	357	92	96	0	0	1,041	1,061
Colorado	256	260	208	205	113	109	1	1	578	575
Idaho	78	82	46	48	84	90	0	0	207	221
Montana	44	45	45	44	24	22	0	0	112	112
Nevada	213	224	104	102	78	83	0	0	395	409
New Mexico	99	106	93	96	45	43	0	0	236	245
Utah	126	135	98	100	54	53	0	0	278	288
Wyoming	26	27	31	31	57	61	0	0	114	119
Pacific Contiguous	2,177	2,323	2,409	2,368	881	877	7	7	5,474	5,576
California	1,781	1,900	2,074	2,007	708	713	6	7	4,569	4,626
Oregon	158	175	127	143	71	60	0	0	357	378
Washington	238	249	208	218	102	104	1	0	549	571
Pacific Noncontiguous	116	113	122	124	102	108	0	0	340	345
Alaska	34	33	44	42	18	22	0	0	96	97
Hawaii	83	80	78	82	84	86	0	0	244	249
U.S. Total	20,322	20,094	14,361	14,370	6,192	6,243	63	65	40,938	40,773

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.B. Revenue from Sales of Electricity to Ultimate Customers by End-Use Sector, by State, Year-to-Date through July 2019 and 2018 (Million Dollars)

Census Division and State	Residential		Commercial		Industrial		Transportation		All Sectors	
	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	5,752	5,650	4,900	4,872	1,180	1,186	34	30	11,865	11,738
Connecticut	1,662	1,599	1,218	1,185	239	243	17	14	3,137	3,041
Maine	447	436	290	280	139	142	0	0	876	858
Massachusetts	2,523	2,514	2,448	2,482	505	506	13	14	5,489	5,515
New Hampshire	536	525	401	402	146	145	0	0	1,083	1,072
Rhode Island	374	355	360	347	65	66	3	3	802	771
Vermont	209	221	182	176	86	84	0	0	477	482
Middle Atlantic	12,228	12,641	10,747	11,232	2,773	2,935	250	259	25,999	27,066
New Jersey	2,706	2,633	2,736	2,727	403	410	16	16	5,862	5,785
New York	5,127	5,403	5,891	6,240	540	600	205	211	11,763	12,453
Pennsylvania	4,395	4,605	2,120	2,265	1,830	1,925	30	32	8,374	8,827
East North Central	14,554	14,994	10,745	10,929	7,399	7,606	29	24	32,727	33,554
Illinois	3,410	3,471	2,584	2,646	1,602	1,651	25	21	7,621	7,789
Indiana	2,368	2,385	1,485	1,457	1,772	1,713	1	1	5,626	5,556
Michigan	3,082	3,242	2,512	2,556	1,225	1,277	0	0	6,819	7,076
Ohio	3,791	3,989	2,654	2,740	1,737	1,876	2	2	8,183	8,606
Wisconsin	1,904	1,907	1,510	1,531	1,064	1,089	0	0	4,478	4,527
West North Central	7,349	7,794	5,738	5,952	3,755	3,747	3	3	16,845	17,496
Iowa	1,099	1,106	726	712	905	878	0	0	2,730	2,696
Kansas	985	1,117	903	963	461	468	0	0	2,349	2,549
Minnesota	1,734	1,766	1,391	1,416	933	930	1	1	4,059	4,113
Missouri	2,227	2,487	1,597	1,740	438	473	1	1	4,263	4,701
Nebraska	653	669	493	501	453	464	0	0	1,599	1,634
North Dakota	311	310	355	346	444	409	0	0	1,110	1,065
South Dakota	340	341	274	274	122	124	0	0	735	739
South Atlantic	25,356	25,381	17,117	17,081	5,072	5,260	63	59	47,608	47,779
Delaware	367	373	252	241	81	95	0	0	700	709
District of Columbia	196	189	565	558	10	9	20	17	791	773
Florida	8,410	8,069	5,226	5,092	726	741	4	4	14,367	13,906
Georgia	3,927	3,965	2,631	2,661	1,053	1,074	5	6	7,616	7,705
Maryland	2,174	2,219	1,708	1,786	168	181	24	22	4,074	4,208
North Carolina	3,987	4,028	2,489	2,463	953	968	1	0	7,430	7,459
South Carolina	2,261	2,400	1,294	1,351	920	980	0	0	4,475	4,730
Virginia	3,309	3,336	2,554	2,498	660	672	9	10	6,532	6,515
West Virginia	725	802	397	430	502	541	0	0	1,624	1,773
East South Central	7,863	8,127	5,629	5,642	3,215	3,231	0	0	16,707	17,000
Alabama	2,344	2,362	1,494	1,497	1,144	1,189	0	0	4,982	5,048
Kentucky	1,652	1,711	1,115	1,083	864	836	0	0	3,630	3,630
Mississippi	1,214	1,275	818	852	576	591	0	0	2,607	2,718
Tennessee	2,653	2,779	2,203	2,210	632	614	0	0	5,488	5,603
West South Central	14,064	14,411	9,138	9,472	5,769	5,684	7	10	28,979	29,577
Arkansas	1,034	1,113	583	553	588	568	0	0	2,205	2,233
Louisiana	1,660	1,727	1,231	1,269	1,066	1,055	1	1	3,958	4,051
Oklahoma	1,363	1,472	866	955	574	542	0	0	2,803	2,968
Texas	10,007	10,100	6,457	6,696	3,541	3,520	7	9	20,012	20,325
Mountain	6,784	6,911	5,380	5,480	3,052	3,051	10	9	15,226	15,451
Arizona	2,472	2,540	1,756	1,840	496	514	1	0	4,724	4,894
Colorado	1,340	1,338	1,207	1,186	672	663	6	5	3,225	3,192
Idaho	501	505	285	298	326	357	0	0	1,112	1,160
Montana	353	343	300	296	156	124	0	0	808	763
Nevada	871	916	542	546	414	409	0	0	1,827	1,871
New Mexico	491	505	519	534	274	262	0	0	1,283	1,301
Utah	566	576	564	569	317	314	3	3	1,450	1,463
Wyoming	191	188	208	211	398	408	0	0	796	806
Pacific Contiguous	12,671	12,681	12,715	12,828	4,455	4,557	44	43	29,885	30,109
California	9,359	9,367	10,381	10,460	3,339	3,508	38	41	23,118	23,376
Oregon	1,236	1,236	849	864	436	394	1	1	2,523	2,495
Washington	2,077	2,078	1,484	1,504	679	655	5	0	4,244	4,237
Pacific Noncontiguous	756	747	818	803	651	657	0	0	2,226	2,208
Alaska	260	259	312	297	119	139	0	0	691	694
Hawaii	496	489	506	506	532	519	0	0	1,534	1,514
U.S. Total	107,377	109,337	82,926	84,290	37,322	37,914	441	436	228,066	231,977

See Technical notes for additional information on the Commercial, Industrial, and Transportation sectors.
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Notes: - See Glossary for definitions. - Values are preliminary estimates based on a cutoff model sample.
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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 5.6.A. Average Price of Electricity to Ultimate Customers by End-Use Sector, by State, July 2019 and 2018 (Cents per Kilowatthour)

Census Division and State	Residential		Commercial		Industrial		Transportation		All Sectors	
	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	20.27	19.93	15.88	15.92	12.60	12.87	8.25	8.41	17.32	17.26
Connecticut	21.06	20.88	16.01	15.84	13.34	13.48	11.28	12.03	18.24	18.09
Maine	17.90	16.31	12.58	11.91	8.90	8.89	--	--	13.54	12.87
Massachusetts	20.90	20.63	16.54	16.70	14.44	14.43	5.78	5.68	18.05	18.00
New Hampshire	19.40	18.88	15.32	15.57	12.58	13.33	--	--	16.64	16.69
Rhode Island	18.64	18.23	15.03	15.63	14.41	14.83	18.47	17.41	16.58	16.75
Vermont	17.18	17.86	15.80	15.06	10.86	10.58	--	--	15.07	15.03
Middle Atlantic	16.20	16.42	13.06	13.25	6.54	6.91	11.58	12.05	13.12	13.36
New Jersey	16.11	15.50	12.69	12.65	11.08	10.11	8.29	8.81	14.19	13.76
New York	18.65	19.38	15.27	16.05	5.69	6.29	12.85	13.34	15.43	16.22
Pennsylvania	13.79	13.98	8.85	8.73	6.26	6.66	6.88	7.97	9.97	10.09
East North Central	13.22	13.17	10.12	10.15	6.98	7.06	7.36	7.16	10.39	10.35
Illinois	11.99	11.76	8.91	8.95	6.57	6.62	7.16	6.98	9.49	9.36
Indiana	12.22	12.05	10.75	10.31	7.27	7.17	10.60	9.89	9.95	9.74
Michigan	16.42	15.98	11.45	11.46	7.38	7.49	11.24	11.14	12.40	12.25
Ohio	12.36	12.70	9.40	9.83	6.24	6.66	7.40	7.68	9.67	10.02
Wisconsin	14.41	14.30	11.33	10.94	8.20	7.91	13.90	13.46	11.42	11.09
West North Central	13.08	13.41	10.59	10.73	8.10	8.23	10.67	11.22	10.83	11.05
Iowa	14.56	14.50	11.92	11.70	8.32	8.37	--	--	11.16	11.11
Kansas	12.86	13.65	10.54	10.76	7.04	7.60	--	--	10.58	11.15
Minnesota	14.04	14.21	11.29	11.05	8.18	8.17	10.24	10.22	11.32	11.25
Missouri	12.72	13.12	10.31	10.89	7.85	8.32	11.14	12.21	11.15	11.63
Nebraska	11.24	11.91	9.26	9.51	8.48	8.40	--	--	9.70	9.95
North Dakota	12.33	11.86	9.71	9.47	8.59	8.58	--	--	9.72	9.59
South Dakota	12.26	12.42	9.62	9.52	7.96	7.98	--	--	10.22	10.22
South Atlantic	12.11	11.93	9.38	9.27	6.83	6.73	7.95	7.84	10.30	10.12
Delaware	12.21	12.02	9.32	9.27	7.45	7.71	--	--	10.38	10.26
District of Columbia	12.17	12.00	11.87	11.39	7.99	7.98	9.19	8.75	11.80	11.41
Florida	11.98	11.29	9.45	8.92	7.89	7.65	8.34	7.58	10.77	10.15
Georgia	12.52	12.28	10.04	9.64	7.01	6.12	7.16	6.36	10.59	10.13
Maryland	12.53	13.46	9.47	10.13	7.74	8.10	7.16	7.61	10.83	11.54
North Carolina	11.51	11.43	9.12	8.96	6.64	6.84	8.11	8.01	9.76	9.69
South Carolina	12.72	12.96	10.53	10.70	6.41	6.47	--	--	10.25	10.36
Virginia	12.16	12.33	8.07	8.39	7.01	6.91	8.22	8.18	9.74	9.83
West Virginia	11.50	11.43	8.63	9.25	5.88	6.56	--	--	8.45	8.87
East South Central	11.49	11.09	10.73	10.31	6.00	5.96	--	--	9.75	9.45
Alabama	12.93	12.28	11.77	11.14	6.44	6.24	--	--	10.45	9.92
Kentucky	10.65	10.35	9.80	9.40	5.46	5.49	--	--	8.70	8.52
Mississippi	11.31	10.96	10.34	9.95	6.00	6.11	--	--	9.45	9.23
Tennessee	10.96	10.68	10.74	10.41	6.02	5.92	--	--	10.06	9.78
West South Central	11.22	10.84	8.06	8.12	5.49	5.96	6.64	8.13	8.62	8.71
Arkansas	10.18	9.98	8.80	7.44	6.43	5.73	12.38	12.12	8.55	7.92
Louisiana	9.73	9.68	8.72	8.77	5.42	5.60	9.00	9.90	8.00	8.08
Oklahoma	10.48	10.32	8.39	8.10	5.33	5.34	--	--	8.41	8.39
Texas	11.76	11.26	7.84	8.07	5.41	6.20	6.47	8.00	8.80	8.99
Mountain	12.28	12.24	10.11	10.06	6.77	6.97	9.49	9.42	10.06	10.12
Arizona	12.74	12.92	11.25	11.51	7.25	7.68	10.96	11.42	11.46	11.72
Colorado	12.72	12.67	10.80	10.27	7.56	7.49	8.76	8.64	10.61	10.42
Idaho	10.58	10.47	7.85	8.06	6.69	7.06	--	--	8.07	8.29
Montana	12.03	11.74	10.73	10.41	5.38	5.74	--	--	9.19	9.31
Nevada	11.86	11.34	8.06	7.85	7.03	7.33	9.63	9.70	9.41	9.28
New Mexico	12.93	13.39	10.56	10.93	5.53	5.87	--	--	9.65	10.21
Utah	11.13	10.94	8.82	8.62	6.34	6.21	10.64	10.53	8.98	8.87
Wyoming	11.90	12.04	9.76	9.75	6.74	6.67	--	--	8.26	8.17
Pacific Contiguous	17.02	16.85	16.37	16.01	11.11	10.98	9.28	9.78	15.41	15.22
California	19.96	19.65	19.08	18.72	15.16	15.30	9.26	9.81	18.63	18.42
Oregon	11.19	11.22	8.89	9.36	6.29	5.12	9.19	9.18	8.97	8.88
Washington	9.72	9.71	8.59	8.58	4.78	4.83	9.42	8.88	7.83	7.87
Pacific Noncontiguous	28.84	29.76	25.04	25.46	23.73	24.91	--	--	25.77	26.53
Alaska	24.02	23.46	20.07	19.20	18.09	20.08	--	--	20.84	20.68
Hawaii	31.42	33.45	29.17	30.53	25.44	26.54	--	--	28.43	29.81
U.S. Total	13.27	13.13	11.03	10.98	7.18	7.34	9.85	10.19	11.06	11.03

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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 5.6.B. Average Price of Electricity to Ultimate Customers by End-Use Sector, by State, Year-to-Date through July 2019 and 2018 (Cents per Kilowatthour)

Census Division and State	Residential		Commercial		Industrial		Transportation		All Sectors	
	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD	July 2019 YTD	July 2018 YTD
New England	21.08	20.46	16.38	16.20	13.03	13.00	10.33	9.20	17.82	17.48
Connecticut	22.35	21.06	17.25	16.59	13.86	13.87	15.87	12.93	19.21	18.32
Maine	15.80	16.03	12.23	12.22	9.00	9.06	--	--	12.99	13.04
Massachusetts	22.15	21.64	16.64	16.77	14.51	14.64	6.65	6.69	18.43	18.34
New Hampshire	20.14	19.52	16.04	15.81	13.21	12.96	--	--	17.28	16.88
Rhode Island	21.57	20.12	16.98	16.25	15.98	15.17	18.93	17.06	18.75	17.71
Vermont	17.06	17.89	15.90	15.17	10.78	10.55	--	--	15.06	15.07
Middle Atlantic	15.70	15.98	12.05	12.34	6.61	7.02	11.12	11.13	12.30	12.63
New Jersey	16.13	15.62	12.42	12.24	10.44	10.13	8.64	8.56	13.68	13.34
New York	17.75	18.42	13.69	14.30	5.56	6.14	12.27	12.23	14.12	14.74
Pennsylvania	13.63	14.00	8.77	9.01	6.45	6.88	7.44	7.63	9.83	10.21
East North Central	13.31	13.19	10.19	10.13	6.96	7.03	7.28	6.84	10.18	10.16
Illinois	12.83	12.51	8.98	8.94	6.61	6.65	7.11	6.62	9.53	9.44
Indiana	12.36	11.86	10.81	10.30	7.38	7.15	11.01	10.45	9.88	9.54
Michigan	15.60	15.73	11.36	11.27	7.25	7.36	10.52	10.96	11.60	11.67
Ohio	12.31	12.47	9.80	9.97	6.34	6.76	7.18	7.21	9.60	9.86
Wisconsin	14.56	14.42	11.02	10.92	7.71	7.65	13.84	13.87	11.04	10.92
West North Central	11.83	11.98	9.67	9.78	7.37	7.38	8.75	8.99	9.77	9.90
Iowa	12.86	12.59	10.22	9.89	6.66	6.58	--	--	9.34	9.20
Kansas	12.62	13.21	10.16	10.49	7.28	7.45	--	--	10.21	10.65
Minnesota	13.29	13.22	10.55	10.38	7.87	7.70	9.81	9.56	10.65	10.52
Missouri	10.83	11.25	8.97	9.46	6.73	7.14	7.62	8.38	9.49	9.97
Nebraska	10.65	10.57	8.94	8.88	7.73	7.65	--	--	9.13	9.06
North Dakota	10.27	10.14	9.00	9.00	8.46	8.50	--	--	9.08	9.09
South Dakota	11.34	11.40	9.35	9.36	7.76	7.75	--	--	9.81	9.83
South Atlantic	11.96	11.80	9.40	9.42	6.34	6.51	8.01	7.73	10.03	10.00
Delaware	12.57	12.56	9.80	9.61	7.60	7.66	--	--	10.67	10.56
District of Columbia	13.04	12.67	12.18	11.74	8.30	8.19	10.14	9.15	12.25	11.82
Florida	11.91	11.62	9.54	9.39	7.72	7.77	8.26	7.93	10.65	10.43
Georgia	11.65	11.50	9.71	9.72	5.76	5.83	5.37	5.53	9.62	9.59
Maryland	13.26	13.32	10.12	10.46	7.80	8.39	7.42	7.31	11.39	11.63
North Carolina	11.53	11.18	8.79	8.68	6.14	6.23	8.23	8.09	9.47	9.33
South Carolina	12.59	12.87	10.27	10.67	5.93	6.22	--	--	9.71	10.05
Virginia	11.98	11.79	8.28	8.38	6.95	6.84	8.19	8.29	9.60	9.57
West Virginia	10.96	11.40	8.98	9.48	5.96	6.59	--	--	8.35	8.96
East South Central	11.40	11.10	10.71	10.47	5.79	5.85	--	--	9.44	9.33
Alabama	12.71	12.29	11.59	11.30	5.99	6.04	--	--	9.88	9.68
Kentucky	10.63	10.36	9.95	9.53	5.40	5.55	--	--	8.49	8.45
Mississippi	11.42	11.35	10.58	10.62	6.03	6.05	--	--	9.34	9.36
Tennessee	10.89	10.60	10.63	10.39	5.81	5.77	--	--	9.81	9.64
West South Central	11.12	10.78	8.12	8.24	5.29	5.50	6.68	8.45	8.32	8.40
Arkansas	9.82	9.89	8.73	7.92	5.95	5.56	11.88	11.37	8.14	7.85
Louisiana	9.50	9.36	8.85	8.89	5.26	5.30	9.27	9.90	7.66	7.69
Oklahoma	10.02	10.15	7.72	7.86	4.96	5.16	--	--	7.70	7.99
Texas	11.78	11.29	8.00	8.21	5.25	5.61	6.49	8.34	8.58	8.69
Mountain	11.93	12.00	9.58	9.67	6.30	6.41	9.41	9.48	9.42	9.54
Arizona	12.68	12.85	10.48	10.80	6.35	6.53	9.89	10.02	10.72	10.95
Colorado	12.26	12.03	10.19	9.97	7.31	7.24	8.93	8.90	10.07	9.91
Idaho	9.99	10.29	7.76	8.05	6.23	6.68	--	--	7.99	8.31
Montana	11.21	11.09	10.35	10.18	5.64	4.98	--	--	9.18	8.99
Nevada	11.99	11.96	7.85	7.88	5.75	5.99	8.08	8.20	8.55	8.74
New Mexico	12.59	12.68	9.90	10.09	5.53	5.76	--	--	9.11	9.41
Utah	10.48	10.62	8.39	8.46	5.99	5.87	10.59	10.65	8.31	8.34
Wyoming	11.13	11.39	9.70	9.73	6.65	6.79	--	--	8.09	8.21
Pacific Contiguous	15.57	15.36	14.02	13.87	9.42	9.41	8.70	8.87	13.59	13.44
California	19.34	18.86	16.19	15.93	12.77	12.78	8.60	8.85	16.62	16.32
Oregon	10.92	10.87	8.92	9.05	6.27	5.83	9.15	9.21	9.07	9.01
Washington	9.57	9.64	8.72	8.69	4.79	4.60	9.44	9.36	8.02	7.98
Pacific Noncontiguous	28.48	27.61	25.25	24.29	24.00	23.46	--	--	25.85	25.05
Alaska	22.63	21.89	19.98	18.73	17.22	17.94	--	--	20.32	19.61
Hawaii	32.94	32.05	30.15	29.41	26.31	25.56	--	--	29.47	28.69
U.S. Total	13.02	12.86	10.62	10.64	6.77	6.92	9.74	9.71	10.55	10.57

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Changes from year to year in consumer counts, sales and revenues, particularly involving the commercial and industrial consumer sectors, may result from respondent implementation of changes in the definitions of consumers, and reclassifications.
Totals may not equal sum of components because of independent rounding.
Source: U.S. Energy Information Administration, Form EIA-861M (formerly EIA-826), Monthly Electric Power Industry Report.

Table 5.7. Number of Ultimate Customers Served by Sector: 2009 - July 2019

Period	Residential	Commercial	Industrial	Transportation	All Sectors
Annual Totals					
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
2018	133,960,222	18,548,645	799,996	85	153,308,948
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	133,344,237	18,511,591	796,731	83	152,652,642
February	132,950,019	18,387,369	773,724	83	152,111,195
March	133,912,760	18,524,464	784,718	83	153,222,025
April	133,452,513	18,481,484	784,792	83	152,718,872
May	134,227,643	18,565,843	808,290	83	153,601,859
June	134,050,605	18,566,686	816,627	83	153,434,001
July	133,981,066	18,548,375	819,030	86	153,348,557
August	134,537,841	18,621,883	825,213	88	153,985,025
Sept	133,925,550	18,535,656	802,444	88	153,263,738
October	134,471,360	18,650,412	806,702	88	153,928,562
November	134,278,555	18,571,446	788,374	86	153,638,461
December	134,390,512	18,618,535	793,306	86	153,802,439
Year 2019					
January	134,962,234	18,643,058	897,380	83	154,502,755
February	133,460,501	18,505,879	879,321	82	152,845,783
March	135,407,177	18,613,703	884,954	82	154,905,916
April	135,174,509	18,587,483	893,594	82	154,655,668
May	135,493,468	18,667,812	914,521	81	155,075,882
June	135,132,941	18,590,724	920,435	81	154,644,181
July	135,509,959	18,689,415	949,264	81	155,148,719
Rolling 12 Months Ending in July					
2018	133,411,283	18,472,254	817,260	84	152,700,881
2019	134,728,717	18,608,001	862,959	84	154,199,761

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 2019 and 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: July 2019 and 2018

Census Division and State	Residential		Commercial		Industrial		Transportation		All Sectors	
	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	6,455,281	6,405,829	906,333	881,326	19,832	20,014	6	6	7,381,452	7,307,175
Connecticut	1,512,006	1,504,434	154,548	153,970	4,162	4,220	3	3	1,670,719	1,662,627
Maine	727,580	673,106	100,943	92,187	2,880	2,906	0	0	831,403	768,199
Massachusetts	2,824,659	2,840,020	423,071	409,419	7,721	7,821	2	2	3,255,453	3,257,262
New Hampshire	634,098	624,012	109,395	108,179	3,162	3,145	0	0	746,655	735,336
Rhode Island	439,027	448,137	60,519	60,683	1,767	1,786	1	1	501,314	510,607
Vermont	317,911	316,120	57,857	56,888	140	136	0	0	375,908	373,144
Middle Atlantic	16,270,060	16,164,656	2,364,380	2,344,996	33,115	29,768	19	20	18,667,574	18,539,440
New Jersey	3,610,793	3,577,664	521,945	522,117	11,741	11,831	6	6	4,144,485	4,111,618
New York	7,234,488	7,192,104	1,123,988	1,108,861	6,577	6,685	8	8	8,365,061	8,307,658
Pennsylvania	5,424,779	5,394,888	718,447	714,018	14,797	11,252	5	6	6,158,028	6,120,164
East North Central	20,378,031	20,255,434	2,523,986	2,506,507	46,896	46,762	10	9	22,948,923	22,808,712
Illinois	5,332,223	5,300,287	620,936	615,462	3,996	4,047	3	3	5,957,158	5,919,799
Indiana	2,884,121	2,858,356	358,996	353,647	15,209	15,224	1	1	3,258,327	3,227,228
Michigan	4,412,487	4,392,014	550,661	549,848	NM	NM	2	2	4,968,779	4,947,481
Ohio	5,003,201	4,981,250	632,696	629,695	17,015	16,977	2	2	5,652,914	5,627,924
Wisconsin	2,745,999	2,723,527	360,697	357,855	NM	NM	2	1	3,111,745	3,086,280
West North Central	9,650,128	9,558,715	1,479,835	1,467,542	117,066	115,230	3	3	11,247,032	11,141,490
Iowa	1,410,056	1,396,793	248,182	245,710	NM	NM	0	0	1,665,206	1,649,426
Kansas	1,290,041	1,281,721	236,250	236,030	26,053	26,085	0	0	1,552,344	1,543,836
Minnesota	2,443,615	2,414,739	295,145	291,628	NM	NM	1	1	2,747,276	2,714,672
Missouri	2,839,373	2,820,045	386,381	383,855	6,578	6,780	2	2	3,232,334	3,210,682
Nebraska	871,041	860,688	163,112	162,070	56,911	55,940	0	0	1,091,064	1,078,698
North Dakota	387,056	380,643	75,375	73,966	8,920	8,119	0	0	471,351	462,728
South Dakota	408,946	404,086	75,390	74,283	NM	NM	0	0	487,457	481,448
South Atlantic	28,336,833	27,947,031	3,827,484	3,802,218	79,591	79,339	13	13	32,243,921	31,828,601
Delaware	435,762	429,753	55,514	54,830	573	593	0	0	491,849	485,176
District of Columbia	282,666	274,517	26,479	26,380	1	1	3	3	309,149	300,901
Florida	9,476,389	9,362,008	1,243,218	1,236,192	20,669	20,593	2	2	10,740,278	10,618,795
Georgia	4,459,857	4,385,620	588,543	585,511	20,082	19,999	1	1	5,068,483	4,991,131
Maryland	2,355,045	2,334,591	255,696	253,582	8,802	8,739	5	5	2,619,548	2,596,917
North Carolina	4,650,278	4,566,773	706,131	701,770	9,858	9,929	1	1	5,366,268	5,278,473
South Carolina	2,344,843	2,297,767	373,628	368,264	4,276	4,314	0	0	2,722,747	2,670,345
Virginia	3,477,299	3,439,061	433,180	431,060	3,847	3,781	1	1	3,914,327	3,873,903
West Virginia	854,694	856,941	145,095	144,629	11,483	11,390	0	0	1,011,272	1,012,960
East South Central	8,569,552	8,485,073	1,417,143	1,403,862	21,851	23,120	0	0	10,008,546	9,912,055
Alabama	2,283,341	2,257,129	371,674	370,674	8,263	8,315	0	0	2,663,278	2,636,118
Kentucky	2,017,131	2,001,193	308,305	303,612	5,429	6,085	0	0	2,330,865	2,310,890
Mississippi	1,330,778	1,317,537	240,280	239,680	7,312	7,876	0	0	1,578,370	1,565,093
Tennessee	2,938,302	2,909,214	496,884	489,896	847	844	0	0	3,436,033	3,399,954
West South Central	16,416,530	16,248,420	2,257,176	2,305,316	325,453	207,107	6	6	18,999,165	18,760,849
Arkansas	1,409,631	1,396,555	194,014	192,719	40,885	41,766	2	2	1,644,532	1,631,042
Louisiana	2,129,315	2,101,472	296,329	294,462	18,804	18,799	1	1	2,444,449	2,414,734
Oklahoma	1,807,165	1,786,173	286,930	285,872	19,663	17,994	0	0	2,113,758	2,090,039
Texas	11,070,419	10,964,220	1,479,903	1,532,263	246,101	128,548	3	3	12,796,426	12,625,034
Mountain	9,970,296	9,701,341	1,413,449	1,395,685	93,010	90,803	5	5	11,476,760	11,187,834
Arizona	2,832,766	2,787,838	327,795	321,713	NM	6,368	2	2	3,167,009	3,115,921
Colorado	2,366,316	2,325,442	368,912	364,667	NM	14,654	1	1	2,750,163	2,704,764
Idaho	761,764	742,506	112,441	110,553	29,011	28,760	0	0	903,216	881,819
Montana	519,415	512,354	112,551	110,584	NM	9,445	0	0	641,789	632,383
Nevada	1,204,957	1,083,014	166,075	164,571	NM	3,503	1	1	1,374,566	1,251,089
New Mexico	911,031	900,855	140,486	139,356	NM	8,546	0	0	1,060,238	1,048,757
Utah	1,097,231	1,074,857	125,779	125,073	10,592	9,674	1	1	1,233,603	1,209,605
Wyoming	276,816	274,475	59,410	59,168	9,950	9,853	0	0	346,176	343,496
Pacific Contiguous	18,733,750	18,489,225	2,384,729	2,327,125	210,203	204,665	19	24	21,328,701	21,021,039
California	13,824,506	13,660,925	1,739,255	1,688,098	153,608	149,348	12	16	15,717,381	15,498,387
Oregon	1,783,153	1,760,316	242,062	242,070	27,078	26,383	2	2	2,052,295	2,028,771
Washington	3,126,091	3,067,984	403,412	396,957	29,517	28,934	5	6	3,559,025	3,493,881
Pacific Noncontiguous	729,498	725,342	114,900	113,798	NM	NM	0	0	846,645	841,362
Alaska	291,436	289,702	54,946	53,998	NM	NM	0	0	347,815	345,125
Hawaii	438,062	435,640	59,954	59,800	814	797	0	0	498,830	496,237
U.S. Total	135,509,959	133,981,066	18,689,415	18,548,375	949,264	819,030	81	86	155,148,719	153,348,557

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 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), June 2019 to July 2019

		As of End of June 2019	Activity During July 2019 as Reported to EIA		As of End of July 2019	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*	*98,082.5*	*275.6*	*0.0*	*98,358.1*	*275.6*	*4,092.1*	*9,375.5*	*782.6*	*10,911.5*	*0.0*	*75.0*	*782.6*	*10,836.5*	*99,140.7*	*109,194.6*
..... *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	98,111.8	275.6	0.0	98,387.4	275.6	4,092.1	9,375.5	782.6	10,911.5	0.0	75.0	782.6	10,836.5	99,170.0	109,223.9
..... *Solar Photovoltaic*	*Utility Scale Facilities*	*31,589.9*	*294.2*	*0.0*	*31,884.1*	*294.2*	*1,713.6*	*4,327.3*	*454.2*	*9,863.0*	*0.0*	*8.0*	*454.2*	*9,855.0*	*32,338.3*	*41,739.1*
..... *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	33,347.8	294.2	0.0	33,642.0	294.2	1,713.6	4,327.3	454.2	9,863.0	0.0	8.0	454.2	9,855.0	34,096.2	43,497.0
..... Conventional Hydroelectric	Utility Scale Facilities	79,880.5	1.7	0.2	79,882.0	1.5	-11.1	109.3	0.0	227.3	109.2	114.9	-109.2	112.4	79,772.8	79,994.4
..... *Wood/Wood Waste Biomass*	*Utility Scale Facilities*	*8,518.6*	*0.0*	*0.0*	*8,518.6*	*0.0*	*-236.1*	*-290.2*	*116.0*	*130.5*	*0.0*	*89.3*	*116.0*	*41.2*	*8,634.6*	*8,559.8*
..... *Landfill Gas*	*Utility Scale Facilities*	*2,047.0*	*1.0*	*0.0*	*2,048.0*	*1.0*	*-19.4*	*-20.5*	*1.4*	*5.0*	*3.2*	*81.4*	*-1.8*	*-76.4*	*2,046.2*	*1,971.6*
..... *Municipal Solid Waste*	*Utility Scale Facilities*	*2,189.3*	*0.0*	*0.0*	*2,189.3*	*0.0*	*-45.7*	*-45.7*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*2,189.3*	*2,189.3*
..... *Other Waste Biomass*	*Utility Scale Facilities*	*746.7*	*2.0*	*0.0*	*748.7*	*2.0*	*-24.4*	*-24.8*	*0.0*	*46.7*	*0.0*	*6.5*	*0.0*	*40.2*	*748.7*	*788.9*
..... Biomass Sources Subtotal	Utility Scale Facilities	13,501.6	3.0	0.0	13,504.6	3.0	-325.6	-381.2	117.4	182.2	3.2	177.2	114.2	5.0	13,618.8	13,509.6
..... Geothermal	Utility Scale Facilities	2,641.3	0.0	192.8	2,448.5	-192.8	-92.3	-50.8	0.0	0.0	0.0	0.0	0.0	0.0	2,448.5	2,448.5
... Renewable Sources Subtotal	***Utility Scale Facilities***	***227,483.0***	***574.5***	***193.0***	***227,864.5***	***381.5***	***5,376.7***	***13,380.1***	***1,354.2***	***21,184.0***	***112.4***	***375.1***	***1,241.8***	***20,808.9***	***229,106.3***	***248,673.4***
..... *Natural Gas Fired Combined Cycle*	*Utility Scale Facilities*	*268,799.5*	*286.6*	*177.3*	*268,908.8*	*109.3*	*5,148.2*	*12,431.7*	*0.0*	*7,336.6*	*0.0*	*703.0*	*0.0*	*6,633.6*	*268,908.8*	*275,542.4*
..... *Natural Gas Fired Combustion Turbine*	*Utility Scale Facilities*	*128,644.2*	*100.0*	*0.0*	*128,744.2*	*100.0*	*923.9*	*1,462.0*	*113.9*	*2,504.5*	*0.0*	*486.0*	*113.9*	*2,018.5*	*128,858.1*	*130,762.7*
..... *Natural Gas Steam Turbine*	*Utility Scale Facilities*	*73,618.3*	*85.0*	*30.0*	*73,673.3*	*55.0*	*-1,065.9*	*-2,705.9*	*0.0*	*0.0*	*0.0*	*1,944.9*	*0.0*	*-1,944.9*	*73,673.3*	*71,728.4*
..... *Natural Gas Internal Combustion Engine*	*Utility Scale Facilities*	*4,890.4*	*3.6*	*0.0*	*4,894.0*	*3.6*	*259.8*	*282.1*	*27.3*	*233.3*	*0.0*	*23.8*	*27.3*	*209.5*	*4,921.3*	*5,103.5*
..... *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*	*175.0*	*0.0*	*0.0*	*175.0*	*0.0*	*53.0*	*53.2*	*0.0*	*46.3*	*0.0*	*0.0*	*0.0*	*46.3*	*175.0*	*221.3*
..... Natural Gas Subtotal	Utility Scale Facilities	476,237.4	475.2	207.3	476,505.3	267.9	5,319.0	11,523.1	141.2	10,120.7	0.0	3,157.7	141.2	6,963.0	476,646.5	483,468.3
..... *Conventional Steam Coal*	*Utility Scale Facilities*	*235,424.2*	*0.0*	*1,067.5*	*234,356.7*	*-1,067.5*	*-8,361.1*	*-10,619.3*	*0.0*	*68.0*	*0.0*	*9,434.9*	*0.0*	*-9,366.9*	*234,356.7*	*224,989.8*
..... *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	236,180.2	0.0	1,067.5	235,112.7	-1,067.5	-8,361.1	-10,619.3	0.0	68.0	0.0	9,434.9	0.0	-9,366.9	235,112.7	225,745.8
..... Petroleum Coke	Utility Scale Facilities	1,532.2	0.0	0.0	1,532.2	0.0	4.3	4.3	0.0	0.0	0.0	67.0	0.0	-67.0	1,532.2	1,465.2
..... Petroleum Liquids	Utility Scale Facilities	30,586.8	0.0	0.0	30,586.8	0.0	-939.5	-956.8	19.5	23.9	19.6	70.4	-0.1	-46.5	30,586.7	30,540.3
..... Other Gases	Utility Scale Facilities	2,398.9	150.0	0.0	2,548.9	150.0	173.1	173.1	0.0	5.0	0.0	0.0	0.0	5.0	2,548.9	2,553.9
... Fossil Fuels Subtotal	***Utility Scale Facilities***	***746,935.5***	***625.2***	***1,274.8***	***746,285.9***	***-649.6***	***-3,804.2***	***124.4***	***160.7***	***10,217.6***	***19.6***	***12,730.0***	***141.1***	***-2,512.4***	***746,427.0***	***743,773.5***
..... Hydroelectric Pumped Storage	Utility Scale Facilities	22,909.2	0.0	0.0	22,909.2	0.0	53.8	53.8	0.0	191.6	0.0	0.0	0.0	191.6	22,909.2	23,100.8
..... 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	946.4	19.0	0.0	965.4	19.0	123.4	201.6	30.1	102.5	0.0	0.0	30.1	102.5	995.5	1,067.9
... Energy Storage Subtotal	***Utility Scale Facilities***	***23,902.6***	***19.0***	***0.0***	***23,921.6***	***19.0***	***177.2***	***255.4***	***30.1***	***294.1***	***0.0***	***0.0***	***30.1***	***294.1***	***23,951.7***	***24,215.7***
... Nuclear	***Utility Scale Facilities***	***98,908.9***	***0.0***	***0.0***	***98,908.9***	***0.0***	***-446.0***	***-743.7***	***0.0***	***0.0***	***0.0***	***1,821.3***	***0.0***	***-1,821.3***	***98,908.9***	***97,087.6***
... All Other	***Utility Scale Facilities***	***1,470.8***	***0.0***	***23.2***	***1,447.6***	***-23.2***	***-733.7***	***-732.8***	***47.9***	***47.9***	***0.0***	***0.0***	***47.9***	***47.9***	***1,495.5***	***1,495.5***
TOTAL	**UTILITY SCALE FACILITIES**	**1,098,700.8**	**1,218.7**	**1,491.0**	**1,098,428.5**	**-272.3**	**570.0**	**12,283.4**	**1,592.9**	**31,743.6**	**132.0**	**14,926.4**	**1,460.9**	**16,817.2**	**1,099,889.4**	**1,115,245.7**
..... *Estimated Small Scale Solar Photovoltaic*	*Small Scale Facilities*	*21,285.7*			*21,633.5*	*347.8*	*2,112.0*	*3,487.7*								
..... Estimated Total Solar Photovoltaic	All Facilities	52,875.6			53,517.6	642.0	3,825.6	7,815.0								
... Estimated Total Solar	***All Facilities***	***54,633.5***			***55,275.5***	***642.0***	***3,825.6***	***7,815.0***								

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 - July 2019

Period	Utility Solar Photovoltaic	Estimated Small Scale Solar Photovoltaic	Estimated Total Solar Photovoltaic
Annual Totals			
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
2018	30,170.5	19,521.5	49,692.0
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	25,983.4	16,496.2	42,479.6
February	26,073.2	16,757.7	42,830.9
March	26,576.0	17,048.0	43,624.0
April	26,854.0	17,306.3	44,160.3
May	27,275.1	17,600.7	44,875.8
June	27,432.9	17,887.4	45,320.3
July	27,556.8	18,145.8	45,702.6
August	27,635.9	18,426.4	46,062.3
Sept	27,951.5	18,712.4	46,663.9
October	28,103.5	19,000.5	47,104.0
November	28,630.8	19,278.1	47,908.9
December	30,170.5	19,521.5	49,692.0
Year 2019			
January	30,622.2	19,959.0	50,581.2
February	30,360.3	20,125.8	50,486.1
March	31,136.7	20,584.9	51,721.6
April	31,234.8	20,884.6	52,119.4
May	31,233.3	21,018.7	52,252.0
June	31,589.9	21,285.7	52,875.6
July	31,884.1	21,633.5	53,517.6

Values 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 - July 2019

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
2018	11,664.4	6,285.8	1,571.3	19,521.5
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	9,818.4	5,312.1	1,365.7	16,496.2
February	9,985.1	5,398.4	1,374.2	16,757.7
March	10,155.4	5,501.2	1,391.4	17,048.0
April	10,313.9	5,580.1	1,412.2	17,306.3
May	10,492.1	5,676.2	1,432.4	17,600.7
June	10,660.0	5,778.0	1,449.5	17,887.4
July	10,828.8	5,858.8	1,458.2	18,145.8
August	11,011.0	5,945.3	1,470.2	18,426.4
Sept	11,178.8	6,026.4	1,507.2	18,712.4
October	11,373.1	6,105.2	1,522.1	19,000.5
November	11,552.4	6,176.0	1,549.7	19,278.1
December	11,664.4	6,285.8	1,571.3	19,521.5
Year 2019				
January	11,998.4	6,379.6	1,581.0	19,959.0
February	12,165.8	6,369.7	1,590.3	20,125.8
March	12,439.8	6,533.0	1,612.2	20,584.9
April	12,615.5	6,627.2	1,642.0	20,884.6
May	12,687.3	6,661.9	1,669.5	21,018.7
June	12,864.6	6,707.4	1,713.7	21,285.7
July	13,128.9	6,804.3	1,700.4	21,633.5

Values 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, July 2019 and 2018 (Megawatts)

Census Division and State	Renewable Sources		Fossil Fuels		Hydroelectric Pumped Storage		Other Energy Storage		Nuclear		All Other Sources		All Sources	
	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	5,870.9	5,729.6	24,181.9	22,836.2	1,797.4	1,797.4	42.8	28.7	3,324.5	4,018.2	48.0	320.9	35,265.5	34,731.0
Connecticut	412.6	390.3	7,870.6	6,998.4	29.4	29.4	1.6	1.6	2,073.1	2,087.8	26.0	298.9	10,413.3	9,806.4
Maine	2,292.2	2,345.6	2,478.8	2,540.5	0.0	0.0	16.2	16.2	0.0	0.0	22.0	22.0	4,809.2	4,924.3
Massachusetts	1,424.1	1,321.6	9,612.6	9,105.4	1,768.0	1,768.0	22.0	7.9	0.0	679.0	0.0	0.0	12,826.7	12,881.9
New Hampshire	928.1	928.9	2,289.9	2,262.9	0.0	0.0	0.0	0.0	1,251.4	1,251.4	0.0	0.0	4,469.4	4,443.2
Rhode Island	150.2	113.3	1,832.1	1,831.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,982.3	1,944.4
Vermont	663.7	629.9	97.9	97.9	0.0	0.0	3.0	3.0	0.0	0.0	0.0	0.0	764.6	730.8
Middle Atlantic	11,286.1	10,931.2	73,066.5	70,284.2	3,411.6	3,409.8	141.5	73.9	18,700.2	19,310.2	11.2	420.9	106,617.1	104,430.2
New Jersey	1,042.2	937.2	12,160.5	12,408.5	420.0	420.0	42.1	2.5	3,500.2	4,107.9	11.2	11.2	17,176.2	17,887.3
New York	7,386.5	7,142.2	26,967.1	26,697.4	1,408.6	1,406.8	51.0	21.0	5,403.0	5,405.3	0.0	221.7	41,216.2	40,894.4
Pennsylvania	2,857.4	2,851.8	33,938.9	31,178.3	1,583.0	1,583.0	48.4	50.4	9,797.0	9,797.0	0.0	188.0	48,224.7	45,648.5
East North Central	12,908.1	11,824.2	111,448.7	112,157.4	2,231.0	2,179.0	189.7	167.7	19,034.4	19,029.4	187.1	188.1	145,999.0	145,545.8
Illinois	4,967.2	4,549.9	29,069.3	29,003.9	0.0	0.0	132.7	112.7	11,582.4	11,577.4	78.0	78.0	45,829.6	45,321.9
Indiana	2,662.5	2,442.8	23,932.6	23,890.4	0.0	0.0	23.0	22.0	0.0	0.0	88.0	89.0	26,706.1	26,444.2
Michigan	2,991.1	2,659.0	20,215.1	20,774.1	2,231.0	2,179.0	1.0	0.0	4,122.2	4,122.2	0.0	0.0	29,560.4	29,734.3
Ohio	1,066.3	931.4	25,170.9	25,149.6	0.0	0.0	33.0	33.0	2,134.0	2,134.0	0.0	0.0	28,404.2	28,248.0
Wisconsin	1,221.0	1,241.1	13,060.8	13,339.4	0.0	0.0	0.0	0.0	1,195.8	1,195.8	21.1	21.1	15,498.7	15,797.4
West North Central	30,530.9	26,893.6	59,280.2	60,747.6	657.0	657.0	17.1	3.2	5,443.4	5,443.4	22.8	24.5	95,951.4	93,769.3
Iowa	8,970.1	7,320.8	9,808.4	9,801.5	0.0	0.0	1.1	0.0	601.4	601.4	0.0	0.0	19,381.0	17,723.7
Kansas	6,153.6	5,136.2	9,025.4	9,780.0	0.0	0.0	0.0	0.0	1,225.0	1,225.0	0.8	0.8	16,404.8	16,142.0
Minnesota	5,279.9	5,066.6	10,269.5	10,305.6	0.0	0.0	13.0	1.0	1,657.0	1,657.0	16.7	18.4	17,236.1	17,048.6
Missouri	1,579.0	1,578.9	17,650.0	18,387.2	657.0	657.0	2.2	2.2	1,190.0	1,190.0	0.0	0.0	21,078.2	21,815.3
Nebraska	2,329.9	1,761.5	6,202.0	6,148.4	0.0	0.0	0.0	0.0	770.0	770.0	0.0	0.0	9,301.9	8,679.9
North Dakota	3,741.6	3,592.8	4,633.6	4,633.6	0.0	0.0	0.0	0.0	0.0	0.0	5.3	5.3	8,380.5	8,231.7
South Dakota	2,476.8	2,436.8	1,691.3	1,691.3	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	4,168.9	4,128.1
South Atlantic	20,787.9	19,049.8	161,084.8	160,668.8	7,905.2	7,905.2	76.5	94.5	24,706.6	24,602.6	408.7	452.7	214,969.7	212,773.6
Delaware	47.5	48.3	3,330.4	3,331.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,377.9	3,379.7
District of Columbia	29.9	23.0	9.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	38.9	32.0
Florida	3,208.3	2,402.5	52,911.8	51,921.9	0.0	0.0	14.0	14.0	3,626.0	3,572.0	348.7	348.7	60,108.8	58,259.1
Georgia	4,019.8	3,964.5	26,068.1	26,964.0	1,862.2	1,862.2	1.0	1.0	4,061.0	4,061.0	0.0	44.0	36,012.1	36,896.7
Maryland	1,210.2	1,150.9	11,671.1	11,837.3	0.0	0.0	7.0	13.0	1,725.8	1,707.8	6.0	6.0	14,620.1	14,715.0
North Carolina	6,843.0	6,181.6	22,127.1	21,644.3	86.0	86.0	1.0	1.0	5,149.6	5,117.6	54.0	54.0	34,260.7	33,084.5
South Carolina	2,336.1	2,140.8	12,171.3	12,134.7	2,716.0	2,716.0	4.0	0.0	6,576.2	6,576.2	0.0	0.0	23,803.6	23,567.7
Virginia	2,066.0	2,111.1	19,018.1	19,044.9	3,241.0	3,241.0	0.0	0.0	3,568.0	3,568.0	0.0	0.0	27,893.1	27,965.0
West Virginia	1,027.1	1,027.1	13,777.9	13,781.3	0.0	0.0	49.5	65.5	0.0	0.0	0.0	0.0	14,854.5	14,873.9
East South Central	8,909.6	8,762.6	62,692.3	64,821.3	1,616.3	1,616.3	1.0	1.0	11,449.1	10,984.1	1.4	1.4	84,669.7	86,186.7
Alabama	4,180.1	4,156.0	19,552.0	20,482.4	0.0	0.0	1.0	1.0	5,525.4	5,060.4	0.0	0.0	29,258.5	29,699.8
Kentucky	1,246.4	1,245.4	18,290.3	18,874.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19,536.7	20,119.7
Mississippi	463.0	435.3	12,659.7	13,274.3	0.0	0.0	0.0	0.0	1,401.0	1,401.0	1.4	1.4	14,525.1	15,112.0
Tennessee	3,020.1	2,925.9	12,190.3	12,190.3	1,616.3	1,616.3	0.0	0.0	4,522.7	4,522.7	0.0	0.0	21,349.4	21,255.2
West South Central	40,448.2	36,490.9	140,190.8	140,053.6	286.0	286.0	119.7	98.3	8,910.7	8,910.7	512.5	512.7	190,467.9	186,352.2
Arkansas	1,697.1	1,694.3	11,219.7	11,193.0	28.0	28.0	0.0	0.0	1,817.8	1,817.8	0.0	0.0	14,762.6	14,733.1
Louisiana	615.5	683.2	21,012.9	20,596.7	0.0	0.0	0.5	0.5	2,132.9	2,132.9	288.5	288.7	24,050.3	23,702.0
Oklahoma	9,041.0	8,463.1	18,111.5	18,577.0	258.0	258.0	0.0	0.0	0.0	0.0	0.0	0.0	27,410.5	27,298.1
Texas	29,094.6	25,650.3	89,846.7	89,686.9	0.0	0.0	119.2	97.8	4,960.0	4,960.0	224.0	224.0	124,244.5	120,619.0
Mountain	27,456.7	26,328.9	62,546.2	62,322.8	778.8	778.8	50.6	35.6	3,937.0	3,937.0	123.0	126.3	94,892.3	93,529.4
Arizona	5,092.9	5,090.8	19,698.8	19,407.3	216.3	216.3	42.0	32.0	3,937.0	3,937.0	0.0	0.0	28,987.0	28,683.4
Colorado	4,965.7	4,364.1	11,063.0	11,119.2	562.5	562.5	5.0	1.0	0.0	0.0	9.1	9.3	16,605.3	16,056.1
Idaho	4,071.9	4,011.9	1,127.1	1,127.6	0.0	0.0	0.0	0.0	0.0	0.0	14.8	14.8	5,213.8	5,154.3
Montana	3,574.6	3,472.8	2,744.9	2,741.9	0.0	0.0	0.0	0.0	0.0	0.0	40.0	44.0	6,359.5	6,258.7
Nevada	3,769.0	3,595.6	7,821.6	7,821.6	0.0	0.0	0.0	0.0	0.0	0.0	6.5	6.5	11,597.1	11,423.7
New Mexico	2,493.7	2,398.8	5,956.3	5,966.8	0.0	0.0	3.6	2.6	0.0	0.0	0.0	0.0	8,453.6	8,368.2
Utah	1,602.5	1,600.5	7,360.2	7,360.2	0.0	0.0	0.0	0.0	0.0	0.0	40.2	40.2	9,002.9	9,000.9
Wyoming	1,886.4	1,794.4	6,774.3	6,778.2	0.0	0.0	0.0	0.0	0.0	0.0	12.4	11.5	8,673.1	8,584.1
Pacific Contiguous	68,455.9	67,292.0	47,569.7	48,048.1	4,225.9	4,225.9	266.3	220.7	3,403.0	3,417.0	106.3	106.3	124,027.1	123,310.0
California	31,436.5	30,360.3	38,501.8	38,970.2	3,911.9	3,911.9	255.1	208.3	2,240.0	2,240.0	106.3	106.3	76,451.6	75,797.0
Oregon	12,245.1	12,229.7	4,326.1	4,318.1	0.0	0.0	5.0	5.0	0.0	0.0	0.0	0.0	16,576.2	16,552.8
Washington	24,774.3	24,702.0	4,741.8	4,759.8	314.0	314.0	6.2	7.4	1,163.0	1,177.0	0.0	0.0	30,999.3	30,960.2
Pacific Noncontiguous	1,210.2	1,181.6	4,224.8	4,221.5	0.0	0.0	107.2	87.2	0.0	0.0	26.6	26.6	5,568.8	5,516.9
Alaska	538.2	538.2	2,166.5	2,163.2	0.0	0.0	46.2	46.2	0.0	0.0	0.0	0.0	2,750.9	2,747.6
Hawaii	672.0	643.4	2,058.3	2,058.3	0.0	0.0	61.0	41.0	0.0	0.0	26.6	26.6	2,817.9	2,769.3
U.S. Total	227,864.5	214,484.4	746,285.9	746,161.5	22,909.2	22,855.4	1,012.4	810.8	98,908.9	99,652.6	1,447.6	2,180.4	1,098,428.5	1,086,145.1

NM = Not meaningful due to large relative standard error.
Values 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, July 2019 and 2018 (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	
	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	1,424.8	1,402.1	1,003.2	836.6	0.0	0.0	1,962.3	1,960.7	1,480.6	1,530.2	0.0	0.0	5,870.9	5,729.6	2,528.9	2,000.0	3,532.1	2,836.6	3,532.1	2,836.6
Connecticut	1.0	1.0	86.8	63.6	0.0	0.0	122.2	122.2	202.6	203.5	0.0	0.0	412.6	390.3	464.5	368.8	551.3	432.4	551.3	432.4
Maine	921.6	921.6	5.6	5.6	0.0	0.0	735.2	732.4	629.8	686.0	0.0	0.0	2,292.2	2,345.6	53.8	38.2	59.4	43.8	59.4	43.8
Massachusetts	96.1	94.4	775.7	674.5	0.0	0.0	267.0	267.4	285.3	285.3	0.0	0.0	1,424.1	1,321.6	1,690.1	1,359.6	2,465.8	2,034.1	2,465.8	2,034.1
New Hampshire	183.1	183.1	0.0	0.0	0.0	0.0	504.0	504.8	241.0	241.0	0.0	0.0	928.1	928.9	91.5	77.4	91.5	77.4	91.5	77.4
Rhode Island	72.8	51.8	34.6	18.7	0.0	0.0	2.7	2.7	40.1	40.1	0.0	0.0	150.2	113.3	117.8	59.8	152.4	78.5	152.4	78.5
Vermont	150.2	150.2	100.5	74.2	0.0	0.0	331.2	331.2	81.8	74.3	0.0	0.0	663.7	629.9	111.1	96.2	211.6	170.4	211.6	170.4
Middle Atlantic	3,363.3	3,205.6	1,181.2	976.4	0.0	0.0	5,473.2	5,469.2	1,268.4	1,280.0	0.0	0.0	11,286.1	10,931.2	3,294.7	2,818.0	4,475.9	3,794.4	4,475.9	3,794.4
New Jersey	7.6	7.6	805.0	690.0	0.0	0.0	12.3	12.3	217.3	227.3	0.0	0.0	1,042.2	937.2	1,572.1	1,387.3	2,377.1	2,077.3	2,377.1	2,077.3
New York	1,985.7	1,826.2	315.4	234.6	0.0	0.0	4,561.3	4,557.3	524.1	524.1	0.0	0.0	7,386.5	7,142.2	1,369.3	1,130.2	1,684.7	1,364.8	1,684.7	1,364.8
Pennsylvania	1,370.0	1,371.8	60.8	51.8	0.0	0.0	899.6	899.6	527.0	528.6	0.0	0.0	2,857.4	2,851.8	353.3	300.5	414.1	352.3	414.1	352.3
East North Central	10,332.1	9,271.2	480.4	427.1	0.0	0.0	859.9	857.3	1,235.7	1,268.6	0.0	0.0	12,908.1	11,824.2	510.6	346.0	991.0	773.1	991.0	773.1
Illinois	4,803.7	4,380.9	40.6	34.9	0.0	0.0	34.1	34.1	88.8	100.0	0.0	0.0	4,967.2	4,549.9	129.7	62.2	170.3	97.1	170.3	97.1
Indiana	2,309.8	2,109.4	221.5	196.7	0.0	0.0	60.4	60.4	70.8	76.3	0.0	0.0	2,662.5	2,442.8	85.2	66.9	306.7	263.6	306.7	263.6
Michigan	2,061.8	1,735.8	98.2	97.2	0.0	0.0	269.9	266.9	561.2	559.1	0.0	0.0	2,991.1	2,659.0	76.5	56.4	174.7	153.6	174.7	153.6
Ohio	718.4	605.9	96.2	76.2	0.0	0.0	101.9	101.9	149.8	147.4	0.0	0.0	1,066.3	931.4	149.1	109.3	245.3	185.5	245.3	185.5
Wisconsin	438.4	439.2	23.9	22.1	0.0	0.0	393.6	394.0	365.1	385.8	0.0	0.0	1,221.0	1,241.1	70.1	51.2	94.0	73.3	94.0	73.3
West North Central	25,847.9	22,287.1	924.9	757.4	0.0	0.0	3,293.7	3,291.7	464.4	557.4	0.0	0.0	30,530.9	26,893.6	403.8	307.1	1,328.7	1,064.5	1,328.7	1,064.5
Iowa	8,791.8	7,143.8	10.5	9.2	0.0	0.0	146.4	146.4	21.4	21.4	0.0	0.0	8,970.1	7,320.8	104.4	82.5	114.9	91.7	114.9	91.7
Kansas	6,133.4	5,116.0	4.2	4.2	0.0	0.0	7.0	7.0	9.0	9.0	0.0	0.0	6,153.6	5,136.2	21.6	17.2	25.8	21.4	25.8	21.4
Minnesota	3,850.5	3,707.9	829.1	667.8	0.0	0.0	205.9	205.9	394.4	485.0	0.0	0.0	5,279.9	5,066.6	70.2	56.3	899.3	724.1	899.3	724.1
Missouri	954.3	954.3	62.1	59.6	0.0	0.0	548.5	548.5	14.1	16.5	0.0	0.0	1,579.0	1,578.9	198.1	143.6	260.2	203.2	260.2	203.2
Nebraska	2,018.3	1,454.3	18.0	15.6	0.0	0.0	277.9	275.9	15.7	15.7	0.0	0.0	2,329.9	1,761.5	8.4	6.6	26.4	22.2	26.4	22.2
North Dakota	3,221.8	3,073.0	0.0	0.0	0.0	0.0	510.0	510.0	9.8	9.8	0.0	0.0	3,741.6	3,592.8	0.5	0.2	0.5	0.2	0.5	0.2
South Dakota	877.8	837.8	1.0	1.0	0.0	0.0	1,598.0	1,598.0	0.0	0.0	0.0	0.0	2,476.8	2,436.8	0.7	0.6	1.7	1.6	1.7	1.6
South Atlantic	1,086.3	1,086.3	8,275.7	6,435.7	0.0	0.0	7,226.4	7,229.2	4,199.5	4,298.6	0.0	0.0	20,787.9	19,049.8	1,941.6	1,566.6	10,217.3	8,002.3	10,217.3	8,002.3
Delaware	2.0	2.0	33.3	34.1	0.0	0.0	0.0	0.0	12.2	12.2	0.0	0.0	47.5	48.3	82.9	75.3	116.2	109.4	116.2	109.4
District of Columbia	0.0	0.0	6.9	0.0	0.0	0.0	0.0	0.0	23.0	23.0	0.0	0.0	29.9	23.0	53.5	45.9	60.4	45.9	60.4	45.9
Florida	0.0	0.0	1,973.0	1,117.2	0.0	0.0	54.5	54.5	1,180.8	1,230.8	0.0	0.0	3,208.3	2,402.5	393.7	245.6	2,366.7	1,362.8	2,366.7	1,362.8
Georgia	0.0	0.0	1,023.2	1,011.9	0.0	0.0	2,047.2	2,047.2	949.4	905.4	0.0	0.0	4,019.8	3,964.5	NM	158.2	NM	1,170.1	NM	1,170.1
Maryland	190.0	190.0	289.3	230.9	0.0	0.0	590.0	590.0	140.9	140.0	0.0	0.0	1,210.2	1,150.9	762.7	676.4	1,052.0	907.3	1,052.0	907.3
North Carolina	208.0	208.0	4,070.5	3,403.3	0.0	0.0	2,004.0	2,002.0	560.5	568.3	0.0	0.0	6,843.0	6,181.6	164.8	128.6	4,235.3	3,531.9	4,235.3	3,531.9
South Carolina	0.0	0.0	485.7	285.6	0.0	0.0	1,323.9	1,328.7	526.5	526.5	0.0	0.0	2,336.1	2,140.8	215.5	173.9	701.2	459.5	701.2	459.5
Virginia	0.0	0.0	393.8	352.7	0.0	0.0	866.0	866.0	806.2	892.4	0.0	0.0	2,066.0	2,111.1	80.9	56.4	474.7	409.1	474.7	409.1
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	8.0	6.3	8.0	6.3	8.0	6.3
East South Central	29.1	29.1	559.2	455.2	0.0	0.0	7,055.3	7,049.3	1,266.0	1,229.0	0.0	0.0	8,909.6	8,762.6	98.7	90.8	657.9	546.0	657.9	546.0
Alabama	0.0	0.0	194.1	179.3	0.0	0.0	3,291.8	3,290.8	694.2	685.9	0.0	0.0	4,180.1	4,156.0	NM	NM	NM	NM	NM	NM
Kentucky	0.0	0.0	26.3	26.3	0.0	0.0	1,146.9	1,146.9	73.2	72.2	0.0	0.0	1,246.4	1,245.4	25.4	20.8	51.7	47.1	51.7	47.1
Mississippi	0.0	0.0	160.6	160.6	0.0	0.0	0.0	0.0	302.4	274.7	0.0	0.0	463.0	435.3	7.7	6.9	168.3	167.5	168.3	167.5
Tennessee	29.1	29.1	178.2	89.0	0.0	0.0	2,616.6	2,611.6	196.2	196.2	0.0	0.0	3,020.1	2,925.9	57.8	56.2	236.0	145.2	236.0	145.2
West South Central	34,131.1	30,435.3	2,092.1	1,758.4	0.0	0.0	2,991.4	2,987.5	1,233.6	1,309.7	0.0	0.0	40,448.2	36,490.9	747.8	574.4	2,839.9	2,332.8	2,839.9	2,332.8
Arkansas	0.0	0.0	100.0	100.0	0.0	0.0	1,265.8	1,263.9	331.3	330.4	0.0	0.0	1,697.1	1,694.3	19.3	13.5	119.3	113.5	119.3	113.5
Louisiana	0.0	0.0	1.1	1.1	0.0	0.0	192.0	192.0	422.4	490.1	0.0	0.0	615.5	683.2	147.0	134.5	148.1	135.6	148.1	135.6
Oklahoma	8,070.7	7,494.8	30.5	30.5	0.0	0.0	863.6	861.6	76.2	76.2	0.0	0.0	9,041.0	8,463.1	8.7	6.6	39.2	37.1	39.2	37.1
Texas	26,060.4	22,940.5	1,960.5	1,626.8	0.0	0.0	670.0	670.0	403.7	413.0	0.0	0.0	29,094.6	25,650.3	572.8	419.8	2,533.3	2,046.6	2,533.3	2,046.6
Mountain	9,565.8	8,914.0	5,946.0	5,608.0	473.9	473.9	10,653.4	10,575.9	175.7	174.3	641.9	582.8	27,456.7	26,328.9	2,552.6	2,217.1	8,498.6	7,825.1	8,972.5	8,299.0
Arizona	267.3	267.3	1,778.6	1,776.5	295.4	295.4	2,720.9	2,720.9	30.7	30.7	0.0	0.0	5,092.9	5,090.8	1,352.1	1,218.8	3,130.7	2,995.3	3,426.1	3,290.7
Colorado	3,703.7	3,182.7	546.9	465.3	0.0	0.0	686.4	687.4	28.7	28.7	0.0	0.0	4,965.7	4,364.1	370.9	343.8	917.8	809.1	917.8	809.1
Idaho	970.4	970.5	242.0	240.0	0.0	0.0	2,764.2	2,707.5	85.3	83.9	10.0	10.0	4,071.9	4,011.9	35.4	20.4	277.4	260.4	277.4	260.4
Montana	783.5	703.5	17.0	17.0	0.0	0.0	2,771.1	2,749.3	3.0	3.0	0.0	0.0	3,574.6	3,472.8	15.7	12.7	32.7	29.7	32.7	29.7
Nevada	150.0	150.0	1,829.0	1,707.7	178.5	178.5	1,051.4	1,051.4	9.8	9.8	550.3	498.2	3,769.0	3,595.6	363.4	263.5	2,192.4	1,971.2	2,370.9	2,149.7
New Mexico	1,815.4	1,764.5	581.4	544.4	0.0	0.0	82.9	82.9	5.4	5.4	8.6	1.6	2,493.7	2,398.8	153.8	133.9	735.2	678.3	735.2	678.3
Utah	388.2	388.2	859.1	857.1	0.0	0.0	269.4	269.4	12.8	12.8	73.0	73.0	1,602.5	1,600.5	255.9	220.1	1,115.0	1,077.2	1,115.0	1,077.2
Wyoming	1,487.3	1,487.3	92.0	0.0	0.0	0.0	307.1	307.1	0.0	0.0	0.0	0.0	1,886.4	1,794.4	5.4	3.8	97.4	3.8	97.4	3.8
Pacific Contiguous	12,340.8	12,115.0	11,297.3	10,200.8	1,284.0	1,284.0	39,863.4	39,855.4	1,906.8	1,963.3	1,763.6	1,873.5	68,455.9	67,292.0	8,900.0	7,627.9	20,197.3	17,828.7	21,481.3	19,112.7
California	6,057.5	5,831.7	10,957.3	9,938.2	1,284.0	1,284.0	10,185.9	10,198.2	1,207.7	1,254.2	1,744.1	1,854.0	31,436.5	30,360.3	8,559.9	7,365.9	19,517.2	17,304.1	20,801.2	18,588.1
Oregon	3,210.2	3,210.2	320.3	262.1	0.0	0.0	8,380.4	8,423.2	314.7	314.7	19.5	19.5	12,245.1	12,229.7	186.5	147.4	506.8	409.5	506.8	409.5
Washington	3,073.1	3,073.1	19.7	0.5	0.0	0.0	21,297.1	21,234.0	384.4	394.4	0.0	0.0	24,774.3	24,702.0	153.6	114.6	173.3	115.1	173.3	115.1
Pacific Noncontiguous	266.2	266.2	124.1	101.2	0.0	0.0	503.0	496.5	273.9	274.7	43.0	43.0	1,210.2	1,181.6	654.8	597.9	778.9	699.1	778.9	699.1
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	3.9	2.7	3.9	2.7	3.9	2.7
Hawaii	205.6	205.6	124.1	101.2	0.0	0.0	32.4	25.9	266.9	267.7	43.0	43.0	672.0	643.4	650.9	595.2	775.0	696.4	775.0	696.4
U.S. Total	98,387.4	89,011.9	31,884.1	27,556.8	1,757.9	1,757.9	79,882.0	79,772.7	13,504.6	13,885.8	2,448.5	2,499.3	227,864.5	214,484.4	21,633.5	18,145.8	53,517.6	45,702.6	55,275.5	47,460.5

NM = Not meaningful due to large relative standard error.
Values 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, July 2019 and 2018 (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	
	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018	July 2019	July 2018
New England	14,304.3	13,394.1	1,581.4	1,210.9	1,116.3	1,605.4	917.3	917.3	0.0	0.0	6,262.6	5,708.5	0.0	0.0	24,181.9	22,836.2
Connecticut	4,019.0	3,140.2	563.0	567.6	878.7	872.1	383.4	383.4	0.0	0.0	2,026.5	2,035.1	0.0	0.0	7,870.6	6,998.4
Maine	1,284.3	1,250.0	144.3	301.1	12.5	108.5	0.0	0.0	0.0	0.0	1,037.7	880.9	0.0	0.0	2,478.8	2,540.5
Massachusetts	5,955.8	5,985.7	857.9	331.6	199.7	199.7	0.0	0.0	0.0	0.0	2,599.2	2,588.4	0.0	0.0	9,612.6	9,105.4
New Hampshire	1,258.0	1,231.0	3.8	3.8	0.0	400.2	533.9	533.9	0.0	0.0	494.2	94.0	0.0	0.0	2,289.9	2,262.9
Rhode Island	1,787.2	1,787.2	12.4	6.8	25.4	24.9	0.0	0.0	0.0	0.0	7.1	12.2	0.0	0.0	1,832.1	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	33,222.4	28,702.9	7,861.6	7,809.6	14,460.4	14,675.5	11,959.7	13,529.8	78.6	78.6	5,353.1	5,358.6	130.7	129.2	73,066.5	70,284.2
New Jersey	8,544.7	8,519.4	2,826.3	2,964.0	46.9	47.1	463.0	609.0	11.6	11.6	239.0	234.0	29.0	23.4	12,160.5	12,408.5
New York	8,938.6	8,691.4	3,173.0	3,164.4	9,665.2	9,685.5	1,631.5	1,640.2	0.0	0.0	3,558.8	3,515.9	0.0	0.0	26,967.1	26,697.4
Pennsylvania	15,739.1	11,492.1	1,862.3	1,681.2	4,748.3	4,942.9	9,865.2	11,280.6	67.0	67.0	1,555.3	1,608.7	101.7	105.8	33,938.9	31,178.3
East North Central	21,674.3	20,747.0	26,659.8	26,705.6	5,742.8	4,206.4	53,575.9	56,685.3	247.6	247.6	2,455.4	2,472.6	1,092.9	1,092.9	111,448.7	112,157.4
Illinois	3,580.2	3,580.2	10,519.8	10,449.1	1,629.8	289.9	12,626.0	13,974.0	0.0	0.0	677.0	674.2	36.5	36.5	29,069.3	29,003.9
Indiana	3,849.0	3,807.0	3,344.6	3,355.8	730.0	729.1	15,291.4	15,279.4	0.0	0.0	98.3	99.8	619.3	619.3	23,932.6	23,890.4
Michigan	4,413.6	4,421.0	3,874.0	3,969.2	2,558.5	2,383.5	8,608.3	9,216.7	47.2	47.2	463.5	486.5	250.0	250.0	20,215.1	20,774.1
Ohio	7,020.4	6,188.0	5,559.2	5,559.2	185.1	189.2	11,496.0	12,274.4	142.0	142.0	581.1	609.7	187.1	187.1	25,170.9	25,149.6
Wisconsin	2,811.1	2,750.8	3,362.2	3,372.3	639.4	614.7	5,554.2	5,940.8	58.4	58.4	635.5	602.4	0.0	0.0	13,060.8	13,339.4
West North Central	6,814.9	6,633.1	11,685.3	11,730.9	3,807.2	4,351.5	33,054.1	34,116.0	39.5	32.0	3,870.8	3,875.7	8.4	8.4	59,280.2	60,747.6
Iowa	1,779.8	1,772.6	1,260.4	1,258.2	540.5	420.5	5,371.7	5,497.9	39.5	32.0	816.5	820.3	0.0	0.0	9,808.4	9,801.5
Kansas	266.0	266.0	2,156.8	2,148.3	1,367.9	2,096.7	4,670.2	4,714.2	0.0	0.0	564.5	554.8	0.0	0.0	9,025.4	9,780.0
Minnesota	2,346.0	2,172.0	2,615.9	2,671.4	381.6	361.1	4,157.9	4,309.4	0.0	0.0	768.1	791.7	0.0	0.0	10,269.5	10,305.6
Missouri	1,794.9	1,789.9	3,400.6	3,399.6	871.1	836.4	10,470.9	11,260.8	0.0	0.0	1,112.5	1,100.5	0.0	0.0	17,650.0	18,387.2
Nebraska	338.2	342.6	1,149.0	1,150.8	525.8	516.5	3,867.0	3,817.3	0.0	0.0	322.0	321.2	0.0	0.0	6,202.0	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	63.2	8.4	8.4	4,633.6	4,633.6
South Dakota	290.0	290.0	694.6	694.6	8.7	8.7	474.0	474.0	0.0	0.0	224.0	224.0	0.0	0.0	1,691.3	1,691.3
South Atlantic	61,072.8	55,800.2	31,920.6	32,058.6	6,824.2	7,387.0	52,053.2	54,752.3	142.8	142.8	8,936.2	10,392.9	135.0	135.0	161,084.8	160,668.8
Delaware	1,511.0	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	3,330.4	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	31,504.3	27,953.7	7,752.7	7,889.6	2,493.2	2,479.6	7,804.0	8,570.0	59.0	59.0	3,298.6	4,970.0	0.0	0.0	52,911.8	51,921.9
Georgia	7,989.0	7,954.2	7,791.0	7,787.2	842.9	832.9	8,416.0	9,360.5	83.8	83.8	945.4	945.4	0.0	0.0	26,068.1	26,964.0
Maryland	2,849.1	2,844.6	1,899.9	1,965.6	1,397.2	1,494.2	4,267.0	4,327.0	0.0	0.0	1,257.9	1,205.9	0.0	0.0	11,671.1	11,837.3
North Carolina	5,068.0	4,724.8	6,050.7	6,045.1	1.0	0.0	10,504.8	10,536.8	0.0	0.0	502.6	337.6	0.0	0.0	22,127.1	21,644.3
South Carolina	3,185.0	3,152.0	2,761.4	2,761.3	546.0	546.0	5,212.0	5,212.0	0.0	0.0	466.9	463.4	0.0	0.0	12,171.3	12,134.7
Virginia	8,966.4	7,658.9	4,245.3	4,194.3	585.3	1,068.2	2,881.4	3,778.0	0.0	0.0	2,339.7	2,345.5	0.0	0.0	19,018.1	19,044.9
West Virginia	0.0	0.0	1,093.4	1,089.3	115.5	123.0	12,558.0	12,558.0	0.0	0.0	11.0	11.0	0.0	0.0	13,777.9	13,781.3
East South Central	21,746.2	21,684.2	12,669.7	12,640.1	4,305.8	5,329.0	23,844.1	25,015.2	0.0	0.0	106.7	133.0	19.8	19.8	62,692.3	64,821.3
Alabama	9,699.0	9,618.4	2,575.8	2,532.2	1,938.8	2,766.3	5,276.0	5,503.1	0.0	0.0	42.6	42.6	19.8	19.8	19,552.0	20,482.4
Kentucky	1,763.0	1,763.0	4,976.6	4,976.6	260.0	260.0	11,278.8	11,862.8	0.0	0.0	11.9	11.9	0.0	0.0	18,290.3	18,874.3
Mississippi	7,829.1	7,847.7	1,336.8	1,350.8	2,040.8	2,236.5	1,444.0	1,804.0	0.0	0.0	9.0	35.3	0.0	0.0	12,659.7	13,274.3
Tennessee	2,455.1	2,455.1	3,780.5	3,780.5	66.2	66.2	5,845.3	5,845.3	0.0	0.0	43.2	43.2	0.0	0.0	12,190.3	12,190.3
West South Central	61,231.1	60,492.3	14,523.7	14,301.4	31,846.8	31,886.1	30,628.1	31,585.8	954.7	957.9	175.6	174.8	830.8	655.3	140,190.8	140,053.6
Arkansas	4,603.4	4,566.0	702.8	702.8	796.0	802.0	5,105.3	5,110.0	0.0	0.0	12.2	12.2	0.0	0.0	11,219.7	11,193.0
Louisiana	8,430.6	7,533.0	2,349.6	2,357.9	6,057.6	6,528.4	2,833.7	2,832.6	890.9	894.1	43.1	43.3	407.4	407.4	21,012.9	20,596.7
Oklahoma	7,263.6	7,247.6	1,686.9	1,684.9	5,764.1	5,235.5	3,322.5	4,334.6	0.0	0.0	74.4	74.4	0.0	0.0	18,111.5	18,577.0
Texas	40,933.5	41,145.7	9,784.4	9,555.8	19,229.1	19,320.2	19,366.6	19,308.6	63.8	63.8	45.9	44.9	423.4	247.9	89,846.7	89,686.9
Mountain	22,510.8	22,513.8	9,149.1	8,638.9	3,615.4	3,838.9	26,765.5	26,815.5	52.0	52.0	349.9	356.3	103.5	107.4	62,546.2	62,322.8
Arizona	9,879.6	9,891.6	2,891.1	2,367.6	1,258.6	1,478.6	5,579.0	5,579.0	0.0	0.0	90.5	90.5	0.0	0.0	19,698.8	19,407.3
Colorado	3,249.5	3,240.5	2,568.1	2,572.3	639.0	639.0	4,440.0	4,499.0	0.0	0.0	166.4	168.4	0.0	0.0	11,063.0	11,119.2
Idaho	547.7	547.7	552.0	552.0	13.5	14.0	8.5	8.5	0.0	0.0	5.4	5.4	0.0	0.0	1,127.1	1,127.6
Montana	0.0	0.0	321.6	321.6	72.2	72.2	2,297.6	2,294.6	52.0	52.0	0.0	0.0	1.5	1.5	2,744.9	2,741.9
Nevada	5,445.0	5,445.0	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	7,821.6
New Mexico	1,465.0	1,465.0	956.9	966.0	846.4	849.4	2,640.0	2,634.0	0.0	0.0	48.0	52.4	0.0	0.0	5,956.3	5,966.8
Utah	1,830.0	1,830.0	520.2	520.2	328.2	328.2	4,654.0	4,654.0	0.0	0.0	27.8	27.8	0.0	0.0	7,360.2	7,360.2
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	102.0	105.9	6,774.3	6,778.2
Pacific Contiguous	25,852.8	26,030.3	12,066.7	11,559.9	6,958.4	7,768.1	1,982.0	1,982.0	17.0	17.0	471.4	469.4	221.4	221.4	47,569.7	48,048.1
California	19,834.3	20,001.8	11,213.5	10,706.7	6,702.4	7,512.1	57.0	57.0	17.0	17.0	456.2	454.2	221.4	221.4	38,501.8	38,970.2
Oregon	3,382.9	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	4,326.1	4,318.1
Washington	2,635.6	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	4,741.8	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	2,605.1	2,601.8	6.4	6.4	4,224.8	4,221.5
Alaska	479.2	479.2	626.3	626.3	175.0	175.0	152.8	152.8	0.0	0.0	733.2	729.9	0.0	0.0	2,166.5	2,163.2
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	268,908.8	256,477.1	128,744.2	127,282.2	78,852.3	81,222.9	235,112.7	245,732.0	1,532.2	1,527.9	30,586.8	31,543.6	2,548.9	2,375.8	746,285.9	746,161.5

NM = Not meaningful due to large relative standard error.
Values 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, 2019

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	1	61776		IPP	Oak Leaf Solar XXII LLC	CO	62252	53965	1.5	Solar Photovoltaic	SUN	PV
2019	1	61777		IPP	Oak Leaf Solar XXIII LLC	CO	62256	53966	1.5	Solar Photovoltaic	SUN	PV
2019	1	61780		IPP	Oak Leaf Solar XXIV LLC	CO	62253	53967	1.5	Solar Photovoltaic	SUN	PV
2019	1	61779		IPP	Oak Leaf Solar XXVI LLC	CO	62254	53970	1.5	Solar Photovoltaic	SUN	PV
2019	1	60571	AEP Onsite Partners	IPP	Trout Creek Solar	CO	62260	44901	2.0	Solar Photovoltaic	SUN	PV
2019	1	61482	AES ES GILBERT, LLC	IPP	AES ES GILBERT	AZ	61861	SRP	10.0	Batteries	MWH	BA
2019	1	60281	Altus Power America Management, LLC	IPP	Corcoran CSG	MN	61971	201	1.0	Solar Photovoltaic	SUN	PV
2019	1	60281	Altus Power America Management, LLC	IPP	Corcoran CSG	MN	61971	202	1.0	Solar Photovoltaic	SUN	PV
2019	1	60281	Altus Power America Management, LLC	IPP	Corcoran CSG	MN	61971	203	1.0	Solar Photovoltaic	SUN	PV
2019	1	60281	Altus Power America Management, LLC	IPP	Corcoran CSG	MN	61971	204	1.0	Solar Photovoltaic	SUN	PV
2019	1	60281	Altus Power America Management, LLC	IPP	Corcoran CSG	MN	61971	205	1.0	Solar Photovoltaic	SUN	PV
2019	1	61563	Blue Summit II Wind, LLC	IPP	Blue Summit II Wind, LLC	TX	61970	BSII	99.4	Onshore Wind Turbine	WND	WT
2019	1	61260	Capricornus Community Solar Garden, LLC	IPP	Capricornus Community Solar Garden	MN	61651	CAPR	1.0	Solar Photovoltaic	SUN	PV
2019	1	18445	City of Tallahassee - (FL)	Electric Utility	Arvah B Hopkins	FL	688	IC1	18.5	Natural Gas Internal Combustion Engine	NG	IC
2019	1	18445	City of Tallahassee - (FL)	Electric Utility	Arvah B Hopkins	FL	688	IC2	18.5	Natural Gas Internal Combustion Engine	NG	IC
2019	1	18445	City of Tallahassee - (FL)	Electric Utility	Arvah B Hopkins	FL	688	IC3	18.5	Natural Gas Internal Combustion Engine	NG	IC
2019	1	18445	City of Tallahassee - (FL)	Electric Utility	Arvah B Hopkins	FL	688	IC4	18.5	Natural Gas Internal Combustion Engine	NG	IC
2019	1	18947	City of Tipton - (IA)	Electric Utility	Tipton	IA	8106	7	2.0	Petroleum Liquids	DFO	IC
2019	1	56769	Consolidated Edison Development Inc.	IPP	Blackwell Solar Park	CA	59524	FRBSP	20.0	Solar Photovoltaic	SUN	PV
2019	1	61338	Crux Community Solar Gardens, LLC	IPP	Crux Community Solar	MN	61712	CRUX	1.0	Solar Photovoltaic	SUN	PV
2019	1	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
2019	1	6452	Florida Power & Light Co	Electric Utility	Interstate Solar Energy Center	FL	61768	1	74.5	Solar Photovoltaic	SUN	PV
2019	1	6452	Florida Power & Light Co	Electric Utility	Miami Dade Solar Energy Center	FL	61766	1	74.5	Solar Photovoltaic	SUN	PV
2019	1	6452	Florida Power & Light Co	Electric Utility	Pioneer Trail Solar Energy Center	FL	61767	1	74.5	Solar Photovoltaic	SUN	PV
2019	1	6452	Florida Power & Light Co	Electric Utility	Sunshine Gateway Solar Energy Center	FL	61763	1	74.5	Solar Photovoltaic	SUN	PV
2019	1	7019	Gay & Robinson Inc	Industrial	Gay Robinson	HI	50333	HYD3	6.5	Conventional Hydroelectric	WAT	HY
2019	1	61365	Hilltopper Wind Project, LLC	IPP	Hilltopper Wind Project	IL	61735	WT1	185.0	Onshore Wind Turbine	WND	WT
2019	1	61907	JBAB Solar I, LLC.	IPP	JBAB - Washington DC	DC	62374	PV1	5.9	Solar Photovoltaic	SUN	PV
2019	1	61289	Kaus Community Solar Garden, LLC	IPP	Kaus Community Solar	MN	61716	KAUS	1.0	Solar Photovoltaic	SUN	PV
2019	1	54913	NSTAR Electric Company	Electric Utility	Greenfield Solar PV	MA	62063	LG400	2.0	Solar Photovoltaic	SUN	PV
2019	1	54913	NSTAR Electric Company	Electric Utility	Hinsdale Solar PV	MA	62064	LG400	2.0	Solar Photovoltaic	SUN	PV
2019	1	54913	NSTAR Electric Company	Electric Utility	Southwick Solar PV	MA	62082	REC34	5.0	Solar Photovoltaic	SUN	PV
2019	1	54913	NSTAR Electric Company	Electric Utility	Springfield Solar PV	MA	62072	LG395	4.0	Solar Photovoltaic	SUN	PV
2019	1	61552	Pelzer Solar I, LLC	IPP	Pelzer Solar I	SC	61945	19	1.0	Solar Photovoltaic	SUN	PV
2019	1	61494	Radian Generation	IPP	NorWest Energy 4, LLC	OR	62268	NWE4	5.6	Solar Photovoltaic	SUN	PV
2019	1	61414	Rattlesnake Creek Wind Project, LLC	IPP	Rattlesnake Creek Wind Project	NE	59292	RCWP	318.1	Onshore Wind Turbine	WND	WT
2019	1	61587	Sagittarius Community Solar Gardens LLC	IPP	Sagittarius Community Solar Gardens LLC	MN	61994	CRUX	0.7	Solar Photovoltaic	SUN	PV
2019	1	17633	Southern Indiana Gas & Elec Co	Electric Utility	Volkman Road Solar Array	IN	61334	VRSA2	1.0	Batteries	MWH	BA
2019	1	60531	Standard Solar	IPP	Fort Indiantown Gap	PA	62408	X0028	3.0	Solar Photovoltaic	SUN	PV
2019	1	18454	Tampa Electric Co	Electric Utility	Bonnie Mine Solar	FL	61655	PV1	35.0	Solar Photovoltaic	SUN	PV
2019	1	61625	USS Brockway Solar LLC	IPP	USS Brockway Solar CSG	MN	62049	USSBR	1.0	Solar Photovoltaic	SUN	PV
2019	1	61627	USS JJ Solar LLC	IPP	USS JJ Solar CSG	MN	62047	USSJJ	1.0	Solar Photovoltaic	SUN	PV
2019	1	61629	USS Norelius Solar LLC	IPP	USS Norelius Solar CSG	MN	62045	USSNO	1.0	Solar Photovoltaic	SUN	PV
2019	1	61631	USS Solar Rapids LLC	IPP	USS Solar Rapids CSG	MN	62042	USSSR	1.0	Solar Photovoltaic	SUN	PV
2019	1	61666	WED GW Solar, LLC CSG	IPP	WED GW Solar, LLC	RI	62118	GWSOL	3.0	Solar Photovoltaic	SUN	PV
2019	1	61648	WED Green Hill, LLC	IPP	WED Green Hill, LLC	RI	62106	GHILL	3.0	Onshore Wind Turbine	WND	WT
2019	1	61649	WED Plainfield II, LLC	IPP	WED Plainfield II, LLC	RI	62107	PLAI2	3.0	Onshore Wind Turbine	WND	WT
2019	1	61650	WED Plainfield III, LLC	IPP	WED Plainfield III, LLC	RI	62108	PLAI3	3.0	Onshore Wind Turbine	WND	WT
2019	1	61651	WED Plainfield, LLC	IPP	WED Plainfield, LLC	RI	62109	PLAI1	3.0	Onshore Wind Turbine	WND	WT
2019	1	61652	WED Shun I, LLC	IPP	WED Shun I, LLC	RI	62110	SHUN1	3.0	Onshore Wind Turbine	WND	WT
2019	1	61653	WED Shun II, LLC	IPP	WED Shun II, LLC	RI	62111	SHUN2	3.0	Onshore Wind Turbine	WND	WT
2019	1	61654	WED Shun III, LLC	IPP	WED Shun III, LLC	RI	62112	SHUN3	3.0	Onshore Wind Turbine	WND	WT
2019	1	61559	Whitt Solar, LLC	IPP	Whitt Solar	SC	61952	20	2.0	Solar Photovoltaic	SUN	PV
2019	1	61672	Willow Spring Solar LLC	IPP	Willow Spring Solar, LLC	CA	60324	GEN01	100.0	Solar Photovoltaic	SUN	PV
2019	2	61259	Altair Community Solar Garden, LLC	IPP	Altair Community Solar Garden	MN	61645	ALTA	1.0	Solar Photovoltaic	SUN	PV
2019	2	59474	BQ Energy LLC	IPP	Kings Park Solar I	NY	59880	KIPS1	2.0	Solar Photovoltaic	SUN	PV
2019	2	59474	BQ Energy LLC	IPP	Kings Park Solar II	NY	59881	KIPS2	2.0	Solar Photovoltaic	SUN	PV
2019	2	61546	Bloom Solar, LLC	IPP	Bloom Solar	SC	61940	6	2.0	Solar Photovoltaic	SUN	PV
2019	2	61230	CD Arevon USA, Inc.	IPP	CA Flats Solar 150, LLC	CA	60034	GEN01	150.0	Solar Photovoltaic	SUN	PV
2019	2	3037	City of Carlyle - (IL)	Electric Utility	Carlyle	IL	936	11	2.8	Petroleum Liquids	DFO	IC
2019	2	61060	Cypress Creek Renewables	IPP	SCE&G Curie CSG	SC	61432	SCCU1	2.0	Solar Photovoltaic	SUN	PV
2019	2	61610	Delaware River Solar, LLC	IPP	Turner Rd Community Solar Project	NY	62160	300	2.0	Solar Photovoltaic	SUN	PV
2019	2	57170	EDF Renewable Asset Holdings, Inc.	IPP	Stoneray Power Partners, LLC	MN	62269	STNRY	100.0	Onshore Wind Turbine	WND	WT
2019	2	61688	ENGIE Generation North America LLC	IPP	Goose Lake MN DPC-GM	MN	62148	PV1	1.5	Solar Photovoltaic	SUN	PV
2019	2	11479	Madison Gas & Electric Co	Electric Utility	Saratoga Wind Farm	IA	61070	SWE	66.0	Onshore Wind Turbine	WND	WT
2019	2	61292	NC State University, Energy Systems	Commercial	NCSU CCUP Cogeneration Plant	NC	61675	CTG1	5.6	Natural Gas Fired Combustion Turbine	NG	GT
2019	2	61292	NC State University, Energy Systems	Commercial	NCSU CCUP Cogeneration Plant	NC	61675	STG	1.0	Natural Gas Steam Turbine	NG	ST

Table 6.3. New Utility Scale Generating Units by Operating Company, Plant, and Month, 2019

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	2	61740	NJ Solar 1, LLC	IPP	Hunterdon Health System Solar Project	NJ	62225	PV1	1.5	Solar Photovoltaic	SUN	PV
2019	2	54913	NSTAR Electric Company	Electric Utility	Savoy Solar PV	MA	62065	LG400	2.0	Solar Photovoltaic	SUN	PV
2019	2	54913	NSTAR Electric Company	Electric Utility	Southampton Solar PV	MA	62066	LG400	2.0	Solar Photovoltaic	SUN	PV
2019	2	62070	Plainfield Solar LLC	IPP	Plainfield Community Solar LLC	MA	62579	2999	2.0	Solar Photovoltaic	SUN	PV
2019	2	61507	Plumsted 537 LLC	IPP	Plumsted 537 LLC	NJ	61892	PLMST	19.8	Batteries	MWH	BA
2019	2	60163	Soltage LLC	Industrial	Redwing Solar	SC	61946	11	2.0	Solar Photovoltaic	SUN	PV
2019	2	60403	TRS Fuel Cell, LLC	Electric CHP	TRS Fuel Cell	CT	60683	MMH1	3.7	Other Natural Gas	NG	FC
2019	2	61562	Torrecillas Wind Energy, LLC	IPP	Torrecillas Wind Energy, LLC	TX	61969	TWE	300.0	Onshore Wind Turbine	WND	WT
2019	3	61326	Aquila Community Solar Gardens, LLC	IPP	Aquila Community Solar	MN	61704	AQUI	1.0	Solar Photovoltaic	SUN	PV
2019	3	62101	Badger Farm, LLC	IPP	Badger	NC	62603	BADGE	4.5	Solar Photovoltaic	SUN	PV
2019	3	56608	Calpine Mid-Merit LLC	IPP	York Energy Center	PA	55524	CTG5	216.3	Natural Gas Fired Combined Cycle	NG	CT
2019	3	56608	Calpine Mid-Merit LLC	IPP	York Energy Center	PA	55524	CTG6	216.3	Natural Gas Fired Combined Cycle	NG	CT
2019	3	56608	Calpine Mid-Merit LLC	IPP	York Energy Center	PA	55524	STG2	395.1	Natural Gas Fired Combined Cycle	NG	CA
2019	3	61329	Canopus Community Solar Garden, LLC	IPP	Canopus Community Solar	MN	61707	CANO	1.0	Solar Photovoltaic	SUN	PV
2019	3	61337	Cassiopeia Community Solar Garden, LLC	IPP	Cassiopeia Community Solar	MN	61711	CASS	1.0	Solar Photovoltaic	SUN	PV
2019	3	62099	Changeup Solar, LLC	IPP	Changeup	NC	62601	CHANG	1.5	Solar Photovoltaic	SUN	PV
2019	3	61419	Constellation Solar MC, LLC	IPP	Gateway Solar	MD	61794	GTWYN	5.0	Solar Photovoltaic	SUN	PV
2019	3	61187	DG Minnesota CSG, LLC	IPP	Held Solar Project	MN	62267	HELD	5.0	Solar Photovoltaic	SUN	PV
2019	3	5109	DTE Electric Company	Electric Utility	Pine River Wind Park	MI	61106	1	161.3	Onshore Wind Turbine	WND	WT
2019	3	61610	Delaware River Solar, LLC	IPP	Sacket Lake Rd #2 Community Solar Farm	NY	62159	20	1.7	Solar Photovoltaic	SUN	PV
2019	3	56201	Engie North America	IPP	Live Oak Wind Project	TX	61782	WTGS	199.5	Onshore Wind Turbine	WND	WT
2019	3	6035	Exelon Power	IPP	Exelon West Medway II LLC	MA	59882	4	97.4	Natural Gas Fired Combustion Turbine	NG	GT
2019	3	6452	Florida Power & Light Co	Electric Utility	Okeechobee Clean Energy Center	FL	60345	1A	376.6	Natural Gas Fired Combined Cycle	NG	CT
2019	3	6452	Florida Power & Light Co	Electric Utility	Okeechobee Clean Energy Center	FL	60345	1B	376.6	Natural Gas Fired Combined Cycle	NG	CT
2019	3	6452	Florida Power & Light Co	Electric Utility	Okeechobee Clean Energy Center	FL	60345	1C	376.6	Natural Gas Fired Combined Cycle	NG	CT
2019	3	6452	Florida Power & Light Co	Electric Utility	Okeechobee Clean Energy Center	FL	60345	1ST	593.3	Natural Gas Fired Combined Cycle	NG	CA
2019	3	61518	Frontenac Holdco LLC	IPP	Frontenac Holdco LLC, CSG	MN	61919	FRONT	5.0	Solar Photovoltaic	SUN	PV
2019	3	60025	Greenbacker Renewable Energy Corporation	IPP	Oak Leaf Solar XXXII	CO	62251	53975	1.5	Solar Photovoltaic	SUN	PV
2019	3	57389	IKEA Property Inc	Commercial	IKEA Norfolk Rooftop PV System	VA	62355	569PV	1.3	Solar Photovoltaic	SUN	PV
2019	3	9417	Interstate Power and Light Co	Electric Utility	English Farms	IA	61565	1	169.9	Onshore Wind Turbine	WND	WT
2019	3	9417	Interstate Power and Light Co	Electric Utility	Upland Prairie	IA	61564	1	299.3	Onshore Wind Turbine	WND	WT
2019	3	61687	KCE NY 1, LLC	IPP	KCE NY 1	NY	62147	KNY1	20.0	Batteries	MWH	BA
2019	3	61679	MSC-GreyCloud01 LLC	IPP	MSC-GreyCloud01 Community Solar	MN	62143	52785	1.0	Solar Photovoltaic	SUN	PV
2019	3	11806	Massachusetts Mun Wholes Electric Co	Electric Utility	Ashburnham Energy Storage Project	MA	62219	AMLPB	3.0	Batteries	MWH	BA
2019	3	11806	Massachusetts Mun Wholes Electric Co	Electric Utility	Beebe Substation Battery Storage	MA	62585	WAKFD	3.0	Batteries	MWH	BA
2019	3	60471	Mt. Tom Solar, LLC	IPP	Mt. Tom Solar Project	MA	60906	BA1	3.1	Batteries	MWH	BA
2019	3	61227	Nautilus Solar Solutions	IPP	Nautilus Lindstrom Solar CSG	MN	62030	LI	2.0	Solar Photovoltaic	SUN	PV
2019	3	59300	PNM Resources	Electric Utility	Vista Solar Energy Center	NM	62467	VISTA	10.0	Solar Photovoltaic	SUN	PV
2019	3	61585	Pisces Community Solar Garden LLC	IPP	Pisces Community Solar Garden	MN	61992	CRUX	0.7	Solar Photovoltaic	SUN	PV
2019	3	62100	Starr Farm, LLC	IPP	Starr	NC	62602	STARR	4.5	Solar Photovoltaic	SUN	PV
2019	3	60117	SunShare	IPP	Becker Solar 2 CSG	MN	62084	BCKR2	1.0	Solar Photovoltaic	SUN	PV
2019	3	60117	SunShare	IPP	Becker Solar 3 CSG	MN	62085	BCKR3	1.0	Solar Photovoltaic	SUN	PV
2019	3	60117	SunShare	IPP	Becker Solar 4 CSG	MN	62086	BCKR4	1.0	Solar Photovoltaic	SUN	PV
2019	3	60117	SunShare	IPP	Becker Solar 5 CSG	MN	62087	BCKR5	1.0	Solar Photovoltaic	SUN	PV
2019	3	60117	SunShare	IPP	Becker Solar CSG	MN	62040	BCKR1	1.0	Solar Photovoltaic	SUN	PV
2019	3	18454	Tampa Electric Co	Electric Utility	Peace Creek Solar	FL	61666	GEN	55.4	Solar Photovoltaic	SUN	PV
2019	3	61532	Techren Solar I LLC	IPP	Techren	NV	61611	TECH1	100.0	Solar Photovoltaic	SUN	PV
2019	3	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
2019	3	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
2019	3	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
2019	3	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
2019	3	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
2019	3	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
2019	3	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
2019	3	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
2019	3	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
2019	3	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
2019	3	61558	Watauga Solar, LLC	IPP	Watauga Solar	SC	61951	15	2.0	Solar Photovoltaic	SUN	PV
2019	4	60571	AEP Onsite Partners	IPP	Bloomfield Municipal Utilities Solar	IA	62607	PV	1.6	Solar Photovoltaic	SUN	PV
2019	4	61344	Advanced Microgrid Solutions	IPP	HEBT WLA 1	CA	61721	WLA01	1.0	Batteries	MWH	BA
2019	4	61344	Advanced Microgrid Solutions	IPP	HEBT WLA 1	CA	61721	WLA02	1.0	Batteries	MWH	BA
2019	4	61344	Advanced Microgrid Solutions	IPP	HEBT WLA 1	CA	61721	WLA03	1.0	Batteries	MWH	BA
2019	4	61344	Advanced Microgrid Solutions	IPP	HEBT WLA 1	CA	61721	WLA06	1.2	Batteries	MWH	BA
2019	4	61344	Advanced Microgrid Solutions	IPP	HEBT WLA 1	CA	61721	WLA1C	11.8	Batteries	MWH	BA
2019	4	221	Alaska Village Elec Coop, Inc	Electric Utility	Togiak	AK	6348	1	0.6	Petroleum Liquids	DFO	IC
2019	4	221	Alaska Village Elec Coop, Inc	Electric Utility	Togiak	AK	6348	2B	0.6	Petroleum Liquids	DFO	IC
2019	4	221	Alaska Village Elec Coop, Inc	Electric Utility	Togiak	AK	6348	3	1.1	Petroleum Liquids	DFO	IC

Table 6.3. New Utility Scale Generating Units by Operating Company, Plant, and Month, 2019

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	4	221	Alaska Village Elec Coop, Inc	Electric Utility	Togiak	AK	6348	4C	0.5	Petroleum Liquids	DFO	IC
2019	4	803	Arizona Public Service Co	Electric Utility	Ocotillo	AZ	116	GT3	104.7	Natural Gas Fired Combustion Turbine	NG	GT
2019	4	803	Arizona Public Service Co	Electric Utility	Ocotillo	AZ	116	GT4	104.7	Natural Gas Fired Combustion Turbine	NG	GT
2019	4	803	Arizona Public Service Co	Electric Utility	Ocotillo	AZ	116	GT6	104.7	Natural Gas Fired Combustion Turbine	NG	GT
2019	4	803	Arizona Public Service Co	Electric Utility	Ocotillo	AZ	116	GT7	104.7	Natural Gas Fired Combustion Turbine	NG	GT
2019	4	61705	Boring Solar LLC	IPP	Boring Solar LLC	OR	62169	BSPV2	2.2	Solar Photovoltaic	SUN	PV
2019	4	58492	Chattanooga Metropolitan Airport	Commercial	Chattanooga Metropolitan Airport Solar	TN	58515	GEN3	0.4	Solar Photovoltaic	SUN	PV
2019	4	61060	Cypress Creek Renewables	IPP	Cascade Solar (TX)	TX	61875	GEN1	10.0	Solar Photovoltaic	SUN	PV
2019	4	61070	Foundation CA Fund IX Manager, LLC	IPP	Foundation Mann Packing	CA	61443	WTG1	1.8	Onshore Wind Turbine	WND	WT
2019	4	57389	IKEA Property Inc	Commercial	IKEA Live Oak Rooftop PV System	TX	62152	570	1.7	Solar Photovoltaic	SUN	PV
2019	4	61928	Jamison Solar Farm	Electric Utility	Jamison Solar Farm	SC	62396	1	1.1	Solar Photovoltaic	SUN	PV
2019	4	61550	Jessamine Solar, LLC	IPP	Jessamine Solar	SC	61944	10	1.9	Solar Photovoltaic	SUN	PV
2019	4	61964	Kimberly Clark - Mobile Alabama	Industrial	Kimberly Clark Mobile - CHP Plant	AL	62449	GT100	21.8	Natural Gas Fired Combustion Turbine	NG	GT
2019	4	61964	Kimberly Clark - Mobile Alabama	Industrial	Kimberly Clark Mobile - CHP Plant	AL	62449	GT200	21.8	Natural Gas Fired Combustion Turbine	NG	GT
2019	4	61680	MSC-Scandia01 LLC	IPP	MSC-Scandia01 CSG	MN	62144	52741	1.0	Solar Photovoltaic	SUN	PV
2019	4	13201	Naknek Electric Assn, Inc	Electric Utility	Naknek	AK	6301	NA6	3.0	Petroleum Liquids	DFO	IC
2019	4	13201	Naknek Electric Assn, Inc	Electric Utility	Naknek	AK	6301	NA7	3.0	Petroleum Liquids	DFO	IC
2019	4	61227	Nautilus Solar Solutions	IPP	Nautilus Saint Cloud Solar CSG	MN	62031	SC	5.0	Solar Photovoltaic	SUN	PV
2019	4	61227	Nautilus Solar Solutions	IPP	Nautilus Winsted Solar CSG	MN	62032	WS	3.0	Solar Photovoltaic	SUN	PV
2019	4	61612	Panda Solar NC 1, LLC	IPP	Panda Solar NC 1, LLC	NC	62089	20002	1.0	Solar Photovoltaic	SUN	PV
2019	4	61655	Panda Solar NC 2, LLC	IPP	Panda Solar NC 2, LLC	NC	62120	20003	2.0	Solar Photovoltaic	SUN	PV
2019	5	61325	Aquarius Community Solar Gardens, LLC	IPP	Aquarius Community Solar	MN	61710	AQUA	1.0	Solar Photovoltaic	SUN	PV
2019	5	803	Arizona Public Service Co	Electric Utility	Ocotillo	AZ	116	GT5	104.7	Natural Gas Fired Combustion Turbine	NG	GT
2019	5	59474	BQ Energy LLC	IPP	Homer Street East	NY	62725	HSE	1.6	Solar Photovoltaic	SUN	PV
2019	5	59474	BQ Energy LLC	IPP	Homer Street West	NY	62724	HSW	1.6	Solar Photovoltaic	SUN	PV
2019	5	59474	BQ Energy LLC	IPP	Steel Sun 2: 2303-III-2 Hamburg Tpke	NY	62723	SS22	2.0	Solar Photovoltaic	SUN	PV
2019	5	59474	BQ Energy LLC	IPP	Steel Sun 2: 2303-III-4 Hamburg Tpke	NY	62722	SS24	2.0	Solar Photovoltaic	SUN	PV
2019	5	59474	BQ Energy LLC	IPP	Steel Sun 2: 2303-III-9 Hamburg Tpke	NY	62721	SS29	2.0	Solar Photovoltaic	SUN	PV
2019	5	59239	Bannock County Landfill	Commercial	Bannock County LFG to Energy	ID	59529	GEN 2	1.4	Landfill Gas	LFG	IC
2019	5	60672	Birdsboro Power LLC	IPP	Birdsboro Power	PA	61035	GEN1	476.0	Natural Gas Fired Combined Cycle	NG	CS
2019	5	62003	CMR Solar, LLC	IPP	CMR Solar LLC	NY	62486	CMRSL	2.0	Solar Photovoltaic	SUN	PV
2019	5	61568	Chisago Holdco LLC	IPP	Chisago Holdco LLC, CSG	MN	61968	CHIS	3.0	Solar Photovoltaic	SUN	PV
2019	5	61419	Constellation Solar MC, LLC	IPP	Gateway Solar	MD	61794	GTWYS	2.6	Solar Photovoltaic	SUN	PV
2019	5	61567	DP-C2 Episode 1 LLC	IPP	Blackville Solar II	SC	61973	C2BV	20.0	Solar Photovoltaic	SUN	PV
2019	5	61339	Deneb Community Solar Garden, LLC	IPP	Deneb Community Solar	MN	61715	DENE	1.0	Solar Photovoltaic	SUN	PV
2019	5	58970	Ecoplexus, Inc	IPP	Folsom SP and CSP Sacramento	CA	61698	FOLSM	1.3	Solar Photovoltaic	SUN	PV
2019	5	60496	Enerparc Inc.	IPP	Cloverdale Solar Center	CA	60813	ECA02	1.0	Solar Photovoltaic	SUN	PV
2019	5	56201	Engie North America	IPP	Seymour Hills Wind Project, LLC	TX	62227	WTGS	30.2	Onshore Wind Turbine	WND	WT
2019	5	11241	Entergy Louisiana LLC	Electric Utility	St. Charles Power Station (LA)	LA	60926	1A	250.0	Natural Gas Fired Combined Cycle	NG	CT
2019	5	11241	Entergy Louisiana LLC	Electric Utility	St. Charles Power Station (LA)	LA	60926	1B	250.0	Natural Gas Fired Combined Cycle	NG	CT
2019	5	11241	Entergy Louisiana LLC	Electric Utility	St. Charles Power Station (LA)	LA	60926	1C	500.0	Natural Gas Fired Combined Cycle	NG	CA
2019	5	6035	Exelon Power	IPP	Exelon West Medway II LLC	MA	59882	5	97.4	Natural Gas Fired Combustion Turbine	NG	GT
2019	5	62122	Minuteman Eenergy Storage, LLC	IPP	Minuteman Energy Storage	MA	62644	MMES	5.0	Batteries	MWH	BA
2019	5	13902	NorthWestern Energy	Electric Utility	Hauser	MT	2185	HAU7	3.4	Conventional Hydroelectric	WAT	HY
2019	5	62010	Prairie Queen Wind Farm LLC	IPP	Prairie Queen Wind Farm	KS	62488	WT	199.3	Onshore Wind Turbine	WND	WT
2019	5	61613	Sartell Holdco LLC	IPP	Sartell Holdco CSG	MN	62036	SARTE	5.0	Solar Photovoltaic	SUN	PV
2019	5	61616	Solar Provider Group MN I LLC	IPP	Syncarpha Dodge 1 CSG	MN	62053	SPGD1	1.0	Solar Photovoltaic	SUN	PV
2019	5	60531	Standard Solar	IPP	Mesa CSG 1 Murdock	CO	62719	X0038	1.5	Solar Photovoltaic	SUN	PV
2019	5	60531	Standard Solar	IPP	Mesa CSG 2 Massicotte	CO	62718	X0037	1.5	Solar Photovoltaic	SUN	PV
2019	5	61842	USS Webster Solar	IPP	USS Webster Solar CSG	MN	62336	USWEB	1.0	Solar Photovoltaic	SUN	PV
2019	5	58105	University of Redlands	Commercial	Energy Center	CA	58168	TURB1	0.3	Natural Gas Internal Combustion Engine	NG	IC
2019	5	58105	University of Redlands	Commercial	Energy Center	CA	58168	TURB2	0.3	Natural Gas Internal Combustion Engine	NG	IC
2019	5	58105	University of Redlands	Commercial	Energy Center	CA	58168	TURB3	0.3	Natural Gas Internal Combustion Engine	NG	IC
2019	5	57081	WGL Energy Systems, Inc	IPP	Nationals	DC	62710	SO435	1.0	Solar Photovoltaic	SUN	PV
2019	5	62669	Westtown NY 1, LLC	IPP	Westtown CSG	NY	62764	WT	2.0	Solar Photovoltaic	SUN	PV
2019	6	60146	Ameresco Federal Solutions	IPP	MCRD Parris Island PV	SC	61956	BAKUP	2.5	Petroleum Liquids	DFO	IC
2019	6	60146	Ameresco Federal Solutions	IPP	MCRD Parris Island PV	SC	61956	BLKST	1.0	Petroleum Liquids	DFO	IC
2019	6	60146	Ameresco Federal Solutions	IPP	MCRD Parris Island PV	SC	61956	CHPP	3.5	Natural Gas Fired Combustion Turbine	NG	GT
2019	6	57449	Borrego Solar Systems Inc	Industrial	Clif Bar Bakery of Twin Falls	ID	62151	PV1	2.0	Solar Photovoltaic	SUN	PV
2019	6	62634	Chester Woods Point Solar, LLC	IPP	Chester Woods Point Solar, LLC CSG	MD	62720	5540	2.0	Solar Photovoltaic	SUN	PV
2019	6	58871	Citizens Enterprises Corporation	IPP	Two Mile Desert Project	NC	60510	PV1	16.2	Solar Photovoltaic	SUN	PV
2019	6	16604	City of San Antonio - (TX)	Electric Utility	Commerce ESS	TX	62609	BA1	10.0	Batteries	MWH	BA
2019	6	61567	DP-C2 Episode 1 LLC	IPP	Diamond Solar II	SC	61974	C2BV	8.2	Solar Photovoltaic	SUN	PV
2019	6	61567	DP-C2 Episode 1 LLC	IPP	Edison Solar II	SC	61975	C2BV	4.8	Solar Photovoltaic	SUN	PV
2019	6	58970	Ecoplexus, Inc	IPP	Felton CSG PV1-5	MN	62210	FELT1	1.0	Solar Photovoltaic	SUN	PV
2019	6	58970	Ecoplexus, Inc	IPP	Felton CSG PV1-5	MN	62210	FELT2	1.0	Solar Photovoltaic	SUN	PV
2019	6	58970	Ecoplexus, Inc	IPP	Felton CSG PV1-5	MN	62210	FELT3	1.0	Solar Photovoltaic	SUN	PV

Table 6.3. New Utility Scale Generating Units by Operating Company, Plant, and Month, 2019

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	6	58970	Ecoplexus, Inc	IPP	Felton CSG PV1-5	MN	62210	FELT4	1.0	Solar Photovoltaic	SUN	PV
2019	6	58970	Ecoplexus, Inc	IPP	Felton CSG PV1-5	MN	62210	FELT5	1.0	Solar Photovoltaic	SUN	PV
2019	6	58970	Ecoplexus, Inc	IPP	Randolph CSG PV1-5	MN	62209	RAND1	1.0	Solar Photovoltaic	SUN	PV
2019	6	58970	Ecoplexus, Inc	IPP	Randolph CSG PV1-5	MN	62209	RAND2	1.0	Solar Photovoltaic	SUN	PV
2019	6	58970	Ecoplexus, Inc	IPP	Randolph CSG PV1-5	MN	62209	RAND3	1.0	Solar Photovoltaic	SUN	PV
2019	6	58970	Ecoplexus, Inc	IPP	Randolph CSG PV1-5	MN	62209	RAND4	1.0	Solar Photovoltaic	SUN	PV
2019	6	58970	Ecoplexus, Inc	IPP	Randolph CSG PV1-5	MN	62209	RAND5	1.0	Solar Photovoltaic	SUN	PV
2019	6	61872	Gavilan District College Solar Project	IPP	Gavilan District College Solar Project	CA	61993	GDCBA	0.5	Batteries	MWH	BA
2019	6	7140	Georgia Power Co	Electric Utility	Waynesboro Community Solar	GA	62409	1	2.4	Solar Photovoltaic	SUN	PV
2019	6	7136	Georgia-Pacific Consr Prods LP-Naheola	Industrial	Georgia-Pacific Consr Prods LP-Naheola	AL	10699	TG4	29.4	Wood/Wood Waste Biomass	WDS	ST
2019	6	62719	Green Street Power Partners	IPP	GSPP Held LLC CSG	MN	62829	HELDM	3.0	Solar Photovoltaic	SUN	PV
2019	6	60025	Greenbacker Renewable Energy Corporation	IPP	Oak Leaf Solar XXVIII LLC (CSG)	CO	62255	53973	1.5	Solar Photovoltaic	SUN	PV
2019	6	62131	HL Solar LLC	IPP	HL Solar	CA	62655	HLS	7.6	Solar Photovoltaic	SUN	PV
2019	6	60040	Hale Wind Energy	IPP	Hale Community Wind Farm	TX	59247	HALE1	478.0	Onshore Wind Turbine	WND	WT
2019	6	49893	Invenergy Services LLC	IPP	Santa Rita East	TX	62038	STRAE	302.4	Onshore Wind Turbine	WND	WT
2019	6	59678	KDC Solar PR1, LLC	IPP	KDC Solar PR1, LLC	NJ	59910	SF	22.0	Solar Photovoltaic	SUN	PV
2019	6	56990	NJR Clean Energy Ventures Corporation	IPP	IFF Union Beach Project	NJ	62306	IFFUB	5.5	Solar Photovoltaic	SUN	PV
2019	6	56990	NJR Clean Energy Ventures Corporation	IPP	McCullough Road Solar Farm	NJ	62638	WASHG	7.6	Solar Photovoltaic	SUN	PV
2019	6	61708	NRG Canal 3 Development LLC	IPP	Canal	MA	1599	3	330.0	Natural Gas Fired Combustion Turbine	NG	GT
2019	6	61943	North Rosamond Solar, LLC	IPP	North Rosamond Solar LLC	CA	59879	GEN01	160.0	Solar Photovoltaic	SUN	PV
2019	6	60685	Novel Energy Solutions	IPP	Novel Solar One CSG LLC	MN	62665	HELD	3.0	Solar Photovoltaic	SUN	PV
2019	6	61598	Novel Solar Three, LLC	IPP	Gibbon Solar	MN	62010	PGRK1	3.3	Solar Photovoltaic	SUN	PV
2019	6	59300	PNM Resources	Electric Utility	Rio De Oro Solar Energy Center	NM	62597	RDO	10.0	Solar Photovoltaic	SUN	PV
2019	6	15452	PSEG Power Connecticut LLC	IPP	Bridgeport Station	CT	568	501	375.7	Natural Gas Fired Combined Cycle	NG	CT
2019	6	15452	PSEG Power Connecticut LLC	IPP	Bridgeport Station	CT	568	502	200.6	Natural Gas Fired Combined Cycle	NG	CA
2019	6	61663	Panda Solar NC 10, LLC	IPP	Panda Solar NC 10, LLC	NC	62128	20031	2.0	Solar Photovoltaic	SUN	PV
2019	6	61664	Panda Solar NC 11, LLC	IPP	Panda Solar NC 11, LLC	NC	62129	20032	2.0	Solar Photovoltaic	SUN	PV
2019	6	61656	Panda Solar NC 3, LLC	IPP	Panda Solar NC 3, LLC	NC	62121	20011	2.0	Solar Photovoltaic	SUN	PV
2019	6	61657	Panda Solar NC 4, LLC	IPP	Panda Solar NC 4, LLC	NC	62122	20009	2.0	Solar Photovoltaic	SUN	PV
2019	6	61658	Panda Solar NC 5, LLC	IPP	Panda Solar NC 5, LLC	NC	62123	20007	1.0	Solar Photovoltaic	SUN	PV
2019	6	61660	Panda Solar NC 6, LLC	IPP	Panda Solar NC 6, LLC	NC	62124	20028	1.0	Solar Photovoltaic	SUN	PV
2019	6	61662	Panda Solar NC 9, LLC	IPP	Panda Solar NC 9, LLC	NC	62127	20022	2.0	Solar Photovoltaic	SUN	PV
2019	6	61743	Patriot Wind Farm, LLC	IPP	Patriot Wind Farm	TX	58614	PAT1	226.1	Onshore Wind Turbine	WND	WT
2019	6	61485	Rio Bravo Windpower, LLC	IPP	Rio Bravo Windpower, LLC	TX	61865	1	237.6	Onshore Wind Turbine	WND	WT
2019	6	61605	Riverhead Solar Farm LLC	IPP	Riverhead Solar Farm	NY	62017	RIV1	20.0	Solar Photovoltaic	SUN	PV
2019	6	17650	Southern Power Co	IPP	Mankato Energy Center	MN	56104	CTG1	174.0	Natural Gas Fired Combined Cycle	NG	CT
2019	6	60947	Tesla Inc.	IPP	Estrella Mountain PV	AZ	60230	PV1	1.8	Solar Photovoltaic	SUN	PV
2019	6	61882	USS Eggo Solar CSG	IPP	USS Eggo Solar CSG	MN	62359	USEGG	1.0	Solar Photovoltaic	SUN	PV
2019	6	61839	USS Kost Trail Solar LLC	IPP	USS Kost Trail Solar CSG	MN	62339	USSKT	1.0	Solar Photovoltaic	SUN	PV
2019	6	19564	University of Notre Dame	Commercial	University of Notre Dame	IN	50366	GT1	5.6	Natural Gas Fired Combustion Turbine	NG	GT
2019	6	19564	University of Notre Dame	Commercial	University of Notre Dame	IN	50366	GT2	5.6	Natural Gas Fired Combustion Turbine	NG	GT
2019	6	61123	Upton County Solar 2 LLC	IPP	Castle Gap Solar	TX	60123	BAT1	9.9	Batteries	MWH	BA
2019	6	60154	White Street Renewables LLC	IPP	White Street Renewables	NC	60364	WSLFG	1.6	Landfill Gas	LFG	IC
2019	6	60875	Wolf Run Energy LLC	IPP	Wolf Run Energy	PA	61263	GEN1	4.4	Natural Gas Internal Combustion Engine	NG	IC
2019	6	60875	Wolf Run Energy LLC	IPP	Wolf Run Energy	PA	61263	GEN2	4.4	Natural Gas Internal Combustion Engine	NG	IC
2019	6	60875	Wolf Run Energy LLC	IPP	Wolf Run Energy	PA	61263	GEN3	4.4	Natural Gas Internal Combustion Engine	NG	IC
2019	6	60875	Wolf Run Energy LLC	IPP	Wolf Run Energy	PA	61263	GEN4	4.4	Natural Gas Internal Combustion Engine	NG	IC
2019	6	60875	Wolf Run Energy LLC	IPP	Wolf Run Energy	PA	61263	GEN5	4.4	Natural Gas Internal Combustion Engine	NG	IC
2019	6	61902	Wright Kirby 1-5 CSG	IPP	Wright Kirby 1-5 CSG	MN	62365	WK1	1.0	Solar Photovoltaic	SUN	PV
2019	6	61902	Wright Kirby 1-5 CSG	IPP	Wright Kirby 1-5 CSG	MN	62365	WK2	1.0	Solar Photovoltaic	SUN	PV
2019	6	61902	Wright Kirby 1-5 CSG	IPP	Wright Kirby 1-5 CSG	MN	62365	WK3	1.0	Solar Photovoltaic	SUN	PV
2019	6	61902	Wright Kirby 1-5 CSG	IPP	Wright Kirby 1-5 CSG	MN	62365	WK4	1.0	Solar Photovoltaic	SUN	PV
2019	6	61902	Wright Kirby 1-5 CSG	IPP	Wright Kirby 1-5 CSG	MN	62365	WK5	1.0	Solar Photovoltaic	SUN	PV
2019	7	60278	64KT 8me LLC	IPP	Springbok 3 Solar Farm	CA	60491	SB3SF	90.0	Solar Photovoltaic	SUN	PV
2019	7	61012	AES Distributed Energy	IPP	Williamsburg	MA	62202	WIL01	4.0	Solar Photovoltaic	SUN	PV
2019	7	61344	Advanced Microgrid Solutions	IPP	HEBT WLA 1	CA	61721	WLA04	1.5	Batteries	MWH	BA
2019	7	61344	Advanced Microgrid Solutions	IPP	HEBT WLA 1	CA	61721	WLA05	1.3	Batteries	MWH	BA
2019	7	61344	Advanced Microgrid Solutions	IPP	HEBT WLA 1	CA	61721	WLA07	1.0	Batteries	MWH	BA
2019	7	61344	Advanced Microgrid Solutions	IPP	HEBT WLA 1	CA	61721	WLA08	1.9	Batteries	MWH	BA
2019	7	61344	Advanced Microgrid Solutions	IPP	HEBT WLA 1	CA	61721	WLA10	1.3	Batteries	MWH	BA
2019	7	61608	Agilon Energy Holdings II, LLC	IPP	Victoria Port Power LLC	TX	61242	VP-1	50.0	Natural Gas Fired Combustion Turbine	NG	GT
2019	7	61608	Agilon Energy Holdings II, LLC	IPP	Victoria Port Power LLC	TX	61242	VP-2	50.0	Natural Gas Fired Combustion Turbine	NG	GT
2019	7	62671	Chester NY 1, LLC	IPP	Chester CSG	NY	62761	CH	2.0	Solar Photovoltaic	SUN	PV
2019	7	61060	Cypress Creek Renewables	IPP	Palmetto Plains	SC	62679	1405	75.0	Solar Photovoltaic	SUN	PV
2019	7	60370	DG AMP Solar, LLC	IPP	DG AMP Solar Piqua Manier	OH	62792	AMPPM	12.6	Solar Photovoltaic	SUN	PV
2019	7	61187	DG Minnesota CSG, LLC	IPP	Haven Solar Project CSG	MN	62651	HAVEN	3.0	Solar Photovoltaic	SUN	PV
2019	7	61567	DP-C2 Episode 1 LLC	IPP	Richardson Solar II	SC	61972	C2BV	3.6	Solar Photovoltaic	SUN	PV

Table 6.3. New Utility Scale Generating Units by Operating Company, Plant, and Month, 2019

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	7	56201	Engie North America	IPP	Solomon Forks Wind Project, LLC	KS	61984	WTGS	275.6	Onshore Wind Turbine	WND	WT
2019	7	60399	GASNA 6P, LLC	IPP	San Joaquin Solar	CA	60678	SJ1B	1.5	Solar Photovoltaic	SUN	PV
2019	7	7140	Georgia Power Co	Electric Utility	Guyton Community Solar	GA	62392	1	3.6	Solar Photovoltaic	SUN	PV
2019	7	60428	Green City Recovery, LLC	IPP	Green City Recovery, LLC	KY	60703	2	1.0	Landfill Gas	LFG	IC
2019	7	61952	Hanford Renewable Energy LLC	IPP	Verwey-Hanford Dairy Digester #2	CA	62418	4	1.0	Other Waste Biomass	OBG	IC
2019	7	61952	Hanford Renewable Energy LLC	IPP	Verwey-Hanford Dairy Digester #3	CA	62419	4	1.0	Other Waste Biomass	OBG	IC
2019	7	9234	Indiana Municipal Power Agency	Electric Utility	Tipton Solar Park	IN	62305	STIP	5.3	Solar Photovoltaic	SUN	PV
2019	7	62649	KDC Solar ASGM LLC	IPP	KDC Solar ASGM	NJ	62739	ARDAH	3.8	Solar Photovoltaic	SUN	PV
2019	7	62038	MSC-Chisago01 LLC	IPP	MSC-Chisago01 LLC CSG	MN	62536	52739	1.0	Solar Photovoltaic	SUN	PV
2019	7	62039	MSC-Rice01 LLC	IPP	MSC-Rice01 LLC CSG	MN	62537	52738	1.0	Solar Photovoltaic	SUN	PV
2019	7	61227	Nautilus Solar Solutions	IPP	Synergen Panorama, LLC CSG	MD	62327	SP	6.6	Solar Photovoltaic	SUN	PV
2019	7	61659	Panda Solar NC 7 , LLC	IPP	Panda Solar NC 7, LLC	NC	62125	20038	1.5	Solar Photovoltaic	SUN	PV
2019	7	61677	Sol Systems	IPP	Warren Solar Farm LLC	NC	62223	10423	5.0	Solar Photovoltaic	SUN	PV
2019	7	60947	Tesla Inc.	IPP	Bd of Educ of Queen Anne's Cnty, Cnty HS	MD	62074	PV1	1.7	Solar Photovoltaic	SUN	PV
2019	7	60947	Tesla Inc.	IPP	Blue Shld Of Cal- El Dorado Hlls Mtr B	CA	62077	PV1	2.1	Solar Photovoltaic	SUN	PV
2019	7	60472	Tungsten Mountain	IPP	Tungsten Mountain	NV	60785	TMSOL	7.3	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, 2019

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	1	1692	Big Rivers Electric Corp	Electric Utility	HMP&L Station Two Henderson	KY	1382	1	153.0	Conventional Steam Coal	BIT	ST
2019	1	1692	Big Rivers Electric Corp	Electric Utility	HMP&L Station Two Henderson	KY	1382	2	159.0	Conventional Steam Coal	BIT	ST
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	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	2	6526	FirstEnergy Generation Corp	IPP	FirstEnergy Bruce Mansfield	PA	6094	1	830.0	Conventional Steam Coal	RC	ST
2019	2	6526	FirstEnergy Generation Corp	IPP	FirstEnergy Bruce Mansfield	PA	6094	2	830.0	Conventional Steam Coal	RC	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	15534	TalenEnergy Montour LLC	IPP	TalenEnergy Montour	PA	3149	11	11.0	Conventional Steam Coal	RC	ST
2019	2	58105	University of Redlands	Commercial	Energy Center	CA	58168	EC01	1.5	Natural Gas Internal Combustion Engine	NG	IC
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	4161	Constellation Power Source Gen	IPP	Riverside (MD)	MD	1559	GT7	19.0	Petroleum Liquids	DFO	GT
2019	3	6455	Duke Energy Florida, LLC	Electric Utility	Higgins	FL	630	P1	20.0	Natural Gas Fired Combustion Turbine	NG	GT
2019	3	58945	EthosEnergy Power Plant Services	Electric CHP	Quantum Pasco Power LP	FL	54424	EDG1	1.2	Petroleum Liquids	DFO	IC
2019	3	58945	EthosEnergy Power Plant Services	Electric CHP	Quantum Pasco Power LP	FL	54424	EDG2	1.2	Petroleum Liquids	DFO	IC
2019	3	50129	Georgia-Pacific Cons Op LLC Port Hudson	Industrial	Georgia-Pacific Port Hudson	LA	10612	GEN1	67.7	Wood/Wood Waste Biomass	BLQ	ST
2019	3	7570	Great River Energy	Electric Utility	Elk River	MN	2039	1	8.9	Municipal Solid Waste	MSW	ST
2019	3	7570	Great River Energy	Electric Utility	Elk River	MN	2039	2	9.0	Municipal Solid Waste	MSW	ST
2019	3	7570	Great River Energy	Electric Utility	Elk River	MN	2039	3	16.9	Municipal Solid Waste	MSW	ST
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	19876	Virginia Electric & Power Co	Electric Utility	Bellmeade Power Station	VA	50966	1	95.0	Natural Gas Fired Combined Cycle	NG	CT
2019	3	19876	Virginia Electric & Power Co	Electric Utility	Bellmeade Power Station	VA	50966	2	95.0	Natural Gas Fired Combined Cycle	NG	CT
2019	3	19876	Virginia Electric & Power Co	Electric Utility	Bellmeade Power Station	VA	50966	3	77.0	Natural Gas Fired Combined Cycle	NG	CA
2019	3	19876	Virginia Electric & Power Co	Electric Utility	Bremo Bluff	VA	3796	3	71.0	Natural Gas Steam Turbine	NG	ST
2019	3	19876	Virginia Electric & Power Co	Electric Utility	Bremo Bluff	VA	3796	4	156.0	Natural Gas Steam Turbine	NG	ST
2019	3	19876	Virginia Electric & Power Co	Electric Utility	Chesterfield	VA	3797	3	97.5	Conventional Steam Coal	BIT	ST
2019	3	19876	Virginia Electric & Power Co	Electric Utility	Chesterfield	VA	3797	4	162.5	Conventional Steam Coal	BIT	ST
2019	3	19876	Virginia Electric & Power Co	Electric Utility	Mecklenburg Power Station	VA	52007	GEN1	69.0	Conventional Steam Coal	BIT	ST
2019	3	19876	Virginia Electric & Power Co	Electric Utility	Mecklenburg Power Station	VA	52007	GEN2	69.0	Conventional Steam Coal	BIT	ST
2019	3	19876	Virginia Electric & Power Co	Electric Utility	Multitrade of Pittsylvania LP	VA	52118	GEN1	41.5	Wood/Wood Waste Biomass	WDS	ST
2019	3	19876	Virginia Electric & Power Co	Electric Utility	Multitrade of Pittsylvania LP	VA	52118	GEN2	41.5	Wood/Wood Waste Biomass	WDS	ST
2019	3	19876	Virginia Electric & Power Co	Electric Utility	Possum Point	VA	3804	3	96.0	Natural Gas Steam Turbine	NG	ST
2019	3	19876	Virginia Electric & Power Co	Electric Utility	Possum Point	VA	3804	4	220.0	Natural Gas Steam Turbine	NG	ST
2019	3	19876	Virginia Electric & Power Co	Electric Utility	Yorktown	VA	3809	1	159.0	Conventional Steam Coal	BIT	ST
2019	3	19876	Virginia Electric & Power Co	Electric Utility	Yorktown	VA	3809	2	164.0	Conventional Steam Coal	BIT	ST
2019	3	20847	Wisconsin Electric Power Co	Electric Utility	Presque Isle	MI	1769	5	55.0	Conventional Steam Coal	SUB	ST
2019	3	20847	Wisconsin Electric Power Co	Electric Utility	Presque Isle	MI	1769	6	55.0	Conventional Steam Coal	SUB	ST
2019	3	20847	Wisconsin Electric Power Co	Electric Utility	Presque Isle	MI	1769	7	83.0	Conventional Steam Coal	SUB	ST
2019	3	20847	Wisconsin Electric Power Co	Electric Utility	Presque Isle	MI	1769	8	83.0	Conventional Steam Coal	SUB	ST
2019	3	20847	Wisconsin Electric Power Co	Electric Utility	Presque Isle	MI	1769	9	83.0	Conventional Steam Coal	SUB	ST
2019	4	195	Alabama Power Co	Electric Utility	Gorgas	AL	8	10	727.7	Conventional Steam Coal	BIT	ST
2019	4	195	Alabama Power Co	Electric Utility	Gorgas	AL	8	8	163.0	Conventional Steam Coal	BIT	ST
2019	4	195	Alabama Power Co	Electric Utility	Gorgas	AL	8	9	172.0	Conventional Steam Coal	BIT	ST
2019	4	221	Alaska Village Elec Coop, Inc	Electric Utility	Togiak	AK	6348	2a	0.5	Petroleum Liquids	DFO	IC
2019	4	221	Alaska Village Elec Coop, Inc	Electric Utility	Togiak	AK	6348	4	0.3	Petroleum Liquids	DFO	IC
2019	4	221	Alaska Village Elec Coop, Inc	Electric Utility	Togiak	AK	6348	4B	0.8	Petroleum Liquids	DFO	IC
2019	4	221	Alaska Village Elec Coop, Inc	Electric Utility	Togiak	AK	6348	5A	0.8	Petroleum Liquids	DFO	IC
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	55768	RC Cape May Holdings LLC	IPP	B L England	NJ	2378	2	146.0	Conventional Steam Coal	BIT	ST
2019	4	55768	RC Cape May Holdings LLC	IPP	B L England	NJ	2378	3	146.0	Petroleum Liquids	RFO	ST
2019	5	58620	AEP Generation Resources Inc	IPP	Conesville	OH	2840	5	375.0	Conventional Steam Coal	BIT	ST
2019	5	58620	AEP Generation Resources Inc	IPP	Conesville	OH	2840	6	375.0	Conventional Steam Coal	BIT	ST
2019	5	29926	Entergy Nuclear Generation Co	IPP	Pilgrim Nuclear Power Station	MA	1590	1	677.2	Nuclear	NUC	ST
2019	5	13781	Northern States Power Co - Minnesota	Electric Utility	Bay Front	WI	3982	4	15.0	Wood/Wood Waste Biomass	WDS	ST
2019	5	15248	Portland General Electric Co	Electric Utility	Faraday	OR	3045	1	3.9	Conventional Hydroelectric	WAT	HY
2019	5	15248	Portland General Electric Co	Electric Utility	Faraday	OR	3045	2	3.9	Conventional Hydroelectric	WAT	HY
2019	5	15248	Portland General Electric Co	Electric Utility	Faraday	OR	3045	3	3.4	Conventional Hydroelectric	WAT	HY
2019	5	15248	Portland General Electric Co	Electric Utility	Faraday	OR	3045	4	5.6	Conventional Hydroelectric	WAT	HY
2019	5	15248	Portland General Electric Co	Electric Utility	Faraday	OR	3045	5	5.1	Conventional Hydroelectric	WAT	HY
2019	5	17633	Southern Indiana Gas & Elec Co	Electric Utility	Northeast (IN)	IN	1013	1	10.0	Natural Gas Fired Combustion Turbine	NG	GT
2019	5	17633	Southern Indiana Gas & Elec Co	Electric Utility	Northeast (IN)	IN	1013	2	10.0	Natural Gas Fired Combustion Turbine	NG	GT
2019	6	61138	City Point Energy Center	Electric CHP	James River Genco LLC	VA	10377	GEN1	46.3	Conventional Steam Coal	BIT	ST
2019	6	61138	City Point Energy Center	Electric CHP	James River Genco LLC	VA	10377	GEN2	46.3	Conventional Steam Coal	BIT	ST

Table 6.4. Retired Utility Scale Generating Units by Operating Company, Plant, and Month, 2019

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	6	4161	Constellation Power Source Gen	IPP	Gould Street	MD	1553	3	97.0	Natural Gas Steam Turbine	NG	ST
2019	6	4458	Covanta Warren Energy Resource Co LP	IPP	Covanta Warren Energy	NJ	10012	1	10.0	Municipal Solid Waste	MSW	ST
2019	6	12685	Entergy Mississippi LLC	Electric Utility	Rex Brown	MS	2053	4	197.7	Natural Gas Steam Turbine	NG	ST
2019	6	12685	Entergy Mississippi LLC	Electric Utility	Rex Brown	MS	2053	GT1	10.3	Petroleum Liquids	DFO	GT
2019	6	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	6	61336	Katahdin KI 50 LLC	Industrial	East Millinocket Mill	ME	55830	M2S1	14.5	Wood/Wood Waste Biomass	WDS	ST
2019	6	61336	Katahdin KI 50 LLC	Industrial	East Millinocket Mill	ME	55830	M2S2	14.5	Wood/Wood Waste Biomass	WDS	ST
2019	6	61336	Katahdin KI 50 LLC	Industrial	East Millinocket Mill	ME	55830	M2S3	28.1	Wood/Wood Waste Biomass	WDS	ST
2019	6	56355	LES Project Holdings LLC	IPP	I 95 Municipal Landfill Phase I	VA	52051	UNT1	0.8	Landfill Gas	LFG	IC
2019	6	56355	LES Project Holdings LLC	IPP	I 95 Municipal Landfill Phase I	VA	52051	UNT2	0.8	Landfill Gas	LFG	IC
2019	6	56355	LES Project Holdings LLC	IPP	I 95 Municipal Landfill Phase I	VA	52051	UNT3	0.8	Landfill Gas	LFG	IC
2019	6	56355	LES Project Holdings LLC	IPP	I 95 Municipal Landfill Phase I	VA	52051	UNT4	0.8	Landfill Gas	LFG	IC
2019	6	56355	LES Project Holdings LLC	IPP	Sumpter Energy Associates	MI	54536	0201	0.8	Landfill Gas	LFG	IC
2019	6	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	6	13781	Northern States Power Co - Minnesota	Electric Utility	Granite City	MN	1910	1	13.0	Natural Gas Fired Combustion Turbine	NG	GT
2019	6	13781	Northern States Power Co - Minnesota	Electric Utility	Granite City	MN	1910	2	13.0	Natural Gas Fired Combustion Turbine	NG	GT
2019	6	13781	Northern States Power Co - Minnesota	Electric Utility	Granite City	MN	1910	3	13.0	Natural Gas Fired Combustion Turbine	NG	GT
2019	6	13781	Northern States Power Co - Minnesota	Electric Utility	Granite City	MN	1910	4	13.0	Natural Gas Fired Combustion Turbine	NG	GT
2019	6	56772	TX LFG Energy, LP	IPP	Coastal Plains	TX	55554	UNT1	1.7	Landfill Gas	LFG	IC
2019	6	56772	TX LFG Energy, LP	IPP	Coastal Plains	TX	55554	UNT3	1.7	Landfill Gas	LFG	IC
2019	6	56772	TX LFG Energy, LP	IPP	Coastal Plains	TX	55554	UNT4	1.7	Landfill Gas	LFG	IC
2019	6	50097	Verso Luke LLC	Industrial	Luke Mill	MD	50282	GEN1	32.0	Conventional Steam Coal	BIT	ST
2019	6	50097	Verso Luke LLC	Industrial	Luke Mill	MD	50282	GEN2	28.0	Conventional Steam Coal	BIT	ST
2019	7	7140	Georgia Power Co	Electric Utility	Hammond	GA	708	1	110.0	Conventional Steam Coal	BIT	ST
2019	7	7140	Georgia Power Co	Electric Utility	Hammond	GA	708	2	110.0	Conventional Steam Coal	BIT	ST
2019	7	7140	Georgia Power Co	Electric Utility	Hammond	GA	708	3	110.0	Conventional Steam Coal	BIT	ST
2019	7	7140	Georgia Power Co	Electric Utility	Hammond	GA	708	4	510.0	Conventional Steam Coal	BIT	ST
2019	7	7140	Georgia Power Co	Electric Utility	Langdale	AL	711	5	0.1	Conventional Hydroelectric	WAT	HY
2019	7	7140	Georgia Power Co	Electric Utility	Langdale	AL	711	6	0.1	Conventional Hydroelectric	WAT	HY
2019	7	7140	Georgia Power Co	Electric Utility	McIntosh	GA	6124	1	142.5	Conventional Steam Coal	SUB	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)
2019	8	60571	AEP Onsite Partners	IPP	Lady Slipper Solar Array	MN	62414	PV1	4.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	4.5
2019	8	61344	Advanced Microgrid Solutions	IPP	HEBT WLA 1	CA	61721	WLA09	4.5	Batteries	MWH	BA	(TS) Construction complete, but not yet in commercial operation	4.5
2019	8	221	Alaska Village Elec Coop, Inc	Electric Utility	Quinhagak	AK	57057	3A	0.5	Petroleum Liquids	DFO	IC	(TS) Construction complete, but not yet in commercial operation	0.5
2019	8	62627	Alchemy Renewable Energy	IPP	TPE Pennsylvania Solar 1, LLC	PA	62686	PABOE	3.6	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	3.6
2019	8	15399	Avangrid Renewables LLC	IPP	Montague Wind Power Facility LLC	OR	58099	1	200.0	Onshore Wind Turbine	WND	WT	(TS) Construction complete, but not yet in commercial operation	200.0
2019	8	57449	Borrego Solar Systems Inc	Industrial	Acushnet Ball Plant 2	MA	62835	ESS-1	1.0	Batteries	MWH	BA	(V) Under construction, more than 50 percent complete	1.0
2019	8	57449	Borrego Solar Systems Inc	Industrial	Acushnet Ball Plant 2	MA	62835	ESS-2	0.5	Batteries	MWH	BA	(V) Under construction, more than 50 percent complete	0.5
2019	8	62662	Butter Solar, LLC	IPP	Cashton Solar	WI	62858	CAS3	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2019	8	62662	Butter Solar, LLC	IPP	Cumberland Solar	WI	62849	CUM4	2.5	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.5
2019	8	62662	Butter Solar, LLC	IPP	Elroy Solar	WI	62868	ELR5	1.5	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.5
2019	8	62662	Butter Solar, LLC	IPP	Fennimore Solar	WI	62847	FEN6	3.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	3.0
2019	8	62662	Butter Solar, LLC	IPP	Forest City Solar	IA	62861	FOR7	3.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	3.0
2019	8	62662	Butter Solar, LLC	IPP	New Lisbon Solar	WI	62848	NEW9	2.5	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.5
2019	8	62662	Butter Solar, LLC	IPP	St. Charles Solar	MN	62869	STC10	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2019	8	61934	CI III VK I TE Partnership LLC	IPP	Sage Solar I-III	UT	62399	77778	57.6	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	57.6
2019	8	58871	Citizens Enterprises Corporation	IPP	Citizens Imperial Solar	CA	62052	CIS1	30.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	30.0
2019	8	3913	City of Colby - (KS)	Electric Utility	Colby City of	KS	1272	9	3.0	Petroleum Liquids	DFO	IC	(V) Under construction, more than 50 percent complete	3.0
2019	8	16873	City of Sebewaing - (MI)	Electric Utility	Pine Street	MI	7806	7	4.4	Natural Gas Internal Combustion Engine	NG	IC	(TS) Construction complete, but not yet in commercial operation	4.4
2019	8	16873	City of Sebewaing - (MI)	Electric Utility	Pine Street	MI	7806	8	3.3	Natural Gas Internal Combustion Engine	NG	IC	(TS) Construction complete, but not yet in commercial operation	3.3
2019	8	3265	Cleco Power LLC	Electric Utility	St. Mary Clean Energy Center	LA	60610	1	47.9	All Other	WH	OT	(TS) Construction complete, but not yet in commercial operation	58.2
2019	8	4226	Consolidated Edison Co-NY Inc	Electric Utility	98th Street Battery Storage Station	NY	62839	ESS98	1.8	Batteries	MWH	BA	(V) Under construction, more than 50 percent complete	2.0
2019	8	62648	DG 1 Acquisition Co., LLC	IPP	Solar Star Palo Alto I, LLC	CA	62732	SSPAI	1.3	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.3
2019	8	61610	Delaware River Solar, LLC	IPP	Hickory Grove #1	NY	62831	25	2.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	2.0
2019	8	61610	Delaware River Solar, LLC	IPP	Hickory Grove #2	NY	62832	309	1.7	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	1.7
2019	8	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
2019	8	61610	Delaware River Solar, LLC	IPP	Podunk Road	NY	62834	871	2.2	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	2.2
2019	8	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	8	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
2019	8	61404	Edenton Solar	IPP	Edenton Solar	NC	61781	EDE	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2019	8	12685	Entergy Mississippi LLC	Electric Utility	Hinds Energy Facility	MS	55218	H04BS	36.4	Natural Gas Fired Combustion Turbine	NG	GT	(V) Under construction, more than 50 percent complete	49.1
2019	8	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	8	60251	GRP Franklin Renewable Energy Facility, LLC	IPP	GRP Franklin Renewable Energy Facility	GA	60550	GEN	58.0	Wood/Wood Waste Biomass	WDS	ST	(TS) Construction complete, but not yet in commercial operation	58.0
2019	8	60846	GRP Madison Renewable Energy Facility, LLC	IPP	GRP Madison Renewable Energy Facility	GA	61213	GEN	58.0	Wood/Wood Waste Biomass	WDS	ST	(TS) Construction complete, but not yet in commercial operation	58.0
2019	8	7601	Green Mountain Power Corp	Electric Utility	GMP Solar/Storage-Essex	VT	62383	GMPBE	2.0	Batteries	MWH	BA	(U) Under construction, less than or equal to 50 percent complete	2.0
2019	8	7601	Green Mountain Power Corp	Electric Utility	GMP Solar/Storage-Essex	VT	62383	GMPSE	4.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	4.5
2019	8	7601	Green Mountain Power Corp	Electric Utility	GMP Solar/Storage-Ferrisburgh	VT	62382	GMPBF	2.0	Batteries	MWH	BA	(U) Under construction, less than or equal to 50 percent complete	2.0
2019	8	7601	Green Mountain Power Corp	Electric Utility	GMP Solar/Storage-Ferrisburgh	VT	62382	GMPSF	5.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	5.0
2019	8	7601	Green Mountain Power Corp	Electric Utility	GMP Solar/Storage-Milton	VT	62381	GMPBM	2.0	Batteries	MWH	BA	(U) Under construction, less than or equal to 50 percent complete	2.0
2019	8	7601	Green Mountain Power Corp	Electric Utility	GMP Solar/Storage-Milton	VT	62381	GMPSM	5.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	5.0
2019	8	60025	Greenbacker Renewable Energy Corporation	IPP	Camden Dam Solar, LLC	NC	62330	CMDND	5.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	5.0
2019	8	60025	Greenbacker Renewable Energy Corporation	IPP	Jamesville Road Solar, LLC	NC	62329	JMVLR	5.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	5.0
2019	8	60025	Greenbacker Renewable Energy Corporation	IPP	Mill Pond Solar, LLC	NC	62328	MLLPD	5.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	5.0
2019	8	62674	Greenville NY 1, LLC	IPP	Greenville CSG	NY	62759	GV	2.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	2.0
2019	8	61456	Hope Farm Solar, LLC	IPP	Hope Farm Solar, LLC	RI	61840	HOPE	10.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	10.0
2019	8	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	8	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	8	62666	KDC Solar CSCP LLC	IPP	KDC Solar CSCP LLC	NJ	62746	CSCP	3.4	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	3.4
2019	8	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	8	60987	Lanikuhana Solar LLC	IPP	Lanikuhana Solar LLC	HI	58281	1	14.7	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	14.7
2019	8	61886	Lockett Windfarm, LLC	IPP	Lockett Windfarm	TX	62356	LOC	183.8	Onshore Wind Turbine	WND	WT	(TS) Construction complete, but not yet in commercial operation	183.8
2019	8	62037	MSC-Chisago02 LLC	IPP	MSC-Chisago02 LLC	MN	62538	52740	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2019	8	62660	MSC-Empire01, LLC	IPP	MSC-Empire01, LLC	MN	62740	52784	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2019	8	62035	MSC-Scott01 LLC	IPP	MSC-Scott01 LLC	MN	62535	52737	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2019	8	11806	Massachusetts Mun Wholes Electric Co	Electric Utility	Berkshire Wind Power Project	MA	57721	HN-8	2.3	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	2.3
2019	8	11806	Massachusetts Mun Wholes Electric Co	Electric Utility	Berkshire Wind Power Project	MA	57721	HN-9	2.3	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	2.3
2019	8	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
2019	8	56990	NJR Clean Energy Ventures Corporation	IPP	Garfield Solar	NJ	62680	GARFS	1.4	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.4
2019	8	56990	NJR Clean Energy Ventures Corporation	IPP	Garfield Solar	NJ	62680	GARMS	1.6	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.6
2019	8	56990	NJR Clean Energy Ventures Corporation	IPP	Milford Solar Farm (NJ) LLC	NJ	62637	MILFD	7.5	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	7.5
2019	8	62630	NY Mooers I, LLC	IPP	Boas Rd #1 Community Solar Farm	NY	62530	496	2.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	2.0
2019	8	62631	NY Mooers II, LLC	IPP	Boas Rd #2 Community Solar Farm	NY	62531	1010	2.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	2.0
2019	8	62632	NY Mooers III, LLC	IPP	Boas Rd #3 Community Solar Farm	NY	62532	1011	2.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	2.0
2019	8	13206	Nantucket Electric Co	Electric Utility	Nantucket	MA	1615	18	13.5	Petroleum Liquids	DFO	GT	(TS) Construction complete, but not yet in commercial operation	15.4
2019	8	13206	Nantucket Electric Co	Electric Utility	Nantucket	MA	1615	19	1.0	Petroleum Liquids	DFO	IC	(TS) Construction complete, but not yet in commercial operation	1.0
2019	8	62149	Nautilus Goat Island Solar CSG LLC	IPP	Nautilus Goat Island Solar CSG LLC	RI	62672	GI	3.3	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	3.3
2019	8	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	8	59170	North American Biofuels, LLC	IPP	Morehead Generating Facility	KY	62641	M3516	1.4	Landfill Gas	LFG	IC	(V) Under construction, more than 50 percent complete	1.4
2019	8	62691	Novel Martin Solar One LLC	IPP	Novel Martin Solar One LLC (McLeod)	MN	62779	MART	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2019	8	62644	OEE XXVIII LLC	Industrial	LafargeHolcim - Paulding Wind Project	OH	62752	L1	1.5	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	1.5
2019	8	62644	OEE XXVIII LLC	Industrial	LafargeHolcim - Paulding Wind Project	OH	62752	L2	1.5	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	1.5
2019	8	62644	OEE XXVIII LLC	Industrial	LafargeHolcim - Paulding Wind Project	OH	62752	L3	1.5	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	1.5
2019	8	62128	OEE XXX LLC	Industrial	Zephyr Wind Project - 2.0	OH	62653	T1	1.5	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	1.5
2019	8	62128	OEE XXX LLC	Industrial	Zephyr Wind Project - 2.0	OH	62653	T2	1.5	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	1.5
2019	8	62128	OEE XXX LLC	Industrial	Zephyr Wind Project - 2.0	OH	62653	T3	1.5	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	1.5
2019	8	61661	Panda Solar NC 8, LLC	IPP	Panda Solar NC 8, LLC	NC	62126	20052	2.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	2.0
2019	8	56545	Pattern Operators LP	IPP	Grady Wind Energy Center, LLC	NM	60317	1	220.5	Onshore Wind Turbine	WND	WT	(TS) Construction complete, but not yet in commercial operation	220.5
2019	8	62162	RP Napa Solar 1, LLC	IPP	American Canyon Solar	CA	62687	RPNPA	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2019	8	62162	RP Napa Solar 1, LLC	IPP	American Canyon Solar	CA	62687	RPNPB	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2019	8	62162	RP Napa Solar 1, LLC	IPP	American Canyon Solar	CA	62687	RPNPC	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2019	8	61614	Rollingstone Holdco LLC	IPP	Rollingstone Holdco CSG	MN	62037	ROLLI	5.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	5.0
2019	8	61588	San Pablo Raceway, LLC	IPP	San Pablo Raceway	CA	62004	SPRWY	100.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	100.0
2019	8	61677	Sol Systems	IPP	Wendell Solar Farm LLC	NC	62595	10424	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2019	8	61916	Spencer-Tioga Solar, LLC	IPP	Pasto Solar	NY	62389	PASTO	16.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	16.0
2019	8	62123	SunRaise Investments, LLC	IPP	Happy Hollow CSG	MA	62652	HHESS	3.3	Batteries	MWH	BA	(TS) Construction complete, but not yet in commercial operation	3.3
2019	8	62123	SunRaise Investments, LLC	IPP	Happy Hollow CSG	MA	62652	HHPV	5.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	5.0
2019	8	60947	Tesla Inc.	IPP	Pima Community College	AZ	62075	PV1	1.1	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.1
2019	8	61204	Today's Power, Inc.	Commercial	Noland Wastewater Treatment Plant	AR	62682	FAYE1	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2019	8	61204	Today's Power, Inc.	Commercial	Noland Wastewater Treatment Plant	AR	62682	FAYEB	6.0	Batteries	MWH	BA	(V) Under construction, more than 50 percent complete	6.0
2019	8	61204	Today's Power, Inc.	Commercial	Westside Wastewater Treatment Plant	AR	62683	FAYW1	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2019	8	61204	Today's Power, Inc.	Commercial	Westside Wastewater Treatment Plant	AR	62683	FAYWB	6.0	Batteries	MWH	BA	(V) Under construction, more than 50 percent complete	6.0

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	8	61885	USS East Hauer Watt Solar CSG	IPP	USS East Hauer Watt CSG	MN	62362	USEHW	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2019	8	61881	USS King 2 CSG	IPP	USS King 2 CSG	MN	62358	USK12	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2019	8	61841	USS Lake Patterson Solar	IPP	USS Lake Patterson Solar CSG	MN	62337	USLP	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2019	8	59764	Waipio PV, LLC	IPP	Waipio Solar	HI	60024	WPO	45.9	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	45.9
2019	9	62139	1025 Traveller Solar, LLC	IPP	1025 Traveller Solar, LLC	NC	62660	1025	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2019	9	62140	1047 Little Mountain Solar, LLC	IPP	1047 Little Mountain Solar, LLC	NC	62661	1047	3.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	3.0
2019	9	61608	Agilon Energy Holdings II, 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	9	61608	Agilon Energy Holdings II, 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	9	60877	Antelope DSR 3 LLC	IPP	Antelope DSR 3	CA	61265	ADSR3	20.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	20.0
2019	9	59714	Antrim Wind Energy LLC	IPP	Antrim Wind	NH	59953	AWND1	28.4	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	28.8
2019	9	15399	Avangrid Renewables LLC	IPP	Coyote Ridge	SD	61047	WT1	98.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	98.0
2019	9	61745	Burgaw Solar, LLC	IPP	Burgaw Solar, LLC	NC	62240	1072	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2019	9	62662	Butter Solar, LLC	IPP	Arcadia Solar	WI	62744	A1	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2019	9	62772	CA ODEVI LLC	IPP	Windsor Floating Solar	CA	62902	WUS15	1.5	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.5
2019	9	62749	Carolina Poultry Power	Electric CHP	Carolina Poultry Power Farmville	NC	62873	7474	0.3	Other Waste Biomass	AB	ST	(T) Regulatory approvals received. Not under construction	0.8
2019	9	62749	Carolina Poultry Power	Electric CHP	Carolina Poultry Power Farmville	NC	62873	7475	0.3	Other Waste Biomass	AB	ST	(T) Regulatory approvals received. Not under construction	0.8
2019	9	62749	Carolina Poultry Power	Electric CHP	Carolina Poultry Power Farmville	NC	62873	7476	0.1	Other Waste Biomass	AB	ST	(T) Regulatory approvals received. Not under construction	0.1
2019	9	8245	City of Hastings - (NE)	Electric Utility	Hastings Community Solar Farm	NE	62833	PV	0.3	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	1.5
2019	9	60609	Clean Focus Renewables, Inc.	IPP	Rugged Solar LLC	CA	57960	1	80.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	80.0
2019	9	40215	Cordova Electric Coop, Inc	Electric Utility	Eyak Service Center BESS	AK	62714	BESS1	1.0	Batteries	MWH	BA	(TS) Construction complete, but not yet in commercial operation	1.0
2019	9	61610	Delaware River Solar, LLC	IPP	Boas Rd #4 Community Solar Farm	NY	62533	1023	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2019	9	61610	Delaware River Solar, LLC	IPP	Burritt Rd Community Solar Farm	NY	62480	635	2.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.0
2019	9	61610	Delaware River Solar, LLC	IPP	Gaskill Rd Community Solar Farm	NY	62474	928	5.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	5.0
2019	9	61610	Delaware River Solar, LLC	IPP	Kelly Bridge Road Community Solar Farm	NY	62154	12	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2019	9	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
2019	9	57280	Eagle Creek RE LLC	IPP	Swinging Bridge 2	NY	2634	SWI3	1.2	Conventional Hydroelectric	WAT	HY	(V) Under construction, more than 50 percent complete	1.2
2019	9	62141	Ennis Solar, LLC	IPP	Ennis Solar, LLC	NC	62662	22503	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2019	9	61054	Fluvanna Wind Energy 2 LLC	IPP	Gopher Creek Wind Farm	TX	61417	GCWF	158.0	Onshore Wind Turbine	WND	WT	(TS) Construction complete, but not yet in commercial operation	158.0
2019	9	61037	Foard City Wind, LLC	IPP	Foard City Wind	TX	61402	FOARD	352.8	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	352.8
2019	9	61374	Foxtail Wind, LLC	Electric Utility	Foxtail Wind, LLC	ND	61747	1	150.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	150.0
2019	9	62062	GD Richmond Buttonwoods I, LLC	IPP	GD Richmond Buttonwoods I, LLC	RI	62567	GDBUT	1.3	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.3
2019	9	62061	GD West Greenwich Victory I, LLC	IPP	GD West Greenwich Victory I, LLC	RI	62568	GDVIC	1.8	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	1.8
2019	9	60025	Greenbacker Renewable Energy Corporation	IPP	Blue Star	MD	62332	BLUES	7.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	7.5
2019	9	60025	Greenbacker Renewable Energy Corporation	IPP	Sol Phoenix	MD	62331	SOLPH	2.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.5
2019	9	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	9	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	9	60986	Imperial Valley Solar 2, LLC	IPP	Mount Signal Solar 2	CA	61353	IVS2	153.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	153.5
2019	9	61957	Kearny Mesa Storage LLC	IPP	Kearny Mesa Storage LLC	CA	62441	U1	1.0	Batteries	MWH	BA	(U) Under construction, less than or equal to 50 percent complete	1.0
2019	9	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	9	62706	NY Baldwin I, LLC	IPP	Breesport Road Community Solar Farm	NY	62157	235	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2019	9	22091	New-Indy Ontario LLC	Industrial	New-Indy Ontario Mill	CA	10427	GEN2	14.7	Natural Gas Fired Combustion Turbine	NG	GT	(V) Under construction, more than 50 percent complete	16.5
2019	9	22091	New-Indy Ontario LLC	Industrial	New-Indy Ontario Mill	CA	10427	GEN3	14.7	Natural Gas Fired Combustion Turbine	NG	GT	(V) Under construction, more than 50 percent complete	16.5
2019	9	60685	Novel Energy Solutions	IPP	Novel Solar Two LLC	MN	62913	SCHNE	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2019	9	62138	Pecan Grove Solar, LLC	IPP	Pecan Grove Solar, LLC	NC	62659	1081	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2019	9	61515	Phoebe Energy Project, LLC	IPP	Phoebe Solar	TX	61906	PHOEB	250.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	250.0
2019	9	61771	Ranchero Wind Farm LLC	IPP	Ranchero Wind Farm LLC	TX	62259	RAN	300.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	300.0
2019	9	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
2019	9	61929	Runway Solar Farm	Electric Utility	Runway Solar Farm	SC	62397	1	2.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.0
2019	9	61677	Sol Systems	IPP	Sabattus Solar LLC	NC	62596	11999	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2019	9	60163	Soltage LLC	IPP	Ace Solar	SC	61937	18	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2019	9	61533	Techren Solar II LLC	IPP	Techren Solar II LLC	NV	61930	TECH2	200.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	200.0
2019	9	61883	USS DVL Solar CSG	IPP	USS DVL Solar CSG	MN	62360	USDVL	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2019	9	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
2019	9	61522	Viridity Energy Solutions, Inc.	IPP	VEC Energy Storage	VT	62907	VEC	1.9	Batteries	MWH	BA	(L) Regulatory approvals pending. Not under construction	1.9
2019	9	62711	Wabasha Solar LLC	IPP	Wabasha Solar	MN	62800	WAB	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2019	9	62712	Winona Solar I LLC	IPP	Winona Solar	MN	62799	WIN	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2019	10	61012	AES Distributed Energy	IPP	Palmer	MA	62135	PAL01	3.5	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	3.5
2019	10	62051	Airport Solar LLC	IPP	Airport Solar	OR	62560	APS	47.3	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	47.3
2019	10	61973	Black Hills Electric Generation LLC	IPP	Busch Ranch II Wind Farm	CO	62445	WT	59.4	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	59.4
2019	10	16604	City of San Antonio - (TX)	Electric Utility	Commerce Solar	TX	62610	PV1	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2019	10	56769	Consolidated Edison Development Inc.	IPP	CED Northampton Solar LLC	MA	62695	NSMA	4.3	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	4.3
2019	10	61060	Cypress Creek Renewables	IPP	Lampwick	TX	61872	GEN1	7.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	7.5
2019	10	62132	DWW Solar II LLC	IPP	DWW Solar II	CT	62657	DWWS	36.9	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	36.9
2019	10	61926	Dryden-Tompkins Solar I, LLC	IPP	Ellis Solar	NY	62413	ELLIS	18.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	18.0
2019	10	60496	Enerparc Inc.	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	60496	Enerparc Inc.	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	60496	Enerparc Inc.	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	60259	Green River Wind Farm, LLC	IPP	Green River Wind Farm	IL	60471	GRNRV	212.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	212.0
2019	10	19547	Hawaiian Electric Co Inc	Electric Utility	West Loch Solar One	HI	61987	WLS1	20.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	20.0
2019	10	62752	Holiday Hill Community Wind, LLC	IPP	Holiday Hill Community Wind	MA	62897	HHCW1	5.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	5.0
2019	10	61925	Middlesex-Yates Solar, LLC	IPP	Daum Solar	NY	62412	DAUM	4.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	4.0
2019	10	54913	NSTAR Electric Company	Electric Utility	East Longmeadow Solar PV	MA	62059	LG400	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2019	10	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	10	61699	SR Meridian II	IPP	Meridian II	MS	62164	MRDII	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
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	60531	Standard Solar	IPP	Sugarhill Road - Solitude Solar CSG	NY	62788	X0040	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2019	10	61884	USS Brude Solar CSG	IPP	USS Brude Solar CSG	MN	62361	USBRU	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2019	10	61840	USS Rapidan Solar	IPP	USS Rapidan Solar CSG	MN	62338	USRAP	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2019	10	61980	Valta Energy	IPP	Mauka FIT One	HI	58662	3501	3.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	3.5
2019	10	62715	Westbound Solar LLC	Commercial	Amazon Denver DEN3	CO	62877	ADEN3	4.6	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	4.6
2019	10	20856	Wisconsin Power & Light Co	Electric Utility	Riverside Energy Center	WI	55641	CTG3	225.0	Natural Gas Fired Combined Cycle	NG	CT	(V) Under construction, more than 50 percent complete	232.9
2019	10	20856	Wisconsin Power & Light Co	Electric Utility	Riverside Energy Center	WI	55641	CTG4	225.0	Natural Gas Fired Combined Cycle	NG	CT	(V) Under construction, more than 50 percent complete	232.9
2019	10	20856	Wisconsin Power & Light Co	Electric Utility	Riverside Energy Center	WI	55641	STG2	250.0	Natural Gas Fired Combined Cycle	NG	CA	(V) Under construction, more than 50 percent complete	260.1
2019	10	59260	Wright Solar Park LLC	IPP	Wright Solar Park	CA	59525	FRWSP	200.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	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	61012	AES Distributed Energy	IPP	Founders Homestead Farms Solar	RI	62302	RFH01	4.5	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	4.5
2019	11	61544	Bani Solar, LLC	IPP	Bani Solar	SC	61938	4	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0

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	11	61519	Blackville Solar Farm, LLC	IPP	Blackville Solar Farm, LLC	SC	61918	1	7.2	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	7.2
2019	11	62063	Blue Summit III Wind, LLC	IPP	Blue Summit III Wind	TX	62566	BS3	200.2	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	200.2
2019	11	62084	DG Florham Park Solar LLC	IPP	DG Florham Park Solar LLC	NJ	62586	BASF	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2019	11	61610	Delaware River Solar, LLC	IPP	Chambers Road Solar	NY	62860	263	4.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	4.0
2019	11	61610	Delaware River Solar, LLC	IPP	Dryden Rd #2 Community Solar Farm	NY	62477	372	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2019	11	61610	Delaware River Solar, LLC	IPP	State Route 64N Community Solar Farm	NY	62520	1089	1.2	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	1.2
2019	11	61610	Delaware River Solar, LLC	IPP	Woodoak Drive Community Solar Farm	NY	62479	175	2.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.0
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	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	11	61857	Five Forks Solar	IPP	Five Forks Solar	NC	59951	5FRK	20.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	20.0
2019	11	61728	GlidePath Power Operations LLC	IPP	Prospect Storage	TX	62753	BESS	9.9	Batteries	MWH	BA	(V) Under construction, more than 50 percent complete	9.9
2019	11	9234	Indiana Municipal Power Agency	Electric Utility	Crawfordsville 2 Solar Park	IN	62484	SCRA2	7.9	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	7.9
2019	11	9234	Indiana Municipal Power Agency	Electric Utility	Crawfordsville 3 Solar Park	IN	62485	SCRA3	4.8	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	4.8
2019	11	59458	Landfill Energy Systems Florida	IPP	Sarasota County LFGTE Facility	FL	59686	LESF4	1.6	Landfill Gas	LFG	IC	(U) Under construction, less than or equal to 50 percent complete	1.6
2019	11	61401	North 301 Solar	IPP	North 301 Solar	NC	61778	N301	26.9	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	26.9
2019	11	62047	Roadrunner Solar, LLC	IPP	Roadrunner, LLC	TX	62561	RODR1	200.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	200.0
2019	11	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	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	58658	Sunlight Partners	IPP	Cash Solar	NC	60178	PV1	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2019	11	2770	Terra-Gen Operating Co-Wind	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	59496	Allete Clean Energy	IPP	Glen Ullin Energy Center	ND	62938	39001	106.7	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	106.7
2019	12	59496	Allete Clean Energy	IPP	South Peak Wind	MT	62939	41001	80.0	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	80.0
2019	12	61617	Alpha Value Solar, LLC	IPP	Alpha Value Solar	NC	62054	AVS01	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2019	12	60281	Altus Power America Management, LLC	IPP	FastSun 2	MN	62696	FS2	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2019	12	15399	Avangrid Renewables LLC	IPP	Karankawa Wind LLC	TX	61343	WT1	200.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	200.0
2019	12	15399	Avangrid Renewables LLC	IPP	Otter Creek Wind Farm LLC	IL	61344	WT1	129.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	129.0
2019	12	15399	Avangrid Renewables LLC	IPP	Tatanka Ridge	SD	61046	WT1	98.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	98.0
2019	12	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	12	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	12	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	12	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	12	61006	Bearkat TE Partnership LLC	IPP	Bearkat	TX	59972	BRKA2	103.4	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	103.4
2019	12	61985	Beech Ridge II Wind Energy Center	IPP	Beech Ridge II Wind Energy Center	WV	62482	GEN1	56.2	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	56.2
2019	12	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	12	60289	Blazing Star Wind Farm, LLC	IPP	Blazing Star Wind Farm 1	MN	60504	BLZG1	200.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	200.0
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	58508	Carolina Solar Energy 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 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	61467	Central CA Fuel Cell 2, LLC	Electric CHP	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	12	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	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	61817	Collard Holdings, LLC	IPP	Collard Holdings Solar	NC	62317	PV	10.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	10.0
2019	12	56769	Consolidated Edison Development Inc.	IPP	CED Champaign Solar LLC	IL	62681	CSIL	1.6	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.6
2019	12	60290	Crocker Wind Farm, LLC	IPP	Crocker Wind Farm	SD	60505	CRCKR	200.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	200.0
2019	12	59550	Croda Inc.	Industrial	Croda Atlas Point CHP	DE	59783	91199	2.0	Landfill Gas	LFG	IC	(U) Under construction, less than or equal to 50 percent complete	2.0
2019	12	61416	Crowned Ridge Wind, LLC	IPP	Crowned Ridge Wind Energy Center	SD	60503	CTTL1	200.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	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	Crooked Run	NC	62678	299	70.1	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	70.1
2019	12	61610	Delaware River Solar, LLC	IPP	Villa Roma Rd #1	NY	62525	40	2.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	2.0
2019	12	61610	Delaware River Solar, LLC	IPP	Villa Roma Rd #2	NY	62526	41	2.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	2.0
2019	12	61610	Delaware River Solar, LLC	IPP	Villa Roma Rd #3	NY	62527	390	2.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	2.0
2019	12	61610	Delaware River Solar, LLC	IPP	Villa Roma Rd #4	NY	62528	391	2.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	2.0
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	61911	Dougherty County Solar, LLC	IPP	Dougherty County Solar, LLC	GA	62375	PV1	120.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	120.0
2019	12	6455	Duke Energy Florida, LLC	Electric Utility	Lake Placid Solar Power Plant	FL	62541	PV1	45.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	45.0
2019	12	6455	Duke Energy Florida, LLC	Electric Utility	Trenton Solar Power Plant	FL	62543	PV1	74.9	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	74.9
2019	12	15470	Duke Energy Indiana, LLC	Electric Utility	Nabb Battery Energy Storage System	IN	62862	ES1	5.0	Batteries	MWH	BA	(T) Regulatory approvals received. Not under construction	5.0
2019	12	56215	E ON Climate Renewables N America LLC	IPP	Peyton Creek Wind Farm LLC	TX	62417	WT1	220.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	220.0
2019	12	56215	E ON Climate Renewables N America LLC	IPP	West of the Pecos Solar	TX	62415	WOTP1	100.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	100.0
2019	12	57170	EDF Renewable Asset Holdings, Inc.	IPP	Valentine Solar, LLC	CA	62288	VAL01	111.2	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	111.2
2019	12	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	12	58135	Ecos Energy LLC	IPP	Apple Hill Solar	VT	61037	APPL	2.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.0
2019	12	61915	Emmons-Logan Wind, LLC	IPP	Emmons-Logan Wind, LLC	ND	62380	ELLLC	300.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	300.0
2019	12	60496	Enerparc Inc.	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	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	12	60496	Enerparc Inc.	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	56201	Engie North America	IPP	Jumbo Hill Wind Project	TX	62630	WTGS1	160.7	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	160.7
2019	12	56615	First Solar Project Development	IPP	Windhub Solar A LLC	CA	59878	GEN01	20.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	20.0
2019	12	6541	Formosa Plastics Corp	Industrial	Formosa Utility Venture Ltd	TX	10554	3ST1	38.0	Natural Gas Fired Combined Cycle	NG	CA	(V) Under construction, more than 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	(V) Under construction, more than 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	(V) Under construction, more than 50 percent complete	102.0
2019	12	60747	Gamble Solar, LLC	IPP	Gamble Solar	NC	61127	12348	3.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	3.0
2019	12	7140	Georgia Power Co	Electric Utility	Robins Air Force Base Solar	GA	61648	1	139.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	139.0
2019	12	61611	Glaciers Edge Wind Project LLC	IPP	Glaciers Edge Wind Project	IA	62035	GEW	200.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	211.7
2019	12	61888	Gloversville Community Solar LLC	IPP	Gloversville Landfill Solar	NY	62357	08158	5.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	5.0
2019	12	61912	Grazing Yak Solar, LLC	IPP	Grazing Yak Solar	CO	62376	PV1	35.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	35.0
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	60719	Harvest Ridge Wind Farm	IPP	Broadlands Wind Farm	IL	61161	GEN01	300.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	300.0
2019	12	62638	Helen Solar LLC	IPP	Helen Solar CSG	MN	62706	SC	4.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	4.0
2019	12	62106	Hidalgo Wind Farm II LLC	IPP	Hidalgo Wind Farm II	TX	62618	WT	50.4	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	50.4
2019	12	62046	High Lonesome Wind Power, LLC	IPP	High Lonesome Wind Power, LLC	TX	62562	HILO	449.5	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	449.5
2019	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
2019	12	9234	Indiana Municipal Power Agency	Electric Utility	Richmond Solar Park 3	IN	62770	SRIC3	6.7	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	6.7
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	49893	Invenergy Services LLC	IPP	Wilkinson Solar LLC	NC	62544	GEN1	74.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	74.0
2019	12	59685	JPMorgan Chase Bank	Commercial	South Campus Solar	DE	59922	G1789	1.8	Solar Photovoltaic	SUN	PV	(OT) Other	1.8

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	12	61960	Lapetus Energy Project LLC	IPP	Lapetus	TX	62448	LAP	100.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	100.0
2019	12	56940	Lexington Chenoa Wind Farm LLC	IPP	Bright Stalk Wind Farm I	IL	57623	GEN1	200.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	200.0
2019	12	62661	Lock 12 Hydro Partners, LLC	IPP	Ravenna Hydroelectric Project	KY	62747	1	0.5	Conventional Hydroelectric	WAT	HY	(V) Under construction, more than 50 percent complete	0.5
2019	12	62661	Lock 12 Hydro Partners, LLC	IPP	Ravenna Hydroelectric Project	KY	62747	2	0.5	Conventional Hydroelectric	WAT	HY	(V) Under construction, more than 50 percent complete	0.5
2019	12	62661	Lock 12 Hydro Partners, LLC	IPP	Ravenna Hydroelectric Project	KY	62747	3	0.5	Conventional Hydroelectric	WAT	HY	(V) Under construction, more than 50 percent complete	0.5
2019	12	62661	Lock 12 Hydro Partners, LLC	IPP	Ravenna Hydroelectric Project	KY	62747	4	0.5	Conventional Hydroelectric	WAT	HY	(V) Under construction, more than 50 percent complete	0.5
2019	12	62661	Lock 12 Hydro Partners, LLC	IPP	Ravenna Hydroelectric Project	KY	62747	5	0.5	Conventional Hydroelectric	WAT	HY	(V) Under construction, more than 50 percent complete	0.5
2019	12	61770	Mesteno Wind	IPP	Mesteno	TX	62258	MES	200.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	201.6
2019	12	12341	MidAmerican Energy Co	Electric Utility	Ida Grove II	IA	62795	1	201.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	201.0
2019	12	12341	MidAmerican Energy Co	Electric Utility	North English II	IA	62608	1	140.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	140.0
2019	12	12341	MidAmerican Energy Co	Electric Utility	Orient Wind Farm	IA	61077	2	398.8	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	398.8
2019	12	60018	NET Power, LLC	IPP	NET Power La Porte Station	TX	60910	NPLPS	25.5	Other Natural Gas	NG	OT	(TS) Construction complete, but not yet in commercial operation	25.5
2019	12	56622	NextEra Energy Resources	IPP	Shaw Creek Solar, LLC	SC	61790	SHAWC	74.9	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	74.9
2019	12	62640	Northfield Solar LLC	IPP	Northfield Solar CSG	MN	62708	SC	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2019	12	58764	Origis Energy USA, Inc	IPP	OR Solar 2, LLC	OR	61200	ORSR2	10.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	10.0
2019	12	62739	Otter River Road Solar LLC	IPP	Gardner - Otter River Road	MA	62870	79711	2.5	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.5
2019	12	58653	Oxbow Creek Energy LLC	IPP	Oxbow Creek	PA	58714	GEN1	4.2	Natural Gas Internal Combustion Engine	NG	IC	(U) Under construction, less than or equal to 50 percent complete	4.4
2019	12	58653	Oxbow Creek Energy LLC	IPP	Oxbow Creek	PA	58714	GEN2	4.2	Natural Gas Internal Combustion Engine	NG	IC	(U) Under construction, less than or equal to 50 percent complete	4.4
2019	12	58653	Oxbow Creek Energy LLC	IPP	Oxbow Creek	PA	58714	GEN3	4.2	Natural Gas Internal Combustion Engine	NG	IC	(U) Under construction, less than or equal to 50 percent complete	4.4
2019	12	58653	Oxbow Creek Energy LLC	IPP	Oxbow Creek	PA	58714	GEN4	4.2	Natural Gas Internal Combustion Engine	NG	IC	(U) Under construction, less than or equal to 50 percent complete	4.4
2019	12	58653	Oxbow Creek Energy LLC	IPP	Oxbow Creek	PA	58714	GEN5	4.2	Natural Gas Internal Combustion Engine	NG	IC	(U) Under construction, less than or equal to 50 percent complete	4.4
2019	12	62009	Palmer Solar LLC	IPP	Palmer Solar	CO	62495	20181	60.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	60.0
2019	12	61521	Pegasus Wind, LLC	IPP	Pegasus Wind	MI	61916	PWEC	150.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	150.0
2019	12	61758	Prevailing Wind Park, LLC	IPP	Prevailing Wind Park	SD	62247	PWPSD	220.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	220.0
2019	12	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	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	62129	SFDK Solar, LLC	IPP	SFDK Solar	CA	62649	SFDK	6.3	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	6.3
2019	12	61899	SR Arlington II, LLC	IPP	SR Arlington II	GA	62367	ARLII	102.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	102.5
2019	12	61635	SR Hazlehurst III, LLC	IPP	Hazlehurst III	GA	62057	HZIII	40.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	40.0
2019	12	61701	SR Meridian III	IPP	Meridian III	MS	62163	MRDII	52.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	52.5
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	30.0	Batteries	MWH	BA	(U) Under construction, less than or equal to 50 percent complete	30.0
2019	12	61321	Seabrook Solar, LLC	IPP	Seabrook Solar	SC	61701	GEN1	70.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	72.5
2019	12	62023	Skeleton Creek Energy Center	IPP	Skeleton Creek Energy Center	OK	62494	SKC	250.0	Onshore Wind Turbine	WND	WT	(OT) Other	250.0
2019	12	61677	Sol Systems	IPP	Grove Solar, LLC	NC	62807	12083	5.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	5.0
2019	12	61677	Sol Systems	IPP	Thanksgiving Fire Solar Farm, LLC	NC	62786	12087	2.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.0
2019	12	62774	Solar Hagerstown LLC	IPP	Solar Hagerstown	MD	62912	137	7.5	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	10.0
2019	12	62766	Somerville Solar, LLC	IPP	Somerville Solar	TN	62900	PV	2.3	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.3
2019	12	17650	Southern Power Co	IPP	Reading Wind Project	KS	60999	READW	200.1	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	200.1
2019	12	17650	Southern Power Co	IPP	Wildhorse Mountain Wind Facility	OK	61866	1	100.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	100.0
2019	12	60531	Standard Solar	IPP	MHG Wallingford	VT	62728	X0041	2.2	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.2
2019	12	60531	Standard Solar	IPP	Town of Burrillville Solar	RI	62898	X0042	4.2	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	4.2
2019	12	61492	StraightUp Solar	IPP	John A Logan College Solar	IL	61878	JALC	1.6	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	1.9
2019	12	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	12	58658	Sunlight Partners	IPP	Robin Solar	NC	60165	PV1	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2019	12	60193	Tamworth Holdings, LLC	IPP	Tamworth Holdings	NC	60394	PV1	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2019	12	60410	Tanager Holdings, LLC	IPP	Tanager Holdings	NC	60691	PV1	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2019	12	61847	USS Centerfield Solar LLC	IPP	USS Centerfield Solar CSG	MN	62335	USCEN	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2019	12	61846	USS Hockey Pad Solar LLC	IPP	USS Hockey Pad Solar CSG	MN	62334	USHP	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2019	12	62701	Vista Solar, Inc.	IPP	Shelter Creek Condominiums Solar	CA	62806	SCC01	2.4	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	2.5
2019	12	62637	Walcott Solar LLC	IPP	Walcott Solar CSG	MN	62707	SC	4.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	4.0
2019	12	62641	Warsaw Solar LLC	IPP	Warsaw Solar CSG	MN	62709	SC	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
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
2019	12	62103	Whitney Hill Wind Power LLC	IPP	Whitney Hill Wind Power LLC	IL	62606	WTHWP	65.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	65.0
2020	1	55918	Acciona Wind Energy USA LLC	IPP	Palmas Wind, LLC	TX	61773	PW	142.6	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	144.9
2020	1	60350	CPV Fairview, LLC	IPP	CPV Fairview Energy Center	PA	60589	GEN1	342.0	Natural Gas Fired Combined Cycle	NG	CT	(V) Under construction, more than 50 percent complete	372.0
2020	1	60350	CPV Fairview, LLC	IPP	CPV Fairview Energy Center	PA	60589	GEN2	342.0	Natural Gas Fired Combined Cycle	NG	CT	(V) Under construction, more than 50 percent complete	372.0
2020	1	60350	CPV Fairview, LLC	IPP	CPV Fairview Energy Center	PA	60589	GEN3	416.0	Natural Gas Fired Combined Cycle	NG	CA	(V) Under construction, more than 50 percent complete	453.0
2020	1	56534	Cricket Valley Energy Center LLC	IPP	Cricket Valley Energy	NY	57185	U001	143.3	Natural Gas Fired Combined Cycle	NG	CA	(V) Under construction, more than 50 percent complete	174.2
2020	1	61060	Cypress Creek Renewables	IPP	Grove Solar	NC	60181	PV1	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2020	1	13478	Entergy New Orleans, LLC	Electric Utility	New Orleans Power	LA	60928	1	250.0	Natural Gas Fired Combustion Turbine	NG	GT	(U) Under construction, less than or equal to 50 percent complete	250.0
2020	1	56615	First Solar Project Development	IPP	Sun Streams, LLC	AZ	60827	GEN01	150.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	150.0
2020	1	56615	First Solar Project Development	IPP	Sunshine Valley Solar	NV	59826	GEN01	103.4	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	103.4
2020	1	6452	Florida Power & Light Co	Electric Utility	Babcock Preserve	FL	62634	1	74.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	74.5
2020	1	6452	Florida Power & Light Co	Electric Utility	Blue Heron Solar	FL	62631	1	74.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	74.5
2020	1	6452	Florida Power & Light Co	Electric Utility	Cattle Ranch	FL	62632	1	74.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	74.5
2020	1	6452	Florida Power & Light Co	Electric Utility	Northern Preserve Solar	FL	62645	1	74.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	74.5
2020	1	6452	Florida Power & Light Co	Electric Utility	Southfork Solar	FL	62493	1	74.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	74.5
2020	1	6452	Florida Power & Light Co	Electric Utility	Sweetbay Solar Center	FL	62394	1	74.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	74.5
2020	1	6452	Florida Power & Light Co	Electric Utility	Twin Lakes	FL	62633	1	74.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	74.5
2020	1	9417	Interstate Power and Light Co	Electric Utility	Whispering Willow North	IA	62079	1	199.9	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	199.9
2020	1	62085	Mesquite Star LLC	IPP	Mesquite Star	TX	62587	MESQ	418.9	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	418.9
2020	1	61910	Quitman Solar, LLC	IPP	Quitman Solar	GA	62584	QUITM	150.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	150.0
2020	1	62029	Renew Solar ABC Sacramento LLC	IPP	Renew Solar ABC Sacramento LLC	CA	62545	SACRA	1.7	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	1.7
2020	1	18454	Tampa Electric Co	Electric Utility	Little Manatee River Solar	FL	62750	GEN1	74.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	74.5
2020	1	18454	Tampa Electric Co	Electric Utility	Wimauma Solar	FL	61667	1	74.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	74.5
2020	1	20323	Wellhead Energy, LLC	IPP	Stanton Energy Reliability Center	CA	60698	GT1	45.9	Natural Gas Fired Combustion Turbine	NG	GT	(U) Under construction, less than or equal to 50 percent complete	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	(U) Under construction, less than or equal to 50 percent complete	60.5
2020	2	7626	City of Greenfield - (IA)	Electric Utility	Greenfield	IA	1144	1	2.2	Petroleum Liquids	DFO	IC	(U) Under construction, less than or equal to 50 percent complete	2.2
2020	2	7626	City of Greenfield - (IA)	Electric Utility	Greenfield	IA	1144	2	2.2	Petroleum Liquids	DFO	IC	(U) Under construction, less than or equal to 50 percent complete	2.2
2020	2	56534	Cricket Valley Energy Center LLC	IPP	Cricket Valley Energy	NY	57185	U002	143.3	Natural Gas Fired Combined Cycle	NG	CA	(V) Under construction, more than 50 percent complete	174.2
2020	2	56215	E ON Climate Renewables N America LLC	IPP	Cranell Wind Farm LLC	TX	62416	WT1	220.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	220.0
2020	2	58970	Ecoplexus, Inc	IPP	Underwood PV2	NC	60998	UNWD2	16.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	16.0
2020	2	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
2020	2	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
2020	3	61670	AES Huntington Beach Energy, LLC	IPP	AES Huntington Beach Energy Project	CA	62116	1A	194.0	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	194.0	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	215.0	Natural Gas Fired Combined Cycle	NG	CA	(U) Under construction, less than or equal to 50 percent complete	237.2
2020	3	62747	Acorn I Energy Storage LLC	IPP	Acorn I Energy Storage LLC	CA	62874	ACOR1	2.0	Batteries	MWH	BA	(T) Regulatory approvals received. Not under construction	2.0

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	3	59365	Capital Power Corporation	IPP	Cardinal Point LLC	IL	59902	GEN	150.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	150.0
2020	3	18488	City of Taunton	Electric Utility	Cleary Flood	MA	1682	BS1	2.9	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	3.0
2020	3	4180	Connecticut Mun Elec Engy Coop	Electric Utility	Subase Microgrid Project	CT	59701	SFC1	3.7	Other Natural Gas	NG	FC	(U) Under construction, less than or equal to 50 percent complete	3.7
2020	3	4180	Connecticut Mun Elec Engy Coop	Electric Utility	Subase Microgrid Project	CT	59701	SFC2	3.7	Other Natural Gas	NG	FC	(U) Under construction, less than or equal to 50 percent complete	3.7
2020	3	56534	Cricket Valley Energy Center LLC	IPP	Cricket Valley Energy	NY	57185	U003	143.3	Natural Gas Fired Combined Cycle	NG	CA	(V) Under construction, more than 50 percent complete	174.2
2020	3	56534	Cricket Valley Energy Center LLC	IPP	Cricket Valley Energy	NY	57185	U004	195.4	Natural Gas Fired Combined Cycle	NG	CT	(V) Under construction, more than 50 percent complete	263.3
2020	3	56534	Cricket Valley Energy Center LLC	IPP	Cricket Valley Energy	NY	57185	U005	195.4	Natural Gas Fired Combined Cycle	NG	CT	(V) Under construction, more than 50 percent complete	263.3
2020	3	56534	Cricket Valley Energy Center LLC	IPP	Cricket Valley Energy	NY	57185	U006	195.4	Natural Gas Fired Combined Cycle	NG	CT	(V) Under construction, more than 50 percent complete	263.3
2020	3	5109	DTE Electric Company	Electric Utility	Polaris Wind Park	MI	62290	1	168.6	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	168.6
2020	3	61610	Delaware River Solar, LLC	IPP	Big Tree Community Solar Farm	NY	62476	607	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	3	61610	Delaware River Solar, LLC	IPP	Washington St Community Solar Farm #1	NY	62472	617	2.2	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	2.2
2020	3	61610	Delaware River Solar, LLC	IPP	Washington St Community Solar Farm #3	NY	62473	1035	2.5	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	2.5
2020	3	61610	Delaware River Solar, LLC	IPP	Washington St Community Solar Farm #4	NY	62471	1034	2.5	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	2.5
2020	3	61610	Delaware River Solar, LLC	IPP	Yellow Mills Rd #1 Community Solar Farm	NY	62517	1142	2.3	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	2.3
2020	3	61610	Delaware River Solar, LLC	IPP	Yellow Mills Rd #2 Community Solar Farm	NY	62518	1181	2.3	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	2.3
2020	3	61610	Delaware River Solar, LLC	IPP	Yellow Mills Rd #3 Community Solar Farm	NY	62519	1244	2.3	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	2.3
2020	3	6455	Duke Energy Florida, LLC	Electric Utility	Columbia Solar Power Plant	FL	61982	PV1	74.9	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	74.9
2020	3	6455	Duke Energy Florida, LLC	Electric Utility	Debary Solar Power Plant	FL	62542	PV1	74.5	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	74.5
2020	3	61420	ENGIE Storage Services NA LLC	Commercial	San Diego International Airport BESS	CA	62754	BA	2.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	2.0
2020	3	39347	East Texas Electric Coop, Inc	Electric Utility	RC Thomas Hydroelectric Project	TX	58645	RCT1	8.7	Conventional Hydroelectric	WAT	HY	(V) Under construction, more than 50 percent complete	8.9
2020	3	39347	East Texas Electric Coop, Inc	Electric Utility	RC Thomas Hydroelectric Project	TX	58645	RCT2	8.7	Conventional Hydroelectric	WAT	HY	(V) Under construction, more than 50 percent complete	8.9
2020	3	39347	East Texas Electric Coop, Inc	Electric Utility	RC Thomas Hydroelectric Project	TX	58645	RCT3	8.7	Conventional Hydroelectric	WAT	HY	(V) Under construction, more than 50 percent complete	8.9
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	60496	Enerparc Inc.	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
2020	3	62130	Foundation CA Fund X Manager LLC	IPP	Foundation Dole Fresh Vegetables	CA	62654	WTG1	2.8	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	2.8
2020	3	62130	Foundation CA Fund X Manager LLC	IPP	Foundation Dole Fresh Vegetables	CA	62654	WTG2	2.8	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	2.8
2020	3	61873	GA Solar 4	IPP	Twiggs Solar	GA	61696	TWIGG	200.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	200.0
2020	3	9234	Indiana Municipal Power Agency	Electric Utility	Scottsburg Solar Park	IN	62766	SCCOT	7.1	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	7.1
2020	3	9417	Interstate Power and Light Co	Electric Utility	Golden Plains	IA	62081	1	198.8	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	198.8
2020	3	10273	Kimberly-Clark Corp	Industrial	Chester Operations	PA	50410	6	14.1	Natural Gas Fired Combined Cycle	NG	CT	(U) Under construction, less than or equal to 50 percent complete	17.3
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	(T) Regulatory approvals received. Not under construction	50.0
2020	3	62694	Rappahannock Solar, LLC	IPP	Rappahannock Solar, LLC	VA	62780	100	1.5	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.5
2020	3	17609	Southern California Edison Co	Electric Utility	DESI-2 Battery Storage Facility	CA	62460	DESI2	1.4	Batteries	MWH	BA	(TS) Construction complete, but not yet in commercial operation	1.4
2020	3	58658	Sunlight Partners	IPP	Blue Bird Solar	NC	60177	PV1	4.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	4.0
2020	3	58658	Sunlight Partners	IPP	Eagle Solar	NC	60161	PV1	4.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	4.0
2020	3	58658	Sunlight Partners	IPP	Higgins Solar	NC	60166	PV1	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
2020	3	58658	Sunlight Partners	IPP	Iga Solar	NC	60170	PV1	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
2020	3	58658	Sunlight Partners	IPP	Izia Solar	NC	60141	PV1	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
2020	3	58658	Sunlight Partners	IPP	Tate Solar	NC	60160	PV1	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
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	RIC10	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	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	3	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	3	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	3	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	3	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	62048	Westlands Almond LLC	IPP	Almond	CA	62546	ALMND	19.9	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	19.9
2020	3	62748	Wildcat I Energy Storage LLC	IPP	Wildcat I Energy Storage LLC	CA	62875	WILD1	3.0	Batteries	MWH	BA	(T) Regulatory approvals received. Not under construction	3.0
2020	4	61669	AES Alamitos Energy, LLC	IPP	AES Alamitos Energy Center	CA	62115	1A	194.0	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	194.0	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	215.0	Natural Gas Fired Combined Cycle	NG	CA	(U) Under construction, less than or equal to 50 percent complete	216.0
2020	4	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
2020	4	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
2020	4	10623	City of Lakeland - (FL)	Electric Utility	C D McIntosh Jr	FL	676	GT2	115.0	Natural Gas Fired Combustion Turbine	NG	GT	(U) Under construction, less than or equal to 50 percent complete	135.0
2020	4	61060	Cypress Creek Renewables	IPP	Willard Solar	NC	60287	PV1	4.9	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
2020	4	61610	Delaware River Solar, LLC	IPP	County Route 11 Community Solar Farm	NY	62507	1419	4.1	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	4.1
2020	4	61610	Delaware River Solar, LLC	IPP	Frey Rd #1 Community Solar Farm	NY	62504	1159	2.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	2.0
2020	4	61610	Delaware River Solar, LLC	IPP	Frey Rd #2 Community Solar Farm	NY	62521	1442	1.4	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	1.4
2020	4	61610	Delaware River Solar, LLC	IPP	Route 22 Community Solar Farm	NY	62524	1444	3.7	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	3.7
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	Echo River Solar	FL	62490	1	74.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	74.5
2020	4	6452	Florida Power & Light Co	Electric Utility	Hibiscus Solar Energy Center	FL	62206	1	74.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	74.5
2020	4	6452	Florida Power & Light Co	Electric Utility	Okeechobee Solar	FL	62491	1	74.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	74.5
2020	4	9191	Idaho Power Co	Electric Utility	Shoshone Falls	ID	818	4	3.2	Conventional Hydroelectric	WAT	HY	(U) Under construction, less than or equal to 50 percent complete	3.2
2020	4	9234	Indiana Municipal Power Agency	Electric Utility	Gas City Solar Park	IN	62767	SGASC	2.5	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.5
2020	4	58718	Na Pua Makani Power Partners LLC	IPP	Na Pua Makani Wind Project	HI	58837	WT1	25.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	25.0
2020	4	62788	Oberon Solar IA	IPP	Oberon IA	TX	62933	OBR1A	150.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	150.0
2020	4	62789	Oberon Solar IB	IPP	Oberon IB	TX	62932	OBR1B	30.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	30.0
2020	4	61298	Pine Gate Renewables	IPP	TWE Bowman Solar Project	SC	62828	BOW	73.1	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	75.0
2020	4	62113	Sage Draw Wind, LLC	IPP	Sage Draw Wind	TX	62620	SD	338.4	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	338.4
2020	4	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
2020	4	62744	St. James Solar, LLC	IPP	St. James Solar (LA)	LA	62854	SJS	20.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	20.0
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	61610	Delaware River Solar, LLC	IPP	Furnace Rd Community Solar Farm	NY	62508	1420	3.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	3.0
2020	5	61610	Delaware River Solar, LLC	IPP	Route 19 #1 Community Solar Farm	NY	62500	1258	2.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	2.0
2020	5	61610	Delaware River Solar, LLC	IPP	Route 19 #2 Community Solar Farm	NY	62502	1415	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
2020	5	61610	Delaware River Solar, LLC	IPP	Telegraph Rd #1 Community Solar Farm	NY	62496	1268	3.8	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	3.8
2020	5	61610	Delaware River Solar, LLC	IPP	Telegraph Rd #2 Community Solar Farm	NY	62498	1413	2.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	2.0
2020	5	5248	Dominion Energy Inc	Electric Utility	Grasshopper Solar	VA	62813	GRHS	80.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	80.0
2020	5	7140	Georgia Power Co	Electric Utility	Moody Air Force Base Solar	GA	62377	1	49.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	49.5
2020	5	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
2020	5	9234	Indiana Municipal Power Agency	Electric Utility	Tell City Solar Park	IN	62790	STEL2	3.2	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	3.2
2020	5	56545	Pattern Operators LP	IPP	Old Jackson Solar LLC	TX	62501	1	127.5	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	128.0

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	5	61634	SR Terrell, LLC	IPP	SR Terrell	GA	62058	TERRL	74.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	74.0
2020	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
2020	6	62685	10 Briggs Solar NG, LLC	IPP	10 Briggs Solar NG, LLC (East)	RI	62781	02818	5.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	5.0
2020	6	61524	226HC 8me LLC	IPP	Holstein 1 Solar Farm	TX	61962	HSF01	200.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	200.0
2020	6	59272	41MB 8me, LLC	IPP	Borden Solar Farm	CA	59531	BRDN	50.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	50.0
2020	6	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
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	59474	BQ Energy LLC	IPP	West Valley East	NY	62738	WVE	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
2020	6	59474	BQ Energy LLC	IPP	West Valley West	NY	62737	WVW	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
2020	6	62680	BT Coniglio Solar LLC	IPP	Coniglio Solar	TX	62772	BTCON	135.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	135.0
2020	6	62681	BT Cooke Solar, LLC	IPP	Rippey Solar	TX	62773	BTCOO	60.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	60.0
2020	6	62682	BT Kellam Solar LLC	IPP	Kellam Solar	TX	62774	BTKEL	60.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	60.0
2020	6	61466	Bakersfield Fuel Cell 1, LLC	Electric CHP	Bolthouse Farms Fuel Cell	CA	61845	MM28	2.5	Other Natural Gas	NG	FC	(U) Under construction, less than or equal to 50 percent complete	2.5
2020	6	61466	Bakersfield Fuel Cell 1, LLC	Electric CHP	Bolthouse Farms Fuel Cell	CA	61845	MM29	2.5	Other Natural Gas	NG	FC	(U) Under construction, less than or equal to 50 percent complete	2.5
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	59613	BayWa r.e. Solar Projects LLC	IPP	Fern Solar LLC	NC	62798	FERN	100.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	100.0
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	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	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
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	(U) Under construction, less than or equal to 50 percent complete	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	61610	Delaware River Solar, LLC	IPP	Route 5 & 20 Community Solar Farm	NY	62523	1093	2.3	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	2.3
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	62091	Derby Fuel Cell LLC	IPP	Derby Fuel Cell	CT	62588	MM45	2.8	Other Natural Gas	NG	FC	(P) Planned for installation, but regulatory approvals not initiated	2.8
2020	6	62091	Derby Fuel Cell LLC	IPP	Derby Fuel Cell	CT	62588	MM46	2.8	Other Natural Gas	NG	FC	(P) Planned for installation, but regulatory approvals not initiated	2.8
2020	6	58970	Ecoplexus, Inc	IPP	Willoughby PV1	NC	60003	WILL1	20.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	20.0
2020	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
2020	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
2020	6	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
2020	6	56201	Engie North America	IPP	ENGIE Long Draw Solar LLC	TX	62845	SP1	225.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	225.0
2020	6	11241	Entergy Louisiana LLC	Electric Utility	Lake Charles Power	LA	60927	1A	250.0	Natural Gas Fired Combined Cycle	NG	CT	(V) Under construction, more than 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	(V) Under construction, more than 50 percent complete	250.0
2020	6	11241	Entergy Louisiana LLC	Electric Utility	Lake Charles Power	LA	60927	1C	500.0	Natural Gas Fired Combined Cycle	NG	CA	(V) Under construction, more than 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	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	60659	Hickory Run Energy, LLC	IPP	Hickory Run Energy Station	PA	61028	CTG1	283.0	Natural Gas Fired Combined Cycle	NG	CT	(U) Under construction, less than or equal to 50 percent complete	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	(U) Under construction, less than or equal to 50 percent complete	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	(V) Under construction, more than 50 percent complete	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	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	9234	Indiana Municipal Power Agency	Electric Utility	Crawfordsville Solar Park 4	IN	62776	SCRA4	2.3	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.3
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	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	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	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	61796	Martin Central Solar	IPP	Martin Central Solar	SC	62285	53	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	56545	Pattern Operators LP	IPP	G.S.E. One LLC	TX	62505	1	82.5	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	83.0
2020	6	61793	Pee Dee Solar I	IPP	Pee Dee Solar I	SC	62282	60	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61794	Pee Dee Solar II	IPP	Pee Dee Solar II	SC	62283	61	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61795	Power Solar	IPP	Power Solar	SC	62284	62	3.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	3.0
2020	6	61804	Pruger Solar I	IPP	Pruger Solar I	SC	62292	63	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61805	Pruger Solar II	IPP	Pruger Solar II	SC	62293	64	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61806	Pruger Solar III	IPP	Pruger Solar III	SC	62294	65	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61807	Quest Solar	IPP	Quest Solar	SC	62299	66	40.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	40.0
2020	6	61808	Rollins Solar	IPP	Rollins Solar	SC	62295	67	63.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	63.0
2020	6	61809	Ross Solar	IPP	Ross Solar	SC	62296	68	75.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	75.0
2020	6	61810	Rutledge Solar	IPP	Rutledge Solar	SC	62297	69	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0

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	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
2020	6	61814	Sandifer Solar	IPP	Sandifer Solar	SC	62298	70	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61828	Scarlet Solar	IPP	Scarlet Solar	SC	62307	71	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61829	Shem Solar	IPP	Shem Solar	SC	62308	72	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61830	Shining Sun Solar	IPP	Shining Sun Solar	SC	62309	73	40.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	40.0
2020	6	61831	Shorthorn Solar	IPP	Shorthorn Solar	SC	62310	74	60.5	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	60.5
2020	6	61832	Snoopy Solar	IPP	Snoopy Solar	SC	62311	75	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61833	Southard Solar	IPP	Southard Solar	SC	62312	76	6.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	6.0
2020	6	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
2020	6	61834	Stamey Solar	IPP	Stamey Solar	SC	62313	77	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61835	Tarpon Solar I	IPP	Tarpon Solar I	SC	62314	78	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61836	Tedder Solar	IPP	Tedder Solar	SC	62315	79	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61837	Ten Governors Solar	IPP	Ten Governors Solar	SC	62316	80	28.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	28.0
2020	6	61862	Thomas Solar	IPP	Thomas Solar	SC	62352	81	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61861	Topaz Solar	IPP	Topaz Solar (SC)	SC	62349	82	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61860	Trask East Solar	IPP	Trask East Solar	SC	62346	83	12.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	12.0
2020	6	61859	Ulmer Solar	IPP	Ulmer Solar	SC	62343	85	22.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	22.0
2020	6	61868	WSW Solar	IPP	WSW Solar	SC	62350	86	30.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	30.0
2020	6	61863	Washington Solar (SC)	IPP	Washington Solar (SC)	SC	62342	87	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61864	Washington Solar II (SC)	IPP	Washington Solar II (SC)	SC	62344	88	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61865	Wayfair Solar	IPP	Wayfair Solar	SC	62345	89	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	6	61866	Weaver Solar	IPP	Weaver Solar	SC	62347	90	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
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	61869	Wysong Solar	IPP	Wysong Solar	SC	62351	92	2.3	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.3
2020	6	61870	Yemassee Solar	IPP	Yemassee Solar	SC	62353	93	10.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	10.0
2020	6	61871	York Solar	IPP	York Solar	SC	62354	94	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	7	61219	Longroad Energy Services LLC	IPP	El Campo Wind	TX	62765	CAMPO	242.8	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	242.8
2020	7	61219	Longroad Energy Services LLC	IPP	Prospero Solar	TX	62755	PROSP	300.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	300.0
2020	7	11479	Madison Gas & Electric Co	Electric Utility	Middleton Airport Solar	WI	62731	1	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2020	7	11820	Massachusetts Inst of Tech	Commercial	Mass Inst Tech Cntrl Utilities/Cogen Plt	MA	54907	GT200	17.7	Natural Gas Fired Combustion Turbine	NG	GT	(T) Regulatory approvals received. Not under construction	21.7
2020	7	11820	Massachusetts Inst of Tech	Commercial	Mass Inst Tech Cntrl Utilities/Cogen Plt	MA	54907	GT300	17.7	Natural Gas Fired Combustion Turbine	NG	GT	(T) Regulatory approvals received. Not under construction	21.7
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	61678	RE Rambler LLC	IPP	Rambler	TX	62141	RMBLR	200.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	200.0
2020	7	61677	Sol Systems	IPP	Ruff Solar LLC	NC	62594	11625	5.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	22.0
2020	7	62757	SunEast Hills Solar LLC	IPP	SunEast Hills Solar Project	NY	62895	Q581	20.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	20.0
2020	7	62756	SunEast Watkins Road Solar LLC	IPP	SunEast Watkins Road Solar Project	NY	62896	Q586	20.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	20.0
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	62050	Castleman Power Development LLC	IPP	SJRR Power LLC	TX	62548	SJ-1	43.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	50.0
2020	8	62050	Castleman Power Development LLC	IPP	SJRR Power LLC	TX	62548	SJ-2	43.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	50.0
2020	8	62050	Castleman Power Development LLC	IPP	SJRR Power LLC	TX	62548	SJ-3	43.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	50.0
2020	8	62050	Castleman Power Development LLC	IPP	SJRR Power LLC	TX	62548	SJ-4	43.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	50.0
2020	8	61060	Cypress Creek Renewables	IPP	Pine Valley Solar Farm, LLC	NC	60298	PV1	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
2020	8	62091	Derby Fuel Cell LLC	IPP	Derby Fuel Cell	CT	62588	MM47	2.8	Other Natural Gas	NG	FC	(P) Planned for installation, but regulatory approvals not initiated	2.8
2020	8	9234	Indiana Municipal Power Agency	Electric Utility	Centerville Solar Park	IN	62794	SCENT	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2020	8	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	8	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	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	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	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	62050	Castleman Power Development LLC	IPP	Palestine Power Peaking Facility	TX	62684	PP-1	50.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	50.0
2020	9	62050	Castleman Power Development LLC	IPP	Palestine Power Peaking Facility	TX	62684	PP-2	50.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	50.0
2020	9	62050	Castleman Power Development LLC	IPP	Palestine Power Peaking Facility	TX	62684	PP-3	50.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	50.0
2020	9	62050	Castleman Power Development LLC	IPP	Palestine Power Peaking Facility	TX	62684	PP-4	50.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	50.0
2020	9	62050	Castleman Power Development LLC	IPP	Sealy Power Peaking Facility	TX	62685	SP-1	50.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	50.0
2020	9	62050	Castleman Power Development LLC	IPP	Sealy Power Peaking Facility	TX	62685	SP-2	50.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	50.0
2020	9	62050	Castleman Power Development LLC	IPP	Sealy Power Peaking Facility	TX	62685	SP-3	50.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	50.0
2020	9	62050	Castleman Power Development LLC	IPP	Sealy Power Peaking Facility	TX	62685	SP-4	50.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	50.0
2020	9	62091	Derby Fuel Cell LLC	IPP	Derby Fuel Cell	CT	62588	MM48	2.8	Other Natural Gas	NG	FC	(P) Planned for installation, but regulatory approvals not initiated	2.8
2020	9	62720	Frontier Windpower II, LLC	IPP	Frontier Windpower II	OK	62837	FW2	351.8	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	351.8
2020	9	62696	Gichi Noodin Wind Farm, LLC	IPP	Gichi Noodin Wind Farm	MI	62815	GNWF1	72.8	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	72.8
2020	9	61594	Highlander Solar Station 1 LLC	IPP	Highlander Solar Station 1	VA	62014	HLND1	165.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	165.0
2020	9	9234	Indiana Municipal Power Agency	Electric Utility	Columbia City Solar Park	IN	62769	SCOLU	4.6	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	4.6
2020	9	9234	Indiana Municipal Power Agency	Electric Utility	Richmond Solar Park 4	IN	62791	SRIC4	7.9	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	7.9
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	62726	Mountain Breeze Wind, LLC	IPP	Mountain Breeze Wind, LLC	CO	62840	MTBRZ	170.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	170.0
2020	9	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
2020	9	56545	Pattern Operators LP	IPP	Solemio LLC	TX	62522	1	79.8	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	80.0
2020	9	61592	Pleinmont Solar 1 LLC	IPP	Pleinmont Solar 1	VA	62012	PLNM1	75.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	75.0
2020	9	62047	Roadrunner Solar, LLC	IPP	Roadrunner, LLC	TX	62561	RODR2	200.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	200.0
2020	9	62743	RoxWind LLC	IPP	RoxWind	ME	62857	WIND1	15.3	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	15.3
2020	9	62724	Seventus 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	9	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	9	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	9	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	62044	TG High Prairie Wind, LLC	IPP	High Prairie Wind Farm	MO	62563	HPWF	400.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	400.0
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	61890	Tenaska Nobles 2 Power Partners, LLC	IPP	Nobles 2 Wind Project	MN	62364	WT1	250.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	250.0
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	62119	Antelope Expansion 3A, LLC	IPP	Antelope Expansion 3A	CA	62673	ANX3A	15.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	15.0
2020	10	62118	Antelope Expansion 3B, LLC	IPP	Antelope Expansion 3B	CA	62674	ANX3B	5.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	5.0
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	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
2020	10	62091	Derby Fuel Cell LLC	IPP	Derby Fuel Cell	CT	62588	MM49	2.8	Other Natural Gas	NG	FC	(P) Planned for installation, but regulatory approvals not initiated	2.8
2020	10	61951	Dodge County Wind, LLC	IPP	Dodge County Wind	MN	62437	WT	170.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	170.0
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

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	56215	E ON Climate Renewables N America LLC	IPP	Raymond Wind Farm, LLC	TX	62909	ERAYM	200.2	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	200.2
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	56615	First Solar Project Development	IPP	Cove Mountain Solar 2	UT	62470	GEN01	122.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	122.0
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	61942	Griffin Trail Wind, LLC	IPP	Griffin Trail Wind	TX	62411	GTWND	225.6	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	225.6
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	9234	Indiana Municipal Power Agency	Electric Utility	Crawfordsville 5 Solar Park	IN	62793	SCRA5	9.9	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	9.9
2020	10	61853	Innogy Renewables US LLC	IPP	Scioto Ridge Wind Farm	OH	58780	1	189.2	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	189.2
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	62758	Orchard Windfarm, LLC	IPP	Orchard Windfarm, LLC	OR	62935	OCHW	40.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	40.0
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
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	10	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	10	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
2020	10	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	10	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	11	62049	Aquamarine Westside LLC	IPP	Aquamarine	CA	62547	AQUAM	250.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	250.0
2020	11	49893	Invenergy Services LLC	IPP	Crescent Valley Solar	NV	62888	GEN1	149.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	149.0
2020	11	49893	Invenergy Services LLC	IPP	Lovelock Solar	NV	62934	GEN1	190.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	190.0
2020	11	61219	Longroad Energy Services LLC	IPP	Milford Solar 1	UT	62812	MS1	99.9	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	99.0
2020	11	14354	PacifiCorp	Electric Utility	Ekola Flats	WY	62591	1	250.9	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	250.9
2020	11	14354	PacifiCorp	Electric Utility	TB Flats	WY	62516	1	503.2	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	503.2
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	18617	Tesoro Alaska Company LLC	Industrial	Tesoro Kenai Cogeneration Plant	AK	52184	GEN3	6.3	Natural Gas Fired Combustion Turbine	NG	GT	(T) Regulatory approvals received. Not under construction	7.8
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	11	62635	Wildcat Creek Wind Farm LLC	IPP	Wildcat Creek Wind Farm LLC	TX	62715	WCCWF	180.1	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	180.1
2020	12	62006	7X Energy, Inc.	IPP	Taygete Energy Project LLC	TX	62483	PV1	255.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	255.0
2020	12	61344	Advanced Microgrid Solutions	IPP	Hybrid Holdings 1 Capistrano	CA	62515	HH4MW	4.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	4.0
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	61949	Assembly Solar, LLC	IPP	Assembly Solar Project	MI	62422	ASP01	50.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	50.0
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	62647	Belcher Solar LLC	IPP	Desper Solar	VA	62730	1	88.2	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	88.2
2020	12	60560	Big Blue River Wind Farm LLC	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	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	62718	Broad River Solar, LLC	IPP	Broad River Solar, LLC	NC	62822	GEN1	50.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	50.0
2020	12	60714	Burke Wind LLC	IPP	Burke Wind, LLC	ND	61100	GE23	199.4	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	199.4
2020	12	58416	California State University, Northridge	Commercial	CSU Northridge Plant	CA	58422	G6PV	0.7	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	0.8
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	58508	Carolina Solar Energy LLC	IPP	Cabaniss Solar	NC	60430	PV1	4.2	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	4.2
2020	12	58508	Carolina Solar Energy LLC	IPP	Sellers Farm Solar	NC	60439	PV1	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
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	62705	Concho Bluff LLC	IPP	Greasewood	TX	62804	GREA1	255.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	255.0
2020	12	62679	Constellation Solar Rhode Island LLC	IPP	Dry Bridge Solar (Brown University)	RI	62771	DBS1	10.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	10.0
2020	12	62679	Constellation Solar Rhode Island LLC	IPP	Dry Bridge Solar (Brown University)	RI	62771	DBS2	10.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	10.0
2020	12	62679	Constellation Solar Rhode Island LLC	IPP	Dry Bridge Solar (Brown University)	RI	62771	DBS3	10.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	10.0
2020	12	62679	Constellation Solar Rhode Island LLC	IPP	Dry Bridge Solar (Brown University)	RI	62771	DBS4	10.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	10.0
2020	12	61978	Convergent Energy and Power LP	IPP	Henrietta D Energy Storage LLC	CA	60641	HDES1	10.0	Batteries	MWH	BA	(L) Regulatory approvals pending. Not under construction	10.0
2020	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
2020	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
2020	12	61709	Desert Harvest, LLC	IPP	Desert Harvest, LLC	CA	62177	DH001	150.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	150.0
2020	12	5248	Dominion Energy Inc	Electric Utility	Sadler Solar	VA	62814	SADL	100.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	100.0
2020	12	5416	Duke Energy Carolinas, LLC	Electric Utility	Gaston Solar Power Plant	NC	62669	PV1	25.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	25.0
2020	12	5416	Duke Energy Carolinas, LLC	Electric Utility	Maiden Creek Solar Power Plant	NC	62668	PV1	69.3	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	69.3
2020	12	56215	E ON Climate Renewables N America LLC	IPP	Boiling Springs Wind Farm	OK	62871	BGSPS	148.4	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	148.4
2020	12	56215	E ON Climate Renewables N America LLC	IPP	Magic Valley Wind Farm III LLC	TX	60362	MVIII	200.0	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	200.0
2020	12	56215	E ON Climate Renewables N America LLC	IPP	West Raymond Wind Farm LLC	TX	62855	WRAYM	239.8	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	239.8
2020	12	61785	EDP Renewables North America LLC	IPP	Crossing Trails Wind Farm	CO	62489	GEN1	104.0	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	104.0
2020	12	61785	EDP Renewables North America LLC	IPP	Headwaters Wind Farm II LLC	IN	62592	HWII	200.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	200.0
2020	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
2020	12	62667	East Line Solar, LLC	IPP	East Line Solar	AZ	62899	EASTL	100.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	100.0
2020	12	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	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
2020	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
2020	12	5860	Empire District Electric Co	Electric Utility	Kings Point Wind Energy Center	MO	62475	KPW1	149.4	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	149.4
2020	12	5860	Empire District Electric Co	Electric Utility	Neosho Ridge Wind Energy Center	KS	62481	NRW1	301.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	301.0
2020	12	5860	Empire District Electric Co	Electric Utility	North Fork Ridge Wind Energy Center	MO	62478	NFRW1	149.4	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	149.4
2020	12	59497	Eversource	IPP	Martha's Vineyard Community Battery	MA	62605	MVESS	4.9	Batteries	MWH	BA	(L) Regulatory approvals pending. Not under construction	4.9
2020	12	59497	Eversource	IPP	Outer Cape Community Battery	MA	62604	OCESS	25.0	Batteries	MWH	BA	(L) Regulatory approvals pending. Not under construction	25.0
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	Cove Mountain Solar	UT	62469	GEN01	58.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	58.0
2020	12	56615	First Solar Project Development	IPP	Little Bear 3	CA	62463	GEN01	20.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	20.0
2020	12	56615	First Solar Project Development	IPP	Little Bear 4	CA	62464	GEN01	50.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	50.0
2020	12	56615	First Solar Project Development	IPP	Little Bear 5	CA	62465	GEN01	50.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	50.0
2020	12	56615	First Solar Project Development	IPP	Little Bear Solar 1, LLC	CA	59870	GEN01	40.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	40.0

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	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
2020	12	58692	Florey Knob LLC	IPP	Florey Knobb	PA	58821	GEN1	4.2	Natural Gas Internal Combustion Engine	NG	IC	(T) Regulatory approvals received. Not under construction	4.4
2020	12	58692	Florey Knob LLC	IPP	Florey Knobb	PA	58821	GEN2	4.2	Natural Gas Internal Combustion Engine	NG	IC	(T) Regulatory approvals received. Not under construction	4.4
2020	12	58692	Florey Knob LLC	IPP	Florey Knobb	PA	58821	GEN3	4.2	Natural Gas Internal Combustion Engine	NG	IC	(T) Regulatory approvals received. Not under construction	4.4
2020	12	58692	Florey Knob LLC	IPP	Florey Knobb	PA	58821	GEN4	4.2	Natural Gas Internal Combustion Engine	NG	IC	(T) Regulatory approvals received. Not under construction	4.4
2020	12	58692	Florey Knob LLC	IPP	Florey Knobb	PA	58821	GEN5	4.2	Natural Gas Internal Combustion Engine	NG	IC	(T) Regulatory approvals received. Not under construction	4.4
2020	12	6452	Florida Power & Light Co	Electric Utility	Egret Solar Center	FL	62925	1	74.5	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	74.5
2020	12	6452	Florida Power & Light Co	Electric Utility	Lakeside Solar Center	FL	62922	1	74.5	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	74.5
2020	12	6452	Florida Power & Light Co	Electric Utility	Magnolia Springs Solar Center	FL	62915	1	74.5	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	74.5
2020	12	6452	Florida Power & Light Co	Electric Utility	Nassau Solar Center	FL	62914	1	74.5	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	74.5
2020	12	6452	Florida Power & Light Co	Electric Utility	Trailside Solar Center	FL	62916	1	74.5	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	74.5
2020	12	6452	Florida Power & Light Co	Electric Utility	Union Springs Solar Center	FL	62923	1	74.5	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	74.5
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	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
2020	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
2020	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
2020	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
2020	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
2020	12	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
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	62134	Hunter Solar LLC	IPP	Hunter Solar LLC	UT	62656	HUSOL	100.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	100.0
2020	12	61853	Innogy Renewables US LLC	IPP	Baron Winds Farm	NY	60596	1	272.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	272.0
2020	12	61853	Innogy Renewables US LLC	IPP	Cassadaga Wind Farm	NY	58777	1	126.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	126.0
2020	12	61853	Innogy Renewables US LLC	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	61853	Innogy Renewables US LLC	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
2020	12	61853	Innogy Renewables US LLC	IPP	Mason Dixon Wind Farm	PA	60212	1	79.9	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	79.9
2020	12	61853	Innogy Renewables US LLC	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
2020	12	61853	Innogy Renewables US LLC	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
2020	12	58378	Jordan Hydroelectric LTD PTP	IPP	Flannagan Hydroelectric Project	VA	58827	LEFT	0.4	Conventional Hydroelectric	WAT	HY	(L) Regulatory approvals pending. Not under construction	0.4
2020	12	58378	Jordan Hydroelectric LTD PTP	IPP	Flannagan Hydroelectric Project	VA	58827	LEFT1	0.4	Conventional Hydroelectric	WAT	HY	(L) Regulatory approvals pending. Not under construction	0.4
2020	12	58378	Jordan Hydroelectric LTD PTP	IPP	Flannagan Hydroelectric Project	VA	58827	LEFT2	0.4	Conventional Hydroelectric	WAT	HY	(L) Regulatory approvals pending. Not under construction	0.4
2020	12	58378	Jordan Hydroelectric LTD PTP	IPP	Flannagan Hydroelectric Project	VA	58827	RGHT	0.4	Conventional Hydroelectric	WAT	HY	(L) Regulatory approvals pending. Not under construction	0.4
2020	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
2020	12	62664	Lock 14 Hydro Partners, LLC	IPP	Heidelberg Hydroelectric Project	KY	62749	1	0.5	Conventional Hydroelectric	WAT	HY	(T) Regulatory approvals received. Not under construction	0.5
2020	12	62664	Lock 14 Hydro Partners, LLC	IPP	Heidelberg Hydroelectric Project	KY	62749	2	0.5	Conventional Hydroelectric	WAT	HY	(T) Regulatory approvals received. Not under construction	0.5
2020	12	62664	Lock 14 Hydro Partners, LLC	IPP	Heidelberg Hydroelectric Project	KY	62749	3	0.5	Conventional Hydroelectric	WAT	HY	(T) Regulatory approvals received. Not under construction	0.5
2020	12	62664	Lock 14 Hydro Partners, LLC	IPP	Heidelberg Hydroelectric Project	KY	62749	4	0.5	Conventional Hydroelectric	WAT	HY	(T) Regulatory approvals received. Not under construction	0.5
2020	12	62664	Lock 14 Hydro Partners, LLC	IPP	Heidelberg Hydroelectric Project	KY	62749	5	0.5	Conventional Hydroelectric	WAT	HY	(T) Regulatory approvals received. Not under construction	0.5
2020	12	58849	Mariah del Este LLC	IPP	Mariah East	TX	59006	MARN	152.5	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	152.5
2020	12	58783	Marseilles Land and Water Company	IPP	Marseilles Lock and Dam Hydro	IL	58903	UNIT1	2.6	Conventional Hydroelectric	WAT	HY	(U) Under construction, less than or equal to 50 percent complete	2.6
2020	12	58783	Marseilles Land and Water Company	IPP	Marseilles Lock and Dam Hydro	IL	58903	UNIT2	2.6	Conventional Hydroelectric	WAT	HY	(U) Under construction, less than or equal to 50 percent complete	2.6
2020	12	58783	Marseilles Land and Water Company	IPP	Marseilles Lock and Dam Hydro	IL	58903	UNIT3	2.6	Conventional Hydroelectric	WAT	HY	(U) Under construction, less than or equal to 50 percent complete	2.6
2020	12	58783	Marseilles Land and Water Company	IPP	Marseilles Lock and Dam Hydro	IL	58903	UNIT4	2.6	Conventional Hydroelectric	WAT	HY	(U) Under construction, less than or equal to 50 percent complete	2.6
2020	12	62721	Maryneal Windpower, LLC	IPP	Maryneal Windpower	TX	62836	MNW	182.4	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	182.4
2020	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
2020	12	62740	Maverick Creek Wind, LLC	IPP	Maverick Creek Wind	TX	62853	MVRCK	524.4	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	524.4
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	62675	Meherrin Solar LLC	IPP	Meherrin Solar	VA	62758	MEHER	59.6	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	59.6
2020	12	12341	MidAmerican Energy Co	Electric Utility	Arbor Hill II	IA	62796	1	60.0	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	60.0
2020	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
2020	12	14328	Pacific Gas & Electric Co.	Electric Utility	Elkhorn Battery Energy Storage System	CA	62564	ELKHO	182.5	Batteries	MWH	BA	(L) Regulatory approvals pending. Not under construction	182.5
2020	12	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	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	61826	Pawcatuck Solar Center, LLC	IPP	Pawcatuck Solar Center, LLC	CT	62318	PAWCA	15.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	15.0
2020	12	59967	Phoenix Energy	IPP	North Fork Community Power	CA	60192	NFCP1	2.0	Other Waste Biomass	OBG	IC	(OT) Other	2.0
2020	12	62689	Piney Creek, LLC	IPP	Piney Creek Solar	VA	62768	PCSOL	80.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	80.0
2020	12	62633	Plum Creek Wind, LLC	IPP	Plum Creek Wind Project (NE)	NE	62711	PLUM	230.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	230.0
2020	12	15248	Portland General Electric Co	Electric Utility	Faraday	OR	3045	7	9.0	Conventional Hydroelectric	WAT	HY	(U) Under construction, less than or equal to 50 percent complete	9.0
2020	12	15248	Portland General Electric Co	Electric Utility	Faraday	OR	3045	8	9.0	Conventional Hydroelectric	WAT	HY	(U) Under construction, less than or equal to 50 percent complete	9.0
2020	12	61946	Prairie State Power, LLC	IPP	Prairie State Solar Project	IL	62420	PSS01	99.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	99.0
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	PV1	250.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	250.0
2020	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
2020	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
2020	12	62778	Rattlesnake Flat, LLC	IPP	Rattlesnake	WA	62936	RAT	144.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	144.0
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	62761	Rosewater Wind Farm LLC	IPP	Rosewater Wind Farm	IN	62891	ROSEW	102.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	102.0
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	62146	Sigurd Solar LLC	IPP	Sigurd Solar LLC	UT	62666	SGSOL	80.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	80.0
2020	12	62717	Speedway Solar NC, LLC	IPP	Speedway Solar NC, LLC	NC	62821	GEN1	22.6	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	22.6
2020	12	62716	Stony Knoll Solar, LLC	IPP	Stony Knoll Solar, LLC	NC	62820	GEN1	22.6	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	22.6
2020	12	62699	SunEast Dog Corners Solar LLC	IPP	SunEast Dog Corners Solar Project	NY	62823	Q584	20.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	20.0
2020	12	62698	SunEast Skyline Solar LLC	IPP	SunEast Skyline Solar Project	NY	62816	Q670	20.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	20.0
2020	12	61954	Techren Solar V LLC	IPP	Techren Solar V	NV	62440	TECH5	50.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	50.0
2020	12	2782	Terra-Gen Operating Co-Geo	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	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	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
2020	12	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	12	56633	Trishe Wind Minnesota	IPP	Trishe Wind Minnesota	MN	57255	1	40.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	40.0
2020	12	61522	Viridity Energy Solutions, Inc.	IPP	ORNI 34 LLC	CA	62801	ORN34	10.0	Batteries	MWH	BA	(L) Regulatory approvals pending. Not under construction	10.0
2020	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
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	62668	Wheatridge Wind Energy, LLC	IPP	Wheatridge	OR	62745	WIND	300.2	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	300.0
2020	12	62079	White Cloud Wind Project, LLC	IPP	White Cloud Wind Project, LLC	MO	62624	WTCWF	236.5	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	236.5
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

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	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	62160	AES ES Alamitos, LLC	IPP	AES ES ALAMITOS, LLC	CA	61204	ALMTS	100.0	Batteries	MWH	BA	(L) Regulatory approvals pending. Not under construction	100.0
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	59315	Bradley Farm LLC	IPP	Bradley Farm (Dudley)	NC	62593	PV1	5.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	5.0
2021	1	61978	Convergent Energy and Power LP	IPP	Orange County Energy Storage 2	CA	62497	OCES2	9.0	Batteries	MWH	BA	(L) Regulatory approvals pending. Not under construction	9.0
2021	1	61978	Convergent Energy and Power LP	IPP	Orange County Energy Storage 3	CA	62499	OCES3	6.0	Batteries	MWH	BA	(L) Regulatory approvals pending. Not under construction	6.0
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	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
2021	1	62763	Hecate Grid, LLC	IPP	Hecate Energy Johanna Facility	CA	62889	HEGJF	15.0	Batteries	MWH	BA	(L) Regulatory approvals pending. Not under construction	15.0
2021	1	60131	South Field Energy, LLC	IPP	South Field Energy	OH	60356	SFECC	1,060.0	Natural Gas Fired Combined Cycle	NG	CC	(U) Under construction, less than or equal to 50 percent complete	1,105.0
2021	1	18454	Tampa Electric Co	Electric Utility	Mountain View Solar (FL)	FL	61664	GEN1	52.5	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	52.5
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	3258	Central Iowa Power Cooperative	Electric Utility	Summit Lake	IA	1206	R1	18.4	Natural Gas Internal Combustion Engine	NG	IC	(P) Planned for installation, but regulatory approvals not initiated	18.8
2021	2	3258	Central Iowa Power Cooperative	Electric Utility	Summit Lake	IA	1206	R2	18.4	Natural Gas Internal Combustion Engine	NG	IC	(P) Planned for installation, but regulatory approvals not initiated	18.8
2021	2	3258	Central Iowa Power Cooperative	Electric Utility	Summit Lake	IA	1206	R3	18.4	Natural Gas Internal Combustion Engine	NG	IC	(P) Planned for installation, but regulatory approvals not initiated	18.8
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	250.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	250.0
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	61130	Helix Ravenswood, LLC	IPP	Ravenswood	NY	2500	RWES1	129.0	Batteries	MWH	BA	(L) Regulatory approvals pending. Not under construction	129.0
2021	3	61130	Helix Ravenswood, LLC	IPP	Ravenswood	NY	2500	RWES2	98.0	Batteries	MWH	BA	(L) Regulatory approvals pending. Not under construction	98.0
2021	3	61130	Helix Ravenswood, LLC	IPP	Ravenswood	NY	2500	RWES3	89.0	Batteries	MWH	BA	(L) Regulatory approvals pending. Not under construction	89.0
2021	3	62646	Painter Energy Storage, LLC	IPP	Painter Energy Storage	CA	62729	PAIN1	10.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	10.0
2021	3	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
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	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
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	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
2021	4	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
2021	4	6452	Florida Power & Light Co	Electric Utility	Orange Blossom Solar Center	FL	62919	1	74.5	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	74.5
2021	4	6452	Florida Power & Light Co	Electric Utility	Palm Bay Solar	FL	62921	1	74.5	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	74.5
2021	4	6452	Florida Power & Light Co	Electric Utility	Pelican Solar Center	FL	62924	1	74.5	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	74.5
2021	4	6452	Florida Power & Light Co	Electric Utility	Rodeo Solar Center	FL	62917	1	74.5	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	74.5
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	62152	Skipjack Solar Center, LLC	IPP	Skipjack Solar Center	VA	62675	SKIPJ	175.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	175.0
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	61818	CC Polymers LLC	Industrial	M&G Resins USA	TX	60642	1	11.7	All Other	WH	OT	(P) Planned for installation, but regulatory approvals not initiated	14.3
2021	5	61818	CC Polymers LLC	Industrial	M&G Resins USA	TX	60642	2	11.7	All Other	WH	OT	(P) Planned for installation, but regulatory approvals not initiated	14.3
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	62064	Hill Top Energy Center, LLC	IPP	Hill Top Energy Center, LLC	PA	62565	GEN1	619.1	Natural Gas Fired Combined Cycle	NG	CC	(T) Regulatory approvals received. Not under construction	664.7
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
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	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
2021	6	61825	Antelope Expansion 1B, LLC	IPP	Antelope Expansion 1B	CA	62320	ANE1B	17.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	17.0
2021	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
2021	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
2021	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
2021	6	62746	Don Lee BESS 1 LLC	IPP	Don Lee BESS 1 LLC	CA	62872	DONL1	6.5	Batteries	MWH	BA	(T) Regulatory approvals received. Not under construction	6.5
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	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
2021	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
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	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
2021	6	56615	First Solar Project Development	IPP	Muscle Shoals	AL	62462	GEN01	227.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	227.0
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	60050	Halyard Energy Henderson, LLC	IPP	Halyard Henderson Energy Center	TX	60268	TBN1	210.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	232.0
2021	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
2021	6	60002	Halyard Energy Wharton, LLC	IPP	Halyard Wharton Energy Center	TX	60221	TBN1	162.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	177.0
2021	6	60002	Halyard Energy Wharton, LLC	IPP	Halyard Wharton Energy Center	TX	60221	TBN2	162.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	177.0
2021	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
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	60982	RE Maplewood LLC	IPP	RE Maplewood	TX	61346	PV2	250.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	250.0
2021	6	57109	St Joseph Energy Center LLC	IPP	St Joseph Energy Center	IN	57794	CT3	237.0	Natural Gas Fired Combined Cycle	NG	CT	(T) Regulatory approvals received. Not under construction	238.0
2021	6	57109	St Joseph Energy Center LLC	IPP	St Joseph Energy Center	IN	57794	CT4	237.0	Natural Gas Fired Combined Cycle	NG	CT	(T) Regulatory approvals received. Not under construction	238.0

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	57109	St Joseph Energy Center LLC	IPP	St Joseph Energy Center	IN	57794	ST2	232.0	Natural Gas Fired Combined Cycle	NG	CA	(T) Regulatory approvals received. Not under construction	260.0
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	6	19564	University of Notre Dame	Commercial	Notre Dame Hydro	IN	62918	HYD1	2.5	Conventional Hydroelectric	WAT	HY	(T) Regulatory approvals received. Not under construction	2.5
2021	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
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	59056	Tri Global Energy, LLC	IPP	Easter	TX	59971	ESTR1	300.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	300.0
2021	8	56615	First Solar Project Development	IPP	Willow Spring Solar 3, LLC	CA	60325	GEN01	75.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	75.0
2021	9	62700	SunEast Clay Solar LLC	IPP	SunEast Clay Solar Project	NY	62819	Q669	20.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	50.0
2021	10	62659	BMP Wind LLC	IPP	BMP Wind (TX)	TX	62809	BMP	293.6	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	293.3
2021	10	62709	Bakerstand Solar LLC	IPP	Bakerstand Solar (NY)	NY	62811	BKSTD	20.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	20.0
2021	10	58901	Hydro Green Energy	IPP	Braddock Lock and Dam	PA	59091	GEN1	5.3	Conventional Hydroelectric	WAT	HY	(L) Regulatory approvals pending. Not under construction	5.3
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	10	59056	Tri Global Energy, LLC	IPP	Water Valley Wind Energy	TX	62846	WWE1	150.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	150.0
2021	11	62734	Blue Marmot IX LLC	IPP	Blue Marmot IX	OR	62867	DVRO	9.8	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	10.0
2021	11	62735	Blue Marmot V LLC	IPP	Blue Marmot V	OR	62866	DNZE	9.8	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	10.0
2021	11	62736	Blue Marmot VI LLC	IPP	Blue Marmot VI	OR	62865	DNZW	9.8	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	10.0
2021	11	62737	Blue Marmot VII LLC	IPP	Blue Marmot VII	OR	62864	RSHEI	9.8	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	10.0
2021	11	62738	Blue Marmot VIII LLC	IPP	Blue Marmot VIII	OR	62863	PRMLE	9.8	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	10.0
2021	11	6452	Florida Power & Light Co	Electric Utility	Manatee Solar Energy Center	FL	60014	BMS	409.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	409.0
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	61797	Hecate Energy LLC	IPP	Hecate Energy Columbia County Solar	NY	62273	HECC1	60.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	60.0
2021	11	61762	Long Ridge Energy Generation 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
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	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
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	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
2021	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
2021	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
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	803	Arizona Public Service Co	Electric Utility	Cotton Center Solar	AZ	57561	CC17M	17.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	17.0
2021	12	803	Arizona Public Service Co	Electric Utility	Foothills Solar Plant	AZ	57997	FH38M	38.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	38.0
2021	12	803	Arizona Public Service Co	Electric Utility	Gila Bend	AZ	59020	GB36M	36.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	36.0
2021	12	803	Arizona Public Service Co	Electric Utility	Hyder II	AZ	58383	H214M	14.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	14.0
2021	12	803	Arizona Public Service Co	Electric Utility	Hyder Solar	AZ	57563	H116M	16.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	16.0
2021	12	803	Arizona Public Service Co	Electric Utility	Paloma Solar	AZ	57562	PA17M	17.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	17.0
2021	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
2021	12	59613	BayWa r.e. Solar Projects LLC	IPP	Bluebird Solar LLC	KY	62797	BBIRD	80.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	80.0
2021	12	62708	Black Bear Wind LLC	IPP	Black Bear Wind (MT)	MT	62808	BBW	80.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	80.0
2021	12	62713	Buenos Aires Windpower LLC	IPP	Buenos Aires Phase 1	TX	62803	BAW1	200.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	200.0
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	18445	City of Tallahassee - (FL)	Electric Utility	Arvah B Hopkins	FL	688	IC5	18.5	Natural Gas Internal Combustion Engine	NG	IC	(P) Planned for installation, but regulatory approvals not initiated	18.8
2021	12	61060	Cypress Creek Renewables	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	54802	Dynegy -Moss Landing LLC	IPP	Dynegy Moss Landing Power Plant	CA	260	BAT1	300.0	Batteries	MWH	BA	(L) Regulatory approvals pending. Not under construction	300.0
2021	12	56215	E ON Climate Renewables N America LLC	IPP	Blackjack Creek Wind Farm	TX	62783	BLKJK	239.6	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	239.6
2021	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
2021	12	59380	Enel Green Power NA, Inc.	IPP	Pomerado Energy Storage, LLC	CA	61390	PMRDO	6.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	6.0
2021	12	62759	Geronimo Energy	IPP	Prairie Wolf Solar LLC	IL	62893	PWOLF	200.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	200.0
2021	12	62704	Grizzly Wind LLC	IPP	Grizzly Wind LLC	MT	62802	GW	80.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	80.0
2021	12	62153	Hecate Energy Highland LLC	IPP	Hecate Energy Highland LLC	OH	62670	HIGHL	300.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	300.0
2021	12	62765	High Bridge Wind, LLC	IPP	High Bridge Wind Project	NY	62894	WT	100.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	100.0
2021	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
2021	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
2021	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
2021	12	61853	Innogy Renewables US LLC	IPP	Buckeye Wind Farm	OH	58776	1	99.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	99.0
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	62663	Lock 13 Hydro Partners	IPP	Evelyn Hydroelectric Project	KY	62748	1	0.6	Conventional Hydroelectric	WAT	HY	(L) Regulatory approvals pending. Not under construction	0.6
2021	12	62663	Lock 13 Hydro Partners	IPP	Evelyn Hydroelectric Project	KY	62748	2	0.6	Conventional Hydroelectric	WAT	HY	(L) Regulatory approvals pending. Not under construction	0.6
2021	12	62663	Lock 13 Hydro Partners	IPP	Evelyn Hydroelectric Project	KY	62748	3	0.6	Conventional Hydroelectric	WAT	HY	(L) Regulatory approvals pending. Not under construction	0.6
2021	12	62663	Lock 13 Hydro Partners	IPP	Evelyn Hydroelectric Project	KY	62748	4	0.6	Conventional Hydroelectric	WAT	HY	(L) Regulatory approvals pending. Not under construction	0.6
2021	12	62663	Lock 13 Hydro Partners	IPP	Evelyn Hydroelectric Project	KY	62748	5	0.6	Conventional Hydroelectric	WAT	HY	(L) Regulatory approvals pending. Not under construction	0.6
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	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
2021	12	61900	SR Arlington, LLC	IPP	SR Arlington I	GA	62436	ARLI	20.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	20.0
2021	12	62109	Searcy Solar, LLC	IPP	Searcy Solar	AR	62617	SEABT	10.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	10.0
2021	12	62109	Searcy Solar, LLC	IPP	Searcy Solar	AR	62617	SEARC	100.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	100.0
2021	12	60387	Skylar Resources, LP	IPP	Townsite Solar Project	NV	60654	GEN01	160.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	180.0
2021	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
2021	12	62668	Wheatridge Wind Energy, LLC	IPP	Wheatridge	OR	62745	BTRY	30.0	Batteries	MWH	BA	(L) Regulatory approvals pending. Not under construction	30.0
2021	12	62668	Wheatridge Wind Energy, LLC	IPP	Wheatridge	OR	62745	SOLAR	50.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	50.0
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	61060	Cypress Creek Renewables	IPP	Thigpen Farms Solar, LLC	NC	60850	PV1	5.0	Solar Photovoltaic	SUN	PV	(OT) Other	5.0
2022	1	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
2022	1	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
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

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)
2022	2	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
2022	2	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
2022	2	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
2022	2	60836	NTE Connecticut, LLC	IPP	Killingly Energy Center	CT	61239	KEC	374.3	Natural Gas Fired Combined Cycle	NG	CT	(L) Regulatory approvals pending. Not under construction	501.0
2022	2	60836	NTE Connecticut, LLC	IPP	Killingly Energy Center	CT	61239	KEC2	257.6	Natural Gas Fired Combined Cycle	NG	CA	(L) Regulatory approvals pending. Not under construction	312.8
2022	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
2022	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
2022	4	5109	DTE Electric Company	Electric Utility	Blue Water Energy Center	MI	62192	11	359.0	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	359.0	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	428.0	Natural Gas Fired Combined Cycle	NG	CA	(U) Under construction, less than or equal to 50 percent complete	478.6
2022	4	62787	Jackson Generation, LLC	IPP	Jackson Generation, LLC	IL	62926	01	600.0	Natural Gas Fired Combined Cycle	NG	CS	(T) Regulatory approvals received. Not under construction	600.0
2022	4	62787	Jackson Generation, LLC	IPP	Jackson Generation, LLC	IL	62926	02	600.0	Natural Gas Fired Combined Cycle	NG	CS	(T) Regulatory approvals received. Not under construction	600.0
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	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	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
2022	6	6452	Florida Power & Light Co	Electric Utility	Lauderdale	FL	613	7GT1	385.6	Natural Gas Fired Combined Cycle	NG	CT	(T) Regulatory approvals received. Not under construction	385.6
2022	6	6452	Florida Power & Light Co	Electric Utility	Lauderdale	FL	613	7GT2	385.6	Natural Gas Fired Combined Cycle	NG	CT	(T) Regulatory approvals received. Not under construction	385.6
2022	6	6452	Florida Power & Light Co	Electric Utility	Lauderdale	FL	613	ST7	391.8	Natural Gas Fired Combined Cycle	NG	CA	(T) Regulatory approvals received. Not under construction	391.8
2022	6	62008	Hale Kuawehi Solar LLC	IPP	Hale Kuawehi Solar	HI	62529	HKBA	30.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	30.0
2022	6	62008	Hale Kuawehi Solar LLC	IPP	Hale Kuawehi Solar	HI	62529	HKSOL	30.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	30.0
2022	6	62036	Paeahu Solar LLC	IPP	Paeahu Solar	HI	62534	PHBA	15.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	15.0
2022	6	62036	Paeahu Solar LLC	IPP	Paeahu Solar	HI	62534	PHSOL	15.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	15.0
2022	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	1,022.9
2022	6	62650	Victorville Energy Center, LLC	Industrial	Victorville Energy Center, LLC (CA)	CA	62726	1	19.9	All Other	WH	ST	(P) Planned for installation, but regulatory approvals not initiated	19.9
2022	7	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	7	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	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	10	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
2022	10	61906	Rye Development	IPP	Allegheny L&D2 Hydroelectric Project	PA	62401	NA1	2.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	4.5
2022	10	61906	Rye Development	IPP	Arkabutla Lake Hydroelectric Project	MS	62402	NA1	1.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	2.5
2022	10	61906	Rye Development	IPP	Beverly L&D Hydroelectric Project	OH	62403	NA1	1.2	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	1.5
2022	10	61906	Rye Development	IPP	Devola L&D Hydroelectric Project	OH	62435	NA1	1.0	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	2.0
2022	10	61906	Rye Development	IPP	Emsworth BC Hydroelectric Project	PA	62434	NA1	3.0	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	5.5
2022	10	61906	Rye Development	IPP	Emsworth L&D Hydroelectric Project	PA	62433	NA1	5.0	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	8.5
2022	10	61906	Rye Development	IPP	Enid Lake Hydroelectric Project	MS	62432	NA1	1.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	2.5
2022	10	61906	Rye Development	IPP	Grays Landing L&D Hydroelectric Project	PA	62388	NA1	4.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	6.0
2022	10	61906	Rye Development	IPP	Grenada Lake Hydroelectric Project	MS	62430	NA1	4.0	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	5.0
2022	10	61906	Rye Development	IPP	KY No. 11 L&D Hydroelectric Project	KY	62390	NA1	0.3	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	0.5
2022	10	61906	Rye Development	IPP	Lowell L&D Hydroelectric Project	OH	62429	NA1	2.0	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	2.5
2022	10	61906	Rye Development	IPP	Maxwell L&D Hydroelectric Project	PA	62385	NA1	4.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	6.0
2022	10	61906	Rye Development	IPP	Monongahela L&D4 Hydroelectric Project	PA	62404	NA1	4.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	6.0
2022	10	61906	Rye Development	IPP	Montgomery L&D Hydroelectric Project	PA	62400	NA1	5.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	9.5
2022	10	61906	Rye Development	IPP	Morgantown L&D Hydroelectric Project	WV	62387	NA1	1.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	2.5
2022	10	61906	Rye Development	IPP	Opekiska L&D Hydroelectric Project	WV	62386	NA1	2.0	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	3.0
2022	10	61906	Rye Development	IPP	Overton Hydroelectric Project	LA	62391	NA1	5.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	8.1
2022	10	61906	Rye Development	IPP	Philo L&D Hydroelectric Project	OH	62427	NA1	1.2	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	1.5
2022	10	61906	Rye Development	IPP	Point Marion L&D Hydroelectric Project	PA	62384	NA1	1.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	2.5
2022	10	61906	Rye Development	IPP	Rokeby L&D Hydroelectric Project	OH	62426	NA1	1.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	2.0
2022	10	61906	Rye Development	IPP	Sardis Lake Hydroelectric Project	MS	62425	NA1	5.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	7.5
2022	11	60797	68SF 8me LLC	IPP	Eland 1 Solar Farm	CA	61168	61168	150.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	150.0
2022	11	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	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
2022	11	61906	Rye Development	IPP	Allegheny L&D2 Hydroelectric Project	PA	62401	NA2	2.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	4.5
2022	11	61906	Rye Development	IPP	Arkabutla Lake Hydroelectric Project	MS	62402	NA2	1.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	2.5
2022	11	61906	Rye Development	IPP	Beverly L&D Hydroelectric Project	OH	62403	NA2	1.2	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	1.5
2022	11	61906	Rye Development	IPP	Devola L&D Hydroelectric Project	OH	62435	NA2	1.0	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	2.0
2022	11	61906	Rye Development	IPP	Emsworth BC Hydroelectric Project	PA	62434	NA2	4.0	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	5.5
2022	11	61906	Rye Development	IPP	Emsworth L&D Hydroelectric Project	PA	62433	NA2	6.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	8.5
2022	11	61906	Rye Development	IPP	Enid Lake Hydroelectric Project	MS	62432	NA2	1.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	2.5
2022	11	61906	Rye Development	IPP	Grays Landing L&D Hydroelectric Project	PA	62388	NA2	4.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	6.0
2022	11	61906	Rye Development	IPP	Grenada Lake Hydroelectric Project	MS	62430	NA2	4.0	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	5.0
2022	11	61906	Rye Development	IPP	KY No. 11 L&D Hydroelectric Project	KY	62390	NA2	0.3	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	0.5
2022	11	61906	Rye Development	IPP	KY No. 11 L&D Hydroelectric Project	KY	62390	NA3	0.3	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	0.5
2022	11	61906	Rye Development	IPP	KY No. 11 L&D Hydroelectric Project	KY	62390	NA4	0.3	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	0.5
2022	11	61906	Rye Development	IPP	KY No. 11 L&D Hydroelectric Project	KY	62390	NA5	0.3	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	0.5
2022	11	61906	Rye Development	IPP	Lowell L&D Hydroelectric Project	OH	62429	NA2	2.0	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	2.5
2022	11	61906	Rye Development	IPP	Malta L&D Hydroelectric Project	OH	62428	NA1	1.0	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	2.0
2022	11	61906	Rye Development	IPP	Malta L&D Hydroelectric Project	OH	62428	NA2	1.0	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	2.0
2022	11	61906	Rye Development	IPP	Maxwell L&D Hydroelectric Project	PA	62385	NA2	4.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	6.0
2022	11	61906	Rye Development	IPP	Monongahela L&D4 Hydroelectric Project	PA	62404	NA2	4.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	6.0
2022	11	61906	Rye Development	IPP	Montgomery L&D Hydroelectric Project	PA	62400	NA2	5.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	9.5
2022	11	61906	Rye Development	IPP	Montgomery L&D Hydroelectric Project	PA	62400	NA3	5.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	9.5
2022	11	61906	Rye Development	IPP	Montgomery L&D Hydroelectric Project	PA	62400	NA4	5.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	9.5
2022	11	61906	Rye Development	IPP	Morgantown L&D Hydroelectric Project	WV	62387	NA2	1.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	2.5
2022	11	61906	Rye Development	IPP	Opekiska L&D Hydroelectric Project	WV	62386	NA2	2.0	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	3.0
2022	11	61906	Rye Development	IPP	Overton Hydroelectric Project	LA	62391	NA2	5.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	8.1
2022	11	61906	Rye Development	IPP	Overton Hydroelectric Project	LA	62391	NA3	5.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	8.1
2022	11	61906	Rye Development	IPP	Overton Hydroelectric Project	LA	62391	NA4	5.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	8.1
2022	11	61906	Rye Development	IPP	Overton Hydroelectric Project	LA	62391	NA5	5.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	8.1
2022	11	61906	Rye Development	IPP	Overton Hydroelectric Project	LA	62391	NA6	5.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	8.1
2022	11	61906	Rye Development	IPP	Philo L&D Hydroelectric Project	OH	62427	NA2	1.2	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	1.5
2022	11	61906	Rye Development	IPP	Point Marion L&D Hydroelectric Project	PA	62384	NA2	1.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	2.5
2022	11	61906	Rye Development	IPP	Rokeby L&D Hydroelectric Project	OH	62426	NA2	1.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	2.0
2022	11	61906	Rye Development	IPP	Sardis Lake Hydroelectric Project	MS	62425	NA2	5.5	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	7.5
2022	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
2022	12	61768	Arrow Canyon Solar LLC	IPP	Arrow Canyon Solar	NV	62248	2	75.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	75.0
2022	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
2022	12	56215	E ON Climate Renewables N America LLC	IPP	Pinckard Solar	AL	62787	PCKND	79.7	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	85.1

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)
2022	12	62760	EDPR CA Solar Park VI LLC	IPP	EDPR CA Solar Park VI LLC (CA)	CA	62892	SONR2	40.0	Batteries	MWH	BA	(T) Regulatory approvals received. Not under construction	40.0
2022	12	62760	EDPR CA Solar Park VI LLC	IPP	EDPR CA Solar Park VI LLC (CA)	CA	62892	SONRI	200.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	201.0
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	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
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
2022	12	58804	Lake Erie Energy Development Corp	IPP	Icebreaker Offshore Wind Farm	OH	58941	WTG1	3.4	Offshore Wind Turbine	WND	WS	(L) Regulatory approvals pending. Not under construction	3.4
2022	12	58804	Lake Erie Energy Development Corp	IPP	Icebreaker Offshore Wind Farm	OH	58941	WTG2	3.4	Offshore Wind Turbine	WND	WS	(L) Regulatory approvals pending. Not under construction	3.4
2022	12	58804	Lake Erie Energy Development Corp	IPP	Icebreaker Offshore Wind Farm	OH	58941	WTG3	3.4	Offshore Wind Turbine	WND	WS	(L) Regulatory approvals pending. Not under construction	3.4
2022	12	58804	Lake Erie Energy Development Corp	IPP	Icebreaker Offshore Wind Farm	OH	58941	WTG4	3.4	Offshore Wind Turbine	WND	WS	(L) Regulatory approvals pending. Not under construction	3.4
2022	12	58804	Lake Erie Energy Development Corp	IPP	Icebreaker Offshore Wind Farm	OH	58941	WTG5	3.4	Offshore Wind Turbine	WND	WS	(L) Regulatory approvals pending. Not under construction	3.4
2022	12	58804	Lake Erie Energy Development Corp	IPP	Icebreaker Offshore Wind Farm	OH	58941	WTG6	3.4	Offshore Wind Turbine	WND	WS	(L) Regulatory approvals pending. Not under construction	3.4
2022	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
2022	12	58842	Power Company of Wyoming LLC	IPP	Chokecherry and Sierra Madre Wind	WY	58987	I-A	500.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	500.0
2023	5	62733	Cranberry Point Energy Storage LLC	IPP	Cranberry Point Energy Storage	MA	62844	NA	150.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	150.0
2023	5	12199	Montana-Dakota Utilities Co	Electric Utility	R M Heskett	ND	2790	4	88.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	88.0
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	7	60798	69SV 8me LLC	IPP	Eland 2 Solar Farm	CA	61169	61169	150.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	150.0
2023	7	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
2023	10	61914	Juwi Inc	IPP	Spanish Peaks Solar	CO	62379	47301	100.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	100.0
2023	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
2023	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
2023	12	58842	Power Company of Wyoming LLC	IPP	Chokecherry and Sierra Madre Wind	WY	58987	I-B	500.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	500.0
2023	12	62023	Skeleton Creek Energy Center	IPP	Skeleton Creek Energy Center	OK	62494	SCBAT	200.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	200.0
2023	12	62023	Skeleton Creek Energy Center	IPP	Skeleton Creek Energy Center	OK	62494	SCSOL	250.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	250.0
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	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
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	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
2024	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
2024	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
2024	12	58842	Power Company of Wyoming LLC	IPP	Chokecherry and Sierra Madre Wind	WY	58987	I-C	500.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	500.0
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
2025	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
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	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
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
2019	8	221	Alaska Village Elec Coop, Inc	Electric Utility	Quinhagak	AK	57057	UNIT3	0.4	Petroleum Liquids	DFO	IC
2019	8	4226	Consolidated Edison Co-NY Inc	Electric Utility	Hudson Avenue	NY	2496	4	13.5	Petroleum Liquids	KER	GT
2019	8	50158	Innovative Energy Systems Inc	IPP	SREC Bath LFGTE	NY	58295	GEN1	1.6	Landfill Gas	LFG	IC
2019	8	50158	Innovative Energy Systems Inc	IPP	SREC Bath LFGTE	NY	58295	GEN2	1.6	Landfill Gas	LFG	IC
2019	8	13206	Nantucket Electric Co	Electric Utility	Nantucket	MA	1615	12	2.8	Petroleum Liquids	DFO	GT
2019	8	13206	Nantucket Electric Co	Electric Utility	Nantucket	MA	1615	13	2.9	Petroleum Liquids	DFO	GT
2019	8	14624	PUD No 2 of Grant County	Electric Utility	Wanapum	WA	3888	4	103.8	Conventional Hydroelectric	WAT	HY
2019	8	25835	Portland City of	IPP	Ground Water Pumping Station	OR	50105	GPS1	0.9	Conventional Hydroelectric	WAT	HY
2019	8	25835	Portland City of	IPP	Ground Water Pumping Station	OR	50105	GPS2	0.9	Conventional Hydroelectric	WAT	HY
2019	8	25835	Portland City of	IPP	Ground Water Pumping Station	OR	50105	GPS3	0.9	Conventional Hydroelectric	WAT	HY
2019	8	25835	Portland City of	IPP	Ground Water Pumping Station	OR	50105	GPS4	0.9	Conventional Hydroelectric	WAT	HY
2019	8	25835	Portland City of	IPP	Ground Water Pumping Station	OR	50105	GPS5	0.9	Conventional Hydroelectric	WAT	HY
2019	8	25835	Portland City of	IPP	Ground Water Pumping Station	OR	50105	GPS6	0.9	Conventional Hydroelectric	WAT	HY
2019	9	54736	AltaGas Pomona Energy Inc.	IPP	AltaGas Pomona Energy Inc.	CA	50300	GEN1	40.0	Natural Gas Fired Combustion Turbine	NG	GT
2019	9	55795	Bethlehem Renewable Energy LLC	IPP	Bethlehem Renewable Energy LLC	PA	56572	1	3.7	Landfill Gas	LFG	GT
2019	9	8776	City of Holyoke Gas and Electric Dept.	Electric Utility	Harris Energy Realty	MA	54981	ALBA	0.3	Conventional Hydroelectric	WAT	HY
2019	9	8776	City of Holyoke Gas and Electric Dept.	Electric Utility	Harris Energy Realty	MA	54981	ALBD	0.4	Conventional Hydroelectric	WAT	HY
2019	9	11713	City of Marshall - (MI)	Electric Utility	Marshall (MI)	MI	1844	IC2	0.9	Natural Gas Internal Combustion Engine	NG	IC
2019	9	11713	City of Marshall - (MI)	Electric Utility	Marshall (MI)	MI	1844	IC4	0.7	Petroleum Liquids	DFO	IC
2019	9	34672	DTE Energy Services	Electric CHP	Mobile Energy Services LLC	AL	50407	GEN5	56.1	Wood/Wood Waste Biomass	WDS	ST
2019	9	34672	DTE Energy Services	Electric CHP	Mobile Energy Services LLC	AL	50407	GEN6	33.2	Wood/Wood Waste Biomass	WDS	ST
2019	9	55796	Eastern Landfill Gas LLC	IPP	Eastern Landfill Gas LLC	MD	56571	1	1.3	Landfill Gas	LFG	IC
2019	9	55796	Eastern Landfill Gas LLC	IPP	Eastern Landfill Gas LLC	MD	56571	2	1.3	Landfill Gas	LFG	IC
2019	9	55796	Eastern Landfill Gas LLC	IPP	Eastern Landfill Gas LLC	MD	56571	3	1.3	Landfill Gas	LFG	IC
2019	9	55951	Exelon Nuclear	IPP	Three Mile Island	PA	8011	1	802.8	Nuclear	NUC	ST
2019	9	10273	Kimberly-Clark Corp	Industrial	Chester Operations	PA	50410	5	67.0	Petroleum Coke	PC	ST
2019	9	12773	Monmouth Energy Inc	IPP	Monmouth Landfill Gas to Energy	NJ	55618	GEN1	3.3	Landfill Gas	LFG	GT
2019	9	12773	Monmouth Energy Inc	IPP	Monmouth Landfill Gas to Energy	NJ	55618	GEN2	3.3	Landfill Gas	LFG	GT
2019	9	22091	New-Indy Ontario LLC	Industrial	New-Indy Ontario Mill	CA	10427	GEN1	34.0	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	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	11	6526	FirstEnergy Generation Corp	IPP	FirstEnergy Bruce Mansfield	PA	6094	3	830.0	Conventional Steam Coal	RC	ST
2019	11	20424	West Texas Wind Energy Partners LLC	IPP	West Texas Wind Energy LLC	TX	55367	01	75.0	Onshore Wind Turbine	WND	WT
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	56753	AgPower Jerome LLC	Electric CHP	Double A Digester	ID	57425	1	1.5	Other Waste Biomass	OBG	IC
2019	12	56753	AgPower Jerome LLC	Electric CHP	Double A Digester	ID	57425	2	1.5	Other Waste Biomass	OBG	IC
2019	12	56753	AgPower Jerome LLC	Electric CHP	Double A Digester	ID	57425	3	1.5	Other Waste Biomass	OBG	IC
2019	12	228	City of Albany - (MO)	Electric Utility	Albany	MO	2113	1	2.1	Petroleum Liquids	DFO	IC
2019	12	228	City of Albany - (MO)	Electric Utility	Albany	MO	2113	2	1.0	Petroleum Liquids	DFO	IC
2019	12	228	City of Albany - (MO)	Electric Utility	Albany	MO	2113	3	0.6	Petroleum Liquids	DFO	IC
2019	12	228	City of Albany - (MO)	Electric Utility	Albany	MO	2113	IC5	1.2	Petroleum Liquids	DFO	IC
2019	12	228	City of Albany - (MO)	Electric Utility	Albany	MO	2113	IC6	1.2	Petroleum Liquids	DFO	IC
2019	12	4161	Constellation Power Source Gen	IPP	Riverside (MD)	MD	1559	GT8	20.0	Petroleum Liquids	DFO	GT
2019	12	5517	Dynegy Midwest Generation Inc	IPP	Havana	IL	891	6	411.0	Conventional Steam Coal	RC	ST
2019	12	5517	Dynegy Midwest Generation Inc	IPP	Hennepin Power Station	IL	892	1	68.0	Conventional Steam Coal	RC	ST
2019	12	5517	Dynegy Midwest Generation Inc	IPP	Hennepin Power Station	IL	892	2	218.0	Conventional Steam Coal	RC	ST
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	520	Illinois Power Generating Co	IPP	Coffeen	IL	861	1	330.0	Conventional Steam Coal	RC	ST
2019	12	520	Illinois Power Generating Co	IPP	Coffeen	IL	861	2	565.0	Conventional Steam Coal	RC	ST
2019	12	49756	Illinois Power Resources Generating LLC	IPP	Duck Creek	IL	6016	1	410.0	Conventional Steam Coal	RC	ST
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	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	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #44	CA	57540	S44A	0.5	Solar Photovoltaic	SUN	PV
2019	12	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #44	CA	57540	S44B	0.5	Solar Photovoltaic	SUN	PV
2019	12	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #44	CA	57540	S44C	0.5	Solar Photovoltaic	SUN	PV
2019	12	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #44	CA	57540	S44D	0.5	Solar Photovoltaic	SUN	PV
2019	12	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #44	CA	57540	S44E	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	12	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #44	CA	57540	S44F	0.5	Solar Photovoltaic	SUN	PV
2019	12	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #44	CA	57540	S44G	0.5	Solar Photovoltaic	SUN	PV
2019	12	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #44	CA	57540	S44H	0.5	Solar Photovoltaic	SUN	PV
2019	12	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #44	CA	57540	S44I	0.5	Solar Photovoltaic	SUN	PV
2019	12	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #44	CA	57540	S44J	0.5	Solar Photovoltaic	SUN	PV
2019	12	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #44	CA	57540	S44K	0.5	Solar Photovoltaic	SUN	PV
2019	12	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #44	CA	57540	S44L	0.5	Solar Photovoltaic	SUN	PV
2019	12	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #44	CA	57540	S44M	0.5	Solar Photovoltaic	SUN	PV
2019	12	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #44	CA	57540	S44N	0.5	Solar Photovoltaic	SUN	PV
2019	12	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #44	CA	57540	S44O	0.5	Solar Photovoltaic	SUN	PV
2019	12	17609	Southern California Edison Co	Electric Utility	Solar Photovoltaic Project #44	CA	57540	S44P	0.5	Solar Photovoltaic	SUN	PV
2019	12	17698	Southwestern Electric Power Co	Electric Utility	Lieberman	LA	1417	2	26.0	Natural Gas Steam Turbine	NG	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
2019	12	15298	Talen Montana LLC	IPP	Colstrip	MT	6076	1	307.0	Conventional Steam Coal	SUB	ST
2019	12	15298	Talen Montana LLC	IPP	Colstrip	MT	6076	2	307.0	Conventional Steam Coal	SUB	ST
2019	12	24211	Tucson Electric Power Co	Electric Utility	H Wilson Sundt Generating Station	AZ	126	ST1	81.0	Natural Gas Steam Turbine	NG	ST
2019	12	24211	Tucson Electric Power Co	Electric Utility	H Wilson Sundt Generating Station	AZ	126	ST2	81.0	Natural Gas Steam Turbine	NG	ST
2020	1	9155	Inland Empire Energy Ctr LLC	IPP	Inland Empire Energy Center	CA	55853	1	345.0	Natural Gas Fired Combined Cycle	NG	CS
2020	1	9155	Inland Empire Energy Ctr LLC	IPP	Inland Empire Energy Center	CA	55853	2	345.0	Natural Gas Fired Combined Cycle	NG	CS
2020	1	57463	Kimberly-Clark Worldwide Inc	Industrial	Fullerton Mill CHP	CA	58083	GTG1	12.0	Natural Gas Fired Combined Cycle	NG	CT
2020	1	57463	Kimberly-Clark Worldwide Inc	Industrial	Fullerton Mill CHP	CA	58083	STG1	1.0	Natural Gas Fired Combined Cycle	NG	CA
2020	1	18642	Tennessee Valley Authority	Electric Utility	Paradise	KY	1378	3	971.0	Conventional Steam Coal	BIT	ST
2020	1	61854	Veolia Energy Operating Service	Electric CHP	Spruance Genco LLC	VA	54081	GEN1	52.5	Conventional Steam Coal	BIT	ST
2020	1	61854	Veolia Energy Operating Service	Electric CHP	Spruance Genco LLC	VA	54081	GEN2	52.5	Conventional Steam Coal	BIT	ST
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	59878	Clean Fuel Partners Dane	Electric CHP	Clean Fuel Dane Community Digester	WI	59559	GEN#1	1.0	Other Waste Biomass	OBG	IC
2020	4	59878	Clean Fuel Partners Dane	Electric CHP	Clean Fuel Dane Community Digester	WI	59559	GEN#2	1.0	Other Waste Biomass	OBG	IC
2020	4	6027	Entergy Nuclear Indian Point 2	IPP	Indian Point 2	NY	2497	2	1,018.5	Nuclear	NUC	ST
2020	4	17897	St Mary's Hospital	Commercial	Saint Marys Hospital Power Plant	MN	54262	6	2.7	Natural Gas Internal Combustion Engine	NG	IC
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	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	6	58620	AEP Generation Resources Inc	IPP	Conesville	OH	2840	4	780.0	Conventional Steam Coal	BIT	ST
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	7483	City of Grand Haven - (MI)	Electric Utility	J B Sims	MI	1825	3	69.1	Conventional Steam Coal	BIT	ST
2020	6	14268	City of Owensboro - (KY)	Electric Utility	Elmer Smith	KY	1374	1	137.0	Conventional Steam Coal	BIT	ST
2020	6	14268	City of Owensboro - (KY)	Electric Utility	Elmer Smith	KY	1374	2	262.8	Conventional Steam Coal	BIT	ST
2020	6	4161	Constellation Power Source Gen	IPP	Notch Cliff	MD	1555	GT1	14.0	Natural Gas Fired Combustion Turbine	NG	GT
2020	6	4161	Constellation Power Source Gen	IPP	Notch Cliff	MD	1555	GT2	14.0	Natural Gas Fired Combustion Turbine	NG	GT
2020	6	4161	Constellation Power Source Gen	IPP	Notch Cliff	MD	1555	GT3	14.0	Natural Gas Fired Combustion Turbine	NG	GT
2020	6	4161	Constellation Power Source Gen	IPP	Notch Cliff	MD	1555	GT4	14.0	Natural Gas Fired Combustion Turbine	NG	GT
2020	6	4161	Constellation Power Source Gen	IPP	Notch Cliff	MD	1555	GT5	14.6	Natural Gas Fired Combustion Turbine	NG	GT
2020	6	4161	Constellation Power Source Gen	IPP	Notch Cliff	MD	1555	GT6	15.6	Natural Gas Fired Combustion Turbine	NG	GT
2020	6	4161	Constellation Power Source Gen	IPP	Notch Cliff	MD	1555	GT7	14.5	Natural Gas Fired Combustion Turbine	NG	GT
2020	6	4161	Constellation Power Source Gen	IPP	Notch Cliff	MD	1555	GT8	16.0	Natural Gas Fired Combustion Turbine	NG	GT
2020	6	4161	Constellation Power Source Gen	IPP	Westport	MD	1560	GT5	115.8	Natural Gas Fired Combustion Turbine	NG	GT
2020	6	5860	Empire District Electric Co	Electric Utility	Asbury	MO	2076	1	198.0	Conventional Steam Coal	SUB	ST
2020	6	6035	Exelon Power	IPP	Fairless Hills	PA	7701	A	30.0	Landfill Gas	LFG	ST
2020	6	6035	Exelon Power	IPP	Fairless Hills	PA	7701	B	30.0	Landfill Gas	LFG	ST
2020	6	6035	Exelon Power	IPP	Pennsbury	PA	7690	1	2.0	Landfill Gas	LFG	GT
2020	6	6035	Exelon Power	IPP	Pennsbury	PA	7690	2	2.0	Landfill Gas	LFG	GT
2020	6	60422	H.A. Wagner LLC	IPP	Herbert A Wagner	MD	1554	2	118.0	Conventional Steam Coal	RC	ST
2020	6	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	8	14328	Pacific Gas & Electric Co.	Electric Utility	Cow Creek	CA	229	1	0.9	Conventional Hydroelectric	WAT	HY
2020	8	14328	Pacific Gas & Electric Co.	Electric Utility	Cow Creek	CA	229	2	0.9	Conventional Hydroelectric	WAT	HY
2020	9	9379	Inter-Power/AhlCon Partners, L.P.	IPP	Colver Power Project	PA	10143	COLV	110.0	Conventional Steam Coal	WC	ST
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

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	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	10	55739	Edgecombe Operating Services LLC	Electric CHP	Edgecombe Genco LLC	NC	10384	GEN1	57.8	Conventional Steam Coal	BIT	ST
2020	10	55739	Edgecombe Operating Services LLC	Electric CHP	Edgecombe Genco LLC	NC	10384	GEN2	57.8	Conventional Steam Coal	BIT	ST
2020	10	189	PowerSouth Energy Cooperative	Electric Utility	Charles R Lowman	AL	56	1	80.0	Conventional Steam Coal	BIT	ST
2020	10	189	PowerSouth Energy Cooperative	Electric Utility	Charles R Lowman	AL	56	2	238.0	Conventional Steam Coal	BIT	ST
2020	10	189	PowerSouth Energy Cooperative	Electric Utility	Charles R Lowman	AL	56	3	238.0	Conventional Steam Coal	BIT	ST
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
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	6452	Florida Power & Light Co	Electric Utility	Indiantown Cogeneration LP	FL	50976	GEN1	330.0	Conventional Steam Coal	BIT	ST
2020	12	15908	GenOn California South, LP	IPP	Ellwood	CA	8076	01	54.0	Natural Gas Fired Combustion Turbine	NG	GT
2020	12	9210	International Paper Co-Riegelwood	Industrial	International Paper Riegelwood Mill	NC	54656	NO 1	7.8	Wood/Wood Waste Biomass	BLQ	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	11479	Madison Gas & Electric Co	Electric Utility	Fitchburg	WI	3991	1	16.6	Natural Gas Fired Combustion Turbine	NG	GT
2020	12	11479	Madison Gas & Electric Co	Electric Utility	Fitchburg	WI	3991	2	15.8	Natural Gas Fired Combustion Turbine	NG	GT
2020	12	11479	Madison Gas & Electric Co	Electric Utility	Nine Springs	WI	9674	GT1	12.5	Natural Gas Fired Combustion Turbine	NG	GT
2020	12	11479	Madison Gas & Electric Co	Electric Utility	Sycamore (WI)	WI	3993	1	11.4	Natural Gas Fired Combustion Turbine	NG	GT
2020	12	11479	Madison Gas & Electric Co	Electric Utility	Sycamore (WI)	WI	3993	2	16.9	Natural Gas Fired Combustion Turbine	NG	GT
2020	12	12199	Montana-Dakota Utilities Co	Electric Utility	Lewis & Clark	MT	6089	1	53.1	Conventional Steam Coal	LIG	ST
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	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	21.5	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	45.1	Natural Gas Fired Combustion Turbine	NG	GT
2020	12	20856	Wisconsin Power & Light Co	Electric Utility	Rock River	WI	4057	6	33.7	Natural Gas Fired Combustion Turbine	NG	GT
2020	12	20856	Wisconsin Power & Light Co	Electric Utility	Sheepskin	WI	4059	1	27.2	Natural Gas Fired Combustion Turbine	NG	GT
2021	1	3258	Central Iowa Power Cooperative	Electric Utility	Summit Lake	IA	1206	1	6.5	Natural Gas Fired Combined Cycle	NG	CA
2021	1	3258	Central Iowa Power Cooperative	Electric Utility	Summit Lake	IA	1206	2	6.5	Natural Gas Fired Combined Cycle	NG	CA
2021	1	3258	Central Iowa Power Cooperative	Electric Utility	Summit Lake	IA	1206	3	7.0	Natural Gas Fired Combined Cycle	NG	CA
2021	1	15908	GenOn California South, LP	IPP	Ormond Beach	CA	350	1	741.0	Natural Gas Steam Turbine	NG	ST
2021	1	15908	GenOn California South, LP	IPP	Ormond Beach	CA	350	2	750.0	Natural Gas Steam Turbine	NG	ST
2021	1	14328	Pacific Gas & Electric Co.	Electric Utility	Kilarc	CA	253	1	1.6	Conventional Hydroelectric	WAT	HY
2021	1	14328	Pacific Gas & Electric Co.	Electric Utility	Kilarc	CA	253	2	1.6	Conventional Hydroelectric	WAT	HY
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	1,037.8	Nuclear	NUC	ST
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	16721	S D Warren Co.- Westbrook	Industrial	S D Warren Westbrook	ME	50447	GN18	0.4	Conventional Hydroelectric	WAT	HY
2021	5	16721	S D Warren Co.- Westbrook	Industrial	S D Warren Westbrook	ME	50447	GN19	0.4	Conventional Hydroelectric	WAT	HY

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
2021	5	16721	S D Warren Co.- Westbrook	Industrial	S D Warren Westbrook	ME	50447	GN20	0.4	Conventional Hydroelectric	WAT	HY
2021	6	6526	FirstEnergy Generation Corp	IPP	FirstEnergy Eastlake	OH	2837	6	24.0	Petroleum Liquids	DFO	GT
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	14232	Otter Tail Power Co	Electric Utility	Hoot Lake	MN	1943	D1	0.2	Petroleum Liquids	DFO	IC
2021	6	14232	Otter Tail Power Co	Electric Utility	Hoot Lake	MN	1943	D2	0.1	Petroleum Liquids	DFO	IC
2021	6	15452	PSEG Power Connecticut LLC	IPP	Bridgeport Station	CT	568	3	383.4	Conventional Steam Coal	SUB	ST
2021	6	18454	Tampa Electric Co	Electric Utility	Big Bend	FL	645	ST2	385.0	Conventional Steam Coal	BIT	ST
2021	8	7080	Aclara Meters LLC	Industrial	General Electric Great Falls Upper Hydro	NH	10059	1575	1.6	Conventional Hydroelectric	WAT	HY
2021	8	7080	Aclara Meters LLC	Industrial	General Electric Great Falls Upper Hydro	NH	10059	500	0.5	Conventional Hydroelectric	WAT	HY
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	18301	City of Sumner - (IA)	Electric Utility	Sumner	IA	1191	1	2.6	Petroleum Liquids	DFO	IC
2021	12	18301	City of Sumner - (IA)	Electric Utility	Sumner	IA	1191	2	1.1	Petroleum Liquids	DFO	IC
2021	12	9417	Interstate Power and Light Co	Electric Utility	Burlington (IA)	IA	1104	1	197.7	Conventional Steam Coal	SUB	ST
2021	12	12199	Montana-Dakota Utilities Co	Electric Utility	R M Heskett	ND	2790	1	29.5	Conventional Steam Coal	LIG	ST
2021	12	12199	Montana-Dakota Utilities Co	Electric Utility	R M Heskett	ND	2790	2	74.8	Conventional Steam Coal	LIG	ST
2022	1	59409	Eco Services Corp.	Industrial	Houston Plant	TX	52065	GEN2	1.5	All Other	WH	ST
2022	4	6452	Florida Power & Light Co	Electric Utility	Manatee	FL	6042	1	809.0	Petroleum Liquids	RFO	ST
2022	4	6452	Florida Power & Light Co	Electric Utility	Manatee	FL	6042	2	809.0	Petroleum Liquids	RFO	ST
2022	5	5109	DTE Electric Company	Electric Utility	River Rouge	MI	1740	3	272.0	Conventional Steam Coal	SUB	ST
2022	5	5109	DTE Electric Company	Electric Utility	St Clair	MI	1743	2	154.0	Conventional Steam Coal	RC	ST
2022	5	5109	DTE Electric Company	Electric Utility	St Clair	MI	1743	3	160.0	Conventional Steam Coal	RC	ST
2022	5	5109	DTE Electric Company	Electric Utility	St Clair	MI	1743	6	311.0	Conventional Steam Coal	RC	ST
2022	5	5109	DTE Electric Company	Electric Utility	St Clair	MI	1743	7	440.0	Conventional Steam Coal	RC	ST
2022	5	5109	DTE Electric Company	Electric Utility	Trenton Channel	MI	1745	9	495.0	Conventional Steam Coal	SUB	ST
2022	6	11241	Entergy Louisiana LLC	Electric Utility	Sterlington	LA	1404	7A	47.6	Natural Gas Fired Combined Cycle	NG	CT
2022	6	56192	Entergy Nuclear Palisades LLC	IPP	Palisades	MI	1715	1	804.2	Nuclear	NUC	ST
2022	6	55937	Entergy Texas Inc.	Electric Utility	Sabine	TX	3459	1	212.0	Natural Gas Steam Turbine	NG	ST
2022	8	6909	Gainesville Regional Utilities	Electric Utility	Deerhaven Generating Station	FL	663	1	75.0	Natural Gas Steam Turbine	NG	ST
2022	8	60791	Monroe County (NY)	Commercial	Iola Powerhouse & Cogeneration Facility	NY	62424	1	1.4	Natural Gas Internal Combustion Engine	NG	IC
2022	8	60791	Monroe County (NY)	Commercial	Iola Powerhouse & Cogeneration Facility	NY	62424	2	1.4	Natural Gas Internal Combustion Engine	NG	IC
2022	8	60791	Monroe County (NY)	Commercial	Iola Powerhouse & Cogeneration Facility	NY	62424	3	1.4	Natural Gas Internal Combustion Engine	NG	IC
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	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
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
2022	12	19436	Union Electric Co - (MO)	Electric Utility	Meramec	MO	2104	1	118.0	Natural Gas Steam Turbine	NG	ST
2022	12	19436	Union Electric Co - (MO)	Electric Utility	Meramec	MO	2104	2	118.0	Natural Gas Steam Turbine	NG	ST
2022	12	19436	Union Electric Co - (MO)	Electric Utility	Meramec	MO	2104	3	260.0	Conventional Steam Coal	SUB	ST
2022	12	19436	Union Electric Co - (MO)	Electric Utility	Meramec	MO	2104	4	334.0	Conventional Steam Coal	SUB	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	1	61956	South Nassau Communities Hospital	Commercial	South Nassau Communities Hospital	NY	62447	1	1.1	Petroleum Liquids	DFO	IC
2023	1	61956	South Nassau Communities Hospital	Commercial	South Nassau Communities Hospital	NY	62447	2	0.8	Petroleum Liquids	DFO	IC
2023	1	61956	South Nassau Communities Hospital	Commercial	South Nassau Communities Hospital	NY	62447	3	1.0	Petroleum Liquids	DFO	IC
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

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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
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	5	4254	Consumers Energy Co	Electric Utility	Dan E Karn	MI	1702	1A	127.5	Conventional Steam Coal	SUB	ST
2023	5	4254	Consumers Energy Co	Electric Utility	Dan E Karn	MI	1702	1B	127.5	Conventional Steam Coal	SUB	ST
2023	5	4254	Consumers Energy Co	Electric Utility	Dan E Karn	MI	1702	2A	130.0	Conventional Steam Coal	SUB	ST
2023	5	4254	Consumers Energy Co	Electric Utility	Dan E Karn	MI	1702	2B	130.0	Conventional Steam Coal	SUB	ST
2023	6	18488	City of Taunton	Electric Utility	Cleary Flood	MA	1682	8	26.0	Petroleum Liquids	RFO	ST
2023	6	12685	Entergy Mississippi LLC	Electric Utility	Baxter Wilson	MS	2050	1	529.8	Natural Gas Steam Turbine	NG	ST
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	10	18715	Texas Municipal Power Agency	Electric Utility	Gibbons Creek	TX	6136	1	470.0	Conventional Steam Coal	SUB	ST
2023	11	13781	Northern States Power Co - Minnesota	Electric Utility	Cornell	WI	6086	1	6.2	Conventional Hydroelectric	WAT	HY
2023	11	13781	Northern States Power Co - Minnesota	Electric Utility	Cornell	WI	6086	2	6.4	Conventional Hydroelectric	WAT	HY
2023	11	13781	Northern States Power Co - Minnesota	Electric Utility	Cornell	WI	6086	3	6.9	Conventional Hydroelectric	WAT	HY
2023	11	13781	Northern States Power Co - Minnesota	Electric Utility	Cornell	WI	6086	4	0.4	Conventional Hydroelectric	WAT	HY
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	163.0	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	17633	Southern Indiana Gas & Elec Co	Electric Utility	F B Culley	IN	1012	2	90.0	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
2023	12	18642	Tennessee Valley Authority	Electric Utility	Bull Run	TN	3396	1	870.0	Conventional Steam Coal	BIT	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	6	11241	Entergy Louisiana LLC	Electric Utility	Waterford 1 & 2	LA	8056	2	427.5	Natural Gas Steam Turbine	NG	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	16604	City of San Antonio - (TX)	Electric Utility	V H Braunig	TX	3612	1	217.0	Natural Gas Steam Turbine	NG	ST
2024	12	16604	City of San Antonio - (TX)	Electric Utility	V H Braunig	TX	3612	2	230.0	Natural Gas Steam Turbine	NG	ST
2024	12	16604	City of San Antonio - (TX)	Electric Utility	V H Braunig	TX	3612	3	412.0	Natural Gas Steam Turbine	NG	ST
2024	12	5416	Duke Energy Carolinas, LLC	Electric Utility	G G Allen	NC	2718	1	162.0	Conventional Steam Coal	BIT	ST
2024	12	5416	Duke Energy Carolinas, LLC	Electric Utility	G G Allen	NC	2718	2	162.0	Conventional Steam Coal	BIT	ST
2024	12	5416	Duke Energy Carolinas, LLC	Electric Utility	G G Allen	NC	2718	3	258.0	Conventional Steam Coal	BIT	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	Saxon Falls	WI	1756	1	0.5	Conventional Hydroelectric	WAT	HY
2024	12	13781	Northern States Power Co - Minnesota	Electric Utility	Saxon Falls	WI	1756	2	0.5	Conventional Hydroelectric	WAT	HY
2024	12	13781	Northern States Power Co - Minnesota	Electric Utility	Superior Falls	MI	1757	1	0.5	Conventional Hydroelectric	WAT	HY
2024	12	13781	Northern States Power Co - Minnesota	Electric Utility	Superior Falls	MI	1757	2	0.5	Conventional Hydroelectric	WAT	HY
2024	12	17718	Southwestern Public Service Co	Electric Utility	Plant X	TX	3485	3	93.0	Natural Gas Steam Turbine	NG	ST
2025	1	17568	Cooperative Energy	Electric Utility	Moselle	MS	2070	3	59.0	Natural Gas Steam Turbine	NG	ST
2025	4	7801	Gulf Power Co	Electric Utility	Pea Ridge	FL	7715	1	4.0	Natural Gas Fired Combustion Turbine	NG	GT
2025	4	7801	Gulf Power Co	Electric Utility	Pea Ridge	FL	7715	2	4.0	Natural Gas Fired Combustion Turbine	NG	GT
2025	4	7801	Gulf Power Co	Electric Utility	Pea Ridge	FL	7715	3	4.0	Natural Gas Fired Combustion Turbine	NG	GT
2025	6	814	Entergy Arkansas LLC	Electric Utility	Lake Catherine	AR	170	4	522.0	Natural Gas Steam Turbine	NG	ST
2025	7	13781	Northern States Power Co - Minnesota	Electric Utility	White River (WI)	WI	3989	1	0.2	Conventional Hydroelectric	WAT	HY
2025	7	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

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	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	9417	Interstate Power and Light Co	Electric Utility	Prairie Creek	IA	1073	1	3.6	Conventional Steam Coal	SUB	ST
2025	12	9417	Interstate Power and Light Co	Electric Utility	Prairie Creek	IA	1073	3	26.4	Conventional Steam Coal	SUB	ST
2025	12	56155	Lansing Board of Water and Light	Electric Utility	Erickson Station	MI	1832	1	154.5	Conventional Steam Coal	SUB	ST
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	Sherburne County	MN	6090	1	680.0	Conventional Steam Coal	SUB	ST
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	51.0	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	427.0	Conventional Steam Coal	SUB	ST
2026	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
2026	6	11241	Entergy Louisiana LLC	Electric Utility	Little Gypsy	LA	1402	2	416.0	Natural Gas Steam Turbine	NG	ST
2026	6	55937	Entergy Texas Inc.	Electric Utility	Sabine	TX	3459	3	410.7	Natural Gas Steam Turbine	NG	ST
2026	6	55937	Entergy Texas Inc.	Electric Utility	Sabine	TX	3459	4	533.4	Natural Gas Steam Turbine	NG	ST
2026	6	9417	Interstate Power and Light Co	Electric Utility	Burlington (IA)	IA	1104	GT1	12.7	Natural Gas Fired Combustion Turbine	NG	GT
2026	6	9417	Interstate Power and Light Co	Electric Utility	Burlington (IA)	IA	1104	GT2	11.9	Natural Gas Fired Combustion Turbine	NG	GT
2026	6	9417	Interstate Power and Light Co	Electric Utility	Burlington (IA)	IA	1104	GT3	13.0	Natural Gas Fired Combustion Turbine	NG	GT
2026	6	9417	Interstate Power and Light Co	Electric Utility	Burlington (IA)	IA	1104	GT4	9.4	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	97.0	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	IPP	L'Oreal Piscataway	NJ	57868	UNIT1	0.8	Solar Photovoltaic	SUN	PV
2026	12	13781	Northern States Power Co - Minnesota	Electric Utility	Inver Hills	MN	1913	1	47.0	Natural Gas Fired Combustion Turbine	NG	GT
2026	12	13781	Northern States Power Co - Minnesota	Electric Utility	Inver Hills	MN	1913	2	47.0	Natural Gas Fired Combustion Turbine	NG	GT
2026	12	13781	Northern States Power Co - Minnesota	Electric Utility	Inver Hills	MN	1913	3	47.0	Natural Gas Fired Combustion Turbine	NG	GT
2026	12	13781	Northern States Power Co - Minnesota	Electric Utility	Inver Hills	MN	1913	4	47.0	Natural Gas Fired Combustion Turbine	NG	GT
2026	12	13781	Northern States Power Co - Minnesota	Electric Utility	Inver Hills	MN	1913	5	47.0	Natural Gas Fired Combustion Turbine	NG	GT
2026	12	13781	Northern States Power Co - Minnesota	Electric Utility	Inver Hills	MN	1913	6	47.0	Natural Gas Fired Combustion Turbine	NG	GT
2026	12	13781	Northern States Power Co - Minnesota	Electric Utility	Inver Hills	MN	1913	7	1.8	Petroleum Liquids	DFO	GT
2026	12	13781	Northern States Power Co - Minnesota	Electric Utility	Inver Hills	MN	1913	8	1.8	Petroleum Liquids	DFO	GT
2026	12	15466	Public Service Co of Colorado	Electric Utility	Alamosa	CO	464	CT1	13.0	Natural Gas Fired Combustion Turbine	NG	GT
2026	12	15466	Public Service Co of Colorado	Electric Utility	Alamosa	CO	464	CT2	14.0	Natural Gas Fired Combustion Turbine	NG	GT
2026	12	15466	Public Service Co of Colorado	Electric Utility	Fort Lupton	CO	8067	1	44.0	Natural Gas Fired Combustion Turbine	NG	GT
2026	12	15466	Public Service Co of Colorado	Electric Utility	Fort Lupton	CO	8067	2	44.0	Natural Gas Fired Combustion Turbine	NG	GT
2026	12	15466	Public Service Co of Colorado	Electric Utility	Fruita	CO	471	1	14.0	Natural Gas Fired Combustion Turbine	NG	GT
2026	12	15466	Public Service Co of Colorado	Electric Utility	Valmont	CO	477	6	43.0	Natural Gas Fired Combustion Turbine	NG	GT
2027	2	56997	Marina Energy LLC	IPP	Heller Industrial Parks	NJ	57869	HH	0.5	Solar Photovoltaic	SUN	PV
2027	2	56997	Marina Energy LLC	IPP	Heller Industrial Parks	NJ	57869	HII	0.4	Solar Photovoltaic	SUN	PV
2027	2	56997	Marina Energy LLC	IPP	Heller Industrial Parks	NJ	57869	HJC	0.2	Solar Photovoltaic	SUN	PV
2027	2	56997	Marina Energy LLC	IPP	Heller Industrial Parks	NJ	57869	UNIT1	2.7	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
2027	12	13781	Northern States Power Co - Minnesota	Electric Utility	Red Wing	MN	1926	1	9.0	Municipal Solid Waste	MSW	ST
2027	12	13781	Northern States Power Co - Minnesota	Electric Utility	Red Wing	MN	1926	2	9.0	Municipal Solid Waste	MSW	ST
2027	12	13781	Northern States Power Co - Minnesota	Electric Utility	St Croix Falls	WI	4011	1	1.8	Conventional Hydroelectric	WAT	HY
2027	12	13781	Northern States Power Co - Minnesota	Electric Utility	St Croix Falls	WI	4011	2	1.8	Conventional Hydroelectric	WAT	HY
2027	12	13781	Northern States Power Co - Minnesota	Electric Utility	St Croix Falls	WI	4011	3	1.9	Conventional Hydroelectric	WAT	HY
2027	12	13781	Northern States Power Co - Minnesota	Electric Utility	St Croix Falls	WI	4011	4	1.9	Conventional Hydroelectric	WAT	HY
2027	12	13781	Northern States Power Co - Minnesota	Electric Utility	St Croix Falls	WI	4011	5	2.0	Conventional Hydroelectric	WAT	HY
2027	12	13781	Northern States Power Co - Minnesota	Electric Utility	St Croix Falls	WI	4011	6	1.9	Conventional Hydroelectric	WAT	HY
2027	12	13781	Northern States Power Co - Minnesota	Electric Utility	St Croix Falls	WI	4011	7	2.0	Conventional Hydroelectric	WAT	HY

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
2027	12	13781	Northern States Power Co - Minnesota	Electric Utility	St Croix Falls	WI	4011	8	1.9	Conventional Hydroelectric	WAT	HY
2027	12	13781	Northern States Power Co - Minnesota	Electric Utility	Wilmarth	MN	1934	1	9.0	Municipal Solid Waste	MSW	ST
2027	12	13781	Northern States Power Co - Minnesota	Electric Utility	Wilmarth	MN	1934	2	9.0	Municipal Solid Waste	MSW	ST
2027	12	15466	Public Service Co of Colorado	Electric Utility	Cherokee	CO	469	4	310.0	Natural Gas Steam Turbine	NG	ST
2027	12	15466	Public Service Co of Colorado	Electric Utility	Salida	CO	474	2	0.6	Conventional Hydroelectric	WAT	HY
2027	12	17718	Southwestern Public Service Co	Electric Utility	Plant X	TX	3485	4	190.0	Natural Gas Steam Turbine	NG	ST
2028	1	56997	Marina Energy LLC	IPP	Freeze Solar	NJ	60759	PV1	1.4	Solar Photovoltaic	SUN	PV
2028	5	56997	Marina Energy LLC	IPP	Heller 400M	NJ	62438	A	0.8	Solar Photovoltaic	SUN	PV
2028	5	56997	Marina Energy LLC	IPP	Heller 400M	NJ	62438	B	0.2	Solar Photovoltaic	SUN	PV
2028	5	56997	Marina Energy LLC	IPP	Heller 400M	NJ	62438	C	0.2	Solar Photovoltaic	SUN	PV
2028	5	56997	Marina Energy LLC	IPP	Heller Industrial Parks	NJ	57869	HM	0.8	Solar Photovoltaic	SUN	PV
2028	12	16604	City of San Antonio - (TX)	Electric Utility	O W Sommers	TX	3611	2	410.0	Natural Gas Steam Turbine	NG	ST
2028	12	9324	Indiana Michigan Power Co	Electric Utility	Rockport	IN	6166	1	1,300.0	Conventional Steam Coal	SUB	ST
2028	12	56997	Marina Energy LLC	IPP	ACCC Mays Landing	NJ	60802	PV1	1.4	Solar Photovoltaic	SUN	PV
2028	12	56997	Marina Energy LLC	IPP	IFF Hazlet	NJ	60709	GRND	3.0	Solar Photovoltaic	SUN	PV
2028	12	17718	Southwestern Public Service Co	Electric Utility	Maddox	NM	2446	1	112.0	Natural Gas Steam Turbine	NG	ST
2029	5	5109	DTE Electric Company	Electric Utility	Belle River	MI	6034	ST1	635.0	Conventional Steam Coal	RC	ST
2029	6	11241	Entergy Louisiana LLC	Electric Utility	Little Gypsy	LA	1402	3	524.4	Natural Gas Steam Turbine	NG	ST
2029	10	56667	Loraine Windpower Project	IPP	Loraine Windpark Project LLC	TX	57303	LWG1	75.0	Onshore Wind Turbine	WND	WT
2030	5	5109	DTE Electric Company	Electric Utility	Belle River	MI	6034	ST2	635.0	Conventional Steam Coal	RC	ST
2030	12	56625	Flat Water Wind Farm LLC	IPP	Flat Water Wind Farm LLC	NE	57283	WTG1	60.0	Onshore Wind Turbine	WND	WT
2030	12	17718	Southwestern Public Service Co	Electric Utility	Nichols	TX	3484	3	244.0	Natural Gas Steam Turbine	NG	ST
2031	6	11241	Entergy Louisiana LLC	Electric Utility	Nine Mile Point	LA	1403	6(4)	729.2	Natural Gas Steam Turbine	NG	ST
2031	12	17718	Southwestern Public Service Co	Electric Utility	Jones	TX	3482	1	243.0	Natural Gas Steam Turbine	NG	ST
2033	6	11241	Entergy Louisiana LLC	Electric Utility	Nine Mile Point	LA	1403	5	745.4	Natural Gas Steam Turbine	NG	ST
2034	6	55937	Entergy Texas Inc.	Electric Utility	Lewis Creek	TX	3457	1	252.1	Natural Gas Steam Turbine	NG	ST
2034	6	55937	Entergy Texas Inc.	Electric Utility	Lewis Creek	TX	3457	2	253.0	Natural Gas Steam Turbine	NG	ST
2034	12	13781	Northern States Power Co - Minnesota	Electric Utility	Sherburne County	MN	6090	3	876.0	Conventional Steam Coal	SUB	ST
2034	12	17718	Southwestern Public Service Co	Electric Utility	Jones	TX	3482	2	243.0	Natural Gas Steam Turbine	NG	ST
2034	12	17718	Southwestern Public Service Co	Electric Utility	Quay County	NM	58125	1	17.0	Petroleum Liquids	DFO	GT
2035	6	12685	Entergy Mississippi LLC	Electric Utility	Gerald Andrus	MS	8054	1	736.0	Natural Gas Steam Turbine	NG	ST
2036	12	17718	Southwestern Public Service Co	Electric Utility	Harrington	TX	6193	1	339.0	Conventional Steam Coal	SUB	ST
2037	12	17718	Southwestern Public Service Co	Electric Utility	Tolk	TX	6194	1	532.0	Conventional Steam Coal	SUB	ST
2037	12	17718	Southwestern Public Service Co	Electric Utility	Tolk	TX	6194	2	535.0	Conventional Steam Coal	SUB	ST
2038	12	17718	Southwestern Public Service Co	Electric Utility	Harrington	TX	6193	2	339.0	Conventional Steam Coal	SUB	ST
2040	12	17718	Southwestern Public Service Co	Electric Utility	Cunningham	NM	2454	3	106.0	Natural Gas Fired Combustion Turbine	NG	GT
2040	12	17718	Southwestern Public Service Co	Electric Utility	Cunningham	NM	2454	4	103.0	Natural Gas Fired Combustion Turbine	NG	GT
2040	12	17718	Southwestern Public Service Co	Electric Utility	Harrington	TX	6193	3	340.0	Conventional Steam Coal	SUB	ST
2043	12	58840	Copenhagen Wind Farm, LLC	IPP	Copenhagen Wind Farm	NY	58979	CPHGN	79.9	Onshore Wind Turbine	WND	WT
2047	7	60455	PVN Milliken, LLC	IPP	PVN Milliken, LLC	CA	60790	PV	3.0	Solar Photovoltaic	SUN	PV
2056	12	17718	Southwestern Public Service Co	Electric Utility	Jones	TX	3482	3	166.0	Natural Gas Fired Combustion Turbine	NG	GT
2058	12	17718	Southwestern Public Service Co	Electric Utility	Jones	TX	3482	4	168.0	Natural Gas Fired Combustion Turbine	NG	GT

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-July 2019

	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%
2018	54.0%	57.6%	11.8%	13.7%	NA	13.9%	2.5%	NA
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	64.3%	53.9%	11.9%	13.1%	NA	19.0%	5.0%	NA
February	49.3%	55.0%	6.9%	6.7%	NA	11.8%	0.9%	NA
March	43.9%	51.4%	9.3%	8.6%	NA	10.9%	1.4%	NA
April	41.7%	47.9%	11.4%	8.7%	NA	12.7%	1.9%	NA
May	47.0%	52.3%	11.8%	16.8%	NA	9.2%	2.3%	NA
June	58.4%	61.8%	12.0%	17.9%	NA	15.2%	3.0%	NA
July	64.3%	72.8%	18.9%	25.7%	NA	15.5%	3.6%	NA
August	64.3%	72.1%	16.5%	22.5%	NA	15.8%	2.6%	NA
Sept	56.0%	66.1%	14.6%	16.6%	NA	17.8%	3.1%	NA
October	48.9%	55.3%	12.0%	14.0%	NA	13.9%	2.2%	NA
November	54.0%	50.5%	9.7%	9.1%	NA	13.4%	1.8%	NA
December	55.0%	50.7%	6.4%	3.4%	NA	11.6%	1.7%	NA
Year 2019								
January	57.1%	56.3%	7.2%	9.1%	NA	10.7%	1.0%	NA
February	50.7%	57.9%	7.9%	7.3%	NA	10.7%	0.9%	NA
March	45.2%	52.4%	7.2%	9.3%	NA	10.2%	0.7%	NA
April	35.8%	46.2%	9.2%	11.4%	NA	8.6%	1.1%	NA
May	42.1%	50.8%	8.9%	14.3%	NA	13.3%	1.6%	NA
June	47.4%	62.9%	8.8%	17.6%	NA	14.5%	1.9%	NA
July	59.2%	72.8%	15.9%	27.5%	NA	15.6%	2.3%	NA

Values for 2017 and prior years are final. Values for 2018 and 2019 are preliminary. NA = Not Available

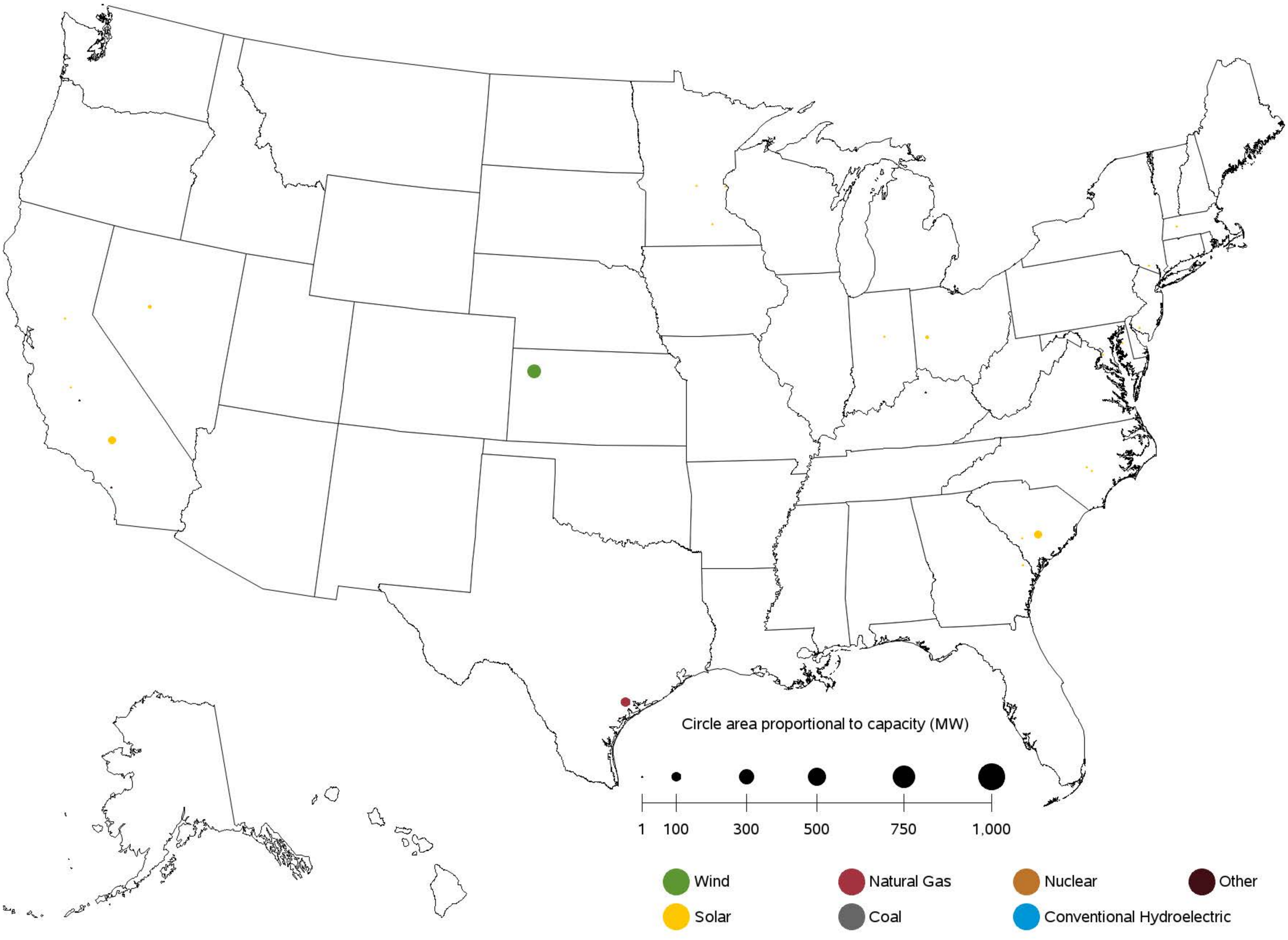
Sources: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report; U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report' and Form EIA-860M, 'Monthly Update to the Annual Electric Generator Report.'

Table 6.7.B. Capacity Factors for Utility Scale Generators Not Primarily Using Fossil Fuels, January 2013-July 2019

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%
2018	92.6%	42.8%	37.4%	26.1%	23.6%	73.3%	49.3%	77.3%
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%	45.1%	42.4%	18.7%	10.0%	72.1%	58.7%	76.6%
February	96.7%	49.2%	41.8%	22.9%	16.1%	76.7%	57.4%	80.5%
March	90.4%	45.1%	43.9%	26.3%	19.3%	73.2%	52.2%	78.2%
April	82.4%	49.9%	44.8%	31.2%	24.4%	71.6%	43.9%	70.3%
May	90.8%	54.2%	38.7%	31.9%	33.0%	68.9%	48.7%	78.9%
June	97.1%	51.7%	42.0%	34.5%	41.7%	76.5%	54.6%	76.2%
July	97.7%	43.4%	25.3%	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%	29.8%	27.7%	34.8%	70.2%	43.8%	78.4%
October	80.5%	31.1%	33.5%	23.1%	20.8%	71.9%	44.8%	72.6%
November	89.4%	37.1%	36.9%	18.8%	13.3%	73.7%	44.5%	78.8%
December	96.9%	37.3%	38.3%	15.1%	7.0%	74.3%	42.6%	80.8%
Year 2019								
January	99.7%	38.9%	38.5%	16.7%	8.5%	72.1%	51.6%	77.5%
February	96.8%	40.6%	39.2%	20.0%	11.0%	71.3%	51.0%	85.2%
March	88.0%	43.4%	39.2%	25.0%	19.8%	68.4%	42.3%	84.6%
April	84.5%	45.7%	45.5%	29.4%	25.5%	67.7%	43.1%	76.8%
May	90.8%	53.4%	38.9%	30.2%	25.8%	73.1%	51.6%	78.7%
June	96.6%	49.1%	34.3%	33.4%	35.6%	75.1%	49.7%	82.0%
July	98.1%	41.7%	32.7%	33.1%	31.5%	74.6%	53.0%	82.3%

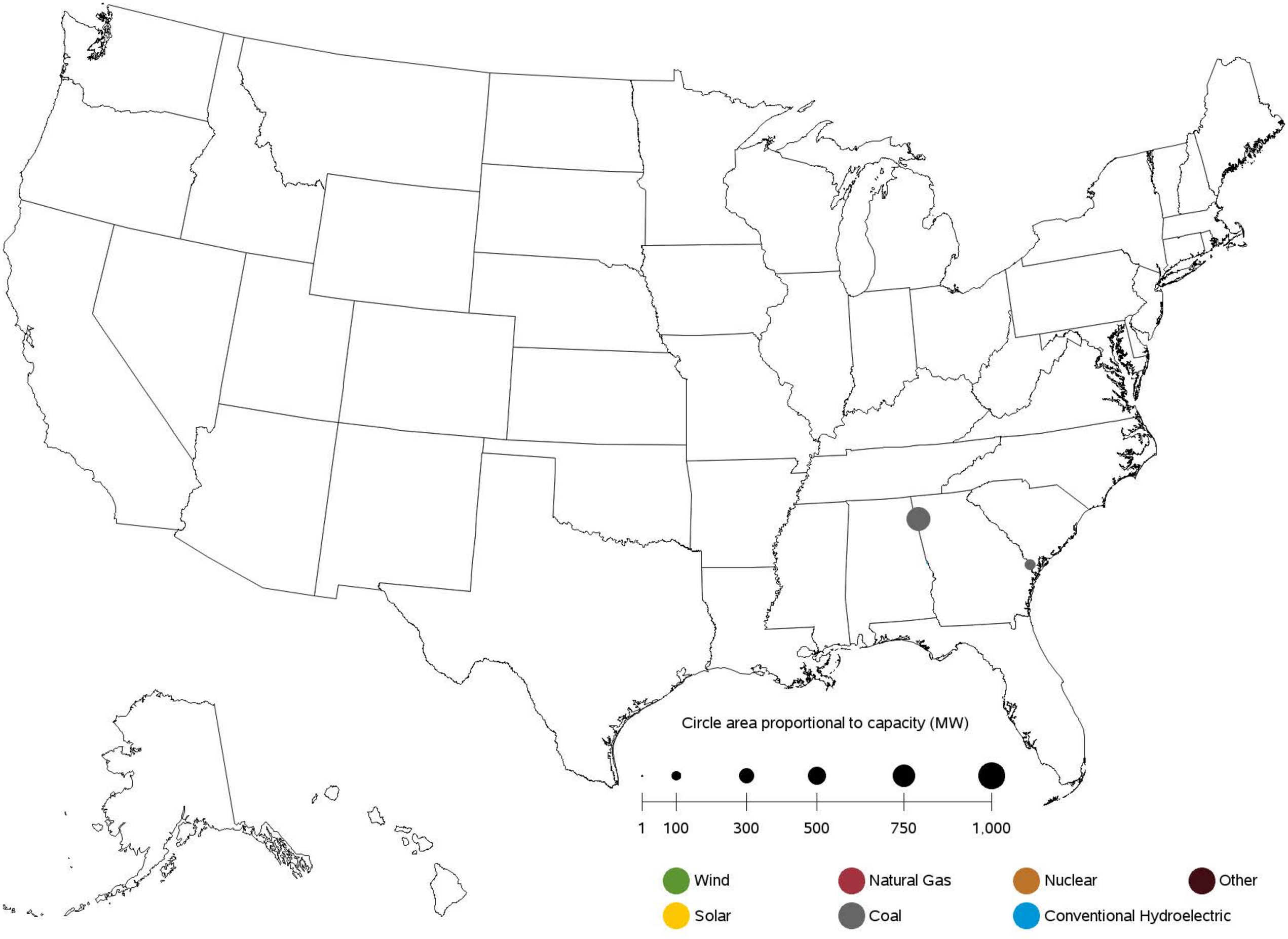
Values for 2017 and prior years are final. Values for 2018 and 2019 are preliminary. NA = Not Available
Notes: Solar Thermal Capacity Factors include generation from plants using concentrated solar power energy storage.
Sources: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations 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 July 2019



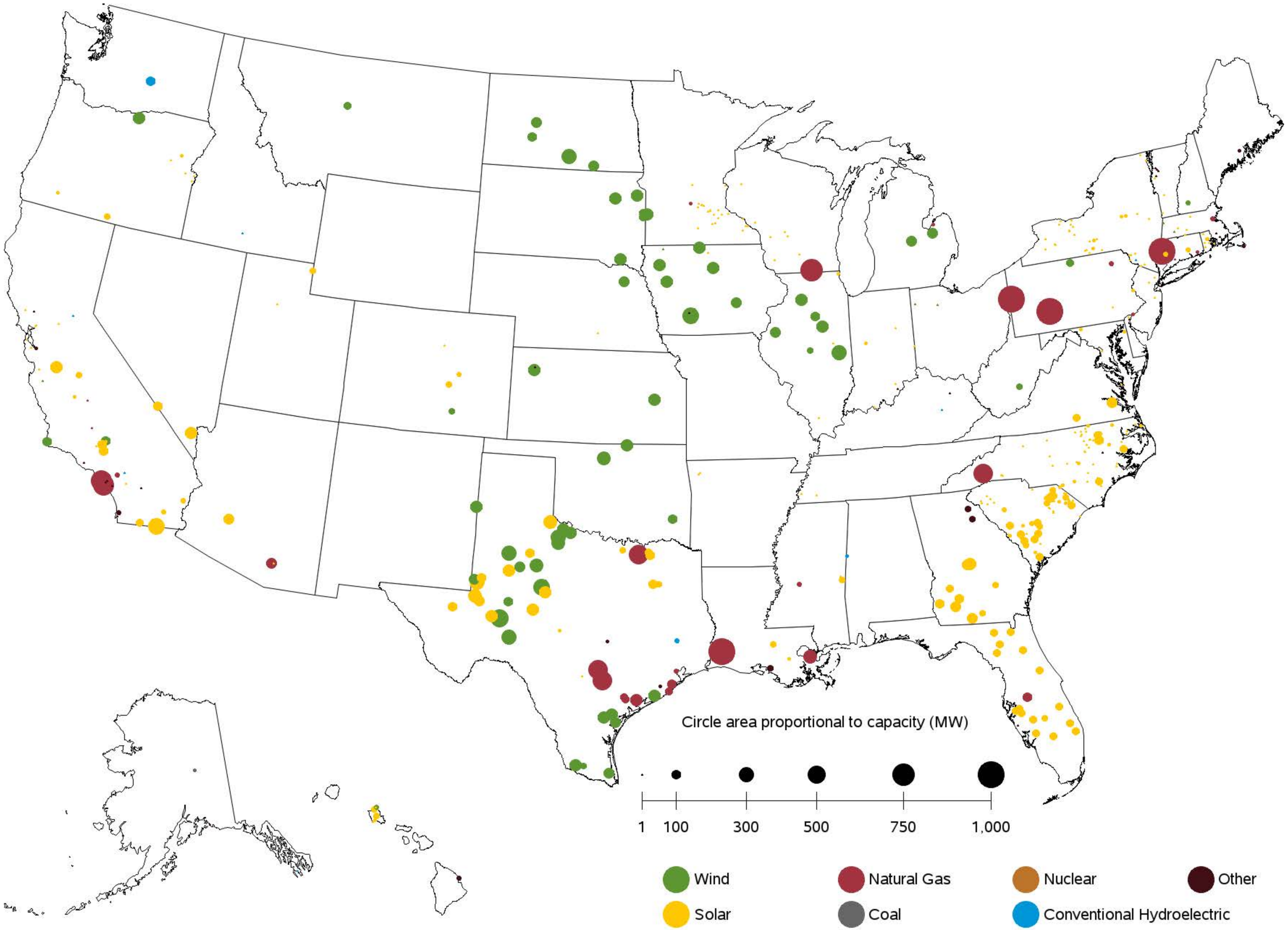
Sources: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report' and Form EIA-860M, 'Monthly Update to the Annual Electric Generator Report.'

Figure 6.1.B. Utility-Scale Generating Units Retired in July 2019



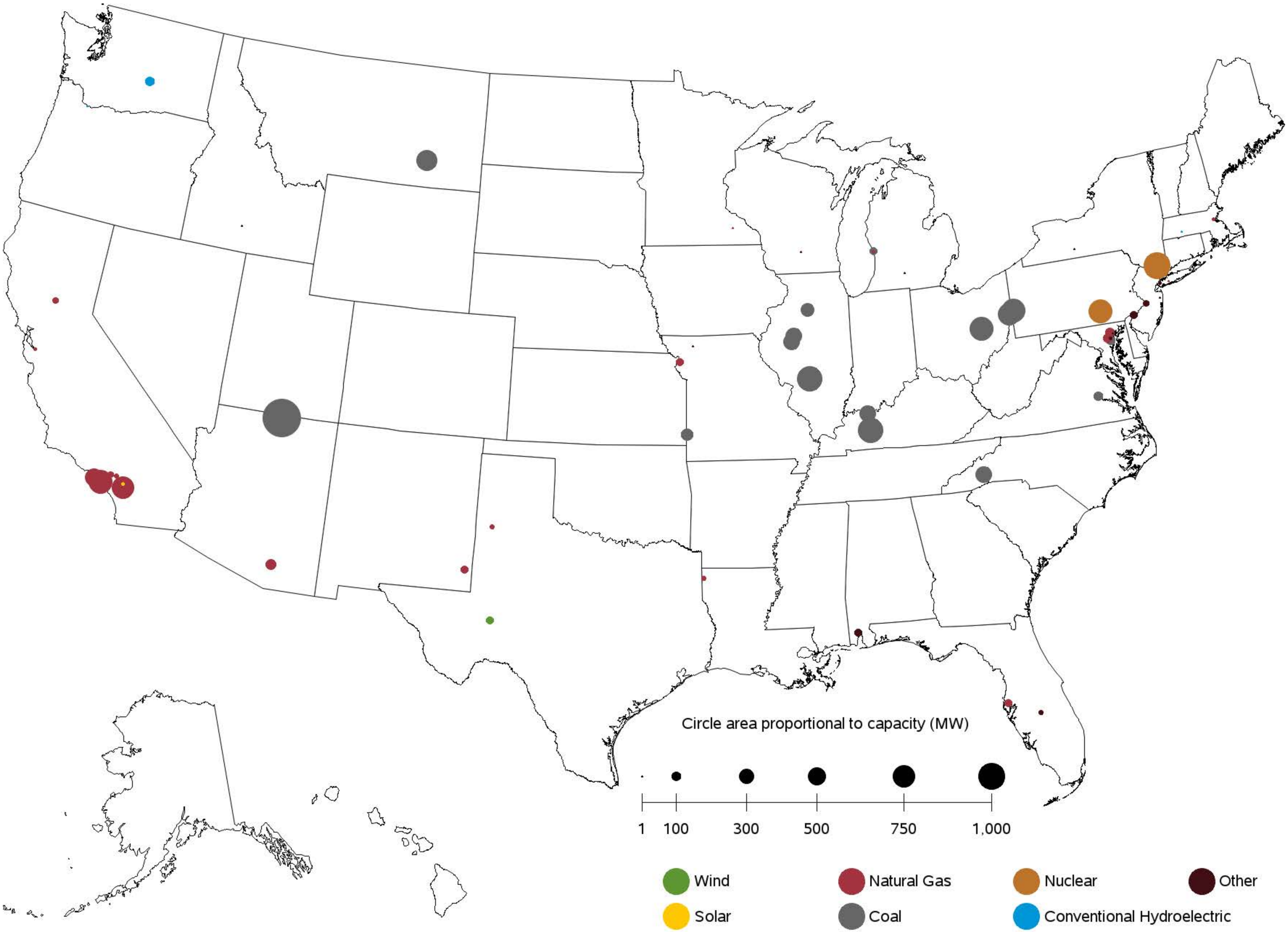
Sources: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report' and Form EIA-860M, 'Monthly Update to the Annual Electric Generator Report.'

Figure 6.1.C. Utility-Scale Generating Units Planned to Come Online from August 2019 to July 2020



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 August 2019 to July 2020



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
2018	51,507,677	7,290,070	6,765,975	6,514,422	58,273,652	13,804,492	44,469,160
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
October	3,105,670	455,738	620,775	428,265	3,726,445	884,003	2,842,442
November	3,165,198	878,523	649,802	406,045	3,815,000	1,284,568	2,530,432
December	3,455,788	516,623	646,476	408,156	4,102,264	924,779	3,177,485
Year 2019							
January	4,098,844	942,436	705,708	521,104	4,804,552	1,463,540	3,341,012
February	3,777,272	898,202	774,241	519,458	4,551,513	1,417,660	3,133,853
March	4,200,904	1,961,134	748,858	587,848	4,949,762	2,548,982	2,400,780
April	3,880,049	1,558,941	474,744	409,476	4,354,793	1,968,417	2,386,376
May	4,333,483	1,164,351	389,959	517,695	4,723,442	1,682,046	3,041,396
June	4,731,849	905,149	424,419	620,623	5,156,268	1,525,772	3,630,496

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, 2009 - July 2019 (Thousand Megawatthours)

Period	Residential	Commercial	Industrial	Transportation	All Sectors
Annual Totals					
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 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
December	494	642	162	0	1,298
Year 2019					
January	447	573	154	0	1,173
February	367	487	146	0	1,000
March	448	650	180	0	1,279
April	465	681	165	0	1,311
May	512	655	189	0	1,356
June	568	692	171	0	1,431
July	618	687	181	0	1,487
Year to Date					
2017	3,599	4,629	1,255	0	9,482
2018	3,350	4,707	1,207	0	9,264
2019	3,425	4,425	1,185	0	9,035
Rolling 12 Months Ending in July					
2018	4,796	6,898	1,699	0	13,394
2019	6,178	7,917	2,106	0	16,202

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, 2009 - July 2019 (Million Dollars)

Period	Residential	Commercial	Industrial	Transportation	All Sectors
Annual Totals					
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 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	162	34	0	306
October	137	181	36	0	353
November	102	142	34	0	278
December	112	154	31	0	298
Year 2019					
January	85	134	30	0	249
February	80	109	29	0	218
March	98	156	37	0	291
April	106	177	36	0	319
May	127	132	41	0	299
June	116	156	36	0	308
July	122	140	32	0	294
Year to Date					
2017	804	1,050	234	0	2,088
2018	690	1,104	232	0	2,026
2019	734	1,004	242	0	1,980
Rolling 12 Months Ending in July					
2018	1,009	1,603	342	0	2,954
2019	1,309	1,793	415	0	3,517

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, 2009 - July 2019

Period	Residential	Commercial	Industrial	Transportation	All Sectors
Annual Totals					
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 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
December	1,346,102	126,526	602	0	1,473,230
Year 2019					
January	1,347,101	126,497	601	0	1,474,199
February	1,348,081	126,423	600	0	1,475,104
March	1,348,854	126,160	602	0	1,475,616
April	1,347,811	125,773	597	0	1,474,181
May	1,346,893	125,615	596	0	1,473,104
June	1,344,899	125,345	595	0	1,470,839
July	1,344,545	125,238	595	0	1,470,378
Rolling 12 Months Ending in July					
2018	1,338,808	126,551	612	0	1,465,971
2019	1,345,572	126,028	600	0	1,472,200

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, 2009 - July 2019 (Cents per Kilowatthour)

Period	Residential	Commercial	Industrial	Transportation	All Sectors
Annual Totals					
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 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	20.75	22.50	18.18	--	21.30
October	19.58	21.36	18.69	--	20.35
November	22.31	24.00	19.55	--	22.74
December	22.77	24.05	19.33	--	22.97
Year 2019					
January	19.07	23.38	19.78	--	21.26
February	21.85	22.35	20.14	--	21.84
March	21.84	24.03	20.33	--	22.74
April	22.89	25.94	21.91	--	24.35
May	24.71	20.19	21.60	--	22.09
June	20.37	22.61	21.26	--	21.56
July	19.72	20.39	17.90	--	19.80
Year to Date					
2017	22.35	22.68	18.67	--	22.02
2018	20.61	23.44	19.20	--	21.87
2019	21.42	22.70	20.42	--	21.92
Rolling 12 Months Ending in July					
2018	21.04	23.24	20.10	--	22.05
2019	21.18	22.65	19.72	--	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-July 2019

Period	Coal	Hydroelectric Conventional	Natural Gas	Other	Petroleum	Solar	Wind	Total
Annual Totals								
2007	454	98	1,346	0	3,049	0	0	4,947
2008	454	98	1,346	0	3,480	0	0	5,378
2009	454	98	1,346	0	3,600	0	0	5,498
2010	454	98	1,346	0	3,600	0	0	5,498
2011	454	98	1,346	0	3,600	5	0	5,503
2012	454	98	1,346	0	3,600	23	98	5,619
2013	454	98	1,346	0	3,600	26	98	5,622
2014	454	98	1,346	0	3,600	38	99	5,635
2015	454	98	1,346	9	3,604	70	99	5,680
2016	454	98	1,346	33	3,604	145	99	5,779
2017	454	98	1,346	33	3,604	145	99	5,779
2018	454	98	1,346	33	3,606	145	99	5,780
Year 2019								
January	454	98	1,335	33	3,476	145	99	5,640
February	454	98	1,335	33	3,476	145	99	5,640
March	454	98	1,346	33	3,476	145	99	5,651
April	454	98	1,346	33	3,596	145	99	5,771
May	454	98	1,346	33	3,596	145	99	5,771
June	454	98	1,346	33	3,606	145	99	5,780
July	454	98	1,346	33	3,606	145	99	5,780

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, July 2019

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**6**	**7**	**0**	**2**	**0**	**0**	**6**
Connecticut	0	27	0	2	0	0	24
Maine	45	7	0	17	0	0	8
Massachusetts	0	5	0	4	0	0	15
New Hampshire	0	14	0	0	0	0	12
Rhode Island	0	96	0	9	0	0	0
Vermont	0	82	0	0	0	0	13
Middle Atlantic	**3**	**6**	**143**	**1**	**19**	**0**	**2**
New Jersey	0	50	0	2	0	0	0
New York	0	8	0	2	0	0	1
Pennsylvania	3	8	245	1	28	0	8
East North Central	**1**	**4**	**34**	**2**	**7**	**0**	**17**
Illinois	0	11	0	6	0	0	25
Indiana	1	3	0	3	13	0	26
Michigan	2	5	0	2	0	0	33
Ohio	1	7	152	2	19	0	44
Wisconsin	1	37	0	4	0	0	26
West North Central	**1**	**13**	**0**	**5**	**0**	**0**	**12**
Iowa	3	29	0	6	0	0	45
Kansas	0	14	0	16	0	0	0
Minnesota	4	61	0	7	0	0	38
Missouri	0	6	0	10	0	0	12
Nebraska	4	192	0	19	0	0	35
North Dakota	0	19	0	24	0	0	27
South Dakota	0	33	0	21	0	0	18
South Atlantic	**0**	**5**	**26**	**1**	**0**	**0**	**4**
Delaware	0	49	0	5	0	0	0
District of Columbia	0	0	0	0	0	0	0
Florida	0	5	0	1	0	0	31
Georgia	0	29	142	3	0	0	7
Maryland	0	5	0	3	0	0	1
North Carolina	0	18	0	2	0	0	7
South Carolina	0	27	0	2	0	0	10
Virginia	0	13	0	2	0	0	11
West Virginia	1	0	0	11	0	0	11
East South Central	**0**	**2**	**0**	**1**	**0**	**0**	**3**
Alabama	0	25	0	2	0	0	5
Kentucky	0	0	0	4	0	0	6
Mississippi	0	2	0	1	0	0	0
Tennessee	0	0	0	3	0	0	5
West South Central	**0**	**16**	**2**	**1**	**7**	**0**	**6**
Arkansas	0	9	0	4	0	0	8
Louisiana	0	221	0	2	16	0	15
Oklahoma	0	2	0	2	0	0	10
Texas	0	11	64	1	4	0	13
Mountain	**1**	**5**	**0**	**1**	**0**	**0**	**6**
Arizona	0	6	0	1	0	0	5
Colorado	0	68	0	3	0	0	25
Idaho	175	0	0	10	0	0	14
Montana	5	34	0	27	0	0	13
Nevada	0	0	0	1	0	0	3
New Mexico	0	27	0	4	0	0	88
Utah	0	1	0	4	0	0	39
Wyoming	3	1	0	16	0	0	39
Pacific Contiguous	**0**	**21**	**0**	**1**	**2**	**0**	**2**
California	0	23	0	2	3	0	4
Oregon	0	8	0	3	0	0	7
Washington	0	54	0	4	0	0	2
Pacific Noncontiguous	**14**	**1**	**0**	**13**	**0**	**0**	**31**
Alaska	40	4	0	13	0	0	32
Hawaii	0	1	0	0	0	0	58
U.S. Total	**0**	**1**	**13**	**1**	**4**	**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, July 2019 (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**	**7**	**5**	**0**	**1**	**1**
Connecticut	0	0	0	23	9	0	0	1
Maine	0	0	0	93	8	0	0	6
Massachusetts	0	0	0	8	6	0	2	3
New Hampshire	0	0	0	0	13	0	0	1
Rhode Island	0	0	0	38	14	0	0	8
Vermont	0	0	0	21	14	0	0	9
Middle Atlantic	**0**	**0**	**0**	**6**	**5**	**0**	**1**	**1**
New Jersey	0	0	0	7	6	0	0	1
New York	0	0	0	12	7	0	2	1
Pennsylvania	0	0	0	27	8	0	0	1
East North Central	**0**	**0**	**0**	**9**	**4**	**0**	**3**	**1**
Illinois	0	0	0	22	6	0	0	1
Indiana	0	0	0	13	9	0	0	1
Michigan	0	0	0	19	8	0	14	1
Ohio	0	0	0	23	7	0	0	1
Wisconsin	0	0	0	45	10	0	28	2
West North Central	**0**	**0**	**0**	**7**	**4**	**0**	**5**	**1**
Iowa	0	0	0	66	6	0	0	2
Kansas	0	0	0	93	3	0	0	2
Minnesota	0	0	0	7	7	0	4	3
Missouri	0	0	0	25	9	0	0	1
Nebraska	0	0	0	47	7	0	0	3
North Dakota	0	0	0	0	8	0	35	2
South Dakota	0	0	0	143	18	0	0	9
South Atlantic	**0**	**0**	**0**	**2**	**2**	**0**	**0**	**0**
Delaware	0	0	0	32	34	0	0	5
District of Columbia	0	0	0	84	19	0	0	12
Florida	0	0	0	2	2	0	0	1
Georgia	0	0	0	4	4	0	0	1
Maryland	0	0	0	9	10	0	0	1
North Carolina	0	0	0	2	2	0	0	1
South Carolina	0	0	0	9	4	0	0	1
Virginia	0	0	0	8	5	0	0	1
West Virginia	0	0	0	0	20	0	0	1
East South Central	**0**	**0**	**0**	**6**	**4**	**0**	**7**	**0**
Alabama	0	0	0	10	5	0	0	1
Kentucky	0	0	0	36	19	0	0	1
Mississippi	0	0	0	3	5	0	0	1
Tennessee	0	0	0	13	9	0	71	1
West South Central	**0**	**0**	**0**	**2**	**2**	**0**	**3**	**1**
Arkansas	0	0	0	6	7	0	0	2
Louisiana	0	0	0	131	8	0	0	1
Oklahoma	0	0	0	38	3	0	0	1
Texas	0	0	0	2	2	0	7	1
Mountain	**0**	**4**	**0**	**1**	**2**	**0**	**3**	**1**
Arizona	0	0	0	2	3	0	0	0
Colorado	0	0	0	6	3	0	0	1
Idaho	0	16	0	10	11	0	0	7
Montana	0	0	0	54	18	0	0	5
Nevada	0	4	0	2	2	0	0	1
New Mexico	0	0	0	6	4	0	0	2
Utah	0	7	0	4	4	0	20	1
Wyoming	0	0	0	0	13	0	0	3
Pacific Contiguous	**0**	**2**	**0**	**1**	**2**	**0**	**2**	**1**
California	0	2	0	1	2	0	2	1
Oregon	0	11	0	10	6	0	0	3
Washington	0	0	0	50	8	0	0	1
Pacific Noncontiguous	**0**	**9**	**0**	**12**	**11**	**0**	**0**	**5**
Alaska	0	0	0	0	51	0	0	10
Hawaii	0	9	0	12	10	0	0	2
U.S. Total	**0**	**2**	**0**	**1**	**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 July 2019

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**6**	**7**	**0**	**2**	**0**	**0**	**6**
Connecticut	0	27	0	2	0	0	24
Maine	45	7	0	17	0	0	8
Massachusetts	0	5	0	4	0	0	15
New Hampshire	0	14	0	0	0	0	12
Rhode Island	0	96	0	9	0	0	0
Vermont	0	82	0	0	0	0	13
Middle Atlantic	**3**	**6**	**143**	**1**	**19**	**0**	**2**
New Jersey	0	50	0	2	0	0	0
New York	0	8	0	2	0	0	1
Pennsylvania	3	8	245	1	28	0	8
East North Central	**1**	**4**	**34**	**2**	**7**	**0**	**17**
Illinois	0	11	0	6	0	0	25
Indiana	1	3	0	3	13	0	26
Michigan	2	5	0	2	0	0	33
Ohio	1	7	152	2	19	0	44
Wisconsin	1	37	0	4	0	0	26
West North Central	**1**	**13**	**0**	**5**	**0**	**0**	**12**
Iowa	3	29	0	6	0	0	45
Kansas	0	14	0	16	0	0	0
Minnesota	4	61	0	7	0	0	38
Missouri	0	6	0	10	0	0	12
Nebraska	4	192	0	19	0	0	35
North Dakota	0	19	0	24	0	0	27
South Dakota	0	33	0	21	0	0	18
South Atlantic	**0**	**5**	**26**	**1**	**0**	**0**	**4**
Delaware	0	49	0	5	0	0	0
District of Columbia	0	0	0	0	0	0	0
Florida	0	5	0	1	0	0	31
Georgia	0	29	142	3	0	0	7
Maryland	0	5	0	3	0	0	1
North Carolina	0	18	0	2	0	0	7
South Carolina	0	27	0	2	0	0	10
Virginia	0	13	0	2	0	0	11
West Virginia	1	0	0	11	0	0	11
East South Central	**0**	**2**	**0**	**1**	**0**	**0**	**3**
Alabama	0	25	0	2	0	0	5
Kentucky	0	0	0	4	0	0	6
Mississippi	0	2	0	1	0	0	0
Tennessee	0	0	0	3	0	0	5
West South Central	**0**	**16**	**2**	**1**	**7**	**0**	**6**
Arkansas	0	9	0	4	0	0	8
Louisiana	0	221	0	2	16	0	15
Oklahoma	0	2	0	2	0	0	10
Texas	0	11	64	1	4	0	13
Mountain	**1**	**5**	**0**	**1**	**0**	**0**	**6**
Arizona	0	6	0	1	0	0	5
Colorado	0	68	0	3	0	0	25
Idaho	175	0	0	10	0	0	14
Montana	5	34	0	27	0	0	13
Nevada	0	0	0	1	0	0	3
New Mexico	0	27	0	4	0	0	88
Utah	0	1	0	4	0	0	39
Wyoming	3	1	0	16	0	0	39
Pacific Contiguous	**0**	**21**	**0**	**1**	**2**	**0**	**2**
California	0	23	0	2	3	0	4
Oregon	0	8	0	3	0	0	7
Washington	0	54	0	4	0	0	2
Pacific Noncontiguous	**14**	**1**	**0**	**13**	**0**	**0**	**31**
Alaska	40	4	0	13	0	0	32
Hawaii	0	1	0	0	0	0	58
U.S. Total	**0**	**1**	**13**	**1**	**4**	**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 July 2019 (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**	**7**	**5**	**0**	**1**	**1**
Connecticut	0	0	0	23	9	0	0	1
Maine	0	0	0	93	8	0	0	6
Massachusetts	0	0	0	8	6	0	2	3
New Hampshire	0	0	0	0	13	0	0	1
Rhode Island	0	0	0	38	14	0	0	8
Vermont	0	0	0	21	14	0	0	9
Middle Atlantic	**0**	**0**	**0**	**6**	**5**	**0**	**1**	**1**
New Jersey	0	0	0	7	6	0	0	1
New York	0	0	0	12	7	0	2	1
Pennsylvania	0	0	0	27	8	0	0	1
East North Central	**0**	**0**	**0**	**9**	**4**	**0**	**3**	**1**
Illinois	0	0	0	22	6	0	0	1
Indiana	0	0	0	13	9	0	0	1
Michigan	0	0	0	19	8	0	14	1
Ohio	0	0	0	23	7	0	0	1
Wisconsin	0	0	0	45	10	0	28	2
West North Central	**0**	**0**	**0**	**7**	**4**	**0**	**5**	**1**
Iowa	0	0	0	66	6	0	0	2
Kansas	0	0	0	93	3	0	0	2
Minnesota	0	0	0	7	7	0	4	3
Missouri	0	0	0	25	9	0	0	1
Nebraska	0	0	0	47	7	0	0	3
North Dakota	0	0	0	0	8	0	35	2
South Dakota	0	0	0	143	18	0	0	9
South Atlantic	**0**	**0**	**0**	**2**	**2**	**0**	**0**	**0**
Delaware	0	0	0	32	34	0	0	5
District of Columbia	0	0	0	84	19	0	0	12
Florida	0	0	0	2	2	0	0	1
Georgia	0	0	0	4	4	0	0	1
Maryland	0	0	0	9	10	0	0	1
North Carolina	0	0	0	2	2	0	0	1
South Carolina	0	0	0	9	4	0	0	1
Virginia	0	0	0	8	5	0	0	1
West Virginia	0	0	0	0	20	0	0	1
East South Central	**0**	**0**	**0**	**6**	**4**	**0**	**7**	**0**
Alabama	0	0	0	10	5	0	0	1
Kentucky	0	0	0	36	19	0	0	1
Mississippi	0	0	0	3	5	0	0	1
Tennessee	0	0	0	13	9	0	71	1
West South Central	**0**	**0**	**0**	**2**	**2**	**0**	**3**	**1**
Arkansas	0	0	0	6	7	0	0	2
Louisiana	0	0	0	131	8	0	0	1
Oklahoma	0	0	0	38	3	0	0	1
Texas	0	0	0	2	2	0	7	1
Mountain	**0**	**4**	**0**	**1**	**2**	**0**	**3**	**1**
Arizona	0	0	0	2	3	0	0	0
Colorado	0	0	0	6	3	0	0	1
Idaho	0	16	0	10	11	0	0	7
Montana	0	0	0	54	18	0	0	5
Nevada	0	4	0	2	2	0	0	1
New Mexico	0	0	0	6	4	0	0	2
Utah	0	7	0	4	4	0	20	1
Wyoming	0	0	0	0	13	0	0	3
Pacific Contiguous	**0**	**2**	**0**	**1**	**2**	**0**	**2**	**1**
California	0	2	0	1	2	0	2	1
Oregon	0	11	0	10	6	0	0	3
Washington	0	0	0	50	8	0	0	1
Pacific Noncontiguous	**0**	**9**	**0**	**12**	**11**	**0**	**0**	**5**
Alaska	0	0	0	0	51	0	0	10
Hawaii	0	9	0	12	10	0	0	2
U.S. Total	**0**	**2**	**0**	**1**	**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.C. Relative Standard Error (Percent) for Small Scale Solar Generation and Capacity by Sector, Census Division and State, July 2019

Census Region and State	Residential	Commercial	Industrial	Transportation	Total
New England	**1**	**2**	**1**	**.**	**1**
Connecticut	0	1	0	.	0
Maine	2	3	0	.	2
Massachusetts	1	3	2	.	2
New Hampshire	1	0	0	.	1
Rhode Island	0	0	0	.	0
Vermont	3	12	59	.	5
Middle Atlantic	**0**	**0**	**2**	**.**	**0**
New Jersey	0	0	2	.	0
New York	0	0	1	.	0
Pennsylvania	1	2	1	.	1
East North Central	**4**	**3**	**13**	**.**	**2**
Illinois	7	8	0	.	5
Indiana	13	2	0	.	4
Michigan	6	17	174	.	8
Ohio	9	4	14	.	4
Wisconsin	16	10	26	.	10
West North Central	**2**	**1**	**6**	**.**	**1**
Iowa	6	3	35	.	3
Kansas	12	6	0	.	7
Minnesota	6	6	5	.	4
Missouri	2	1	0	.	1
Nebraska	15	34	36	.	13
North Dakota	0	0	0	.	0
South Dakota	0	0	0	.	0
South Atlantic	**2**	**1**	**2**	**.**	**1**
Delaware	7	4	19	.	5
District of Columbia	0	0	0	.	0
Florida	5	6	4	.	4
Georgia	155	78	0	.	88
Maryland	1	2	3	.	1
North Carolina	9	1	0	.	6
South Carolina	5	4	0	.	4
Virginia	11	7	6	.	8
West Virginia	0	0	0	.	0
East South Central	**4**	**6**	**0**	**.**	**3**
Alabama	0	0	0	.	0
Kentucky	4	7	0	.	4
Mississippi	7	17	0	.	9
Tennessee	0	0	0	.	0
West South Central	**3**	**3**	**0**	**.**	**3**
Arkansas	18	12	0	.	12
Louisiana	3	5	0	.	3
Oklahoma	16	9	0	.	12
Texas	5	4	0	.	4
Mountain	**1**	**1**	**3**	**.**	**0**
Arizona	1	1	13	.	0
Colorado	3	3	50	.	2
Idaho	3	9	0	.	3
Montana	13	12	0	.	10
Nevada	0	0	0	.	0
New Mexico	4	5	0	.	3
Utah	2	4	0	.	2
Wyoming	24	40	0	.	20
Pacific Contiguous	**0**	**1**	**0**	**.**	**0**
California	0	1	0	.	0
Oregon	2	6	9	.	3
Washington	2	20	36	.	3
Pacific Noncontiguous	**0**	**0**	**0**	**.**	**0**
Alaska	5	6	0	.	4
Hawaii	0	0	0	.	0
U.S. Total	**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 A.2.A. Relative Standard Error (Percent) for Net Generation by Fuel Type: Electric Utilities by Census Division and State, July 2019

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**0**	**19**	**0**	**44**	**0**	**0**	**14**
Connecticut	0	26	0	0	0	0	71
Maine	0	0	0	0	0	0	0
Massachusetts	0	54	0	49	0	0	31
New Hampshire	0	7	0	0	0	0	25
Rhode Island	0	0	0	0	0	0	0
Vermont	0	83	0	0	0	0	21
Middle Atlantic	**0**	**13**	**0**	**4**	**0**	**0**	**1**
New Jersey	0	0	0	53	0	0	0
New York	0	13	0	4	0	0	1
Pennsylvania	0	0	0	0	0	0	0
East North Central	**1**	**5**	**0**	**3**	**0**	**0**	**18**
Illinois	0	34	0	16	0	0	37
Indiana	1	3	0	6	0	0	26
Michigan	2	5	0	5	0	0	35
Ohio	11	30	0	7	0	0	27
Wisconsin	0	37	0	4	0	0	28
West North Central	**1**	**13**	**0**	**6**	**0**	**0**	**12**
Iowa	3	29	0	6	0	0	46
Kansas	0	14	0	16	0	0	0
Minnesota	4	78	0	7	0	0	48
Missouri	0	6	0	14	0	0	12
Nebraska	4	192	0	19	0	0	35
North Dakota	0	19	0	24	0	0	27
South Dakota	0	34	0	21	0	0	18
South Atlantic	**0**	**7**	**0**	**1**	**0**	**0**	**5**
Delaware	0	0	0	0	0	0	0
Florida	0	4	0	1	0	0	31
Georgia	0	45	0	3	0	0	7
Maryland	0	34	0	0	0	0	0
North Carolina	0	17	0	2	0	0	7
South Carolina	0	28	0	2	0	0	10
Virginia	0	22	0	2	0	0	11
West Virginia	0	0	0	0	0	0	17
East South Central	**0**	**1**	**0**	**1**	**0**	**0**	**3**
Alabama	0	11	0	4	0	0	5
Kentucky	0	0	0	4	0	0	5
Mississippi	0	2	0	2	0	0	0
Tennessee	0	0	0	3	0	0	5
West South Central	**0**	**23**	**0**	**2**	**0**	**0**	**6**
Arkansas	0	23	0	4	0	0	8
Louisiana	0	221	0	2	0	0	0
Oklahoma	0	2	0	3	0	0	10
Texas	0	9	0	3	0	0	13
Mountain	**1**	**5**	**0**	**1**	**0**	**0**	**6**
Arizona	0	6	0	1	0	0	5
Colorado	0	68	0	2	0	0	27
Idaho	0	0	0	10	0	0	14
Montana	0	1,042	0	33	0	0	13
Nevada	0	0	0	1	0	0	0
New Mexico	0	27	0	4	0	0	88
Utah	0	1	0	4	0	0	39
Wyoming	3	1	0	22	0	0	40
Pacific Contiguous	**0**	**22**	**0**	**2**	**0**	**0**	**2**
California	0	25	0	3	0	0	3
Oregon	0	0	0	5	0	0	7
Washington	0	660	0	5	0	0	1
Pacific Noncontiguous	**55**	**1**	**0**	**13**	**0**	**0**	**34**
Alaska	55	4	0	13	0	0	34
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, July 2019 (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**	**24**	**11**	**0**	**0**	**11**
Connecticut	0	0	0	0	0	0	0	17
Maine	0	0	0	0	0	0	0	0
Massachusetts	0	0	0	32	38	0	0	31
New Hampshire	0	0	0	0	0	0	0	8
Rhode Island	0	0	0	0	0	0	0	0
Vermont	0	0	0	33	17	0	0	13
Middle Atlantic	**0**	**0**	**0**	**24**	**24**	**0**	**0**	**2**
New Jersey	0	0	0	24	24	0	0	19
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**	**15**	**11**	**0**	**29**	**1**
Illinois	0	0	0	70	54	0	0	9
Indiana	0	0	0	22	20	0	0	1
Michigan	0	0	0	20	16	0	0	1
Ohio	0	0	0	77	89	0	0	6
Wisconsin	0	0	0	0	19	0	30	2
West North Central	**0**	**0**	**0**	**52**	**5**	**0**	**9**	**1**
Iowa	0	0	0	84	5	0	0	2
Kansas	0	0	0	221	10	0	0	2
Minnesota	0	0	0	146	15	0	0	3
Missouri	0	0	0	0	64	0	0	1
Nebraska	0	0	0	146	38	0	0	3
North Dakota	0	0	0	0	15	0	35	2
South Dakota	0	0	0	0	34	0	0	9
South Atlantic	**0**	**0**	**0**	**2**	**3**	**0**	**0**	**0**
Delaware	0	0	0	84	84	0	0	4
Florida	0	0	0	2	1	0	0	1
Georgia	0	0	0	9	9	0	0	1
Maryland	0	0	0	73	73	0	0	0
North Carolina	0	0	0	9	9	0	0	1
South Carolina	0	0	0	134	14	0	0	1
Virginia	0	0	0	18	11	0	0	1
West Virginia	0	0	0	0	0	0	0	0
East South Central	**0**	**0**	**0**	**30**	**30**	**0**	**0**	**1**
Alabama	0	0	0	52	52	0	0	1
Kentucky	0	0	0	36	36	0	0	1
Mississippi	0	0	0	0	0	0	0	1
Tennessee	0	0	0	175	175	0	0	1
West South Central	**0**	**0**	**0**	**35**	**12**	**0**	**0**	**1**
Arkansas	0	0	0	161	161	0	0	2
Louisiana	0	0	0	131	131	0	0	1
Oklahoma	0	0	0	38	12	0	0	2
Texas	0	0	0	128	41	0	0	2
Mountain	**0**	**10**	**0**	**7**	**6**	**0**	**22**	**1**
Arizona	0	0	0	8	8	0	0	1
Colorado	0	0	0	132	4	0	0	1
Idaho	0	0	0	0	63	0	0	10
Montana	0	0	0	0	58	0	0	12
Nevada	0	0	0	0	0	0	0	1
New Mexico	0	0	0	13	13	0	0	2
Utah	0	10	0	0	10	0	33	1
Wyoming	0	0	0	0	21	0	0	3
Pacific Contiguous	**0**	**0**	**0**	**10**	**5**	**0**	**0**	**1**
California	0	0	0	10	5	0	0	2
Oregon	0	0	0	88	6	0	0	4
Washington	0	0	0	0	10	0	0	1
Pacific Noncontiguous	**0**	**0**	**0**	**0**	**41**	**0**	**0**	**6**
Alaska	0	0	0	0	81	0	0	11
Hawaii	0	0	0	0	0	0	0	1
U.S. Total	**0**	**3**	**0**	**2**	**3**	**0**	**5**	**0**

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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 July 2019

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**0**	**19**	**0**	**44**	**0**	**0**	**14**
Connecticut	0	26	0	0	0	0	71
Maine	0	0	0	0	0	0	0
Massachusetts	0	54	0	49	0	0	31
New Hampshire	0	7	0	0	0	0	25
Rhode Island	0	0	0	0	0	0	0
Vermont	0	83	0	0	0	0	21
Middle Atlantic	**0**	**13**	**0**	**4**	**0**	**0**	**1**
New Jersey	0	0	0	53	0	0	0
New York	0	13	0	4	0	0	1
Pennsylvania	0	0	0	0	0	0	0
East North Central	**1**	**5**	**0**	**3**	**0**	**0**	**18**
Illinois	0	34	0	16	0	0	37
Indiana	1	3	0	6	0	0	26
Michigan	2	5	0	5	0	0	35
Ohio	11	30	0	7	0	0	27
Wisconsin	0	37	0	4	0	0	28
West North Central	**1**	**13**	**0**	**6**	**0**	**0**	**12**
Iowa	3	29	0	6	0	0	46
Kansas	0	14	0	16	0	0	0
Minnesota	4	78	0	7	0	0	48
Missouri	0	6	0	14	0	0	12
Nebraska	4	192	0	19	0	0	35
North Dakota	0	19	0	24	0	0	27
South Dakota	0	34	0	21	0	0	18
South Atlantic	**0**	**7**	**0**	**1**	**0**	**0**	**5**
Delaware	0	0	0	0	0	0	0
Florida	0	4	0	1	0	0	31
Georgia	0	45	0	3	0	0	7
Maryland	0	34	0	0	0	0	0
North Carolina	0	17	0	2	0	0	7
South Carolina	0	28	0	2	0	0	10
Virginia	0	22	0	2	0	0	11
West Virginia	0	0	0	0	0	0	17
East South Central	**0**	**1**	**0**	**1**	**0**	**0**	**3**
Alabama	0	11	0	4	0	0	5
Kentucky	0	0	0	4	0	0	5
Mississippi	0	2	0	2	0	0	0
Tennessee	0	0	0	3	0	0	5
West South Central	**0**	**23**	**0**	**2**	**0**	**0**	**6**
Arkansas	0	23	0	4	0	0	8
Louisiana	0	221	0	2	0	0	0
Oklahoma	0	2	0	3	0	0	10
Texas	0	9	0	3	0	0	13
Mountain	**1**	**5**	**0**	**1**	**0**	**0**	**6**
Arizona	0	6	0	1	0	0	5
Colorado	0	68	0	2	0	0	27
Idaho	0	0	0	10	0	0	14
Montana	0	1,042	0	33	0	0	13
Nevada	0	0	0	1	0	0	0
New Mexico	0	27	0	4	0	0	88
Utah	0	1	0	4	0	0	39
Wyoming	3	1	0	22	0	0	40
Pacific Contiguous	**0**	**22**	**0**	**2**	**0**	**0**	**2**
California	0	25	0	3	0	0	3
Oregon	0	0	0	5	0	0	7
Washington	0	660	0	5	0	0	1
Pacific Noncontiguous	**55**	**1**	**0**	**13**	**0**	**0**	**34**
Alaska	55	4	0	13	0	0	34
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.B. Relative Standard Error (Percent) for Net Generation by Fuel Type:

Electric Utilities by Census Division and State, Year-to-Date through July 2019 (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**	**24**	**11**	**0**	**0**	**11**
Connecticut	0	0	0	0	0	0	0	17
Maine	0	0	0	0	0	0	0	0
Massachusetts	0	0	0	32	38	0	0	31
New Hampshire	0	0	0	0	0	0	0	8
Rhode Island	0	0	0	0	0	0	0	0
Vermont	0	0	0	33	17	0	0	13
Middle Atlantic	**0**	**0**	**0**	**24**	**24**	**0**	**0**	**2**
New Jersey	0	0	0	24	24	0	0	19
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**	**15**	**11**	**0**	**29**	**1**
Illinois	0	0	0	70	54	0	0	9
Indiana	0	0	0	22	20	0	0	1
Michigan	0	0	0	20	16	0	0	1
Ohio	0	0	0	77	89	0	0	6
Wisconsin	0	0	0	0	19	0	30	2
West North Central	**0**	**0**	**0**	**52**	**5**	**0**	**9**	**1**
Iowa	0	0	0	84	5	0	0	2
Kansas	0	0	0	221	10	0	0	2
Minnesota	0	0	0	146	15	0	0	3
Missouri	0	0	0	0	64	0	0	1
Nebraska	0	0	0	146	38	0	0	3
North Dakota	0	0	0	0	15	0	35	2
South Dakota	0	0	0	0	34	0	0	9
South Atlantic	**0**	**0**	**0**	**2**	**3**	**0**	**0**	**0**
Delaware	0	0	0	84	84	0	0	4
Florida	0	0	0	2	1	0	0	1
Georgia	0	0	0	9	9	0	0	1
Maryland	0	0	0	73	73	0	0	0
North Carolina	0	0	0	9	9	0	0	1
South Carolina	0	0	0	134	14	0	0	1
Virginia	0	0	0	18	11	0	0	1
West Virginia	0	0	0	0	0	0	0	0
East South Central	**0**	**0**	**0**	**30**	**30**	**0**	**0**	**1**
Alabama	0	0	0	52	52	0	0	1
Kentucky	0	0	0	36	36	0	0	1
Mississippi	0	0	0	0	0	0	0	1
Tennessee	0	0	0	175	175	0	0	1
West South Central	**0**	**0**	**0**	**35**	**12**	**0**	**0**	**1**
Arkansas	0	0	0	161	161	0	0	2
Louisiana	0	0	0	131	131	0	0	1
Oklahoma	0	0	0	38	12	0	0	2
Texas	0	0	0	128	41	0	0	2
Mountain	**0**	**10**	**0**	**7**	**6**	**0**	**22**	**1**
Arizona	0	0	0	8	8	0	0	1
Colorado	0	0	0	132	4	0	0	1
Idaho	0	0	0	0	63	0	0	10
Montana	0	0	0	0	58	0	0	12
Nevada	0	0	0	0	0	0	0	1
New Mexico	0	0	0	13	13	0	0	2
Utah	0	10	0	0	10	0	33	1
Wyoming	0	0	0	0	21	0	0	3
Pacific Contiguous	**0**	**0**	**0**	**10**	**5**	**0**	**0**	**1**
California	0	0	0	10	5	0	0	2
Oregon	0	0	0	88	6	0	0	4
Washington	0	0	0	0	10	0	0	1
Pacific Noncontiguous	**0**	**0**	**0**	**0**	**41**	**0**	**0**	**6**
Alaska	0	0	0	0	81	0	0	11
Hawaii	0	0	0	0	0	0	0	1
U.S. Total	**0**	**3**	**0**	**2**	**3**	**0**	**5**	**0**

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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, July 2019

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**0**	**8**	**0**	**2**	**0**	**0**	**6**
Connecticut	0	29	0	2	0	0	25
Maine	0	2	0	21	0	0	9
Massachusetts	0	3	0	4	0	0	18
New Hampshire	0	538	0	0	0	0	14
Rhode Island	0	96	0	9	0	0	0
Vermont	0	0	0	0	0	0	16
Middle Atlantic	**3**	**6**	**0**	**1**	**0**	**0**	**6**
New Jersey	0	53	0	2	0	0	0
New York	0	9	0	2	0	0	7
Pennsylvania	3	8	0	1	0	0	9
East North Central	**0**	**6**	**152**	**2**	**6**	**0**	**51**
Illinois	0	10	0	6	0	0	34
Indiana	0	0	0	0	0	0	0
Michigan	0	0	0	1	0	0	113
Ohio	0	7	152	2	23	0	88
Wisconsin	0	0	0	0	0	0	116
West North Central	**0**	**172**	**0**	**7**	**0**	**0**	**84**
Iowa	0	72	0	873	0	0	0
Kansas	0	0	0	0	0	0	0
Minnesota	0	345	0	16	0	0	88
Missouri	0	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0	0
South Atlantic	**3**	**8**	**0**	**2**	**0**	**0**	**5**
Delaware	0	49	0	6	0	0	0
Florida	0	93	0	7	0	0	0
Georgia	0	849	0	7	0	0	287
Maryland	0	5	0	5	0	0	1
North Carolina	0	174	0	6	0	0	47
South Carolina	0	0	0	22	0	0	60
Virginia	0	9	0	2	0	0	52
West Virginia	5	0	0	17	0	0	23
East South Central	**0**	**90**	**0**	**0**	**0**	**0**	**143**
Alabama	0	157	0	0	0	0	0
Kentucky	0	0	0	0	0	0	143
Mississippi	0	0	0	0	0	0	0
Tennessee	0	0	0	0	0	0	0
West South Central	**0**	**10**	**0**	**1**	**0**	**0**	**14**
Arkansas	0	0	0	0	0	0	53
Louisiana	0	0	0	6	0	0	15
Oklahoma	0	0	0	0	0	0	0
Texas	0	108	0	1	0	0	0
Mountain	**4**	**16**	**0**	**3**	**0**	**0**	**33**
Arizona	0	0	0	0	0	0	0
Colorado	0	0	0	12	0	0	64
Idaho	0	0	0	19	0	0	44
Montana	5	22	0	11	0	0	110
Nevada	0	0	0	0	0	0	91
New Mexico	0	0	0	16	0	0	0
Utah	0	0	0	0	0	0	0
Wyoming	0	0	0	0	0	0	0
Pacific Contiguous	**0**	**11**	**0**	**2**	**0**	**0**	**19**
California	0	0	0	3	0	0	21
Oregon	0	0	0	1	0	0	76
Washington	0	13	0	5	0	0	67
Pacific Noncontiguous	**8**	**0**	**0**	**0**	**0**	**0**	**0**
Alaska	63	0	0	0	0	0	0
Hawaii	0	0	0	0	0	0	0
U.S. Total	**1**	**2**	**73**	**1**	**4**	**0**	**5**

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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, July 2019 (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**	**7**	**6**	**0**	**1**	**1**
Connecticut	0	0	0	24	9	0	0	1
Maine	0	0	0	93	11	0	0	7
Massachusetts	0	0	0	8	6	0	2	3
New Hampshire	0	0	0	0	15	0	0	1
Rhode Island	0	0	0	38	14	0	0	9
Vermont	0	0	0	25	22	0	0	13
Middle Atlantic	**0**	**0**	**0**	**7**	**5**	**0**	**0**	**1**
New Jersey	0	0	0	8	6	0	0	1
New York	0	0	0	12	7	0	0	1
Pennsylvania	0	0	0	30	9	0	0	1
East North Central	**0**	**0**	**0**	**12**	**5**	**0**	**21**	**1**
Illinois	0	0	0	22	6	0	0	1
Indiana	0	0	0	16	10	0	0	2
Michigan	0	0	0	37	10	0	26	1
Ohio	0	0	0	24	8	0	0	1
Wisconsin	0	0	0	49	15	0	0	2
West North Central	**0**	**0**	**0**	**7**	**4**	**0**	**0**	**3**
Iowa	0	0	0	105	10	0	0	5
Kansas	0	0	0	101	3	0	0	3
Minnesota	0	0	0	7	8	0	0	7
Missouri	0	0	0	27	10	0	0	4
Nebraska	0	0	0	49	7	0	0	7
North Dakota	0	0	0	0	9	0	0	9
South Dakota	0	0	0	143	21	0	0	21
South Atlantic	**0**	**0**	**0**	**2**	**2**	**0**	**1**	**1**
Delaware	0	0	0	34	40	0	0	5
District of Columbia	0	0	0	84	84	0	0	84
Florida	0	0	0	9	4	0	1	5
Georgia	0	0	0	4	4	0	0	6
Maryland	0	0	0	9	11	0	0	1
North Carolina	0	0	0	3	2	0	0	3
South Carolina	0	0	0	9	9	0	0	9
Virginia	0	0	0	9	8	0	0	2
West Virginia	0	0	0	0	20	0	0	5
East South Central	**0**	**0**	**0**	**6**	**8**	**0**	**0**	**0**
Alabama	0	0	0	9	12	0	0	0
Kentucky	0	0	0	211	95	0	0	2
Mississippi	0	0	0	3	6	0	0	0
Tennessee	0	0	0	13	18	0	0	17
West South Central	**0**	**0**	**0**	**2**	**2**	**0**	**0**	**1**
Arkansas	0	0	0	6	14	0	0	1
Louisiana	0	0	0	0	59	0	0	6
Oklahoma	0	0	0	0	3	0	0	1
Texas	0	0	0	2	2	0	0	1
Mountain	**0**	**4**	**0**	**2**	**2**	**0**	**0**	**2**
Arizona	0	0	0	2	3	0	0	1
Colorado	0	0	0	6	4	0	0	4
Idaho	0	16	0	10	12	0	0	11
Montana	0	0	0	54	19	0	0	5
Nevada	0	4	0	2	2	0	0	2
New Mexico	0	0	0	7	4	0	0	5
Utah	0	10	0	4	5	0	0	4
Wyoming	0	0	0	0	16	0	0	11
Pacific Contiguous	**0**	**2**	**0**	**1**	**2**	**0**	**0**	**1**
California	0	2	0	1	2	0	0	2
Oregon	0	11	0	10	7	0	0	3
Washington	0	0	0	50	14	0	0	3
Pacific Noncontiguous	**0**	**9**	**0**	**14**	**13**	**0**	**0**	**4**
Alaska	0	0	0	0	115	0	0	56
Hawaii	0	9	0	14	13	0	0	4
U.S. Total	**0**	**2**	**0**	**1**	**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.3.B. Relative Standard Error (Percent) for Net Generation by Fuel Type:

Independent Power Producers by Census Division and State, Year-to-Date through July 2019

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**0**	**8**	**0**	**2**	**0**	**0**	**6**
Connecticut	0	29	0	2	0	0	25
Maine	0	2	0	21	0	0	9
Massachusetts	0	3	0	4	0	0	18
New Hampshire	0	538	0	0	0	0	14
Rhode Island	0	96	0	9	0	0	0
Vermont	0	0	0	0	0	0	16
Middle Atlantic	**3**	**6**	**0**	**1**	**0**	**0**	**6**
New Jersey	0	53	0	2	0	0	0
New York	0	9	0	2	0	0	7
Pennsylvania	3	8	0	1	0	0	9
East North Central	**0**	**6**	**152**	**2**	**6**	**0**	**51**
Illinois	0	10	0	6	0	0	34
Indiana	0	0	0	0	0	0	0
Michigan	0	0	0	1	0	0	113
Ohio	0	7	152	2	23	0	88
Wisconsin	0	0	0	0	0	0	116
West North Central	**0**	**172**	**0**	**7**	**0**	**0**	**84**
Iowa	0	72	0	873	0	0	0
Kansas	0	0	0	0	0	0	0
Minnesota	0	345	0	16	0	0	88
Missouri	0	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0	0
South Atlantic	**3**	**8**	**0**	**2**	**0**	**0**	**5**
Delaware	0	49	0	6	0	0	0
Florida	0	93	0	7	0	0	0
Georgia	0	849	0	7	0	0	287
Maryland	0	5	0	5	0	0	1
North Carolina	0	174	0	6	0	0	47
South Carolina	0	0	0	22	0	0	60
Virginia	0	9	0	2	0	0	52
West Virginia	5	0	0	17	0	0	23
East South Central	**0**	**90**	**0**	**0**	**0**	**0**	**143**
Alabama	0	157	0	0	0	0	0
Kentucky	0	0	0	0	0	0	143
Mississippi	0	0	0	0	0	0	0
Tennessee	0	0	0	0	0	0	0
West South Central	**0**	**10**	**0**	**1**	**0**	**0**	**14**
Arkansas	0	0	0	0	0	0	53
Louisiana	0	0	0	6	0	0	15
Oklahoma	0	0	0	0	0	0	0
Texas	0	108	0	1	0	0	0
Mountain	**4**	**16**	**0**	**3**	**0**	**0**	**33**
Arizona	0	0	0	0	0	0	0
Colorado	0	0	0	12	0	0	64
Idaho	0	0	0	19	0	0	44
Montana	5	22	0	11	0	0	110
Nevada	0	0	0	0	0	0	91
New Mexico	0	0	0	16	0	0	0
Utah	0	0	0	0	0	0	0
Wyoming	0	0	0	0	0	0	0
Pacific Contiguous	**0**	**11**	**0**	**2**	**0**	**0**	**19**
California	0	0	0	3	0	0	21
Oregon	0	0	0	1	0	0	76
Washington	0	13	0	5	0	0	67
Pacific Noncontiguous	**8**	**0**	**0**	**0**	**0**	**0**	**0**
Alaska	63	0	0	0	0	0	0
Hawaii	0	0	0	0	0	0	0
U.S. Total	**1**	**2**	**73**	**1**	**4**	**0**	**5**

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 July 2019 (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**	**7**	**6**	**0**	**1**	**1**
Connecticut	0	0	0	24	9	0	0	1
Maine	0	0	0	93	11	0	0	7
Massachusetts	0	0	0	8	6	0	2	3
New Hampshire	0	0	0	0	15	0	0	1
Rhode Island	0	0	0	38	14	0	0	9
Vermont	0	0	0	25	22	0	0	13
Middle Atlantic	**0**	**0**	**0**	**7**	**5**	**0**	**0**	**1**
New Jersey	0	0	0	8	6	0	0	1
New York	0	0	0	12	7	0	0	1
Pennsylvania	0	0	0	30	9	0	0	1
East North Central	**0**	**0**	**0**	**12**	**5**	**0**	**21**	**1**
Illinois	0	0	0	22	6	0	0	1
Indiana	0	0	0	16	10	0	0	2
Michigan	0	0	0	37	10	0	26	1
Ohio	0	0	0	24	8	0	0	1
Wisconsin	0	0	0	49	15	0	0	2
West North Central	**0**	**0**	**0**	**7**	**4**	**0**	**0**	**3**
Iowa	0	0	0	105	10	0	0	5
Kansas	0	0	0	101	3	0	0	3
Minnesota	0	0	0	7	8	0	0	7
Missouri	0	0	0	27	10	0	0	4
Nebraska	0	0	0	49	7	0	0	7
North Dakota	0	0	0	0	9	0	0	9
South Dakota	0	0	0	143	21	0	0	21
South Atlantic	**0**	**0**	**0**	**2**	**2**	**0**	**1**	**1**
Delaware	0	0	0	34	40	0	0	5
District of Columbia	0	0	0	84	84	0	0	84
Florida	0	0	0	9	4	0	1	5
Georgia	0	0	0	4	4	0	0	6
Maryland	0	0	0	9	11	0	0	1
North Carolina	0	0	0	3	2	0	0	3
South Carolina	0	0	0	9	9	0	0	9
Virginia	0	0	0	9	8	0	0	2
West Virginia	0	0	0	0	20	0	0	5
East South Central	**0**	**0**	**0**	**6**	**8**	**0**	**0**	**0**
Alabama	0	0	0	9	12	0	0	0
Kentucky	0	0	0	211	95	0	0	2
Mississippi	0	0	0	3	6	0	0	0
Tennessee	0	0	0	13	18	0	0	17
West South Central	**0**	**0**	**0**	**2**	**2**	**0**	**0**	**1**
Arkansas	0	0	0	6	14	0	0	1
Louisiana	0	0	0	0	59	0	0	6
Oklahoma	0	0	0	0	3	0	0	1
Texas	0	0	0	2	2	0	0	1
Mountain	**0**	**4**	**0**	**2**	**2**	**0**	**0**	**2**
Arizona	0	0	0	2	3	0	0	1
Colorado	0	0	0	6	4	0	0	4
Idaho	0	16	0	10	12	0	0	11
Montana	0	0	0	54	19	0	0	5
Nevada	0	4	0	2	2	0	0	2
New Mexico	0	0	0	7	4	0	0	5
Utah	0	10	0	4	5	0	0	4
Wyoming	0	0	0	0	16	0	0	11
Pacific Contiguous	**0**	**2**	**0**	**1**	**2**	**0**	**0**	**1**
California	0	2	0	1	2	0	0	2
Oregon	0	11	0	10	7	0	0	3
Washington	0	0	0	50	14	0	0	3
Pacific Noncontiguous	**0**	**9**	**0**	**14**	**13**	**0**	**0**	**4**
Alaska	0	0	0	0	115	0	0	56
Hawaii	0	9	0	14	13	0	0	4
U.S. Total	**0**	**2**	**0**	**1**	**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.4.A. Relative Standard Error for Net Generation by Fuel Type: Commercial Sector by Census Division and State, July 2019

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**0**	**28**	**0**	**11**	**0**	**0**	**0**
Connecticut	0	2,020	0	16	0	0	0
Maine	0	0	0	0	0	0	0
Massachusetts	0	49	0	18	0	0	0
New Hampshire	0	4	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**	**45**	**0**	**11**	**0**	**0**	**0**
New Jersey	0	0	0	23	0	0	0
New York	0	82	0	14	0	0	0
Pennsylvania	0	0	0	0	0	0	0
East North Central	**64**	**6**	**0**	**6**	**0**	**0**	**0**
Illinois	118	16	0	15	0	0	0
Indiana	0	0	0	0	0	0	0
Michigan	0	18	0	8	0	0	0
Ohio	0	0	0	0	0	0	0
Wisconsin	0	0	0	15	0	0	0
West North Central	**0**	**16**	**0**	**0**	**0**	**0**	**0**
Iowa	0	0	0	0	0	0	0
Minnesota	0	15	0	0	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	7,083	0	0	0	0	0
South Atlantic	**0**	**6**	**0**	**5**	**0**	**0**	**0**
District of Columbia	0	0	0	0	0	0	0
Florida	0	0	0	0	0	0	0
Georgia	0	6	0	0	0	0	0
Maryland	0	189	0	3	0	0	0
North Carolina	0	427	0	73	0	0	0
South Carolina	0	91	0	0	0	0	0
Virginia	0	0	0	0	0	0	0
East South Central	**0**	**0**	**0**	**21**	**0**	**0**	**0**
Mississippi	0	0	0	0	0	0	0
Tennessee	0	0	0	21	0	0	0
West South Central	**0**	**0**	**0**	**16**	**0**	**0**	**269**
Arkansas	0	0	0	107	0	0	0
Louisiana	0	0	0	25	0	0	0
Oklahoma	0	0	0	0	0	0	0
Texas	0	0	0	19	0	0	269
Mountain	**0**	**638**	**0**	**11**	**0**	**0**	**0**
Arizona	0	638	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	40	0	0	0
Utah	0	0	0	0	0	0	0
Pacific Contiguous	**0**	**129**	**0**	**3**	**0**	**0**	**330**
California	0	75	0	3	0	0	330
Oregon	0	1,490	0	28	0	0	0
Washington	0	0	0	0	0	0	0
Pacific Noncontiguous	**90**	**14**	**0**	**0**	**0**	**0**	**98**
Alaska	90	67	0	0	0	0	98
Hawaii	0	0	0	0	0	0	0
U.S. Total	**41**	**9**	**0**	**3**	**0**	**0**	**70**

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, July 2019 (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**	**11**	**0**	**0**	**9**
Connecticut	0	0	0	288	288	0	0	16
Maine	0	0	0	0	0	0	0	0
Massachusetts	0	0	0	97	31	0	0	16
New Hampshire	0	0	0	0	0	0	0	1
Rhode Island	0	0	0	0	0	0	0	0
Vermont	0	0	0	0	0	0	0	0
Middle Atlantic	**0**	**0**	**0**	**18**	**5**	**0**	**4**	**6**
New Jersey	0	0	0	19	9	0	0	7
New York	0	0	0	72	7	0	8	9
Pennsylvania	0	0	0	95	7	0	0	3
East North Central	**0**	**0**	**0**	**78**	**20**	**0**	**0**	**6**
Illinois	0	0	0	156	180	0	0	17
Indiana	0	0	0	0	0	0	0	0
Michigan	0	0	0	221	9	0	0	7
Ohio	0	0	0	124	35	0	0	1
Wisconsin	0	0	0	128	43	0	0	20
West North Central	**0**	**0**	**0**	**0**	**16**	**0**	**33**	**6**
Iowa	0	0	0	0	24	0	0	4
Kansas	0	0	0	0	178	0	0	178
Minnesota	0	0	0	0	26	0	33	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	440	0	0	440
South Dakota	0	0	0	0	0	0	0	7,083
South Atlantic	**0**	**0**	**0**	**19**	**7**	**0**	**0**	**4**
Delaware	0	0	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	0	0
Florida	0	0	0	107	30	0	0	22
Georgia	0	0	0	136	136	0	0	31
Maryland	0	0	0	73	32	0	0	3
North Carolina	0	0	0	19	19	0	0	26
South Carolina	0	0	0	0	0	0	0	8
Virginia	0	0	0	194	6	0	0	3
East South Central	**0**	**0**	**0**	**107**	**107**	**0**	**0**	**20**
Mississippi	0	0	0	0	0	0	0	0
Tennessee	0	0	0	107	107	0	0	20
West South Central	**0**	**0**	**0**	**128**	**33**	**0**	**0**	**16**
Arkansas	0	0	0	0	0	0	0	99
Louisiana	0	0	0	0	0	0	0	25
Oklahoma	0	0	0	0	0	0	0	0
Texas	0	0	0	128	34	0	0	18
Mountain	**0**	**0**	**0**	**23**	**6**	**0**	**0**	**5**
Arizona	0	0	0	69	69	0	0	8
Colorado	0	0	0	64	83	0	0	49
Idaho	0	0	0	0	0	0	0	0
Nevada	0	0	0	26	4	0	0	3
New Mexico	0	0	0	0	316	0	0	40
Utah	0	0	0	0	0	0	0	0
Pacific Contiguous	**0**	**0**	**0**	**19**	**7**	**0**	**0**	**3**
California	0	0	0	19	7	0	0	3
Oregon	0	0	0	0	32	0	0	21
Washington	0	0	0	0	84	0	0	80
Pacific Noncontiguous	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**21**
Alaska	0	0	0	0	0	0	0	59
Hawaii	0	0	0	0	0	0	0	0
U.S. Total	**0**	**0**	**0**	**10**	**3**	**0**	**2**	**3**

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

Commercial Sector by Census Division and State, Year-to-Date through July 2019

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**0**	**28**	**0**	**11**	**0**	**0**	**0**
Connecticut	0	2,020	0	16	0	0	0
Maine	0	0	0	0	0	0	0
Massachusetts	0	49	0	18	0	0	0
New Hampshire	0	4	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**	**45**	**0**	**11**	**0**	**0**	**0**
New Jersey	0	0	0	23	0	0	0
New York	0	82	0	14	0	0	0
Pennsylvania	0	0	0	0	0	0	0
East North Central	**64**	**6**	**0**	**6**	**0**	**0**	**0**
Illinois	118	16	0	15	0	0	0
Indiana	0	0	0	0	0	0	0
Michigan	0	18	0	8	0	0	0
Ohio	0	0	0	0	0	0	0
Wisconsin	0	0	0	15	0	0	0
West North Central	**0**	**16**	**0**	**0**	**0**	**0**	**0**
Iowa	0	0	0	0	0	0	0
Minnesota	0	15	0	0	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	7,083	0	0	0	0	0
South Atlantic	**0**	**6**	**0**	**5**	**0**	**0**	**0**
District of Columbia	0	0	0	0	0	0	0
Florida	0	0	0	0	0	0	0
Georgia	0	6	0	0	0	0	0
Maryland	0	189	0	3	0	0	0
North Carolina	0	427	0	73	0	0	0
South Carolina	0	91	0	0	0	0	0
Virginia	0	0	0	0	0	0	0
East South Central	**0**	**0**	**0**	**21**	**0**	**0**	**0**
Mississippi	0	0	0	0	0	0	0
Tennessee	0	0	0	21	0	0	0
West South Central	**0**	**0**	**0**	**16**	**0**	**0**	**269**
Arkansas	0	0	0	107	0	0	0
Louisiana	0	0	0	25	0	0	0
Oklahoma	0	0	0	0	0	0	0
Texas	0	0	0	19	0	0	269
Mountain	**0**	**638**	**0**	**11**	**0**	**0**	**0**
Arizona	0	638	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	40	0	0	0
Utah	0	0	0	0	0	0	0
Pacific Contiguous	**0**	**129**	**0**	**3**	**0**	**0**	**330**
California	0	75	0	3	0	0	330
Oregon	0	1,490	0	28	0	0	0
Washington	0	0	0	0	0	0	0
Pacific Noncontiguous	**90**	**14**	**0**	**0**	**0**	**0**	**98**
Alaska	90	67	0	0	0	0	98
Hawaii	0	0	0	0	0	0	0
U.S. Total	**41**	**9**	**0**	**3**	**0**	**0**	**70**

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 July 2019 (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**	**11**	**0**	**0**	**9**
Connecticut	0	0	0	288	288	0	0	16
Maine	0	0	0	0	0	0	0	0
Massachusetts	0	0	0	97	31	0	0	16
New Hampshire	0	0	0	0	0	0	0	1
Rhode Island	0	0	0	0	0	0	0	0
Vermont	0	0	0	0	0	0	0	0
Middle Atlantic	**0**	**0**	**0**	**18**	**5**	**0**	**4**	**6**
New Jersey	0	0	0	19	9	0	0	7
New York	0	0	0	72	7	0	8	9
Pennsylvania	0	0	0	95	7	0	0	3
East North Central	**0**	**0**	**0**	**78**	**20**	**0**	**0**	**6**
Illinois	0	0	0	156	180	0	0	17
Indiana	0	0	0	0	0	0	0	0
Michigan	0	0	0	221	9	0	0	7
Ohio	0	0	0	124	35	0	0	1
Wisconsin	0	0	0	128	43	0	0	20
West North Central	**0**	**0**	**0**	**0**	**16**	**0**	**33**	**6**
Iowa	0	0	0	0	24	0	0	4
Kansas	0	0	0	0	178	0	0	178
Minnesota	0	0	0	0	26	0	33	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	440	0	0	440
South Dakota	0	0	0	0	0	0	0	7,083
South Atlantic	**0**	**0**	**0**	**19**	**7**	**0**	**0**	**4**
Delaware	0	0	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	0	0
Florida	0	0	0	107	30	0	0	22
Georgia	0	0	0	136	136	0	0	31
Maryland	0	0	0	73	32	0	0	3
North Carolina	0	0	0	19	19	0	0	26
South Carolina	0	0	0	0	0	0	0	8
Virginia	0	0	0	194	6	0	0	3
East South Central	**0**	**0**	**0**	**107**	**107**	**0**	**0**	**20**
Mississippi	0	0	0	0	0	0	0	0
Tennessee	0	0	0	107	107	0	0	20
West South Central	**0**	**0**	**0**	**128**	**33**	**0**	**0**	**16**
Arkansas	0	0	0	0	0	0	0	99
Louisiana	0	0	0	0	0	0	0	25
Oklahoma	0	0	0	0	0	0	0	0
Texas	0	0	0	128	34	0	0	18
Mountain	**0**	**0**	**0**	**23**	**6**	**0**	**0**	**5**
Arizona	0	0	0	69	69	0	0	8
Colorado	0	0	0	64	83	0	0	49
Idaho	0	0	0	0	0	0	0	0
Nevada	0	0	0	26	4	0	0	3
New Mexico	0	0	0	0	316	0	0	40
Utah	0	0	0	0	0	0	0	0
Pacific Contiguous	**0**	**0**	**0**	**19**	**7**	**0**	**0**	**3**
California	0	0	0	19	7	0	0	3
Oregon	0	0	0	0	32	0	0	21
Washington	0	0	0	0	84	0	0	80
Pacific Noncontiguous	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**21**
Alaska	0	0	0	0	0	0	0	59
Hawaii	0	0	0	0	0	0	0	0
U.S. Total	**0**	**0**	**0**	**10**	**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, July 2019

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**166**	**55**	**0**	**9**	**0**	**0**	**44**
Connecticut	0	0	0	10	0	0	0
Maine	166	55	0	23	0	0	44
Massachusetts	0	0	0	8	0	0	0
New Hampshire	0	0	0	0	0	0	0
Rhode Island	0	0	0	33	0	0	0
Middle Atlantic	**47**	**23**	**143**	**7**	**19**	**0**	**23**
New Jersey	0	0	0	8	0	0	0
New York	0	8	0	6	0	0	23
Pennsylvania	47	33	245	10	28	0	0
East North Central	**11**	**51**	**0**	**6**	**11**	**0**	**66**
Illinois	11	0	0	13	0	0	0
Indiana	0	6	0	6	13	0	0
Michigan	106	81	0	18	0	0	261
Ohio	0	0	0	16	0	0	0
Wisconsin	40	408	0	18	0	0	68
West North Central	**5**	**0**	**0**	**10**	**0**	**0**	**0**
Iowa	3	0	0	11	0	0	0
Kansas	0	0	0	123	0	0	0
Minnesota	22	0	0	0	0	0	0
Missouri	0	0	0	0	0	0	0
Nebraska	12	0	0	0	0	0	0
North Dakota	85	0	0	0	0	0	0
South Atlantic	**26**	**33**	**142**	**4**	**0**	**0**	**21**
Delaware	0	0	0	0	0	0	0
Florida	86	84	0	11	0	0	0
Georgia	70	42	142	13	0	0	0
Maryland	0	0	0	0	0	0	0
North Carolina	0	74	0	29	0	0	479
South Carolina	0	0	0	0	0	0	0
Virginia	0	279	0	8	0	0	0
West Virginia	0	0	0	0	0	0	20
East South Central	**15**	**89**	**0**	**7**	**0**	**0**	**0**
Alabama	190	116	0	13	0	0	0
Kentucky	0	0	0	11	0	0	0
Mississippi	0	0	0	21	0	0	0
Tennessee	0	0	0	3	0	0	0
West South Central	**0**	**13**	**64**	**1**	**11**	**0**	**0**
Arkansas	0	0	0	15	0	0	0
Louisiana	0	0	0	2	16	0	0
Oklahoma	0	0	0	0	0	0	0
Texas	0	28	64	2	11	0	0
Mountain	**34**	**0**	**0**	**5**	**0**	**0**	**0**
Colorado	0	0	0	0	0	0	0
Idaho	175	0	0	38	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	34	0	0	14	0	0	0
Pacific Contiguous	**0**	**121**	**0**	**1**	**3**	**0**	**0**
California	0	0	0	1	3	0	0
Oregon	0	0	0	48	0	0	0
Washington	0	135	0	45	0	0	0
Pacific Noncontiguous	**0**	**2**	**0**	**0**	**0**	**0**	**116**
Alaska	0	11	0	0	0	0	0
Hawaii	0	0	0	0	0	0	116
U.S. Total	**6**	**7**	**31**	**1**	**6**	**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, July 2019 (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**	**21**	**11**	**0**	**0**	**6**
Connecticut	0	0	0	695	695	0	0	10
Maine	0	0	0	0	11	0	0	9
Massachusetts	0	0	0	0	200	0	0	10
New Hampshire	0	0	0	0	0	0	0	0
Rhode Island	0	0	0	0	0	0	0	33
Middle Atlantic	**0**	**0**	**0**	**59**	**11**	**0**	**0**	**7**
New Jersey	0	0	0	87	87	0	0	4
New York	0	0	0	0	25	0	0	7
Pennsylvania	0	0	0	79	12	0	0	11
East North Central	**0**	**0**	**0**	**0**	**9**	**0**	**0**	**4**
Illinois	0	0	0	0	0	0	0	7
Indiana	0	0	0	0	30	0	0	7
Michigan	0	0	0	0	14	0	0	10
Ohio	0	0	0	0	19	0	0	10
Wisconsin	0	0	0	0	15	0	0	13
West North Central	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**
Iowa	0	0	0	0	0	0	0	2
Kansas	0	0	0	0	0	0	0	98
Minnesota	0	0	0	0	0	0	0	9
Missouri	0	0	0	0	0	0	0	0
Nebraska	0	0	0	0	0	0	0	12
North Dakota	0	0	0	0	0	0	0	53
South Atlantic	**0**	**0**	**0**	**112**	**3**	**0**	**0**	**3**
Delaware	0	0	0	0	71	0	0	1
Florida	0	0	0	160	9	0	0	5
Georgia	0	0	0	0	6	0	0	8
Maryland	0	0	0	0	0	0	0	0
North Carolina	0	0	0	0	9	0	0	8
South Carolina	0	0	0	156	4	0	0	3
Virginia	0	0	0	0	0	0	0	3
West Virginia	0	0	0	0	0	0	0	8
East South Central	**0**	**0**	**0**	**128**	**4**	**0**	**71**	**4**
Alabama	0	0	0	0	6	0	0	6
Kentucky	0	0	0	0	24	0	0	16
Mississippi	0	0	0	0	6	0	0	6
Tennessee	0	0	0	128	10	0	71	4
West South Central	**0**	**0**	**0**	**0**	**6**	**0**	**3**	**1**
Arkansas	0	0	0	0	8	0	0	7
Louisiana	0	0	0	0	8	0	0	2
Oklahoma	0	0	0	0	0	0	0	0
Texas	0	0	0	0	16	0	9	2
Mountain	**0**	**0**	**0**	**100**	**3**	**0**	**0**	**6**
Colorado	0	0	0	0	0	0	0	0
Idaho	0	0	0	156	3	0	0	11
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	17
Pacific Contiguous	**0**	**0**	**0**	**39**	**9**	**0**	**3**	**2**
California	0	0	0	39	14	0	3	1
Oregon	0	0	0	0	17	0	0	16
Washington	0	0	0	0	13	0	0	13
Pacific Noncontiguous	**0**	**0**	**0**	**0**	**256**	**0**	**0**	**14**
Alaska	0	0	0	0	256	0	0	5
Hawaii	0	0	0	0	0	0	0	21
U.S. Total	**0**	**0**	**0**	**29**	**3**	**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 July 2019

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**166**	**55**	**0**	**9**	**0**	**0**	**44**
Connecticut	0	0	0	10	0	0	0
Maine	166	55	0	23	0	0	44
Massachusetts	0	0	0	8	0	0	0
New Hampshire	0	0	0	0	0	0	0
Rhode Island	0	0	0	33	0	0	0
Middle Atlantic	**47**	**23**	**143**	**7**	**19**	**0**	**23**
New Jersey	0	0	0	8	0	0	0
New York	0	8	0	6	0	0	23
Pennsylvania	47	33	245	10	28	0	0
East North Central	**11**	**51**	**0**	**6**	**11**	**0**	**66**
Illinois	11	0	0	13	0	0	0
Indiana	0	6	0	6	13	0	0
Michigan	106	81	0	18	0	0	261
Ohio	0	0	0	16	0	0	0
Wisconsin	40	408	0	18	0	0	68
West North Central	**5**	**0**	**0**	**10**	**0**	**0**	**0**
Iowa	3	0	0	11	0	0	0
Kansas	0	0	0	123	0	0	0
Minnesota	22	0	0	0	0	0	0
Missouri	0	0	0	0	0	0	0
Nebraska	12	0	0	0	0	0	0
North Dakota	85	0	0	0	0	0	0
South Atlantic	**26**	**33**	**142**	**4**	**0**	**0**	**21**
Delaware	0	0	0	0	0	0	0
Florida	86	84	0	11	0	0	0
Georgia	70	42	142	13	0	0	0
Maryland	0	0	0	0	0	0	0
North Carolina	0	74	0	29	0	0	479
South Carolina	0	0	0	0	0	0	0
Virginia	0	279	0	8	0	0	0
West Virginia	0	0	0	0	0	0	20
East South Central	**15**	**89**	**0**	**7**	**0**	**0**	**0**
Alabama	190	116	0	13	0	0	0
Kentucky	0	0	0	11	0	0	0
Mississippi	0	0	0	21	0	0	0
Tennessee	0	0	0	3	0	0	0
West South Central	**0**	**13**	**64**	**1**	**11**	**0**	**0**
Arkansas	0	0	0	15	0	0	0
Louisiana	0	0	0	2	16	0	0
Oklahoma	0	0	0	0	0	0	0
Texas	0	28	64	2	11	0	0
Mountain	**34**	**0**	**0**	**5**	**0**	**0**	**0**
Colorado	0	0	0	0	0	0	0
Idaho	175	0	0	38	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	34	0	0	14	0	0	0
Pacific Contiguous	**0**	**121**	**0**	**1**	**3**	**0**	**0**
California	0	0	0	1	3	0	0
Oregon	0	0	0	48	0	0	0
Washington	0	135	0	45	0	0	0
Pacific Noncontiguous	**0**	**2**	**0**	**0**	**0**	**0**	**116**
Alaska	0	11	0	0	0	0	0
Hawaii	0	0	0	0	0	0	116
U.S. Total	**6**	**7**	**31**	**1**	**6**	**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 July 2019 (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**	**21**	**11**	**0**	**0**	**6**
Connecticut	0	0	0	695	695	0	0	10
Maine	0	0	0	0	11	0	0	9
Massachusetts	0	0	0	0	200	0	0	10
New Hampshire	0	0	0	0	0	0	0	0
Rhode Island	0	0	0	0	0	0	0	33
Middle Atlantic	**0**	**0**	**0**	**59**	**11**	**0**	**0**	**7**
New Jersey	0	0	0	87	87	0	0	4
New York	0	0	0	0	25	0	0	7
Pennsylvania	0	0	0	79	12	0	0	11
East North Central	**0**	**0**	**0**	**0**	**9**	**0**	**0**	**4**
Illinois	0	0	0	0	0	0	0	7
Indiana	0	0	0	0	30	0	0	7
Michigan	0	0	0	0	14	0	0	10
Ohio	0	0	0	0	19	0	0	10
Wisconsin	0	0	0	0	15	0	0	13
West North Central	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**
Iowa	0	0	0	0	0	0	0	2
Kansas	0	0	0	0	0	0	0	98
Minnesota	0	0	0	0	0	0	0	9
Missouri	0	0	0	0	0	0	0	0
Nebraska	0	0	0	0	0	0	0	12
North Dakota	0	0	0	0	0	0	0	53
South Atlantic	**0**	**0**	**0**	**112**	**3**	**0**	**0**	**3**
Delaware	0	0	0	0	71	0	0	1
Florida	0	0	0	160	9	0	0	5
Georgia	0	0	0	0	6	0	0	8
Maryland	0	0	0	0	0	0	0	0
North Carolina	0	0	0	0	9	0	0	8
South Carolina	0	0	0	156	4	0	0	3
Virginia	0	0	0	0	0	0	0	3
West Virginia	0	0	0	0	0	0	0	8
East South Central	**0**	**0**	**0**	**128**	**4**	**0**	**71**	**4**
Alabama	0	0	0	0	6	0	0	6
Kentucky	0	0	0	0	24	0	0	16
Mississippi	0	0	0	0	6	0	0	6
Tennessee	0	0	0	128	10	0	71	4
West South Central	**0**	**0**	**0**	**0**	**6**	**0**	**3**	**1**
Arkansas	0	0	0	0	8	0	0	7
Louisiana	0	0	0	0	8	0	0	2
Oklahoma	0	0	0	0	0	0	0	0
Texas	0	0	0	0	16	0	9	2
Mountain	**0**	**0**	**0**	**100**	**3**	**0**	**0**	**6**
Colorado	0	0	0	0	0	0	0	0
Idaho	0	0	0	156	3	0	0	11
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	17
Pacific Contiguous	**0**	**0**	**0**	**39**	**9**	**0**	**3**	**2**
California	0	0	0	39	14	0	3	1
Oregon	0	0	0	0	17	0	0	16
Washington	0	0	0	0	13	0	0	13
Pacific Noncontiguous	**0**	**0**	**0**	**0**	**256**	**0**	**0**	**14**
Alaska	0	0	0	0	256	0	0	5
Hawaii	0	0	0	0	0	0	0	21
U.S. Total	**0**	**0**	**0**	**29**	**3**	**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, July 2019

Census Region and State	Residential	Commercial	Industrial	Transportation	Total
New England	**0**	**1**	**2**	**0**	**0**
Connecticut	0	1	3	0	1
Maine	1	1	2	0	1
Massachusetts	1	1	5	0	1
New Hampshire	1	1	2	0	1
Rhode Island	0	0	0	0	0
Vermont	4	7	7	0	4
Middle Atlantic	**0**	**0**	**0**	**0**	**0**
New Jersey	0	0	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	0
Indiana	1	3	2	0	1
Michigan	1	2	3	0	1
Ohio	1	1	1	0	0
Wisconsin	2	4	6	0	2
West North Central	**1**	**2**	**3**	**0**	**1**
Iowa	3	8	6	0	3
Kansas	2	2	7	0	2
Minnesota	2	5	8	0	3
Missouri	2	2	7	0	2
Nebraska	3	8	9	0	4
North Dakota	4	5	10	0	5
South Dakota	4	10	14	0	6
South Atlantic	**0**	**0**	**2**	**0**	**0**
Delaware	1	2	6	0	1
District of Columbia	0	0	0	0	0
Florida	1	1	6	0	1
Georgia	1	1	4	0	1
Maryland	0	0	2	0	0
North Carolina	1	1	3	0	1
South Carolina	1	1	3	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	2	4	3	0	2
Mississippi	2	2	5	0	2
Tennessee	1	3	5	0	2
West South Central	**1**	**1**	**1**	**0**	**1**
Arkansas	2	2	4	0	2
Louisiana	1	1	2	0	1
Oklahoma	1	1	4	0	1
Texas	1	1	2	0	1
Mountain	**1**	**2**	**2**	**0**	**1**
Arizona	1	2	4	0	1
Colorado	3	5	7	0	3
Idaho	2	5	3	0	2
Montana	5	9	5	0	4
Nevada	1	2	1	0	1
New Mexico	4	8	8	0	4
Utah	3	5	3	0	2
Wyoming	4	9	5	0	4
Pacific Contiguous	**1**	**1**	**3**	**0**	**1**
California	1	1	2	0	1
Oregon	3	5	9	0	3
Washington	2	5	8	0	3
Pacific Noncontiguous	**2**	**6**	**5**	**0**	**3**
Alaska	5	12	20	0	8
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 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 July 2019

Census Region and State	Residential	Commercial	Industrial	Transportation	Total
New England	**0**	**1**	**2**	**1**	**0**
Connecticut	0	1	3	3	1
Maine	0	1	2	0	1
Massachusetts	0	1	5	0	1
New Hampshire	0	1	3	0	1
Rhode Island	0	0	0	0	0
Vermont	2	6	6	0	3
Middle Atlantic	**0**	**0**	**0**	**0**	**0**
New Jersey	0	0	2	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	2	3	0	1
Ohio	0	1	1	0	0
Wisconsin	1	3	5	0	2
West North Central	**0**	**2**	**3**	**0**	**1**
Iowa	1	6	4	0	3
Kansas	1	1	5	0	2
Minnesota	1	4	6	0	2
Missouri	1	2	5	0	1
Nebraska	1	6	8	0	3
North Dakota	1	4	7	0	3
South Dakota	1	8	11	0	4
South Atlantic	**0**	**0**	**1**	**0**	**0**
Delaware	1	2	6	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	1	1	3	0	1
South Carolina	1	1	2	0	1
Virginia	0	0	3	0	1
West Virginia	0	1	0	0	0
East South Central	**0**	**1**	**1**	**0**	**1**
Alabama	1	1	2	0	1
Kentucky	1	3	2	0	1
Mississippi	1	1	4	0	1
Tennessee	1	3	4	0	1
West South Central	**1**	**1**	**1**	**0**	**0**
Arkansas	1	1	3	0	1
Louisiana	1	1	1	0	1
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	2
Montana	1	6	5	0	3
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	2	0	0
Oregon	1	4	7	0	2
Washington	1	4	6	0	2
Pacific Noncontiguous	**1**	**4**	**4**	**0**	**2**
Alaska	1	8	14	0	5
Hawaii	0	0	0	0	0
U.S. Total	**0**	**0**	**1**	**0**	**0**

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Table A.7.A. Relative Standard Error for Revenue from Sales of Electricity to Ultimate Customers by End-Use Sector, Census Division, and State, July 2019

Census Region and State	Residential	Commercial	Industrial	Transportation	Total
New England	**2**	**1**	**1**	**0**	**1**
Connecticut	5	1	1	0	3
Maine	1	1	2	0	1
Massachusetts	1	1	3	0	1
New Hampshire	1	1	2	0	1
Rhode Island	0	0	0	0	0
Vermont	4	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	1	0	0	0
East North Central	**0**	**1**	**1**	**0**	**0**
Illinois	1	1	1	0	1
Indiana	2	3	2	0	1
Michigan	1	1	4	0	1
Ohio	1	1	1	0	0
Wisconsin	1	3	7	0	2
West North Central	**1**	**2**	**4**	**0**	**1**
Iowa	2	5	6	0	3
Kansas	2	2	6	0	2
Minnesota	2	4	9	0	2
Missouri	1	3	5	0	1
Nebraska	2	7	10	0	4
North Dakota	3	5	9	0	4
South Dakota	4	8	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	5	0	1
Georgia	1	1	3	0	1
Maryland	0	1	1	0	0
North Carolina	1	1	3	0	1
South Carolina	2	2	3	0	1
Virginia	1	1	4	0	1
West Virginia	1	1	0	0	0
East South Central	**1**	**2**	**2**	**0**	**1**
Alabama	2	2	3	0	1
Kentucky	2	4	3	0	2
Mississippi	3	3	6	0	2
Tennessee	2	3	5	0	2
West South Central	**1**	**1**	**2**	**0**	**1**
Arkansas	2	3	4	0	2
Louisiana	2	2	2	0	1
Oklahoma	2	2	5	0	1
Texas	1	1	2	0	1
Mountain	**1**	**2**	**2**	**0**	**1**
Arizona	1	3	5	0	1
Colorado	2	6	8	0	3
Idaho	2	5	3	0	2
Montana	4	7	7	0	4
Nevada	1	3	2	0	1
New Mexico	3	9	13	0	5
Utah	2	7	4	0	3
Wyoming	4	8	6	0	4
Pacific Contiguous	**0**	**1**	**2**	**0**	**0**
California	0	1	1	0	0
Oregon	2	4	10	0	3
Washington	2	4	9	0	3
Pacific Noncontiguous	**1**	**3**	**3**	**0**	**2**
Alaska	4	9	17	0	5
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 July 2019

Census Region and State	Residential	Commercial	Industrial	Transportation	Total
New England	**1**	**1**	**1**	**2**	**1**
Connecticut	4	1	1	4	2
Maine	0	1	2	0	1
Massachusetts	0	1	3	0	1
New Hampshire	0	1	2	0	0
Rhode Island	0	0	0	0	0
Vermont	2	5	4	0	2
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	3	1	0	1
Michigan	0	1	3	0	1
Ohio	0	1	1	0	0
Wisconsin	1	2	6	0	2
West North Central	**1**	**1**	**3**	**0**	**1**
Iowa	1	4	6	0	2
Kansas	1	2	5	0	1
Minnesota	1	3	7	0	2
Missouri	1	3	4	0	1
Nebraska	1	5	10	0	3
North Dakota	1	3	7	0	3
South Dakota	2	6	12	0	3
South Atlantic	**0**	**0**	**1**	**0**	**0**
Delaware	1	3	7	0	2
District of Columbia	0	0	0	0	0
Florida	0	1	4	0	0
Georgia	1	1	3	0	1
Maryland	0	1	2	0	0
North Carolina	1	1	3	0	1
South Carolina	1	1	3	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	2	4	0	1
Texas	1	1	2	0	1
Mountain	**0**	**1**	**2**	**0**	**1**
Arizona	0	2	4	0	1
Colorado	1	4	6	0	2
Idaho	1	3	4	0	1
Montana	2	4	7	0	3
Nevada	0	2	1	0	1
New Mexico	2	6	9	0	3
Utah	1	5	3	0	2
Wyoming	2	5	4	0	3
Pacific Contiguous	**0**	**1**	**2**	**0**	**0**
California	0	1	1	0	0
Oregon	1	3	8	0	2
Washington	1	2	7	0	2
Pacific Noncontiguous	**1**	**2**	**2**	**0**	**1**
Alaska	2	6	13	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, July 2019

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

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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 July 2019

Census Region and State	Residential	Commercial	Industrial	Transportation	Total
New England	**1**	**1**	**2**	**1**	**1**
Connecticut	4	1	3	2	2
Maine	0	1	2	0	1
Massachusetts	0	1	5	0	1
New Hampshire	0	1	3	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	0	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	0	1	1	0	0
Indiana	1	3	2	0	1
Michigan	0	2	4	0	1
Ohio	0	1	1	0	0
Wisconsin	1	3	6	0	2
West North Central	**0**	**2**	**3**	**0**	**1**
Iowa	1	7	6	0	3
Kansas	1	2	6	0	2
Minnesota	1	4	8	0	3
Missouri	1	3	6	0	1
Nebraska	1	7	11	0	4
North Dakota	1	4	8	0	4
South Dakota	1	8	14	0	4
South Atlantic	**0**	**0**	**2**	**0**	**0**
Delaware	1	3	7	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	**1**	**2**	**2**	**0**	**1**
Alabama	1	2	3	0	1
Kentucky	1	4	3	0	2
Mississippi	1	2	5	0	2
Tennessee	1	4	5	0	2
West South Central	**1**	**1**	**1**	**0**	**1**
Arkansas	1	2	4	0	2
Louisiana	1	1	2	0	1
Oklahoma	1	2	5	0	1
Texas	1	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	5	0	3
Pacific Contiguous	**0**	**1**	**2**	**0**	**1**
California	0	1	2	0	1
Oregon	1	4	10	0	3
Washington	1	4	8	0	2
Pacific Noncontiguous	**1**	**4**	**4**	**0**	**2**
Alaska	2	9	17	0	5
Hawaii	0	0	0	0	0
U.S. Total	**0**	**0**	**1**	**0**	**0**

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Table B.1 Major Disturbances and Unusual Occurrences, Year-to-Date 2019

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
2019	1	01/06/2019 1:00 AM	01/06/2019 12:00 PM	11 Hours, 0 Minutes	Puget Sound Energy	WECC	Washington: King County, Thurston County, Pierce County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	230000
2019	1	01/06/2019 3:00 AM	01/09/2019 7:00 AM	76 Hours, 0 Minutes	Peak Reliability	WECC	Washington:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	230	230000
2019	1	01/06/2019 5:56 PM	01/06/2019 9:52 PM	3 Hours, 56 Minutes	Sacramento Municipal Util Dist	WECC	California: Sacramento County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	300	90382
2019	1	01/10/2019 12:19 PM	01/10/2019 12:48 PM	0 Hours, 29 Minutes	Western Area Power Administration - Upper Great Plains Region	WECC	Montana: Valley 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).-System Operations	11	2
2019	1	01/12/2019 11:30 AM	. .	. Hours, . Minutes	Southwest Power Pool, Inc.	SERC	Missouri: Nebraska:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	116600
2019	1	01/12/2019 11:30 AM	01/13/2019 10:00 PM	34 Hours, 30 Minutes	Kansas City Power & Light Co	SPP RE	Missouri: Jackson County; Kansas: Johnson County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	112530
2019	1	01/13/2019 5:30 AM	01/15/2019 5:00 PM	59 Hours, 30 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	133200	Unknown
2019	1	01/16/2019 5:26 PM	01/17/2019 12:19 PM	18 Hours, 53 Minutes	Pacific Gas & Electric Co	WECC	California:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	190	126700
2019	1	01/18/2019 9:54 PM	01/19/2019 12:19 AM	2 Hours, 25 Minutes	Nebraska Public Power District	MRO	Nebraska:	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	8	Unknown
2019	1	01/23/2019 7:26 AM	01/23/2019 5:05 PM	9 Hours, 39 Minutes	Western Area Power Administration	WECC	Colorado: Larimer 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).-System Operations	0	0
2019	1	01/29/2019 6:34 PM	01/29/2019 6:36 PM	0 Hours, 2 Minutes	Entergy Transmission Control Center - North	SERC	Louisiana: Washington Parish;	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	Unknown	Unknown
2019	1	01/30/2019 4:23 AM	02/02/2019 9:00 AM	76 Hours, 37 Minutes	Prairie Power, Inc.	SERC	Illinois: Scott County;	Fuel supply emergencies that could impact electric power system adequacy or reliability.-Fuel Supply Deficiency	Unknown	Unknown
2019	1	01/30/2019 7:00 AM	01/30/2019 8:08 AM	1 Hours, 8 Minutes	Prairie Power, Inc.	SERC	Illinois: Pike County;	Fuel supply emergencies that could impact electric power system adequacy or reliability.-Severe Weather	Unknown	Unknown
2019	1	01/30/2019 9:30 AM	01/31/2019 6:00 PM	32 Hours, 30 Minutes	Detroit Edison Co	RF	Michigan:	Public appeal to reduce the use of electricity for purposes of maintaining the continuity of the Bulk Electric System.-Severe Weather	Unknown	Unknown
2019	2	02/05/2019 6:17 PM	02/05/2019 8:26 PM	2 Hours, 9 Minutes	Pacific Gas & Electric Co	WECC	California	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	42	33200
2019	2	02/07/2019 7:39 AM	02/07/2019 7:40 AM	0 Hours, 1 Minutes	Entergy Transmission Control Center - North	SERC	Arkansas	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	3	3370
2019	2	02/07/2019 8:55 AM	02/09/2019 4:30 PM	55 Hours, 35 Minutes	Consumers Energy Co	RF	Michigan	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	233000
2019	2	02/08/2019 6:30 PM	. .	. Hours, . Minutes	Puget Sound Energy	WECC	Washington	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	50940
2019	2	02/13/2019 2:48 AM	02/15/2019 12:28 AM	45 Hours, 40 Minutes	Pacific Gas & Electric Co	WECC	California	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	182	121000
2019	2	02/23/2019 2:05 PM	. .	. Hours, . Minutes	American Electric Power - (RFC Reliability Region)	SERC	Virginia	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	Unknown	Unknown
2019	2	02/24/2019 11:21 AM	02/26/2019 5:29 PM	54 Hours, 8 Minutes	American Electric Power - (RFC Reliability Region)	RF	Ohio, Virginia, West Virginia	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	118781
2019	2	02/24/2019 12:31 PM	02/24/2019 2:57 PM	2 Hours, 26 Minutes	Ohio Edison Co	RF	Ohio	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	157274

Table B.1 Major Disturbances and Unusual Occurrences, Year-to-Date 2019

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
2019	2	02/24/2019 2:33 PM	02/24/2019 6:03 PM	3 Hours, 30 Minutes	Monongahela Power Co	RF	Pennsylvania	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	94048
2019	2	02/24/2019 6:00 PM	02/25/2019 10:00 PM	28 Hours, 0 Minutes	Duquesne Light Co	RF	Pennsylvania	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	132000
2019	2	02/24/2019 6:47 PM	02/25/2019 1:55 PM	19 Hours, 8 Minutes	West Penn Power Company	RF	Pennsylvania	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	137216
2019	2	02/24/2019 8:02 PM	02/25/2019 2:30 PM	18 Hours, 28 Minutes	Consumers Energy Co	RF	Michigan	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	115000
2019	2	02/25/2019 7:45 AM	02/25/2019 6:40 PM	10 Hours, 55 Minutes	ISO New England	NPCC	Massachusetts	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
2019	2	02/25/2019 1:35 PM	02/26/2019 2:50 AM	13 Hours, 15 Minutes	ISO New England	NPCC	Connecticut, Massachusetts, New Hampshire, Maine, Vermont, Rhode Island	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	72332
2019	2	02/27/2019 11:25 AM	02/27/2019 5:39 PM	6 Hours, 14 Minutes	MidAmerican Energy Co	MRO	Iowa	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
2019	3	03/13/2019 5:50 AM	03/13/2019 10:30 AM	4 Hours, 40 Minutes	Oncor Electric Delivery Company LLC	TRE	Texas: Midland County, Ector County, Tarrant County, Dallas County, Wichita County, Brown County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	154124
2019	3	03/13/2019 11:29 AM	03/14/2019 9:11 PM	33 Hours, 42 Minutes	Public Service Company of Colorado	WECC	Colorado: Jefferson County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	58	58379
2019	3	03/13/2019 3:00 PM	03/14/2019 12:00 AM	9 Hours, 0 Minutes	Southwest Power Pool, Inc.	TRE	Texas: Kansas: Oklahoma:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather/Transmission Interruption	Unknown	66000
2019	3	03/13/2019 3:51 PM	03/16/2019 6:00 PM	74 Hours, 9 Minutes	Southwestern Public Service	TRE	Texas:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather/Transmission Interruption	50	54290
2019	4	04/03/2019 5:15 AM	04/03/2019 12:39 PM	7 Hours, 24 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
2019	4	04/04/2019 10:13 AM	04/04/2019 12:08 PM	1 Hours, 55 Minutes	Bonneville Power Administration	WECC	Montana:	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
2019	4	04/07/2019 1:46 PM	04/08/2019 5:50 PM	28 Hours, 4 Minutes	CenterPoint Energy	TRE	Texas:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	537	231956
2019	4	04/11/2019 7:48 PM	04/11/2019 8:00 PM	0 Hours, 12 Minutes	Bonneville Power Administration	WECC	Oregon: Washington:	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
2019	4	04/12/2019 11:20 AM	04/12/2019 12:46 PM	1 Hours, 26 Minutes	Xcel Energy	MRO	Minnesota: Martin 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
2019	4	04/13/2019 6:15 PM	04/13/2019 11:15 PM	5 Hours, 0 Minutes	Entergy Corp	SERC	Mississippi: Arkansas: Texas: Louisiana:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	60467
2019	4	04/15/2019 4:35 AM	04/15/2019 2:40 PM	10 Hours, 5 Minutes	Dominion Virginia Power	SERC	Virginia:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	75290
2019	4	04/18/2019 7:55 PM	04/19/2019 5:29 PM	21 Hours, 34 Minutes	Southern Company	SERC	Alabama: Mississippi: Georgia: Florida:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	116	34695
2019	4	04/18/2019 8:08 PM	04/19/2019 11:00 AM	14 Hours, 52 Minutes	Public Service Company of Colorado	WECC	Colorado: Clear Creek 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
2019	4	04/25/2019 6:03 PM	04/25/2019 6:32 PM	0 Hours, 29 Minutes	Salt River Project	WECC	Arizona: Maricopa County;	Firm load shedding of 100 Megawatts or more implemented under emergency operational policy.-Generation Inadequacy	150	51366
2019	4	04/26/2019 1:00 AM	04/26/2019 1:27 PM	12 Hours, 27 Minutes	FirstEnergy Corp	RF	Pennsylvania:	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	7	5830

Table B.1 Major Disturbances and Unusual Occurrences, Year-to-Date 2019

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
2019	4	04/26/2019 3:16 PM	04/26/2019 3:17 PM	0 Hours, 1 Minutes	ISO New England	NPCC	Massachusetts: Hampden County[13];	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
2019	4	04/26/2019 5:46 PM	04/27/2019 11:49 AM	18 Hours, 3 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	54071
2019	4	04/28/2019 10:43 AM	04/29/2019 2:06 AM	15 Hours, 23 Minutes	FirstEnergy Corp	RF	Ohio:	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
2019	5	05/08/2019 9:22 AM	05/08/2019 9:56 AM	0 Hours, 34 Minutes	PJM Interconnection	RF	Pennsylvania: Mercer 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	29	1
2019	5	05/08/2019 3:50 PM	05/13/2019 12:00 AM	104 Hours, 10 Minutes	Southwest Power Pool, Inc.	SPP RE	Louisiana: Texas:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather/Distribution Interruption	Unknown	65844
2019	5	05/09/2019 5:55 PM	05/11/2019 8:50 PM	50 Hours, 55 Minutes	CenterPoint Energy	TRE	Texas: Harris County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	691	238015
2019	5	05/09/2019 7:06 PM	05/10/2019 2:57 AM	7 Hours, 51 Minutes	CenterPoint Energy Houston Electric, LLC	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).-Severe Weather/Transmission Interruption	0	0
2019	5	05/10/2019 2:00 AM	05/10/2019 12:15 PM	10 Hours, 15 Minutes	Entergy Corp	TRE	Texas:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	61008
2019	5	05/18/2019 3:45 PM	05/20/2019 4:00 AM	36 Hours, 15 Minutes	Oncor Electric Delivery Company LLC	TRE	Texas: Ector County, Midland County, Tarrant County, Dallas County, Stephens County, Anderson County, McLennan County, Ellis County, Hunt County, Young County, Bell County, Limestone County, Collin County, Rockwall County, Henderson County, Parker County, Falls County, Freestone County, Kaufman County, Grayson County, Smith County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	68000
2019	5	05/23/2019 1:11 AM	05/23/2019 12:00 PM	10 Hours, 49 Minutes	Northern Indiana Pub Serv Co	RF	Indiana:	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
2019	5	05/23/2019 4:55 PM	05/23/2019 11:40 PM	6 Hours, 45 Minutes	Dominion Energy VA	SERC	Virginia:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	100000
2019	5	05/24/2019 9:47 PM	05/24/2019 11:58 PM	2 Hours, 11 Minutes	Pacific Gas & Electric Co	WECC	California:	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	20	10961
2019	5	05/27/2019 10:07 PM	05/28/2019 3:00 AM	4 Hours, 53 Minutes	Dayton Power & Light Co	RF	Ohio: Montgomery County, Darke County, Mercer County, Miami County, Greene County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather/Transmission Interruption	347	70000
2019	6	06/02/2019 6:19 PM	06/02/2019 8:43 PM	2 Hours, 24 Minutes	Pacific Gas & Electric Co	WECC	California:	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/Transmission Interruption	Unknown	Unknown
2019	6	06/06/2019 6:09 PM	06/06/2019 6:35 PM	0 Hours, 26 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	55017
2019	6	06/07/2019 2:43 PM	06/07/2019 4:20 PM	1 Hours, 37 Minutes	American Electric Power - Texas	TRE	Texas: Pecos 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	8	1
2019	6	06/08/2019 3:50 PM	06/08/2019 7:40 PM	3 Hours, 50 Minutes	Southwestern Public Service	TRE	Texas: Potter 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

Table B.1 Major Disturbances and Unusual Occurrences, Year-to-Date 2019

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
2019	6	06/09/2019 2:45 PM	06/13/2019 10:30 PM	103 Hours, 45 Minutes	Oncor Electric Delivery Company LLC	TRE	Texas: Collin County, Dallas County, Denton County, Palo Pinto County, Tarrant County, Ellis County, Williamson County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	558000
2019	6	06/12/2019 2:56 PM	06/12/2019 3:50 PM	0 Hours, 54 Minutes	Imperial Irrigation District	WECC	California: Imperial County, Riverside County;	Firm load shedding of 100 Megawatts or more implemented under emergency operational policy.-Generation Inadequacy	982	30907
2019	6	06/16/2019 2:00 AM	06/17/2019 11:59 PM	45 Hours, 59 Minutes	Oncor Electric Delivery Company LLC	TRE	Texas: Dallas County, Tarrant County, Collin County, Denton County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	340000
2019	6	06/16/2019 3:25 AM	. .	. Hours, . Minutes	American Electric Power - (SPP Reliability Region)	SPP RE	Oklahoma:	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	Unknown	Unknown
2019	6	06/19/2019 10:30 PM	06/20/2019 7:00 PM	20 Hours, 30 Minutes	Entergy Corp	SPP RE	Arkansas:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	82045
2019	6	06/20/2019 4:11 PM	06/21/2019 12:45 PM	20 Hours, 34 Minutes	Dominion Energy VA	SERC	Virginia:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	60000
2019	6	06/21/2019 7:15 PM	. .	. Hours, . Minutes	Tennessee Valley Authority	SERC	Kentucky: Tennessee:	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	Unknown	50000
2019	6	06/22/2019 8:46 PM	06/23/2019 12:30 AM	3 Hours, 44 Minutes	Southern Company	SERC	Alabama: Georgia:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	115	34637
2019	6	06/23/2019 5:13 AM	06/23/2019 10:58 AM	5 Hours, 45 Minutes	Entergy - Transmission Operations Engineering	SPP RE	Arkansas:	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	47	16199
2019	6	06/23/2019 10:00 PM	06/25/2019 11:00 PM	49 Hours, 0 Minutes	Oncor Electric Delivery Company LLC	TRE	Texas: Dallas County, Denton County, Ellis County, Collin County, Ellis County, Hood County, Johnson County, Kaufman County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	265000
2019	6	06/24/2019 5:30 AM	06/24/2019 8:45 AM	3 Hours, 15 Minutes	Entergy Corp	SPP RE	Arkansas:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	56451
2019	6	06/26/2019 1:58 PM	06/26/2019 2:03 PM	0 Hours, 5 Minutes	Montana-Dakota Utilities Co	MRO	North Dakota: Williams 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	53	0
2019	6	06/28/2019 2:25 PM	. .	. Hours, . Minutes	Bonneville Power Administration	WECC	Idaho: Nez Perce 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
2019	6	06/30/2019 3:15 PM	06/30/2019 4:15 PM	1 Hours, 0 Minutes	Long Island Power Authority	NPCC	New York: Nassau County, Suffolk County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	3189	52498
2019	6	06/30/2019 3:30 PM	06/30/2019 8:30 PM	5 Hours, 0 Minutes	ComEd	SERC	Illinois: Cook County, DeKalb County, DuPage County, Grundy County, Iroquois County, Ford County, Lake County, Kendall County, Kankakee County, Kane County, Ogle County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	100000
2019	7	07/10/2019 12:10 PM	07/12/2019 12:30 PM	48 Hours, 20 Minutes	Oncor Electric Delivery Company LLC	TRE	Texas: Collin County, Dallas County, Denton County, Hood County, Johnson County, Tarrant County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	57000
2019	7	07/11/2019 11:08 AM	07/11/2019 11:13 AM	0 Hours, 5 Minutes	Southwestern Public Service	TRE	Texas: Lynn 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	26	2043
2019	7	07/13/2019 7:15 AM	07/14/2019 5:00 PM	33 Hours, 45 Minutes	Entergy Corp	SERC	Louisiana:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	55730
2019	7	07/13/2019 6:47 PM	07/13/2019 11:37 PM	4 Hours, 50 Minutes	NYISO	NPCC	New York: New York County;	Uncontrolled loss of 300 Megawatts or more of firm system loads for 15 minutes or more from a single incident-Transmission Interruption	452	72669

Table B.1 Major Disturbances and Unusual Occurrences, Year-to-Date 2019

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
2019	7	07/13/2019 11:55 PM	07/14/2019 1:00 PM	13 Hours, 5 Minutes	Cleco Power LLC	SERC	Louisiana: Acadia Parish, Avoyelles Parish, Catahoula Parish, Evangeline Parish, Grant Parish, Iberia Parish, LaSalle Parish, Natchitoches Parish, Rapides Parish, Sabine Parish, St. Landry Parish, St. Martin Parish, St. Mary Parish, St. Tammany Parish, Allen Parish, Beauregard Parish, Calcasieu Parish, Vermilion Parish, De Soto Parish, Jefferson Davis Parish, Red River Parish, Tangipahoa Parish, V	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	63000
2019	7	07/19/2019 7:00 PM	07/21/2019 8:00 PM	49 Hours, 0 Minutes	Detroit Edison Co	RF	Michigan:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	400000
2019	7	07/20/2019 3:00 AM	07/22/2019 7:00 AM	52 Hours, 0 Minutes	Consumers Energy Co	RF	Michigan: Kent County, Newaygo County, Mecosta County, Montcalm County, Isabella County, Ionia County, Allegan County, Barry County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	160000
2019	7	07/20/2019 11:55 AM	07/23/2019 12:00 AM	60 Hours, 5 Minutes	WEC Energy Group (WEPCO, WPSC, UMERC, WEP-MIUP)	RF	Wisconsin: Michigan:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	200	50000
2019	7	07/21/2019 11:00 PM	07/22/2019 8:54 PM	21 Hours, 54 Minutes	Consolidated Edison Co-NY Inc	NPCC	New York: Kings County, New York County, Queens County, Bronx County, Westchester County, Richmond County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	60	45000
2019	7	07/22/2019 4:00 PM	07/24/2019 11:00 PM	55 Hours, 0 Minutes	PECO Energy Co	RF	Pennsylvania: Bucks County, Delaware County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	165000
2019	7	07/22/2019 5:50 PM	07/25/2019 1:15 PM	67 Hours, 25 Minutes	Public Service Electric & Gas	RF	New Jersey: Gloucester County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	49	95600
2019	7	07/23/2019 3:39 PM	07/23/2019 7:00 PM	3 Hours, 21 Minutes	ISO New England	NPCC	Massachusetts:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	54	54535
2019	7	07/23/2019 11:55 PM	07/23/2019 11:56 PM	0 Hours, 1 Minutes	Nebraska Public Power District	MRO	Nebraska:	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
2019	7	07/23/2019 11:55 PM	07/24/2019 5:22 AM	5 Hours, 27 Minutes	Western Area Power Administration - Upper Great Plains Region	MRO	Nebraska: Scotts Bluff 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
2019	7	07/30/2019 8:45 AM	07/30/2019 9:45 AM	1 Hours, 0 Minutes	City of Alexandria	SERC	Louisiana:	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	Unknown	13720
2019	8	08/02/2019 1:49 AM	08/02/2019 1:55 AM	0 Hours, 6 Minutes	Northern States Power Co	MRO	Minnesota: Chisago 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
2019	8	08/05/2019 5:23 PM	08/06/2019 12:02 AM	6 Hours, 39 Minutes	Bonneville Power Administration	WECC	Oregon: Umatilla 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	66	Unknown
2019	8	08/08/2019 4:16 PM	08/08/2019 10:41 PM	6 Hours, 25 Minutes	American Electric Power - (RFC Reliability Region)	RF	Ohio:	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	Unknown	5600
2019	8	08/13/2019 10:00 AM	08/13/2019 11:00 AM	1 Hours, 0 Minutes	Rio Bravo Rocklin	WECC	California: Placer County;	Uncontrolled loss of 300 Megawatts or more of firm system loads for 15 minutes or more from a single incident.-Vandalism	0	0
2019	8	08/13/2019 3:10 PM	08/13/2019 5:30 PM	2 Hours, 20 Minutes	ERCOT	TRE	Texas: Williamson County;	Public appeal to reduce the use of electricity for purposes of maintaining the continuity of the Bulk Electric System.-Severe Weather	Unknown	Unknown
2019	8	08/15/2019 8:30 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	150	Unknown
2019	8	08/15/2019 3:11 PM	08/15/2019 6:00 PM	2 Hours, 49 Minutes	ERCOT	TRE	Texas:	Public appeal to reduce the use of electricity for purposes of maintaining the continuity of the Bulk Electric System.-Severe Weather	Unknown	Unknown
2019	8	08/15/2019 11:03 PM	08/16/2019 12:37 AM	1 Hours, 34 Minutes	Pacific Gas & Electric Co	WECC	California: Marin County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Distribution Interruption	80	61318

Table B.1 Major Disturbances and Unusual Occurrences, Year-to-Date 2019

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
2019	8	08/18/2019 3:59 PM	08/18/2019 11:00 PM	7 Hours, 1 Minutes	Southwest Power Pool, Inc.	SPP RE	Louisiana: Texas:	Firm load shedding of 100 Megawatts or more implemented under emergency operational policy.-Transmission Interruption	271	86373
2019	8	08/18/2019 4:30 PM	08/18/2019 10:00 PM	5 Hours, 30 Minutes	East Texas Electric Coop, Inc	TRE	Texas:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Transmission Interruption/Distribution Interruption	259	61000
2019	8	08/18/2019 4:47 PM	08/18/2019 11:00 PM	6 Hours, 13 Minutes	American Electric Power - (SPP Reliability Region)	TRE	Texas:	Uncontrolled loss of 300 Megawatts or more of firm system loads for 15 minutes or more from a single incident-Distribution Interruption	752	86373
2019	8	08/26/2019 9:09 AM	08/26/2019 1:34 PM	4 Hours, 25 Minutes	Great River Energy	MRO	North Dakota:	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
2019	8	08/26/2019 7:00 PM	08/27/2019 3:00 AM	8 Hours, 0 Minutes	Southwest Power Pool, Inc.	SPP RE	Oklahoma:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather/Transmission Interruption	Unknown	95000
2019	8	08/26/2019 7:00 PM	08/29/2019 1:00 PM	66 Hours, 0 Minutes	Oklahoma Gas & Electric Co	SPP RE	Oklahoma:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	103779

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, 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.2 Major Disturbances and Unusual Occurrences, 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.2 Major Disturbances and Unusual Occurrences, 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.2 Major Disturbances and Unusual Occurrences, 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.2 Major Disturbances and Unusual Occurrences, 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 El 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.2 Major Disturbances and Unusual Occurrences, 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
2018	12	12/03/2018 3:15 AM	12/03/2018 3:44 AM	0 Hours, 29 Minutes	ERCOT	TRE	Texas:	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	16	Unknown
2018	12	12/09/2018 12:23 AM	12/09/2018 11:54 AM	11 Hours, 31 Minutes	Southern Company	SERC	Alabama: Georgia:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	137	41126
2018	12	12/09/2018 3:35 AM	12/10/2018 11:45 PM	44 Hours, 10 Minutes	Duke Energy Carolinas	SERC	North Carolina:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather/Transmission Interruption	Unknown	50000
2018	12	12/09/2018 8:41 AM	12/09/2018 6:00 PM	9 Hours, 19 Minutes	Duke Energy Progress	SERC	North Carolina:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	70000
2018	12	12/14/2018 4:00 PM	12/17/2018 2:00 AM	58 Hours, 0 Minutes	Puget Sound Energy	WECC	Washington: King County, Kitsap County, Island County, Pierce County, Thurston County, Whatcom County, Skagit County, Kittitas County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	150000
2018	12	12/14/2018 6:00 PM	. .	. Hours, . Minutes	Snohomish County PUD No. 1	WECC	Washington: Snohomish County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	200	60000
2018	12	12/20/2018 9:30 AM	12/20/2018 5:00 PM	7 Hours, 30 Minutes	Puget Sound Energy	WECC	Washington: Skagit County, Snohomish County, King County, Kitsap County, Island County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	165000
2018	12	12/27/2018 9:12 PM	12/27/2018 9:16 PM	0 Hours, 4 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).-Transmission Interruption	Unknown	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

23

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

92

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

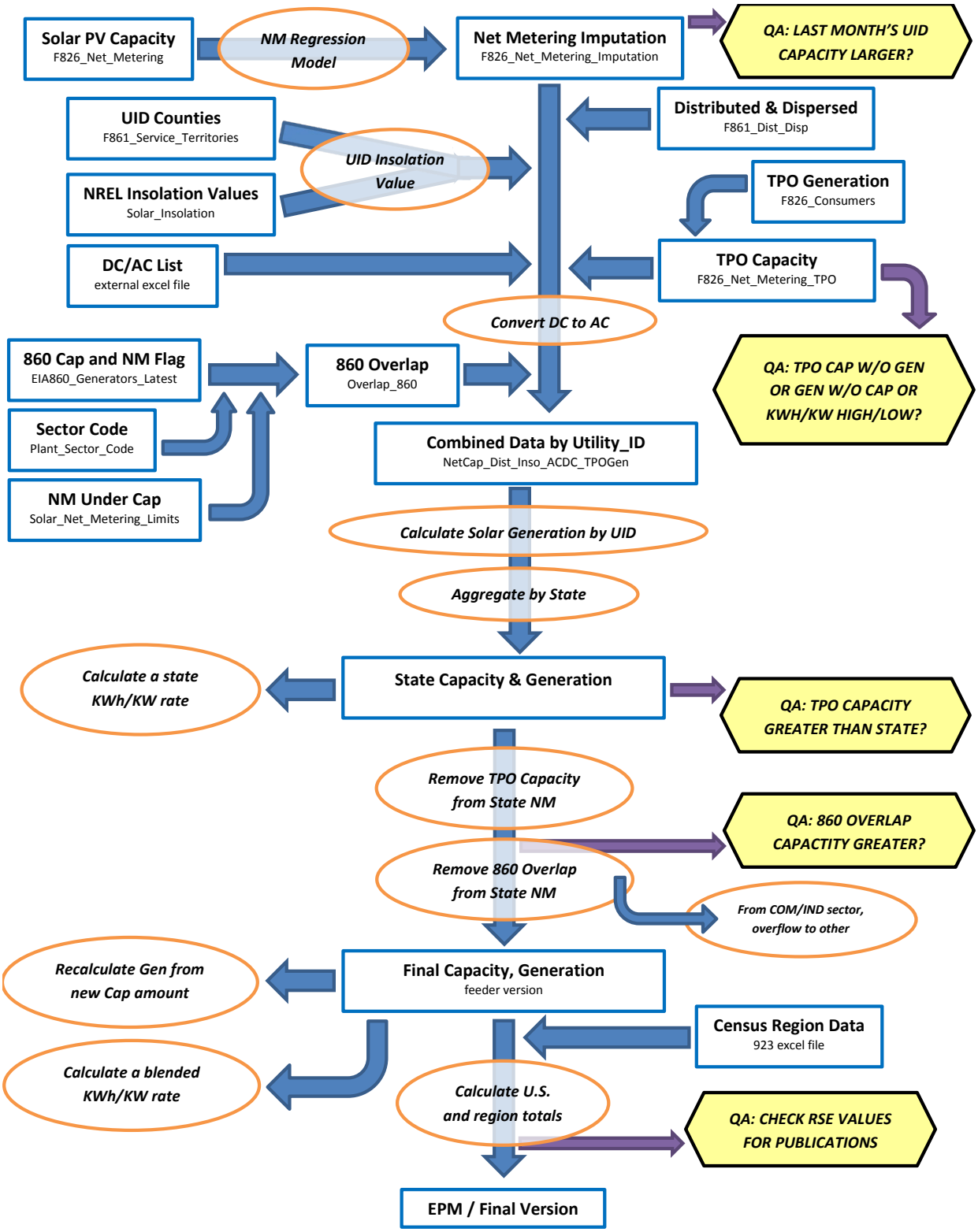
TMY3 (1991-2005) Weather Stations by MSA

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, July 2019

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	24.70	6.20	--	1.03
Connecticut	--	5.80	--	1.03
Maine	24.70	6.25	--	1.03
Massachusetts	--	--	--	1.03
New Hampshire	--	--	--	1.03
Rhode Island	--	--	--	1.03
Vermont	--	--	--	--
Middle Atlantic	22.86	6.01	--	1.03
New Jersey	25.80	6.03	--	1.04
New York	--	6.16	--	1.03
Pennsylvania	22.74	6.00	--	1.03
East North Central	20.28	5.79	27.74	1.05
Illinois	17.74	5.80	--	1.02
Indiana	22.08	5.74	--	1.06
Michigan	18.81	5.86	27.72	1.05
Ohio	25.02	5.78	--	1.06
Wisconsin	17.84	5.88	28.11	1.03
West North Central	16.47	5.76	27.40	1.07
Iowa	17.70	5.72	27.40	1.09
Kansas	17.19	5.76	--	1.02
Minnesota	17.73	5.81	--	1.09
Missouri	17.61	5.77	--	1.04
Nebraska	16.98	--	--	1.08
North Dakota	12.98	5.73	--	1.00
South Dakota	16.51	--	--	--
South Atlantic	23.60	5.80	28.95	1.03
Delaware	--	5.50	--	1.03
District of Columbia	--	--	--	--
Florida	23.76	5.79	28.95	1.03
Georgia	20.19	5.88	--	1.03
Maryland	24.92	5.80	--	1.04
North Carolina	25.08	5.80	--	1.03
South Carolina	24.66	5.79	--	1.03
Virginia	20.53	5.88	--	1.05
West Virginia	25.07	5.78	--	1.07
East South Central	20.81	5.75	--	1.03
Alabama	19.04	5.52	--	1.03
Kentucky	22.28	5.81	--	1.03
Mississippi	13.17	5.80	--	1.03
Tennessee	22.74	5.76	--	1.00
West South Central	16.07	5.82	29.05	1.03
Arkansas	17.42	5.80	--	1.02
Louisiana	16.52	5.90	29.05	1.03
Oklahoma	17.14	5.80	--	1.03
Texas	15.64	5.81	--	1.02
Mountain	18.79	5.75	--	1.05
Arizona	19.57	5.48	--	1.03
Colorado	18.70	--	--	1.12
Idaho	--	--	--	1.00
Montana	16.82	--	--	1.03
Nevada	19.62	5.84	--	1.05
New Mexico	18.43	5.66	--	1.03
Utah	21.82	5.88	--	1.05
Wyoming	17.54	5.81	--	1.05
Pacific Contiguous	17.46	6.00	--	1.04
California	22.84	--	--	1.03
Oregon	17.71	--	--	1.05
Washington	17.02	6.00	--	1.10
Pacific Noncontiguous	14.44	6.06	--	1.00
Alaska	14.44	5.60	--	1.00
Hawaii	--	6.06	--	--
U.S. Total	19.11	5.99	28.71	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	399,373	-0.23%
Total	**4,087,381**	**4,077,601**	**-0.24%**	**4,079,079**	**4,076,675**	**-0.06%**	**4,014,804**	**4,034,271**	**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.