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Preface

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

Background

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

Data sources

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

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Executive Summary

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Net Generation and Consumption of Fuels for November														
		Total (All Sectors)			Electric Power Sector				Commercial		Industrial		Residential	
					Electric Utilities		Independent Power Producers							
Fuel	Facility Type	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
Net Generation (Thousand Megawatthours)														
Coal	Utility Scale Facilities	75,630	92,819	-18.5%	55,304	68,864	19,777	23,393	21	25	529	536	0	0
Petroleum Liquids	Utility Scale Facilities	898	1,006	-10.7%	632	703	221	245	9	12	36	46	0	0
Petroleum Coke	Utility Scale Facilities	339	656	-48.3%	251	477	41	140	0	1	46	38	0	0
Natural Gas	Utility Scale Facilities	117,810	108,142	8.9%	56,311	51,796	52,251	47,605	709	622	8,539	8,120	0	0
Other Gas	Utility Scale Facilities	1,196	1,045	14.4%	19	0	352	311	0	0	825	734	0	0
Nuclear	Utility Scale Facilities	64,125	63,954	0.3%	32,923	33,043	31,202	30,911	0	0	0	0	0	0
Hydroelectric Conventional	Utility Scale Facilities	20,551	21,913	-6.2%	18,793	19,630	1,652	2,150	15	16	91	116	0	0
Renewable Sources Excluding Hydroelectric	Utility Scale Facilities	35,745	32,083	11.4%	4,660	3,954	28,548	25,561	262	241	2,276	2,328	0	0
... Wind	Utility Scale Facilities	25,656	22,014	16.5%	3,923	3,162	21,709	18,827	16	16	NM	9	0	0
... Solar Thermal and Photovoltaic	Utility Scale Facilities	4,373	3,743	16.8%	454	325	3,877	3,386	37	29	5	3	0	0
... Wood and Wood-Derived Fuels	Utility Scale Facilities	3,107	3,271	-5.0%	153	277	759	753	6	2	2,189	2,238	0	0
... Other Biomass	Utility Scale Facilities	1,498	1,724	-13.1%	81	107	1,181	1,347	162	193	74	78	0	0
... Geothermal	Utility Scale Facilities	1,112	1,331	-16.5%	49	84	1,021	1,247	42	0	0	0	0	0
Hydroelectric Pumped Storage	Utility Scale Facilities	-509	-343	48.5%	-424	-254	-84	-88	0	0	0	0	0	0
Other Energy Sources	Utility Scale Facilities	1,069	1,075	-0.5%	41	50	580	551	81	77	367	396	0	0
All Energy Sources	Utility Scale Facilities	316,855	322,349	-1.7%	168,510	178,264	134,538	130,779	1,097	993	12,710	12,313	0	0
Estimated Small Scale Solar Photovoltaic	Small Scale Facilities	2,231	1,905	17.1%	0	0	0	0	688	623	198	174	1,346	1,108
Estimated Total Solar Photovoltaic	All Facilities	6,463	5,480	17.9%	454	324	3,736	3,219	725	652	203	177	1,346	1,108
Estimated Total Solar	All Facilities	6,604	5,648	16.9%	454	325	3,877	3,386	725	652	203	177	1,346	1,108
Consumption of Fossil Fuels for Electricity Generation														
Coal (1000 tons)	Utility Scale Facilities	42,021	51,702	-18.7%	30,311	37,956	11,517	13,537	6	7	187	202	0	0
Petroleum Liquids (1000 barrels)	Utility Scale Facilities	1,599	1,799	-11.2%	1,178	1,281	360	452	23	22	37	45	0	0
Petroleum Coke (1000 tons)	Utility Scale Facilities	130	271	-52.2%	101	196	15	63	0	0	14	13	0	0
Natural Gas (1000 Mcf)	Utility Scale Facilities	843,507	784,477	7.5%	422,466	395,480	366,844	337,206	4,300	3,760	49,896	48,031	0	0
Consumption of Fossil Fuels for Useful Thermal Output														
Coal (1000 tons)	Utility Scale Facilities	1,062	1,167	-9.0%	177	173	63	141	38	40	783	813	0	0
Petroleum Liquids (1000 barrels)	Utility Scale Facilities	261	228	14.6%	4	3	19	20	32	30	206	174	0	0
Petroleum Coke (1000 tons)	Utility Scale Facilities	53	71	-26.4%	2	1	9	8	0	2	42	61	0	0
Natural Gas (1000 Mcf)	Utility Scale Facilities	104,466	101,925	2.5%	3,759	3,185	28,112	27,080	6,992	6,829	65,603	64,830	0	0
Consumption of Fossil Fuels for Electricity Generation and Useful Thermal Output														
Coal (1000 tons)	Utility Scale Facilities	43,082	52,868	-18.5%	30,488	38,129	11,580	13,677	44	47	970	1,015	0	0
Petroleum Liquids (1000 barrels)	Utility Scale Facilities	1,860	2,027	-8.3%	1,182	1,284	380	472	55	52	243	219	0	0
Petroleum Coke (1000 tons)	Utility Scale Facilities	182	342	-46.8%	102	196	24	70	0	2	56	74	0	0
Natural Gas (1000 Mcf)	Utility Scale Facilities	947,972	886,401	6.9%	426,225	398,665	394,956	364,286	11,292	10,589	115,499	112,861	0	0
Fuel Stocks (end-of-month)														
Coal (1000 tons)	Utility Scale Facilities	124,285	105,337	18.0%	100,490	86,496	23,129	17,840	56	95	611	907	0	0
Petroleum Liquids (1000 barrels)	Utility Scale Facilities	28,207	27,632	2.1%	17,577	17,404	9,069	8,669	447	404	1,114	1,155	0	0
Petroleum Coke (1000 tons)	Utility Scale Facilities	647	804	-19.6%	408	540	17	16	2	4	220	243	0	0

Sales, Revenue, and Average Price of Electricity to Ultimate Customers for November									
	Total U.S. Electric Power Industry								
	Sales of Electricity to Ultimate Customers (million kWh)			Revenue from Sales of Electricity to Ultimate Customers (million dollars)			Average Price of Electricity to Ultimate Customers (cents/kWh)		
Sector	November 2019	November 2018	Percentage Change	November 2019	November 2018	Percentage Change	November 2019	November 2018	Percentage Change
Residential	102,063	103,790	-1.7%	13,308	13,389	-0.6%	13.04	12.90	1.1%
Commercial	102,218	104,984	-2.6%	10,808	11,069	-2.4%	10.57	10.54	0.3%
Industrial	75,801	81,195	-6.6%	5,103	5,563	-8.3%	6.73	6.85	-1.8%
Transportation	618	616	0.3%	59	60	-1.1%	9.56	9.70	-1.4%
All Sectors	280,698	290,584	-3.4%	29,278	30,081	-2.7%	10.43	10.35	0.8%

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 November														
		Total (All Sectors)			Electric Power Sector				Commercial		Industrial		Residential	
					Electric Utilities		Independent Power Producers							
Fuel	Facility Type	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
Net Generation (Thousand Megawatthours)														
Coal	Utility Scale Facilities	893,735	1,049,169	-14.8%	668,864	787,927	218,803	254,548	248	279	5,820	6,415	0	0
Petroleum Liquids	Utility Scale Facilities	10,602	15,279	-30.6%	7,489	9,451	2,604	5,233	103	123	406	471	0	0
Petroleum Coke	Utility Scale Facilities	6,582	8,186	-19.6%	4,797	6,216	1,169	1,372	4	6	611	591	0	0
Natural Gas	Utility Scale Facilities	1,452,665	1,359,080	6.9%	721,573	668,693	633,634	596,050	7,910	7,750	89,548	86,587	0	0
Other Gas	Utility Scale Facilities	12,513	12,342	1.4%	151	151	3,780	3,585	0	0	8,582	8,605	0	0
Nuclear	Utility Scale Facilities	736,164	735,427	0.1%	390,810	386,028	345,354	349,399	0	0	0	0	0	0
Hydroelectric Conventional	Utility Scale Facilities	251,366	269,727	-6.8%	229,521	246,963	20,632	21,534	195	211	1,018	1,019	0	0
Renewable Sources Excluding Hydroelectric	Utility Scale Facilities	409,391	380,279	7.7%	51,272	44,688	329,760	306,575	2,997	2,927	25,362	26,089	0	0
... Wind	Utility Scale Facilities	272,838	248,345	9.9%	40,485	34,774	232,091	213,325	165	159	97	87	0	0
... Solar Thermal and Photovoltaic	Utility Scale Facilities	68,458	60,716	12.8%	6,160	4,626	61,706	55,545	529	501	63	45	0	0
... Wood and Wood-Derived Fuels	Utility Scale Facilities	36,446	37,600	-3.1%	2,841	3,131	9,070	9,232	84	69	24,450	25,169	0	0
... Other Biomass	Utility Scale Facilities	16,952	19,096	-11.2%	963	1,238	13,418	14,871	1,819	2,199	752	788	0	0
... Geothermal	Utility Scale Facilities	14,696	14,521	1.2%	824	919	13,474	13,602	399	0	0	0	0	0
Hydroelectric Pumped Storage	Utility Scale Facilities	-4,731	-5,382	-12.1%	-3,795	-4,359	-936	-1,024	0	0	0	0	0	0
Other Energy Sources	Utility Scale Facilities	12,175	11,834	2.9%	447	513	6,607	6,103	971	923	4,150	4,296	0	0
All Energy Sources	Utility Scale Facilities	3,780,462	3,835,940	-1.4%	2,071,129	2,146,271	1,561,408	1,543,378	12,429	12,217	135,496	134,074	0	0
Estimated Small Scale Solar Photovoltaic	Small Scale Facilities	33,060	27,764	19.1%	0	0	0	0	10,503	9,209	2,863	2,479	19,695	16,076
Estimated Total Solar Photovoltaic	All Facilities	98,371	84,980	15.8%	6,132	4,575	58,586	52,096	11,033	9,710	2,925	2,524	19,695	16,076
Estimated Total Solar	All Facilities	101,519	88,480	14.7%	6,160	4,626	61,706	55,545	11,033	9,710	2,925	2,524	19,695	16,076
Consumption of Fossil Fuels for Electricity Generation														
Coal (1000 tons)	Utility Scale Facilities	498,553	580,590	-14.1%	369,391	432,129	127,029	146,068	70	80	2,062	2,313	0	0
Petroleum Liquids (1000 barrels)	Utility Scale Facilities	18,732	26,874	-30.3%	13,673	17,128	4,411	9,012	224	250	424	485	0	0
Petroleum Coke (1000 tons)	Utility Scale Facilities	2,639	3,301	-20.1%	1,930	2,499	540	639	1	2	167	161	0	0
Natural Gas (1000 Mcf)	Utility Scale Facilities	10,634,966	10,048,602	5.8%	5,508,512	5,166,145	4,550,017	4,318,207	49,071	48,552	527,367	515,699	0	0
Consumption of Fossil Fuels for Useful Thermal Output														
Coal (1000 tons)	Utility Scale Facilities	11,623	12,584	-7.6%	2,012	2,086	1,062	1,220	410	450	8,139	8,827	0	0
Petroleum Liquids (1000 barrels)	Utility Scale Facilities	2,131	2,327	-8.4%	66	100	232	274	380	315	1,452	1,638	0	0
Petroleum Coke (1000 tons)	Utility Scale Facilities	795	846	-6.0%	14	11	83	85	5	9	692	742	0	0
Natural Gas (1000 Mcf)	Utility Scale Facilities	1,128,857	1,100,724	2.6%	42,699	38,982	313,005	303,383	73,164	74,897	699,989	683,463	0	0
Consumption of Fossil Fuels for Electricity Generation and Useful Thermal Output														
Coal (1000 tons)	Utility Scale Facilities	510,176	593,173	-14.0%	371,404	434,215	128,091	147,288	480	530	10,201	11,141	0	0
Petroleum Liquids (1000 barrels)	Utility Scale Facilities	20,863	29,201	-28.6%	13,740	17,228	4,643	9,286	604	565	1,876	2,123	0	0
Petroleum Coke (1000 tons)	Utility Scale Facilities	3,434	4,148	-17.2%	1,945	2,510	624	724	7	10	859	903	0	0
Natural Gas (1000 Mcf)	Utility Scale Facilities	11,763,823	11,149,327	5.5%	5,551,211	5,205,127	4,863,021	4,621,589	122,235	123,449	1,227,356	1,199,161	0	0

Sales, Revenue, and Average Price of Electricity to Ultimate Customers for January through November									
	Total U.S. Electric Power Industry								
	Sales of Electricity to Ultimate Customers (million kWh)			Revenue from Sales of Electricity to Ultimate Customers (million dollars)			Average Price of Electricity to Ultimate Customers (cents/kWh)		
Sector	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	Percentage Change
Residential	1,314,057	1,345,916	-2.4%	171,556	173,722	-1.2%	13.06	12.91	1.2%
Commercial	1,247,177	1,273,762	-2.1%	133,420	136,271	-2.1%	10.70	10.70	0.0%
Industrial	875,380	921,217	-5.0%	60,128	63,937	-6.0%	6.87	6.94	-1.0%
Transportation	7,049	7,010	0.6%	687	680	1.0%	9.74	9.70	0.4%
All Sectors	3,443,662	3,547,904	-2.9%	365,791	374,610	-2.4%	10.62	10.56	0.6%

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	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
Coal (1000 tons)	44,365	50,315	37.38	39.02	233	275	511,656	542,755	39.11	39.15
Petroleum Liquids (1000 barrels)	1,281	1,494	78.88	94.65	119	218	12,982	20,383	82.01	87.08
Petroleum Coke (1000 tons)	232	235	41.78	63.10	5	6	1,786	2,772	56.86	73.01
Natural Gas (1000 Mcf)	802,804	791,715	3.07	4.31	560	783	9,908,096	10,091,067	2.99	3.57

Electric Utilities										
							Year-to-Date			
	Receipts		Cost				Receipts		Cost	
	(Physical Units)		(Dollars / Physical Unit)		Number of Plants		(Physical Units)		(Dollars / Physical Unit)	
Fuel	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
Coal (1000 tons)	32,407	36,346	38.46	39.90	162	181	378,890	397,126	40.40	40.24
Petroleum Liquids (1000 barrels)	992	896	78.49	95.50	79	134	9,850	12,741	81.09	87.40
Petroleum Coke (1000 tons)	232	229	41.78	63.55	5	5	1,713	2,708	57.28	73.61
Natural Gas (1000 Mcf)	379,687	378,446	3.28	4.39	292	419	4,852,186	5,004,946	3.15	3.71

Independent Power Producers										
							Year-to-Date			
	Receipts		Cost				Receipts		Cost	
	(Physical Units)		(Dollars / Physical Unit)		Number of Plants		(Physical Units)		(Dollars / Physical Unit)	
Fuel	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
Coal (1000 tons)	11,312	13,265	33.36	35.95	55	75	126,166	138,095	34.42	35.31
Petroleum Liquids (1000 barrels)	267	566	79.96	93.64	31	74	2,880	7,313	85.28	86.62
Petroleum Coke (1000 tons)	0	0	--	--	0	0	0	0	--	--
Natural Gas (1000 Mcf)	356,689	343,013	2.85	4.27	223	314	4,341,559	4,373,398	2.77	3.42

Commercial Sector										
							Year-to-Date			
	Receipts		Cost				Receipts		Cost	
	(Physical Units)		(Dollars / Physical Unit)		Number of Plants		(Physical Units)		(Dollars / Physical Unit)	
Fuel	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
Coal (1000 tons)	1	3	67.99	66.44	1	1	8	11	66.46	66.46
Petroleum Liquids (1000 barrels)	0	0	--	--	0	0	0	0	--	--
Petroleum Coke (1000 tons)	0	0	--	--	0	0	0	0	--	--
Natural Gas (1000 Mcf)	713	701	3.43	3.52	3	3	8,285	8,091	3.39	3.60

Industrial Sector										
							Year-to-Date			
	Receipts		Cost				Receipts		Cost	
	(Physical Units)		(Dollars / Physical Unit)		Number of Plants		(Physical Units)		(Dollars / Physical Unit)	
Fuel	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
Coal (1000 tons)	645	701	53.19	50.92	15	18	6,592	7,523	54.20	51.64
Petroleum Liquids (1000 barrels)	22	33	83.44	87.74	9	10	252	329	80.76	83.76
Petroleum Coke (1000 tons)	0	6	--	46.62	0	1	73	64	46.99	47.52
Natural Gas (1000 Mcf)	65,714	69,556	2.86	4.08	42	47	706,066	704,632	2.93	3.37

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

Table ES2.B. Summary Statistics: Receipts and Cost of Fossil Fuels for the Electric Power Industry by Sector, Btus, 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	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
Coal	843,916	954,234	1.96	2.06	233	275	9,845,051	10,352,007	2.03	2.05
Petroleum Liquids	7,794	8,917	12.97	15.87	119	218	78,376	122,595	13.58	14.46
Petroleum Coke	6,654	6,696	1.46	2.21	5	6	51,058	78,404	1.99	2.58
Natural Gas	830,418	817,552	2.96	4.18	560	783	10,240,756	10,422,364	2.89	3.46
Fossil Fuels	1,688,781	1,787,399	2.49	3.05	702	964	20,215,241	20,975,370	2.49	2.79

Electric Utilities										
							Year-to-Date			
	Receipts		Cost				Receipts		Cost	
	(Billion Btu)		(Dollars / Million Btu)		Number of Plants		(Billion Btu)		(Dollars / Million Btu)	
Fuel	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
Coal	618,284	691,145	2.02	2.10	162	181	7,313,985	7,607,341	2.09	2.10
Petroleum Liquids	6,088	5,383	12.79	15.89	79	134	59,840	77,059	13.35	14.45
Petroleum Coke	6,654	6,524	1.46	2.23	5	5	49,030	76,671	2.00	2.60
Natural Gas	392,163	390,167	3.17	4.26	292	419	5,012,103	5,166,802	3.05	3.59
Fossil Fuels	1,023,188	1,093,220	2.52	2.93	388	537	12,434,959	12,927,873	2.53	2.77

Independent Power Producers										
							Year-to-Date			
	Receipts		Cost				Receipts		Cost	
	(Billion Btu)		(Dollars / Million Btu)		Number of Plants		(Billion Btu)		(Dollars / Million Btu)	
Fuel	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
Coal	212,346	248,768	1.78	1.92	55	75	2,394,719	2,588,185	1.81	1.88
Petroleum Liquids	1,569	3,328	13.59	15.95	31	74	16,992	43,484	14.45	14.56
Petroleum Coke	0	0	--	--	0	0	0	0	--	--
Natural Gas	369,799	355,192	2.74	4.12	223	314	4,492,551	4,522,220	2.68	3.31
Fossil Fuels	583,714	607,288	2.38	3.19	266	374	6,904,262	7,153,888	2.37	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	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
Coal	31	62	2.96	2.94	1	1	173	244	2.92	2.93
Petroleum Liquids	0	0	--	--	0	0	0	0	--	--
Petroleum Coke	0	0	--	--	0	0	0	0	--	--
Natural Gas	743	723	3.30	3.41	3	3	8,597	8,334	3.26	3.49
Fossil Fuels	773	785	3.28	3.37	3	3	8,769	8,578	3.26	3.48

Industrial Sector										
							Year-to-Date			
	Receipts		Cost				Receipts		Cost	
	(Billion Btu)		(Dollars / Million Btu)		Number of Plants		(Billion Btu)		(Dollars / Million Btu)	
Fuel	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
Coal	13,255	14,259	2.59	2.50	15	18	136,175	156,238	2.62	2.49
Petroleum Liquids	137	206	13.67	14.01	9	10	1,543	2,051	13.18	13.42
Petroleum Coke	0	172	--	1.69	0	1	2,028	1,733	1.69	1.76
Natural Gas	67,713	71,469	2.77	3.97	42	47	727,505	725,008	2.85	3.27
Fossil Fuels	81,105	86,106	2.76	3.75	45	50	867,251	885,031	2.83	3.15

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-November 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	1,145,962	16,245	8,981	1,468,727	13,463	807,084	292,524	63,825	350,518	-5,905	12,973	4,174,398	29,539	89,773	93,365
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	119,284	5,555	965	110,265	1,097	74,649	25,064	3,319	32,453	-547	1,109	373,212	1,619	4,810	4,938
February	82,050	804	754	98,492	1,092	64,790	24,902	3,896	29,419	-315	994	306,879	1,766	5,472	5,663
March	80,626	830	642	106,503	1,158	67,033	25,861	5,056	33,204	-490	1,108	321,530	2,434	7,233	7,490
April	73,346	873	666	98,354	1,099	59,133	28,115	6,057	32,451	-377	1,028	300,743	2,740	8,482	8,796
May	85,227	1,040	517	115,268	1,167	67,320	30,444	6,849	30,424	-390	1,070	338,936	3,011	9,430	9,860
June	101,503	1,066	834	130,808	1,091	69,688	27,597	7,415	31,197	-433	1,104	371,870	3,059	9,957	10,474
July	115,376	988	913	164,722	1,172	72,456	25,100	6,755	23,318	-644	1,111	411,265	3,146	9,521	9,901
August	115,129	1,047	879	161,650	1,301	72,282	22,017	6,695	26,603	-747	1,146	408,004	3,017	9,303	9,712
Sept	96,544	1,055	799	141,762	1,104	64,725	19,166	5,961	24,722	-603	1,004	356,239	2,674	8,205	8,635
October	87,264	1,015	562	123,116	1,016	59,397	19,548	4,970	27,432	-492	1,084	324,911	2,392	7,087	7,361
November	92,819	1,006	656	108,142	1,045	63,954	21,913	3,743	28,340	-343	1,075	322,349	1,905	5,480	5,648
December	96,793	966	795	109,647	1,120	71,657	22,797	3,110	30,955	-522	1,139	338,458	1,775	4,792	4,885
Year 2019															
January	101,008	1,358	840	119,306	1,115	73,701	24,215	3,641	31,695	-323	1,195	357,750	1,910	5,441	5,551
February	80,104	806	747	111,009	1,110	64,715	21,829	3,811	28,911	-389	1,002	313,655	2,066	5,746	5,877
March	78,516	823	639	112,948	1,251	65,080	25,550	5,885	32,374	-409	1,082	323,739	2,925	8,549	8,809
April	60,054	788	446	103,004	1,071	60,581	25,486	6,806	35,430	-103	1,020	294,584	3,260	9,741	10,066
May	71,883	943	747	116,366	1,101	67,124	30,063	7,161	32,223	-368	1,124	328,367	3,566	10,390	10,727
June	78,609	976	555	136,995	1,040	68,805	26,471	7,971	29,199	-385	1,107	351,343	3,622	11,153	11,593
July	100,981	1,029	746	174,345	1,290	72,199	23,733	8,132	28,589	-622	1,162	411,584	3,783	11,515	11,915
August	94,176	1,084	687	176,454	1,202	71,911	20,792	7,844	26,593	-579	1,199	401,363	3,630	11,061	11,474
Sept	85,918	942	638	150,742	1,139	65,892	16,372	6,726	30,474	-671	1,129	359,301	3,222	9,654	9,948
October	66,855	955	198	133,685	997	62,033	16,303	6,110	34,072	-373	1,087	321,922	2,845	8,657	8,955
November	75,630	898	339	117,810	1,196	64,125	20,551	4,373	31,372	-509	1,069	316,855	2,231	6,463	6,604
Year to Date															
2017	1,099,290	10,432	8,239	1,185,042	11,373	731,250	277,956	49,897	301,229	-5,839	11,950	3,680,819	22,518	69,269	72,415
2018	1,049,169	15,279	8,186	1,359,080	12,342	735,427	269,727	60,716	319,563	-5,382	11,834	3,835,940	27,764	84,980	88,480
2019	893,735	10,602	6,582	1,452,665	12,513	736,164	251,366	68,458	340,933	-4,731	12,175	3,780,462	33,060	98,371	101,519
Rolling 12 Months Ending in November															
2018	1,155,714	17,261	8,923	1,470,453	13,439	809,127	292,104	64,105	351,325	-6,038	12,980	4,189,392	29,236	89,719	93,341
2019	990,528	11,569	7,376	1,562,312	13,634	807,822	274,163	71,568	371,888	-5,254	13,314	4,118,920	34,835	103,163	106,403

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 2018 and prior years are final. Values for 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-November 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	272,650	60,234	3,592	41,005	11,036	7,136	2,724	15,967	292,524	706,867	29,539	89,773	93,365
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	25,597	3,191	128	3,698	964	588	265	1,341	25,064	60,836	1,619	4,810	4,938
February	23,188	3,705	191	3,241	906	559	251	1,274	24,902	58,218	1,766	5,472	5,663
March	26,462	4,799	258	3,554	972	597	253	1,367	25,861	64,121	2,434	7,233	7,490
April	26,429	5,743	314	3,108	920	566	239	1,188	28,115	66,623	2,740	8,482	8,796
May	23,952	6,419	430	3,358	930	573	228	1,383	30,444	67,717	3,011	9,430	9,860
June	24,701	6,898	517	3,476	889	629	202	1,300	27,597	66,209	3,059	9,957	10,474
July	16,445	6,374	380	3,753	909	638	202	1,370	25,100	55,172	3,146	9,521	9,901
August	19,845	6,286	409	3,634	919	630	208	1,367	22,017	55,316	3,017	9,303	9,712
Sept	18,518	5,531	430	3,286	836	562	192	1,328	19,166	49,849	2,674	8,205	8,635
October	21,193	4,695	275	3,223	918	594	231	1,273	19,548	51,950	2,392	7,087	7,361
November	22,014	3,575	168	3,271	920	584	220	1,331	21,913	53,996	1,905	5,480	5,648
December	24,305	3,018	92	3,405	951	616	233	1,446	22,797	56,862	1,775	4,792	4,885
Year 2019													
January	25,137	3,530	111	3,533	868	529	207	1,420	24,215	59,551	1,910	5,441	5,551
February	22,994	3,679	131	3,164	796	464	186	1,307	21,829	54,551	2,066	5,746	5,877
March	26,102	5,625	260	3,252	863	492	229	1,435	25,550	63,809	2,925	8,549	8,809
April	29,706	6,481	325	3,022	791	471	202	1,237	25,486	67,723	3,260	9,741	10,066
May	25,971	6,825	336	3,365	830	528	184	1,346	30,063	69,447	3,566	10,390	10,727
June	22,942	7,531	439	3,342	846	524	184	1,361	26,471	63,641	3,622	11,153	11,593
July	22,020	7,732	400	3,571	862	538	187	1,411	23,733	60,454	3,783	11,515	11,915
August	19,867	7,431	413	3,717	864	546	192	1,408	20,792	55,229	3,630	11,061	11,474
Sept	24,299	6,432	294	3,287	824	511	170	1,383	16,372	53,572	3,222	9,654	9,948
October	28,144	5,812	298	3,086	850	500	216	1,276	16,303	56,485	2,845	8,657	8,955
November	25,656	4,231	141	3,107	816	485	197	1,112	20,551	56,296	2,231	6,463	6,604
Year to Date													
2017	229,727	46,750	3,147	37,413	10,548	6,345	2,839	14,356	277,956	629,082	22,518	69,269	72,415
2018	248,345	57,216	3,500	37,600	10,085	6,520	2,491	14,521	269,727	650,006	27,764	84,980	88,480
2019	272,838	65,311	3,148	36,446	9,209	5,589	2,154	14,696	251,366	660,757	33,060	98,371	101,519
Rolling 12 Months Ending in November													
2018	272,920	60,483	3,622	41,339	11,080	7,127	2,767	16,092	292,104	707,533	29,236	89,719	93,341
2019	297,143	68,328	3,240	39,851	10,160	6,205	2,386	16,143	274,163	717,619	34,835	103,163	106,403

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 2018 and prior years are final. Values for 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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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-November 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	859,979	10,108	6,817	720,069	151	424,251	267,336	4,916	44,166	-4,785	561	2,333,570
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	88,718	2,491	770	55,797	26	39,366	23,106	288	4,398	-475	41	214,523
February	61,138	617	575	48,715	17	33,941	22,864	314	3,852	-226	38	171,846
March	58,606	595	491	52,161	16	35,262	23,638	446	4,274	-408	48	175,130
April	55,281	632	477	48,151	28	30,580	25,598	480	4,119	-295	39	165,091
May	64,034	745	336	58,251	11	34,479	28,055	463	3,426	-309	45	189,537
June	77,899	756	670	66,774	13	36,437	25,778	503	3,690	-339	50	212,231
July	88,102	668	716	81,297	15	38,293	23,303	477	2,822	-522	55	235,228
August	87,359	711	686	78,025	24	38,885	20,050	476	3,120	-626	56	228,766
Sept	73,021	781	639	68,655	3	34,377	17,368	436	3,287	-500	47	198,115
October	64,902	751	378	59,071	0	31,364	17,571	418	3,446	-405	43	177,539
November	68,864	703	477	51,796	0	33,043	19,630	325	3,629	-254	50	178,264
December	72,053	657	601	51,376	0	38,223	20,373	290	4,104	-426	49	187,300
Year 2019												
January	74,996	855	634	57,285	12	39,806	21,817	369	4,203	-247	42	199,773
February	59,589	561	564	54,496	22	34,243	19,790	386	3,630	-310	33	173,004
March	56,546	597	464	54,670	31	34,213	23,157	577	4,433	-309	33	174,412
April	44,241	534	276	50,523	0	32,063	23,238	641	5,024	-26	37	156,550
May	55,081	671	552	58,862	0	35,416	27,684	661	4,199	-305	44	182,862
June	60,148	724	398	69,984	23	36,847	24,287	638	3,886	-299	41	196,677
July	77,053	715	551	87,430	18	39,023	21,640	655	3,625	-505	40	230,244
August	71,916	809	501	89,675	16	39,218	19,148	616	3,175	-470	51	224,655
Sept	64,868	693	460	75,933	10	34,770	15,029	616	4,111	-583	43	195,950
October	49,122	698	146	66,405	0	32,289	14,937	547	4,621	-316	43	168,492
November	55,304	632	251	56,311	19	32,923	18,793	454	4,206	-424	41	168,510
Year to Date												
2017	816,769	7,614	6,155	570,482	124	385,614	254,948	3,044	38,395	-4,891	503	2,078,758
2018	787,927	9,451	6,216	668,693	151	386,028	246,963	4,626	40,062	-4,359	513	2,146,271
2019	668,864	7,489	4,797	721,573	151	390,810	229,521	6,160	45,112	-3,795	447	2,071,129
Rolling 12 Months Ending in November												
2018	864,797	10,404	6,772	722,047	175	424,899	267,692	4,929	44,431	-4,916	562	2,341,792
2019	740,917	8,146	5,398	772,949	151	429,034	249,894	6,450	49,216	-4,222	496	2,258,429

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.
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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;
Form EIA-423, Monthly Cost and Quality of Fuels for Electric Plants Report; and Federal Energy Regulatory Commission, FERC Form 423, Monthly Report of Cost and Quality of Fuels for Electric Plants.

Table 1.2.B Net Generation by Energy Source: Independent Power Producers, 2009-November 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	278,668	5,487	1,516	645,416	3,935	382,833	23,812	58,337	275,154	-1,119	6,677	1,680,717
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	29,839	2,951	137	45,656	318	35,283	1,856	3,000	25,364	-72	575	144,908
February	20,261	133	126	41,972	320	30,849	1,929	3,549	23,179	-89	543	122,772
March	21,377	186	96	46,421	331	31,770	2,114	4,563	26,260	-82	564	133,600
April	17,506	199	137	42,453	326	28,553	2,392	5,522	25,872	-82	527	123,405
May	20,600	248	124	48,752	379	32,841	2,264	6,325	24,380	-81	526	136,356
June	22,994	268	100	55,384	303	33,251	1,724	6,845	24,920	-95	582	146,277
July	26,647	260	139	73,943	344	34,163	1,700	6,214	17,729	-123	586	161,601
August	27,157	292	139	74,104	369	33,398	1,858	6,158	20,775	-121	579	164,708
Sept	22,941	233	108	64,319	328	30,348	1,692	5,475	18,927	-103	515	144,783
October	21,834	218	126	55,441	255	28,033	1,855	4,508	21,450	-87	556	134,189
November	23,393	245	140	47,605	311	30,911	2,150	3,386	22,175	-88	551	130,779
December	24,120	254	144	49,366	350	33,434	2,277	2,792	24,124	-96	574	137,339
Year 2019												
January	25,372	446	153	52,633	368	33,895	2,277	3,239	24,863	-76	629	143,799
February	19,948	197	139	48,351	355	30,472	1,936	3,393	22,891	-79	547	128,149
March	21,413	180	131	49,673	350	30,867	2,272	5,256	25,354	-100	581	135,975
April	15,295	204	124	44,187	339	28,518	2,134	6,107	27,971	-78	553	125,354
May	16,283	230	143	49,032	338	31,708	2,252	6,438	25,560	-63	632	132,553
June	17,943	209	103	58,396	325	31,958	2,066	7,265	22,765	-86	618	141,561
July	23,342	274	NM	77,549	390	33,176	1,983	7,405	22,312	-118	640	167,031
August	21,688	224	131	77,288	388	32,693	1,541	7,160	20,721	-109	644	162,370
Sept	20,506	203	118	65,876	349	31,122	1,250	6,053	23,930	-88	595	149,913
October	17,236	216	9	58,398	227	29,744	1,271	5,513	27,018	-56	588	140,164
November	19,777	221	41	52,251	352	31,202	1,652	3,877	24,670	-84	580	134,538
Year to Date												
2017	275,208	2,329	1,358	523,816	3,619	345,636	21,508	46,321	234,358	-948	5,941	1,459,147
2018	254,548	5,233	1,372	596,050	3,585	349,399	21,534	55,545	251,030	-1,024	6,103	1,543,378
2019	218,803	2,604	1,169	633,634	3,780	345,354	20,632	61,706	268,054	-936	6,607	1,561,408
Rolling 12 Months Ending in November												
2018	283,538	6,185	1,494	645,154	3,945	384,228	23,060	58,598	275,635	-1,122	6,689	1,687,404
2019	242,923	2,858	NM	683,000	4,130	378,788	22,909	64,499	292,178	-1,032	7,181	1,698,748

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 2018 and prior years are final. Values for 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-November 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	303	132	7	8,419	0	0	227	525	2,688	0	1,010	13,312	9,798	10,324	10,324
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	40	41	1	671	0	0	19	29	229	0	84	1,114	552	581	581
February	32	7	1	626	0	0	19	31	206	0	72	995	605	636	636
March	27	7	1	647	0	0	21	43	227	0	83	1,058	820	863	863
April	24	8	0	585	0	0	24	50	217	0	81	989	907	957	957
May	21	7	0	656	0	0	24	57	221	0	90	1,076	992	1,048	1,048
June	20	7	0	737	0	0	21	62	224	0	92	1,163	1,003	1,065	1,065
July	21	11	0	875	0	0	19	59	223	0	90	1,298	1,036	1,094	1,094
August	23	9	0	892	0	0	17	56	230	0	90	1,318	993	1,049	1,049
Sept	24	7	1	771	0	0	16	46	213	0	80	1,156	893	938	938
October	20	7	1	668	0	0	14	39	223	0	83	1,055	786	826	826
November	25	12	1	622	0	0	16	29	212	0	77	993	623	652	652
December	24	9	1	669	0	0	17	25	262	0	88	1,095	589	614	614
Year 2019															
January	33	13	1	719	0	0	NM	29	255	0	94	1,164	637	666	666
February	28	8	1	670	0	0	NM	29	228	0	80	1,061	684	713	713
March	32	8	1	702	0	0	NM	47	253	0	89	1,152	945	991	991
April	21	7	1	644	0	0	NM	52	206	0	88	1,040	1,048	1,100	1,100
May	19	8	0	682	0	0	NM	55	200	0	90	1,079	1,129	1,184	1,184
June	14	7	0	690	0	0	21	61	217	0	92	1,100	1,137	1,198	1,198
July	NM	10	0	813	0	0	NM	63	226	0	91	1,241	1,193	1,257	1,257
August	18	13	0	842	0	0	NM	61	219	0	93	1,261	1,136	1,197	1,197
Sept	21	11	0	738	0	0	NM	51	212	0	90	1,135	1,012	1,064	1,064
October	20	10	0	702	0	0	NM	44	227	0	83	1,097	894	938	938
November	21	9	0	709	0	0	15	37	225	0	81	1,097	688	725	725
Year to Date															
2017	294	80	7	7,367	0	0	217	492	2,491	0	996	11,946	7,192	7,685	7,685
2018	279	123	6	7,750	0	0	211	501	2,426	0	923	12,217	9,209	9,710	9,710
2019	248	103	4	7,910	0	0	195	529	2,468	0	971	12,429	10,503	11,033	11,033
Rolling 12 Months Ending in November															
2018	313	147	7	8,424	0	0	233	530	2,664	0	1,014	13,331	9,702	10,231	10,231
2019	NM	112	5	8,579	0	0	NM	554	2,730	0	1,059	13,524	11,092	11,646	11,646

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 2018 and prior years are final. Values for 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.D. Net Generation by Energy Source: Industrial Sector, 2009-November 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	7,011	517	640	94,823	9,377	0	1,149	47	28,509	0	4,725	146,798	2,636	2,683	2,683
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	687	73	57	8,141	752	0	83	2	2,461	0	410	12,667	146	149	149
February	619	47	52	7,178	755	0	89	3	2,183	0	340	11,265	155	158	158
March	616	41	54	7,274	811	0	87	4	2,443	0	413	11,742	221	225	225
April	535	33	51	7,166	744	0	102	4	2,243	0	380	11,258	241	245	245
May	572	41	56	7,608	778	0	101	5	2,397	0	409	11,967	267	271	271
June	590	34	64	7,913	775	0	74	5	2,363	0	381	12,199	268	273	273
July	606	49	57	8,606	813	0	78	5	2,544	0	381	13,138	277	282	282
August	590	35	54	8,630	909	0	91	5	2,477	0	421	13,213	268	273	273
Sept	558	34	51	8,017	773	0	90	4	2,296	0	363	12,185	242	247	247
October	507	39	58	7,935	762	0	108	4	2,313	0	402	12,127	220	224	224
November	536	46	38	8,120	734	0	116	3	2,325	0	396	12,313	174	177	177
December	596	46	49	8,236	771	0	130	2	2,465	0	429	12,724	157	160	160
Year 2019															
January	606	44	52	8,668	734	0	102	3	2,374	0	429	13,013	168	171	171
February	539	40	42	7,492	734	0	87	3	2,163	0	343	11,442	178	181	181
March	525	38	43	7,903	870	0	101	6	2,334	0	379	12,199	254	260	260
April	497	42	46	7,650	733	0	94	6	2,229	0	342	11,639	278	284	284
May	500	34	52	7,791	764	0	102	6	2,265	0	358	11,872	309	315	315
June	504	36	54	7,926	692	0	97	7	2,332	0	357	12,004	311	318	318
July	565	30	118	8,554	882	0	94	8	2,425	0	391	13,068	321	329	329
August	554	38	55	8,649	798	0	87	7	2,478	0	411	13,077	311	318	318
Sept	524	35	60	8,195	781	0	81	6	2,221	0	400	12,303	281	287	287
October	477	31	42	8,180	770	0	83	6	2,207	0	373	12,169	255	260	260
November	529	36	46	8,539	825	0	91	5	2,271	0	367	12,710	198	203	203
Year to Date															
2017	7,018	408	718	83,377	7,630	0	1,283	39	25,986	0	4,509	130,968	2,226	2,265	2,265
2018	6,415	471	591	86,587	8,605	0	1,019	45	26,045	0	4,296	134,074	2,479	2,524	2,524
2019	5,820	406	611	89,548	8,582	0	1,018	63	25,299	0	4,150	135,496	2,863	2,925	2,925
Rolling 12 Months Ending in November															
2018	7,066	526	650	94,829	9,318	0	1,119	47	28,595	0	4,715	146,864	2,617	2,665	2,665
2019	6,416	453	659	97,784	9,353	0	1,148	65	27,763	0	4,578	148,220	3,020	3,085	3,085

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 2018 and prior years are final. Values for 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-November 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	17,105
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	921
February	1,007
March	1,393
April	1,592
May	1,753
June	1,788
July	1,834
August	1,756
Sept	1,539
October	1,385
November	1,108
December	1,029
Year 2019	
January	1,106
February	1,204
March	1,726
April	1,934
May	2,129
June	2,174
July	2,268
August	2,183
Sept	1,929
October	1,696
November	1,346
Year to Date	
2017	13,100
2018	16,076
2019	19,695
Rolling 12 Months Ending in November	
2018	16,917
2019	20,723

See Glossary for definitions. Values for 2018 and prior years are final. Values for 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, November 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	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	7,767	7,928	-2.0%	170	232	7,237	7,345	116	106	243	244
Connecticut	3,443	2,922	17.8%	6	12	3,342	2,817	36	39	59	54
Maine	804	990	-18.7%	0	0	646	819	11	14	148	157
Massachusetts	1,374	1,803	-23.8%	38	42	1,257	1,698	58	42	21	21
New Hampshire	1,371	1,410	-2.8%	60	100	1,301	1,300	7	7	3	3
Rhode Island	602	595	1.3%	0	0	585	580	4	4	13	10
Vermont	173	209	-17.2%	66	78	106	131	0	0	0	0
Middle Atlantic	34,571	33,040	4.6%	2,799	2,970	31,223	29,577	191	161	358	333
New Jersey	5,585	5,183	7.8%	NM	15	5,463	5,078	45	30	64	60
New York	10,696	10,763	-0.6%	2,782	2,940	7,730	7,656	114	97	71	70
Pennsylvania	18,289	17,094	7.0%	4	15	18,031	16,842	31	33	223	203
East North Central	46,134	49,497	-6.8%	16,613	19,132	28,404	29,334	147	137	969	894
Illinois	14,955	15,150	-1.3%	408	443	14,272	14,445	36	30	239	233
Indiana	8,991	9,603	-6.4%	6,054	6,991	2,512	2,259	25	15	400	337
Michigan	8,538	8,593	-0.6%	5,376	6,413	2,971	2,001	60	70	132	109
Ohio	8,720	10,822	-19.4%	1,028	1,175	7,624	9,577	14	12	53	58
Wisconsin	4,930	5,329	-7.5%	3,748	4,110	1,025	1,052	12	10	145	157
West North Central	28,247	29,040	-2.7%	22,164	23,755	5,691	4,926	51	48	341	311
Iowa	5,326	5,417	-1.7%	4,015	4,204	1,108	1,047	18	19	184	148
Kansas	4,332	4,072	6.4%	2,503	2,728	1,814	1,329	NM	1	14	14
Minnesota	4,685	5,264	-11.0%	3,600	4,229	984	917	13	15	88	104
Missouri	6,058	6,715	-9.8%	5,797	6,211	241	490	16	11	4	3
Nebraska	3,064	2,865	7.0%	2,337	2,379	688	448	2	1	37	37
North Dakota	3,674	3,504	4.8%	3,028	2,976	632	522	NM	NM	14	5
South Dakota	1,108	1,202	-7.8%	884	1,029	225	174	NM	0	0	0
South Atlantic	59,871	62,288	-3.9%	48,814	51,181	9,333	9,359	135	144	1,589	1,603
Delaware	319	317	0.6%	NM	1	207	199	1	1	111	117
District of Columbia	8	4	91.2%	0	0	NM	0	7	4	0	0
Florida	17,309	18,436	-6.1%	16,251	17,193	615	804	6	7	437	432
Georgia	10,022	10,418	-3.8%	8,454	9,019	1,141	981	NM	0	426	417
Maryland	3,002	3,481	-13.8%	96	351	2,827	3,033	75	76	4	21
North Carolina	10,506	10,825	-3.0%	8,994	9,470	1,342	1,179	20	28	150	148
South Carolina	7,160	7,136	0.3%	6,809	6,733	208	263	0	0	143	140
Virginia	6,532	7,240	-9.8%	4,447	5,368	1,849	1,629	26	28	210	214
West Virginia	5,013	4,429	13.2%	3,762	3,045	1,142	1,271	0	0	109	114
East South Central	26,912	27,427	-1.9%	22,813	22,973	3,296	3,655	20	20	784	779
Alabama	11,173	10,724	4.2%	7,984	7,556	2,783	2,771	0	0	406	397
Kentucky	4,811	6,292	-23.5%	4,718	6,170	45	70	0	0	48	52
Mississippi	4,667	5,056	-7.7%	4,065	4,103	439	794	0	0	163	159
Tennessee	6,261	5,355	16.9%	6,046	5,144	29	20	20	20	166	171
West South Central	54,288	54,141	0.3%	16,013	18,108	31,311	29,317	82	67	6,881	6,648
Arkansas	4,698	5,014	-6.3%	4,173	4,267	411	616	NM	2	109	128
Louisiana	7,421	7,435	-0.2%	4,084	4,190	584	627	12	16	2,741	2,602
Oklahoma	5,751	6,287	-8.5%	2,532	3,244	3,144	2,972	0	0	74	71
Texas	36,418	35,405	2.9%	5,224	6,407	27,171	25,102	66	49	3,957	3,847
Mountain	28,467	30,173	-5.7%	21,652	23,445	6,467	6,414	82	41	266	272
Arizona	7,617	8,045	-5.3%	6,537	7,216	1,069	819	11	10	0	0
Colorado	4,678	4,492	4.1%	3,576	3,492	1,093	992	3	1	6	7
Idaho	1,335	1,447	-7.7%	910	927	370	466	4	4	51	49
Montana	2,463	2,567	-4.0%	843	815	1,617	1,748	0	0	3	4
Nevada	2,972	2,854	4.1%	2,002	1,917	886	912	50	8	33	18
New Mexico	2,828	3,160	-10.5%	1,861	2,148	959	995	8	9	0	8
Utah	3,286	3,630	-9.5%	2,996	3,301	247	266	5	9	38	55
Wyoming	3,287	3,978	-17.4%	2,927	3,629	225	216	0	0	135	132
Pacific Contiguous	29,236	27,468	6.4%	16,555	15,548	11,212	10,514	219	211	1,251	1,195
California	15,049	14,587	3.2%	5,542	5,356	8,207	7,990	212	203	1,089	1,037
Oregon	5,350	5,017	6.6%	3,791	3,519	1,498	1,444	6	5	55	48
Washington	8,837	7,864	12.4%	7,222	6,673	1,507	1,079	NM	3	107	110
Pacific Noncontiguous	1,363	1,348	1.1%	917	918	364	340	54	58	28	33
Alaska	528	520	1.6%	476	463	21	23	22	25	9	9
Hawaii	834	828	0.8%	441	455	343	317	32	32	19	23
U.S. Total	316,855	322,349	-1.7%	168,510	178,264	134,538	130,779	1,097	993	12,710	12,313

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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 1.3.B. Utility Scale Facility Net Generation

by State, by Sector, Year-to-Date through November 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	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	91,551	96,658	-5.3%	2,164	2,669	85,468	90,078	1,235	1,261	2,684	2,649
Connecticut	36,401	35,759	1.8%	73	98	35,358	34,685	371	392	598	585
Maine	9,202	10,310	-10.7%	0	0	7,403	8,506	122	151	1,677	1,652
Massachusetts	20,390	25,160	-19.0%	529	543	18,995	23,772	622	599	244	246
New Hampshire	16,415	15,663	4.8%	822	1,259	15,503	14,314	63	62	27	29
Rhode Island	7,169	7,814	-8.3%	0	0	6,979	7,623	54	54	137	137
Vermont	1,973	1,951	1.1%	739	769	1,230	1,179	3	3	0	0
Middle Atlantic	396,534	386,434	2.6%	32,107	32,891	358,349	347,459	2,100	2,111	3,979	3,972
New Jersey	64,883	69,081	-6.1%	132	111	63,535	67,771	526	557	690	642
New York	120,523	121,403	-0.7%	31,881	32,645	86,641	86,719	1,226	1,216	776	824
Pennsylvania	211,128	195,950	7.7%	94	135	208,173	192,969	348	339	2,513	2,507
East North Central	535,021	558,277	-4.2%	199,394	221,171	323,878	325,480	1,671	1,773	10,078	9,854
Illinois	166,728	172,200	-3.2%	5,021	4,983	158,854	164,284	397	377	2,456	2,556
Indiana	94,995	103,690	-8.4%	65,798	77,806	24,864	21,799	257	234	4,076	3,851
Michigan	106,609	107,255	-0.6%	71,933	75,192	32,645	30,070	677	793	1,353	1,199
Ohio	109,220	114,923	-5.0%	12,459	16,455	95,933	97,617	208	235	620	616
Wisconsin	57,468	60,209	-4.6%	44,182	46,735	11,582	11,710	132	132	1,572	1,632
West North Central	310,331	322,320	-3.7%	245,604	264,284	60,374	53,775	587	577	3,766	3,684
Iowa	57,929	57,504	0.7%	43,953	44,912	11,739	10,433	208	206	2,029	1,953
Kansas	47,433	46,788	1.4%	29,481	31,236	17,857	15,461	14	14	81	77
Minnesota	53,006	56,212	-5.7%	40,630	44,252	11,043	10,561	175	177	1,158	1,221
Missouri	70,150	78,035	-10.1%	64,905	73,088	5,043	4,747	171	161	30	39
Nebraska	33,754	33,623	0.4%	27,009	28,455	6,406	4,816	16	17	324	335
North Dakota	36,590	38,832	-5.8%	30,063	32,809	6,379	5,963	NM	NM	144	57
South Dakota	11,469	11,325	1.3%	9,562	9,532	1,906	1,793	NM	0	0	0
South Atlantic	748,236	754,172	-0.8%	618,123	618,767	110,928	116,786	1,683	1,571	17,502	17,049
Delaware	4,931	5,997	-17.8%	33	35	3,659	4,947	5	5	1,235	1,009
District of Columbia	84	71	17.8%	0	0	14	0	70	71	0	0
Florida	227,351	226,267	0.5%	212,304	210,414	10,320	11,136	59	73	4,668	4,644
Georgia	117,645	118,494	-0.7%	97,400	99,935	15,525	13,780	6	7	4,714	4,773
Maryland	36,709	40,398	-9.1%	3,285	3,557	32,310	35,854	971	757	142	229
North Carolina	121,231	123,032	-1.5%	103,100	107,521	16,290	13,578	235	304	1,606	1,628
South Carolina	92,226	91,421	0.9%	88,669	86,409	1,898	3,449	2	2	1,657	1,560
Virginia	88,820	86,724	2.4%	68,401	65,238	17,848	18,875	334	351	2,237	2,259
West Virginia	59,239	61,770	-4.1%	44,932	45,657	13,064	15,166	0	0	1,244	947
East South Central	332,580	340,076	-2.2%	283,102	287,622	40,816	43,785	204	214	8,458	8,455
Alabama	130,240	133,523	-2.5%	92,725	93,987	33,220	35,329	0	0	4,295	4,208
Kentucky	65,399	72,277	-9.5%	64,511	71,098	366	703	0	0	522	476
Mississippi	61,900	59,372	4.3%	53,397	50,131	6,808	7,485	0	0	1,695	1,756
Tennessee	75,041	74,904	0.2%	72,470	72,406	423	268	204	214	1,945	2,016
West South Central	671,571	676,810	-0.8%	222,639	237,476	375,844	367,442	1,003	880	72,086	71,012
Arkansas	56,767	62,564	-9.3%	50,261	54,836	4,944	6,200	44	42	1,518	1,487
Louisiana	93,828	94,352	-0.6%	57,055	57,908	7,379	8,425	148	161	29,245	27,858
Oklahoma	76,687	79,426	-3.4%	36,053	38,730	39,882	39,883	0	0	752	813
Texas	444,290	440,468	0.9%	79,269	86,003	323,638	312,933	811	677	40,571	40,854
Mountain	337,348	338,538	-0.4%	258,881	263,739	74,970	71,457	900	497	2,597	2,844
Arizona	104,367	102,558	1.8%	88,727	90,034	15,503	12,383	138	141	0	0
Colorado	51,174	50,296	1.7%	39,449	37,997	11,624	12,206	33	25	68	69
Idaho	15,036	16,686	-9.9%	9,590	10,970	4,878	5,199	44	46	524	471
Montana	24,874	25,769	-3.5%	9,325	11,255	15,521	14,482	0	0	28	31
Nevada	36,706	36,711	0.0%	24,999	25,496	10,898	10,779	516	118	293	318
New Mexico	32,215	29,444	9.4%	21,749	18,897	10,366	10,427	95	97	4	24
Utah	35,460	35,343	0.3%	31,403	31,146	3,511	3,588	75	70	471	539
Wyoming	37,515	41,731	-10.1%	33,637	37,944	2,668	2,395	0	0	1,209	1,392
Pacific Contiguous	342,477	347,953	-1.6%	199,152	207,665	126,903	123,421	2,411	2,670	14,011	14,197
California	189,564	180,920	4.8%	79,042	69,899	95,939	96,045	2,325	2,574	12,258	12,402
Oregon	56,465	58,680	-3.8%	39,477	43,188	16,302	14,882	67	67	618	544
Washington	96,448	108,353	-11.0%	80,633	94,579	14,662	12,495	19	29	1,135	1,251
Pacific Noncontiguous	14,813	14,702	0.8%	9,963	9,987	3,878	3,694	636	662	335	359
Alaska	5,768	5,703	1.1%	5,186	5,086	214	215	258	301	109	101
Hawaii	9,046	8,999	0.5%	4,777	4,901	3,664	3,479	378	361	226	258
U.S. Total	3,780,462	3,835,940	-1.4%	2,071,129	2,146,271	1,561,408	1,543,378	12,429	12,217	135,496	134,074

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Notes: See Glossary for definitions. Values for 2019 are preliminary. Values for 2018 are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 1.4.A. Utility Scale Facility Net Generation from Coal by State, by Sector, November 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	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	26	NM	NM	21	NM	4	39	0	0	NM	1
Connecticut	-2	35	-106.1%	0	0	-2	35	0	0	0	0
Maine	7	5	55.6%	0	0	6	4	0	0	NM	1
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	21	NM	NM	21	NM	0	0	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	3,492	3,260	7.1%	0	0	3,487	3,252	0	0	5	8
New Jersey	79	82	-3.9%	0	0	79	82	0	0	0	0
New York	0	3	-100.0%	0	0	0	3	0	0	0	0
Pennsylvania	3,413	3,175	7.5%	0	0	3,408	3,167	0	0	5	8
East North Central	17,032	21,952	-22.4%	9,998	12,978	6,862	8,781	4	1	168	192
Illinois	4,191	4,626	-9.4%	276	369	3,778	4,105	0	0	137	152
Indiana	5,391	6,627	-18.7%	4,967	6,217	420	409	4	1	0	0
Michigan	2,257	3,133	-28.0%	2,216	3,097	36	33	0	0	NM	3
Ohio	3,133	4,732	-33.8%	505	496	2,628	4,235	0	0	0	0
Wisconsin	2,060	2,834	-27.3%	2,034	2,798	0	0	0	0	27	36
West North Central	13,571	15,628	-13.2%	13,379	15,459	0	0	7	9	185	160
Iowa	1,741	2,554	-31.8%	1,609	2,447	0	0	5	7	127	100
Kansas	1,486	1,524	-2.5%	1,486	1,524	0	0	0	0	0	0
Minnesota	1,537	2,354	-34.7%	1,524	2,331	0	0	0	0	NM	23
Missouri	4,593	4,909	-6.4%	4,592	4,907	0	0	1	2	0	0
Nebraska	1,633	1,925	-15.2%	1,596	1,889	0	0	0	0	37	37
North Dakota	2,331	2,219	5.0%	2,322	2,219	0	0	0	0	NM	0
South Dakota	251	143	75.9%	251	143	0	0	0	0	0	0
South Atlantic	12,786	14,359	-11.0%	11,289	12,371	1,446	1,921	4	5	47	61
Delaware	-1	-3	-56.8%	0	0	-1	-3	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	1,947	2,240	-13.1%	1,942	2,232	0	0	0	0	NM	7
Georgia	1,529	3,038	-49.7%	1,511	3,019	0	0	0	0	NM	19
Maryland	527	862	-38.8%	0	0	527	856	0	0	0	6
North Carolina	2,772	1,975	40.3%	2,749	1,954	8	6	4	5	11	11
South Carolina	1,084	1,590	-31.8%	1,084	1,589	0	0	0	0	1	1
Virginia	363	705	-48.5%	350	623	0	65	0	0	12	17
West Virginia	4,566	3,953	15.5%	3,655	2,956	911	997	0	0	0	0
East South Central	6,968	8,309	-16.1%	6,763	8,002	163	273	0	0	43	34
Alabama	2,271	2,008	13.1%	2,267	2,004	0	0	0	0	NM	4
Kentucky	3,158	4,874	-35.2%	3,158	4,874	0	0	0	0	0	0
Mississippi	187	522	-64.2%	24	250	163	273	0	0	0	0
Tennessee	1,352	905	49.4%	1,314	874	0	0	0	0	39	31
West South Central	9,265	14,158	-34.6%	3,888	7,518	5,363	6,619	0	0	14	21
Arkansas	1,941	2,887	-32.7%	1,551	2,400	386	482	0	0	4	4
Louisiana	331	981	-66.2%	181	629	150	352	0	0	0	0
Oklahoma	203	1,035	-80.4%	135	822	58	197	0	0	10	17
Texas	6,789	9,255	-26.6%	2,020	3,667	4,769	5,588	0	0	0	0
Mountain	11,246	14,026	-19.8%	9,685	12,334	1,525	1,656	0	0	36	36
Arizona	1,335	2,483	-46.2%	1,335	2,483	0	0	0	0	0	0
Colorado	2,132	2,283	-6.6%	2,132	2,282	0	0	0	0	0	1
Idaho	NM	3	NM	0	0	0	0	0	0	NM	3
Montana	1,367	1,478	-7.5%	26	24	1,340	1,454	0	0	NM	1
Nevada	145	260	-44.3%	48	145	97	115	0	0	0	0
New Mexico	1,246	1,555	-19.9%	1,246	1,555	0	0	0	0	0	0
Utah	2,287	2,522	-9.3%	2,250	2,485	38	37	0	0	0	0
Wyoming	2,733	3,441	-20.6%	2,649	3,360	51	50	0	0	33	31
Pacific Contiguous	1,059	874	21.1%	240	117	790	734	0	0	30	23
California	26	21	28.1%	0	0	0	0	0	0	26	21
Oregon	240	117	104.1%	240	117	0	0	0	0	0	0
Washington	793	736	7.7%	0	0	790	734	0	0	3	3
Pacific Noncontiguous	185	180	2.5%	42	53	137	118	NM	9	0	0
Alaska	64	80	-20.0%	42	53	NM	18	NM	9	0	0
Hawaii	120	100	20.6%	0	0	120	100	0	0	0	0
U.S. Total	75,630	92,819	-18.5%	55,304	68,864	19,777	23,393	21	25	529	536

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values for 2019 are preliminary. Values for 2018 are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 1.4.B. Utility Scale Facility Net Generation from Coal

by State, by Sector, Year-to-Date through November 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	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	427	923	-53.7%	296	574	110	335	0	0	21	14
Connecticut	56	287	-80.6%	0	0	56	287	0	0	0	0
Maine	76	62	22.3%	0	0	55	48	0	0	21	14
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	296	574	-48.4%	296	574	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	36,818	41,405	-11.1%	0	0	36,716	41,286	0	0	101	119
New Jersey	958	1,095	-12.5%	0	0	958	1,095	0	0	0	0
New York	422	623	-32.3%	0	0	422	612	0	0	0	11
Pennsylvania	35,437	39,687	-10.7%	0	0	35,336	39,579	0	0	101	108
East North Central	204,352	249,048	-17.9%	119,307	147,998	83,193	98,976	63	69	1,788	2,005
Illinois	45,745	54,956	-16.8%	3,206	3,623	41,103	49,723	23	31	1,413	1,579
Indiana	56,814	70,890	-19.9%	52,914	66,951	3,859	3,901	41	38	0	0
Michigan	34,535	38,912	-11.2%	34,136	38,450	347	394	0	0	53	67
Ohio	42,982	53,896	-20.3%	5,094	8,933	37,885	44,958	0	0	3	5
Wisconsin	24,277	30,394	-20.1%	23,957	30,040	0	0	0	0	320	355
West North Central	147,967	172,049	-14.0%	145,741	169,875	0	0	71	78	2,155	2,097
Iowa	20,669	25,956	-20.4%	19,180	24,490	0	0	61	67	1,427	1,399
Kansas	15,940	18,420	-13.5%	15,940	18,420	0	0	0	0	0	0
Minnesota	16,724	21,083	-20.7%	16,405	20,721	0	0	2	1	316	362
Missouri	51,132	57,983	-11.8%	51,125	57,974	0	0	7	9	0	0
Nebraska	18,406	21,357	-13.8%	18,082	21,022	0	0	0	0	324	335
North Dakota	22,690	25,191	-9.9%	22,602	25,191	0	0	0	0	88	0
South Dakota	2,406	2,057	17.0%	2,406	2,057	0	0	0	0	0	0
South Atlantic	149,152	180,045	-17.2%	132,830	156,750	15,734	22,625	35	38	552	632
Delaware	122	271	-54.9%	0	0	122	271	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	20,005	27,855	-28.2%	19,942	27,765	0	0	0	0	62	90
Georgia	23,763	29,570	-19.6%	23,588	29,390	0	0	0	0	175	180
Maryland	5,390	9,488	-43.2%	0	0	5,358	9,433	0	0	32	54
North Carolina	28,825	29,283	-1.6%	28,533	29,029	139	92	32	32	121	130
South Carolina	13,790	18,037	-23.5%	13,781	18,022	0	0	0	0	8	15
Virginia	3,379	8,519	-60.3%	3,106	7,760	116	590	4	5	154	163
West Virginia	53,880	57,021	-5.5%	43,880	44,783	9,999	12,238	0	0	0	0
East South Central	94,358	107,652	-12.3%	91,531	104,463	2,350	2,546	0	0	476	643
Alabama	24,694	29,773	-17.1%	24,641	29,733	0	0	0	0	54	40
Kentucky	47,563	53,869	-11.7%	47,563	53,869	0	0	0	0	0	0
Mississippi	4,385	4,810	-8.8%	2,035	2,263	2,350	2,546	0	0	0	0
Tennessee	17,716	19,200	-7.7%	17,293	18,596	0	0	0	0	423	603
West South Central	121,847	153,738	-20.7%	63,262	84,387	58,441	69,126	0	0	143	225
Arkansas	21,472	26,985	-20.4%	17,861	22,237	3,573	4,706	0	0	39	42
Louisiana	7,121	10,837	-34.3%	5,427	7,204	1,693	3,633	0	0	0	0
Oklahoma	7,699	13,467	-42.8%	7,076	11,629	519	1,655	0	0	104	183
Texas	85,554	102,448	-16.5%	32,898	43,317	52,657	59,131	0	0	0	0
Mountain	128,268	136,579	-6.1%	113,306	122,505	14,615	13,674	0	0	347	400
Arizona	22,072	27,939	-21.0%	22,072	27,939	0	0	0	0	0	0
Colorado	22,896	23,816	-3.9%	22,892	23,806	0	0	0	0	4	11
Idaho	17	18	-2.2%	0	0	0	0	0	0	17	18
Montana	12,928	12,021	7.5%	261	207	12,660	11,805	0	0	NM	9
Nevada	2,521	2,064	22.1%	1,579	1,151	941	913	0	0	0	0
New Mexico	13,617	11,878	14.6%	13,617	11,878	0	0	0	0	0	0
Utah	22,600	23,008	-1.8%	22,230	22,626	370	381	0	0	0	0
Wyoming	31,617	35,835	-11.8%	30,655	34,898	643	575	0	0	319	363
Pacific Contiguous	8,740	5,960	46.6%	2,221	1,063	6,284	4,616	0	0	235	280
California	213	259	-17.6%	0	0	0	0	0	0	213	259
Oregon	2,221	1,063	108.9%	2,221	1,063	0	0	0	0	0	0
Washington	6,306	4,638	36.0%	0	0	6,284	4,616	0	0	22	22
Pacific Noncontiguous	1,806	1,771	2.0%	369	312	1,358	1,364	79	95	0	0
Alaska	612	570	7.4%	369	312	163	163	79	95	0	0
Hawaii	1,194	1,201	-0.6%	0	0	1,194	1,201	0	0	0	0
U.S. Total	893,735	1,049,169	-14.8%	668,864	787,927	218,803	254,548	248	279	5,820	6,415

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Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 1.5.A. Utility Scale Facility Net Generation from Petroleum Liquids by State, by Sector, November 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	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	21	25	-17.9%	2	9	15	10	2	5	1	2
Connecticut	6	2	137.8%	1	0	5	1	NM	1	0	0
Maine	2	2	-2.1%	0	0	1	1	0	0	1	1
Massachusetts	7	7	8.3%	NM	1	5	3	NM	3	0	0
New Hampshire	3	11	-69.5%	1	7	1	2	1	2	0	0
Rhode Island	NM	3	NM	0	0	NM	2	0	0	NM	0
Vermont	NM	0	NM	NM	0	0	0	0	0	0	0
Middle Atlantic	33	43	-23.1%	7	7	24	32	NM	1	2	4
New Jersey	8	3	197.0%	0	1	8	2	0	0	0	0
New York	12	12	0.6%	7	6	NM	2	NM	1	1	4
Pennsylvania	13	28	-55.6%	0	0	12	28	NM	0	1	0
East North Central	40	48	-17.1%	18	23	21	22	0	0	1	2
Illinois	3	5	-51.7%	1	1	2	4	0	0	0	0
Indiana	9	14	-38.0%	8	12	0	0	0	0	1	2
Michigan	5	7	-20.7%	5	6	0	0	NM	0	0	0
Ohio	20	20	0.3%	1	2	19	18	0	0	0	0
Wisconsin	NM	2	NM	NM	2	0	0	NM	0	0	0
West North Central	27	26	6.0%	27	25	NM	1	0	0	0	0
Iowa	8	5	46.3%	7	5	NM	0	0	0	0	0
Kansas	5	4	51.5%	5	4	0	0	0	0	0	0
Minnesota	4	2	64.8%	4	2	NM	1	0	0	0	0
Missouri	5	9	-39.3%	5	9	0	0	0	0	0	0
Nebraska	NM	1	NM	NM	1	0	0	0	0	0	0
North Dakota	2	4	-39.4%	2	4	0	0	0	0	0	0
South Dakota	2	2	4.1%	2	2	0	0	NM	0	0	0
South Atlantic	87	152	-42.8%	64	100	12	33	4	4	7	16
Delaware	NM	0	NM	0	0	NM	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	10	18	-45.1%	8	14	NM	0	0	0	NM	4
Georgia	11	26	-57.3%	5	10	2	5	0	0	NM	10
Maryland	2	5	-52.7%	NM	0	2	5	0	0	0	0
North Carolina	19	22	-13.7%	17	20	NM	1	NM	0	NM	1
South Carolina	11	16	-28.3%	9	14	1	0	0	0	1	1
Virginia	18	56	-67.6%	11	31	3	21	4	4	NM	0
West Virginia	14	10	41.0%	14	10	0	0	0	0	0	0
East South Central	-1	25	-103.3%	-3	23	2	1	0	0	NM	1
Alabama	3	2	55.5%	1	1	2	1	0	0	NM	1
Kentucky	-7	7	-194.0%	-7	7	0	0	0	0	0	0
Mississippi	0	1	-68.0%	0	1	0	0	0	0	0	0
Tennessee	2	14	-84.1%	2	14	0	0	0	0	0	0
West South Central	16	11	43.1%	10	9	2	1	0	0	4	1
Arkansas	7	1	448.8%	6	1	1	0	0	0	0	0
Louisiana	1	1	28.5%	1	1	0	0	0	0	0	0
Oklahoma	0	3	-85.4%	0	2	0	0	0	0	0	0
Texas	7	6	7.9%	2	4	1	1	0	0	4	0
Mountain	16	17	-8.4%	15	17	1	1	NM	0	0	0
Arizona	3	4	-19.5%	3	4	0	0	NM	0	0	0
Colorado	NM	3	NM	NM	2	0	0	0	0	0	0
Idaho	0	0	-100.0%	0	0	0	0	0	0	0	0
Montana	NM	0	NM	NM	0	0	0	0	0	0	0
Nevada	1	1	7.1%	1	1	0	0	0	0	0	0
New Mexico	2	2	0.9%	2	2	0	0	0	0	0	0
Utah	5	3	43.2%	5	3	0	0	0	0	0	0
Wyoming	4	4	-6.3%	4	4	0	0	0	0	0	0
Pacific Contiguous	6	6	-2.0%	4	4	1	1	0	0	NM	1
California	3	3	22.1%	3	3	0	0	0	0	0	0
Oregon	1	1	8.7%	1	1	0	0	0	0	0	0
Washington	NM	2	NM	NM	NM	1	1	0	0	NM	1
Pacific Noncontiguous	653	652	0.3%	489	489	143	143	2	1	20	19
Alaska	75	63	19.4%	71	59	0	0	1	1	3	3
Hawaii	578	588	-1.8%	418	429	143	143	1	0	17	16
U.S. Total	898	1,006	-10.7%	632	703	221	245	9	12	36	46

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Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

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

by State, by Sector, Year-to-Date through November 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	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	254	1,239	-79.5%	27	182	181	1,005	32	34	14	18
Connecticut	73	340	-78.4%	5	5	63	330	3	3	3	1
Maine	30	187	-84.1%	0	0	18	169	2	2	10	16
Massachusetts	110	459	-76.1%	12	73	83	372	14	13	1	1
New Hampshire	24	176	-86.6%	9	101	3	61	12	14	0	0
Rhode Island	16	74	-77.8%	0	0	15	73	2	2	NM	0
Vermont	NM	3	NM	NM	3	0	0	0	0	0	0
Middle Atlantic	691	2,407	-71.3%	194	618	461	1,729	12	23	23	37
New Jersey	70	293	-76.3%	1	2	67	285	1	5	1	1
New York	453	1,583	-71.4%	193	614	238	924	8	13	15	31
Pennsylvania	168	531	-68.4%	0	2	157	521	4	4	7	4
East North Central	445	515	-13.6%	270	280	161	206	2	6	13	23
Illinois	38	49	-21.7%	6	7	32	41	0	0	0	0
Indiana	118	124	-4.6%	112	105	0	0	NM	1	7	18
Michigan	92	109	-15.8%	89	104	0	0	1	4	2	2
Ohio	152	199	-23.7%	29	33	120	163	0	1	3	3
Wisconsin	44	33	32.5%	35	32	9	1	0	0	0	1
West North Central	291	300	-2.8%	279	279	8	19	2	2	1	1
Iowa	62	63	-2.3%	58	60	3	3	0	0	0	0
Kansas	61	49	25.2%	61	49	0	0	0	0	0	0
Minnesota	43	45	-5.9%	34	28	NM	15	2	2	1	1
Missouri	67	93	-27.6%	67	93	0	0	0	0	0	0
Nebraska	18	12	50.5%	18	12	0	0	0	0	0	0
North Dakota	31	32	-1.6%	31	32	0	0	0	0	0	0
South Dakota	10	6	55.4%	10	6	0	0	NM	0	0	0
South Atlantic	1,233	3,220	-61.7%	912	2,256	193	789	42	51	87	124
Delaware	39	199	-80.3%	0	6	39	193	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	294	537	-45.2%	279	506	1	12	0	0	14	19
Georgia	120	257	-53.2%	52	94	10	88	4	4	54	70
Maryland	74	259	-71.5%	0	3	72	251	1	1	1	3
North Carolina	212	596	-64.4%	195	538	8	39	NM	2	9	18
South Carolina	90	329	-72.6%	81	313	3	5	0	0	6	10
Virginia	289	901	-68.0%	192	668	59	187	36	44	2	3
West Virginia	115	142	-19.4%	114	129	1	14	0	0	0	0
East South Central	217	270	-19.7%	204	232	4	26	0	0	9	12
Alabama	18	60	-69.7%	10	28	3	25	0	0	5	7
Kentucky	54	64	-15.4%	54	64	0	0	0	0	0	0
Mississippi	13	25	-50.0%	11	21	0	0	0	0	2	4
Tennessee	132	121	9.4%	129	119	0	0	0	0	2	2
West South Central	119	128	-7.6%	86	99	22	22	1	1	10	7
Arkansas	43	34	26.3%	29	26	11	6	0	0	3	3
Louisiana	9	20	-55.3%	9	20	0	0	0	0	0	0
Oklahoma	17	17	2.6%	16	16	0	0	0	0	1	1
Texas	49	57	-13.9%	32	37	10	16	1	1	6	3
Mountain	192	176	9.0%	176	157	15	19	NM	0	0	0
Arizona	53	48	10.7%	53	48	0	0	NM	0	0	0
Colorado	10	12	-19.1%	10	12	0	0	0	0	0	0
Idaho	0	0	50.8%	0	0	0	0	0	0	0	0
Montana	14	15	-11.9%	NM	0	12	15	0	0	0	0
Nevada	12	9	26.8%	10	7	2	3	0	0	0	0
New Mexico	29	19	48.4%	29	19	0	0	0	0	0	0
Utah	36	33	8.6%	35	32	2	1	0	0	0	0
Wyoming	39	38	0.5%	38	38	0	0	0	0	0	0
Pacific Contiguous	71	91	-22.3%	38	40	16	14	1	1	16	36
California	48	65	-25.8%	33	31	6	5	1	1	9	28
Oregon	4	5	-9.2%	4	5	0	0	0	0	0	0
Washington	18	21	-14.6%	NM	4	10	9	0	0	7	8
Pacific Noncontiguous	7,090	6,933	2.3%	5,302	5,308	1,543	1,405	12	7	234	213
Alaska	830	727	14.3%	779	682	0	0	6	4	45	40
Hawaii	6,260	6,206	0.9%	4,523	4,626	1,543	1,405	5	3	189	173
U.S. Total	10,602	15,279	-30.6%	7,489	9,451	2,604	5,233	103	123	406	471

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Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 1.6.A. Utility Scale Facility Net Generation from Petroleum Coke by State, by Sector, November 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	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 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	7	7	-5.9%	0	0	0	0	0	0	7	7
New Jersey	7	5	38.8%	0	0	0	0	0	0	7	5
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	0	2	-100.0%	0	0	0	0	0	0	0	2
East North Central	37	181	-79.6%	23	72	0	98	0	0	14	12
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	27	73	-63.1%	13	61	0	0	0	0	14	12
Ohio	0	98	-100.0%	0	0	0	98	0	0	0	0
Wisconsin	10	11	-8.3%	10	11	0	0	0	0	0	0
West North Central	0	1	-100.0%	0	0	0	0	0	1	0	0
Iowa	0	1	-100.0%	0	0	0	0	0	1	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	122	31	300.0%	108	17	0	0	0	0	NM	14
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	108	17	536.5%	108	17	0	0	0	0	0	0
Georgia	NM	14	NM	0	0	0	0	0	0	NM	14
Maryland	0	0	--	0	0	0	0	0	0	0	0
North Carolina	0	0	--	0	0	0	0	0	0	0	0
South Carolina	0	0	--	0	0	0	0	0	0	0	0
Virginia	0	0	--	0	0	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	0	0	-100.0%	0	0	0	0	0	0	0	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	0	0	-100.0%	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	132	393	-66.5%	120	388	0	0	0	0	NM	5
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	120	389	-69.1%	120	388	0	0	0	0	0	0
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	NM	5	NM	0	0	0	0	0	0	NM	5
Mountain	41	42	-2.1%	0	0	41	42	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	42	-2.1%	0	0	41	42	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	339	656	-48.3%	251	477	41	140	0	1	46	38

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Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

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

by State, by Sector, Year-to-Date through November 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	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 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	121	119	1.9%	0	0	0	0	0	0	121	119
New Jersey	64	55	17.5%	0	0	0	0	0	0	64	55
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	57	64	-11.4%	0	0	0	0	0	0	57	64
East North Central	1,594	2,090	-23.7%	691	996	763	987	0	0	140	107
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	743	1,000	-25.7%	607	903	0	0	0	0	136	97
Ohio	766	997	-23.1%	0	0	763	987	0	0	4	10
Wisconsin	84	92	-9.1%	84	92	0	0	0	0	0	0
West North Central	72	42	70.2%	0	0	0	0	4	6	68	36
Iowa	72	42	70.2%	0	0	0	0	4	6	68	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	1,264	1,547	-18.3%	1,093	1,403	0	0	0	0	171	144
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	1,093	1,403	-22.1%	1,093	1,403	0	0	0	0	0	0
Georgia	171	144	18.8%	0	0	0	0	0	0	171	144
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	-100.0%	0	0	0	0	0	0	0	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	0	0	-100.0%	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	3,124	4,002	-21.9%	3,013	3,817	0	0	0	0	111	185
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	3,026	3,940	-23.2%	3,013	3,817	0	0	0	0	13	122
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	98	63	56.1%	0	0	0	0	0	0	98	63
Mountain	407	386	5.4%	0	0	407	386	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	407	386	5.4%	0	0	407	386	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	6,582	8,186	-19.6%	4,797	6,216	1,169	1,372	4	6	611	591

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Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 1.7.A. Utility Scale Facility Net Generation from Natural Gas by State, by Sector, November 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	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	3,718	3,751	-0.9%	NM	12	3,483	3,545	95	80	130	114
Connecticut	1,772	1,833	-3.3%	4	6	1,675	1,735	35	39	59	54
Maine	98	145	-32.5%	0	0	60	116	3	3	35	27
Massachusetts	1,061	1,031	2.9%	NM	6	982	971	52	34	20	21
New Hampshire	233	186	25.6%	0	0	230	182	1	1	3	3
Rhode Island	553	556	-0.5%	0	0	536	542	3	3	13	10
Vermont	0	0	-54.3%	0	0	0	0	0	0	0	0
Middle Atlantic	14,719	12,306	19.6%	756	792	13,655	11,248	101	80	208	186
New Jersey	3,355	2,728	23.0%	NM	11	3,300	2,676	13	10	33	30
New York	3,786	3,758	0.7%	747	780	2,914	2,872	76	60	49	46
Pennsylvania	7,578	5,820	30.2%	0	0	7,440	5,700	12	10	126	110
East North Central	12,044	10,522	14.5%	4,061	2,893	7,502	7,240	124	104	358	285
Illinois	1,242	1,247	-0.4%	119	57	1,025	1,113	35	29	62	48
Indiana	2,758	2,186	26.2%	1,031	711	1,546	1,333	17	10	164	133
Michigan	2,815	1,944	44.8%	942	503	1,767	1,358	50	49	56	34
Ohio	3,651	4,063	-10.1%	502	654	3,119	3,376	13	11	17	22
Wisconsin	1,578	1,082	45.9%	1,467	968	45	60	8	5	58	48
West North Central	1,776	1,755	1.2%	1,613	1,347	54	308	28	25	81	75
Iowa	548	345	58.6%	484	294	NM	0	10	7	53	44
Kansas	174	184	-5.5%	161	170	0	0	0	0	14	14
Minnesota	565	445	26.8%	498	351	50	73	7	10	9	12
Missouri	269	539	-50.1%	251	292	4	235	11	8	4	3
Nebraska	38	80	-52.5%	38	80	0	0	0	0	0	0
North Dakota	93	62	48.9%	91	61	0	0	0	0	1	1
South Dakota	90	98	-9.0%	90	98	0	0	0	0	0	0
South Atlantic	26,772	27,299	-1.9%	21,480	22,605	4,755	4,190	87	87	450	417
Delaware	297	289	2.8%	0	1	200	195	0	0	97	94
District of Columbia	2	0	NM	0	0	0	0	2	0	0	0
Florida	12,143	12,811	-5.2%	11,696	12,218	311	457	2	2	134	134
Georgia	4,686	3,508	33.6%	3,718	2,638	911	818	0	0	57	52
Maryland	939	877	7.1%	95	351	768	445	72	74	4	8
North Carolina	3,122	3,628	-13.9%	2,372	2,955	726	650	NM	9	16	15
South Carolina	1,749	2,167	-19.3%	1,626	1,965	109	191	0	0	14	11
Virginia	3,696	3,906	-5.4%	1,928	2,466	1,687	1,372	3	2	78	65
West Virginia	136	113	20.5%	43	11	42	63	0	0	51	39
East South Central	10,565	9,908	6.6%	7,259	6,315	3,053	3,324	20	20	233	250
Alabama	4,076	4,346	-6.2%	1,208	1,479	2,757	2,752	0	0	110	115
Kentucky	1,234	1,044	18.3%	1,170	954	44	68	0	0	20	21
Mississippi	3,817	3,396	12.4%	3,529	2,847	251	503	0	0	37	46
Tennessee	1,439	1,123	28.1%	1,352	1,035	1	1	20	20	65	68
West South Central	27,606	24,162	14.3%	8,969	7,480	12,486	10,794	75	59	6,076	5,829
Arkansas	1,519	978	55.2%	1,495	840	0	111	NM	2	21	26
Louisiana	4,872	4,165	17.0%	2,226	1,831	336	183	12	16	2,299	2,136
Oklahoma	2,975	2,925	1.7%	2,145	2,174	792	725	0	0	37	26
Texas	18,240	16,093	13.3%	3,104	2,635	11,358	9,776	60	42	3,719	3,640
Mountain	8,787	8,204	7.1%	7,093	6,657	1,526	1,379	32	33	136	135
Arizona	3,352	2,797	19.8%	2,571	2,311	770	477	11	9	0	0
Colorado	1,448	1,270	14.0%	1,206	1,100	239	168	1	0	2	2
Idaho	276	406	-32.0%	204	240	57	152	3	3	11	10
Montana	45	53	-16.0%	30	28	14	25	0	0	1	1
Nevada	2,027	1,867	8.6%	1,801	1,657	188	188	5	4	33	18
New Mexico	844	944	-10.6%	585	564	251	362	8	9	0	8
Utah	698	781	-10.7%	660	729	6	7	5	7	27	39
Wyoming	98	86	13.7%	36	28	0	0	0	0	62	58
Pacific Contiguous	11,560	9,993	15.7%	4,813	3,460	5,737	5,576	147	134	863	824
California	8,504	8,016	6.1%	3,083	2,516	4,430	4,556	143	129	848	814
Oregon	1,959	1,812	8.1%	983	837	964	967	4	3	8	6
Washington	1,097	165	565.1%	747	107	343	53	0	2	7	3
Pacific Noncontiguous	262	242	8.5%	257	236	0	0	0	0	5	6
Alaska	262	242	8.5%	257	236	0	0	0	0	5	6
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	117,810	108,142	8.9%	56,311	51,796	52,251	47,605	709	622	8,539	8,120

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Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

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

by State, by Sector, Year-to-Date through November 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	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	44,928	47,859	-6.1%	175	249	42,351	45,219	1,006	1,001	1,395	1,390
Connecticut	18,992	18,092	5.0%	33	54	17,996	17,066	367	388	596	583
Maine	1,501	2,242	-33.1%	0	0	1,076	1,814	28	28	397	401
Massachusetts	14,435	17,225	-16.2%	137	163	13,505	16,290	554	531	238	241
New Hampshire	3,309	2,925	13.1%	4	31	3,267	2,858	11	7	27	29
Rhode Island	6,689	7,374	-9.3%	0	0	6,507	7,191	45	46	137	137
Vermont	2	2	2.3%	1	1	0	0	1	1	0	0
Middle Atlantic	172,041	152,923	12.5%	9,135	9,726	159,512	139,774	1,062	1,099	2,333	2,324
New Jersey	37,249	35,876	3.8%	148	152	36,605	35,185	127	170	370	369
New York	45,219	47,046	-3.9%	8,984	9,568	34,881	36,104	814	809	541	566
Pennsylvania	89,574	70,000	28.0%	4	6	88,026	68,486	121	119	1,422	1,389
East North Central	144,068	124,918	15.3%	49,261	42,020	89,895	78,427	1,362	1,345	3,550	3,127
Illinois	17,472	16,345	6.9%	1,665	1,201	14,865	14,225	365	338	576	581
Indiana	29,226	24,518	19.2%	12,204	10,153	15,220	12,834	176	157	1,626	1,374
Michigan	31,671	28,843	9.8%	10,895	9,847	19,666	18,048	562	561	549	388
Ohio	46,420	39,842	16.5%	7,112	7,268	38,919	32,164	195	223	194	187
Wisconsin	19,279	15,370	25.4%	17,384	13,550	1,225	1,156	64	67	605	597
West North Central	30,971	27,541	12.5%	26,537	23,381	3,420	3,147	315	295	699	718
Iowa	7,473	6,835	9.3%	6,884	6,251	NM	6	102	90	479	487
Kansas	3,454	2,854	21.0%	3,378	2,779	0	0	0	0	76	75
Minnesota	9,627	8,182	17.7%	8,344	6,889	1,090	1,085	88	97	106	110
Missouri	6,861	6,680	2.7%	4,388	4,484	2,323	2,056	122	104	28	37
Nebraska	1,170	930	25.9%	1,166	927	0	0	4	3	0	0
North Dakota	1,141	960	18.8%	1,132	951	0	0	0	0	9	9
South Dakota	1,244	1,100	13.1%	1,244	1,100	0	0	0	0	0	0
South Atlantic	356,931	333,061	7.2%	293,426	271,388	57,665	56,775	1,069	873	4,770	4,025
Delaware	4,486	5,181	-13.4%	27	23	3,418	4,400	0	0	1,041	758
District of Columbia	20	20	2.5%	0	0	0	0	20	20	0	0
Florida	168,766	160,109	5.4%	160,681	151,525	6,578	7,137	18	27	1,489	1,419
Georgia	53,719	48,032	11.8%	40,310	36,244	12,823	11,252	0	0	586	536
Maryland	13,907	12,832	8.4%	3,277	3,546	9,632	8,470	936	731	61	85
North Carolina	38,480	39,981	-3.8%	30,436	33,672	7,814	6,106	81	82	148	120
South Carolina	22,299	20,233	10.2%	21,449	17,589	737	2,529	0	0	112	115
Virginia	53,220	45,304	17.5%	36,871	28,615	15,592	16,005	14	13	744	671
West Virginia	2,034	1,370	48.5%	374	173	1,072	875	0	0	588	321
East South Central	127,475	127,451	0.0%	87,500	84,773	37,244	40,128	200	210	2,531	2,339
Alabama	52,780	54,559	-3.3%	18,849	18,575	32,732	34,814	0	0	1,199	1,170
Kentucky	13,664	13,754	-0.7%	13,106	12,889	348	684	0	0	209	180
Mississippi	45,741	46,762	-2.2%	41,188	41,703	4,148	4,617	0	0	405	442
Tennessee	15,289	12,375	23.6%	14,357	11,607	16	12	200	210	717	546
West South Central	360,106	338,771	6.3%	125,252	115,100	170,615	161,356	926	792	63,313	61,522
Arkansas	19,097	19,874	-3.9%	17,733	18,376	1,051	1,191	34	37	279	270
Louisiana	65,406	57,477	13.8%	36,237	31,303	4,577	3,628	148	161	24,444	22,386
Oklahoma	40,742	38,971	4.5%	26,091	24,056	14,274	14,570	0	0	377	346
Texas	234,861	222,449	5.6%	45,191	41,366	150,713	141,967	744	595	38,212	38,521
Mountain	105,252	96,577	9.0%	84,194	77,530	19,340	17,248	381	374	1,337	1,425
Arizona	42,013	34,153	23.0%	31,356	26,578	10,532	7,446	126	129	0	0
Colorado	15,566	15,087	3.2%	13,307	12,635	2,234	2,434	3	0	22	17
Idaho	3,156	2,820	11.9%	1,736	1,292	1,268	1,411	36	36	116	81
Montana	499	412	21.2%	353	302	144	106	0	0	3	3
Nevada	23,560	24,855	-5.2%	21,228	22,526	1,983	1,956	58	58	291	315
New Mexico	10,898	10,551	3.3%	7,689	6,608	3,112	3,825	93	94	4	24
Utah	8,630	7,881	9.5%	8,166	7,376	66	69	66	58	332	379
Wyoming	929	819	13.4%	359	212	1	1	0	0	569	606
Pacific Contiguous	108,031	107,295	0.7%	43,292	41,900	53,591	53,976	1,588	1,760	9,559	9,658
California	76,964	81,587	-5.7%	26,037	27,492	39,976	42,876	1,540	1,703	9,411	9,516
Oregon	18,855	15,997	17.9%	9,343	8,232	9,397	7,662	41	41	74	63
Washington	12,212	9,711	25.8%	7,912	6,176	4,218	3,438	7	17	74	79
Pacific Noncontiguous	2,863	2,684	6.6%	2,801	2,626	0	0	0	0	62	58
Alaska	2,863	2,684	6.6%	2,801	2,626	0	0	0	0	62	58
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	1,452,665	1,359,080	6.9%	721,573	668,693	633,634	596,050	7,910	7,750	89,548	86,587

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values for 2019 are preliminary. Values for 2018 are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 1.7.C. Utility Scale Facility Net Generation from Natural Gas by Technology: Total (All Sectors), 2009-November 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	1,231,944	132,866	97,814	5,203	901	1,468,727
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	93,426	10,362	6,034	382	61	110,265
February	86,046	8,021	4,010	352	63	98,492
March	90,850	9,834	5,349	395	73	106,503
April	82,423	9,766	5,755	348	62	98,354
May	94,192	10,839	9,757	421	58	115,268
June	108,641	11,513	10,165	424	65	130,808
July	133,649	15,619	14,731	630	92	164,722
August	133,733	14,426	12,805	587	100	161,650
Sept	118,249	12,775	10,189	465	84	141,762
October	102,793	11,156	8,648	428	91	123,116
November	91,899	9,822	5,955	389	76	108,142
December	96,042	8,733	4,415	381	74	109,647
Year 2019						
January	105,695	7,724	5,531	346	10	119,306
February	97,878	7,401	5,327	394	9	111,009
March	98,278	7,716	6,558	387	10	112,948
April	86,325	9,030	7,280	358	12	103,004
May	96,577	10,107	9,271	398	13	116,366
June	115,480	10,748	10,299	455	13	136,995
July	139,495	18,802	15,230	802	16	174,345
August	141,752	18,271	15,577	835	19	176,454
Sept	123,666	13,982	12,443	636	16	150,742
October	109,424	13,296	10,407	544	15	133,685
November	101,329	10,072	5,910	489	9	117,810

Values for 2018 and prior years are final. Values for 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, November 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	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 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	71	64	11.2%	0	0	0	0	0	0	71	64
New Jersey	18	18	-0.9%	0	0	0	0	0	0	18	18
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	53	46	15.9%	0	0	0	0	0	0	53	46
East North Central	452	353	27.8%	19	0	184	161	0	0	248	192
Illinois	40	11	279.2%	0	0	0	0	0	0	40	11
Indiana	200	169	18.2%	0	0	0	0	0	0	200	169
Michigan	145	107	35.5%	19	0	126	107	0	0	0	0
Ohio	66	66	-0.2%	0	0	58	54	0	0	8	12
Wisconsin	0	0	--	0	0	0	0	0	0	0	0
West North Central	3	4	-16.1%	0	0	0	0	0	0	3	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	3	4	-16.1%	0	0	0	0	0	0	3	4
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	17	25	-30.4%	0	0	0	0	0	0	17	25
Delaware	13	22	-38.9%	0	0	0	0	0	0	13	22
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	0	1	-97.3%	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	56.4%	0	0	0	0	0	0	4	3
East South Central	NM	1	NM	0	0	0	0	0	0	NM	1
Alabama	NM	0	NM	0	0	0	0	0	0	NM	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	1	1	45.4%	0	0	0	0	0	0	1	1
West South Central	478	423	12.9%	0	0	139	122	0	0	339	301
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	232	216	7.7%	0	0	0	0	0	0	232	216
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	245	207	18.4%	0	0	139	122	0	0	107	85
Mountain	35	38	-6.1%	0	0	1	1	0	0	34	37
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	1	31.1%	0	0	1	1	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	1	0	129.5%	0	0	0	0	0	0	1	0
Wyoming	33	36	-8.9%	0	0	0	0	0	0	33	36
Pacific Contiguous	137	132	3.8%	0	0	27	27	0	0	110	105
California	110	105	4.6%	0	0	0	0	0	0	110	105
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	27	27	0.7%	0	0	27	27	0	0	0	0
Pacific Noncontiguous	1	5	-88.0%	0	0	0	0	0	0	1	5
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	1	5	-88.0%	0	0	0	0	0	0	1	5
U.S. Total	1,196	1,045	14.4%	19	0	352	311	0	0	825	734

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values for 2019 are preliminary. Values for 2018 are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 1.8.B. Utility Scale Facility Net Generation from Other Gases

by State, by Sector, Year-to-Date through November 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	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 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	683	664	2.9%	0	0	0	1	0	0	683	663
New Jersey	196	193	2.0%	0	0	0	0	0	0	196	193
New York	2	0	--	0	0	0	0	0	0	2	0
Pennsylvania	485	471	2.9%	0	0	0	1	0	0	485	470
East North Central	4,574	4,481	2.1%	151	151	1,935	1,883	0	0	2,488	2,447
Illinois	241	176	36.9%	0	0	0	1	0	0	241	176
Indiana	2,112	2,128	-0.8%	0	0	0	0	0	0	2,112	2,128
Michigan	1,548	1,463	5.8%	151	151	1,397	1,312	0	0	0	0
Ohio	673	714	-5.7%	0	0	538	570	0	0	135	144
Wisconsin	0	0	--	0	0	0	0	0	0	0	0
West North Central	46	47	-1.8%	0	0	0	0	0	0	46	47
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	46	47	-1.8%	0	0	0	0	0	0	46	47
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	223	267	-16.7%	0	0	0	0	0	0	223	267
Delaware	183	240	-23.5%	0	0	0	0	0	0	183	240
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	0	5	-97.2%	0	0	0	0	0	0	0	5
Georgia	0	0	--	0	0	0	0	0	0	0	0
Maryland	0	0	--	0	0	0	0	0	0	0	0
North Carolina	0	0	--	0	0	0	0	0	0	0	0
South Carolina	0	0	--	0	0	0	0	0	0	0	0
Virginia	0	0	--	0	0	0	0	0	0	0	0
West Virginia	39	22	76.2%	0	0	0	0	0	0	39	22
East South Central	17	14	16.1%	0	0	0	0	0	0	17	14
Alabama	NM	4	NM	0	0	0	0	0	0	NM	4
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	11	10	12.7%	0	0	0	0	0	0	11	10
West South Central	5,026	4,695	7.0%	0	0	1,545	1,285	0	0	3,480	3,410
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	2,407	2,390	0.7%	0	0	0	0	0	0	2,407	2,390
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	2,618	2,305	13.6%	0	0	1,545	1,285	0	0	1,073	1,020
Mountain	276	362	-23.9%	0	0	8	11	0	0	267	351
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	8	11	-26.5%	0	0	8	11	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	15	5	178.9%	0	0	0	0	0	0	15	5
Wyoming	252	345	-27.0%	0	0	0	0	0	0	252	345
Pacific Contiguous	1,665	1,758	-5.3%	0	0	291	405	0	0	1,374	1,353
California	1,374	1,353	1.5%	0	0	0	0	0	0	1,374	1,353
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	291	405	-28.0%	0	0	291	405	0	0	0	0
Pacific Noncontiguous	5	54	-90.6%	0	0	0	0	0	0	5	54
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	5	54	-90.6%	0	0	0	0	0	0	5	54
U.S. Total	12,513	12,342	1.4%	151	151	3,780	3,585	0	0	8,582	8,605

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values for 2019 are preliminary. Values for 2018 are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 1.9.A. Utility Scale Facility Net Generation from Nuclear Energy by State, by Sector, November 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	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	2,386	2,236	6.7%	0	0	2,386	2,236	0	0	0	0
Connecticut	1,500	888	69.0%	0	0	1,500	888	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	0	449	-100.0%	0	0	0	449	0	0	0	0
New Hampshire	885	899	-1.5%	0	0	885	899	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	12,263	13,061	-6.1%	0	0	12,263	13,061	0	0	0	0
New Jersey	1,921	2,177	-11.8%	0	0	1,921	2,177	0	0	0	0
New York	3,885	3,784	2.7%	0	0	3,885	3,784	0	0	0	0
Pennsylvania	6,457	7,099	-9.0%	0	0	6,457	7,099	0	0	0	0
East North Central	13,219	13,045	1.3%	1,906	2,473	11,313	10,572	0	0	0	0
Illinois	8,269	8,124	1.8%	0	0	8,269	8,124	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	2,493	2,473	0.8%	1,906	2,473	587	0	0	0	0	0
Ohio	1,583	1,575	0.5%	0	0	1,583	1,575	0	0	0	0
Wisconsin	873	873	0.0%	0	0	873	873	0	0	0	0
West North Central	3,871	3,664	5.7%	3,432	3,221	440	443	0	0	0	0
Iowa	440	443	-0.7%	0	0	440	443	0	0	0	0
Kansas	684	884	-22.7%	684	884	0	0	0	0	0	0
Minnesota	1,279	1,213	5.4%	1,279	1,213	0	0	0	0	0	0
Missouri	893	893	-0.1%	893	893	0	0	0	0	0	0
Nebraska	576	231	149.6%	576	231	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	15,865	15,543	2.1%	14,563	14,238	1,303	1,305	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	2,224	2,466	-9.8%	2,224	2,466	0	0	0	0	0	0
Georgia	3,003	3,004	0.0%	3,003	3,004	0	0	0	0	0	0
Maryland	1,303	1,305	-0.2%	0	0	1,303	1,305	0	0	0	0
North Carolina	3,342	3,808	-12.3%	3,342	3,808	0	0	0	0	0	0
South Carolina	3,945	2,915	35.3%	3,945	2,915	0	0	0	0	0	0
Virginia	2,048	2,044	0.2%	2,048	2,044	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	6,743	6,641	1.5%	6,743	6,641	0	0	0	0	0	0
Alabama	3,629	3,113	16.6%	3,629	3,113	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	512	1,005	-49.1%	512	1,005	0	0	0	0	0	0
Tennessee	2,602	2,523	3.1%	2,602	2,523	0	0	0	0	0	0
West South Central	5,964	5,446	9.5%	2,466	2,151	3,497	3,295	0	0	0	0
Arkansas	911	811	12.3%	911	811	0	0	0	0	0	0
Louisiana	1,556	1,340	16.1%	1,556	1,340	0	0	0	0	0	0
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	3,497	3,295	6.2%	0	0	3,497	3,295	0	0	0	0
Mountain	2,174	1,904	14.2%	2,174	1,904	0	0	0	0	0	0
Arizona	2,174	1,904	14.2%	2,174	1,904	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	1,640	2,414	-32.1%	1,640	2,414	0	0	0	0	0	0
California	801	1,574	-49.1%	801	1,574	0	0	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	839	840	-0.1%	839	840	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	64,125	63,954	0.3%	32,923	33,043	31,202	30,911	0	0	0	0

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Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

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

by State, by Sector, Year-to-Date through November 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	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	27,563	28,413	-3.0%	0	0	27,563	28,413	0	0	0	0
Connecticut	15,407	15,342	0.4%	0	0	15,407	15,342	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	2,177	3,937	-44.7%	0	0	2,177	3,937	0	0	0	0
New Hampshire	9,979	9,133	9.3%	0	0	9,979	9,133	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	140,921	144,119	-2.2%	0	0	140,921	144,119	0	0	0	0
New Jersey	23,982	29,337	-18.3%	0	0	23,982	29,337	0	0	0	0
New York	40,698	38,931	4.5%	0	0	40,698	38,931	0	0	0	0
Pennsylvania	76,240	75,851	0.5%	0	0	76,240	75,851	0	0	0	0
East North Central	144,413	143,884	0.4%	23,495	23,167	120,918	120,717	0	0	0	0
Illinois	90,120	89,247	1.0%	0	0	90,120	89,247	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	29,754	28,597	4.0%	23,495	23,167	6,259	5,430	0	0	0	0
Ohio	15,406	16,737	-8.0%	0	0	15,406	16,737	0	0	0	0
Wisconsin	9,133	9,303	-1.8%	0	0	9,133	9,303	0	0	0	0
West North Central	40,521	40,742	-0.5%	35,741	36,303	4,780	4,439	0	0	0	0
Iowa	4,780	4,439	7.7%	0	0	4,780	4,439	0	0	0	0
Kansas	8,335	8,257	0.9%	8,335	8,257	0	0	0	0	0	0
Minnesota	12,786	13,282	-3.7%	12,786	13,282	0	0	0	0	0	0
Missouri	8,268	9,729	-15.0%	8,268	9,729	0	0	0	0	0	0
Nebraska	6,352	5,035	26.2%	6,352	5,035	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	186,632	184,487	1.2%	172,968	170,852	13,664	13,636	0	0	0	0
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	26,326	26,528	-0.8%	26,326	26,528	0	0	0	0	0	0
Georgia	30,559	31,289	-2.3%	30,559	31,289	0	0	0	0	0	0
Maryland	13,664	13,636	0.2%	0	0	13,664	13,636	0	0	0	0
North Carolina	37,987	38,202	-0.6%	37,987	38,202	0	0	0	0	0	0
South Carolina	51,345	48,206	6.5%	51,345	48,206	0	0	0	0	0	0
Virginia	26,751	26,626	0.5%	26,751	26,626	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	82,040	74,763	9.7%	82,040	74,763	0	0	0	0	0	0
Alabama	39,539	35,511	11.3%	39,539	35,511	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	10,164	6,144	65.4%	10,164	6,144	0	0	0	0	0	0
Tennessee	32,336	33,108	-2.3%	32,336	33,108	0	0	0	0	0	0
West South Central	62,064	65,069	-4.6%	24,555	26,993	37,509	38,076	0	0	0	0
Arkansas	12,188	11,431	6.6%	12,188	11,431	0	0	0	0	0	0
Louisiana	12,368	15,562	-20.5%	12,368	15,562	0	0	0	0	0	0
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	37,509	38,076	-1.5%	0	0	37,509	38,076	0	0	0	0
Mountain	28,950	28,328	2.2%	28,950	28,328	0	0	0	0	0	0
Arizona	28,950	28,328	2.2%	28,950	28,328	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	23,061	25,622	-10.0%	23,061	25,622	0	0	0	0	0	0
California	15,055	16,726	-10.0%	15,055	16,726	0	0	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	8,006	8,896	-10.0%	8,006	8,896	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	736,164	735,427	0.1%	390,810	386,028	345,354	349,399	0	0	0	0

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Notes: See Glossary for definitions. Values for 2019 are preliminary. Values for 2018 are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 1.10.A. Utility Scale Facility Net Generation from Hydroelectric (Conventional) Power by State, by Sector, November 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	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	576	815	-29.4%	82	117	485	685	0	0	NM	12
Connecticut	41	61	-32.4%	NM	5	39	55	0	0	0	0
Maine	252	350	-27.9%	0	0	243	338	0	0	NM	12
Massachusetts	86	121	-29.2%	NM	29	66	92	0	0	0	0
New Hampshire	99	146	-32.4%	29	40	70	106	0	0	0	0
Rhode Island	0	1	-29.7%	0	0	0	1	0	0	0	0
Vermont	97	137	-28.7%	31	43	66	94	0	0	0	0
Middle Atlantic	2,733	2,941	-7.1%	2,065	2,188	663	747	1	1	5	5
New Jersey	1	3	-68.2%	0	0	1	3	0	0	0	0
New York	2,408	2,566	-6.2%	2,061	2,174	342	387	1	1	5	5
Pennsylvania	324	372	-13.0%	4	15	320	357	0	0	0	0
East North Central	320	437	-26.7%	285	390	25	33	0	0	11	14
Illinois	11	14	-20.9%	NM	6	NM	7	0	0	0	0
Indiana	NM	21	NM	NM	21	0	0	0	0	0	0
Michigan	107	147	-27.6%	98	135	NM	11	0	0	NM	1
Ohio	NM	23	NM	NM	21	0	2	0	0	0	0
Wisconsin	167	232	-27.9%	147	206	NM	13	0	0	10	13
West North Central	1,005	1,561	-35.6%	978	1,521	19	30	0	0	8	10
Iowa	67	106	-36.2%	67	105	1	1	0	0	0	0
Kansas	1	3	-42.2%	0	0	1	3	0	0	0	0
Minnesota	76	120	-36.7%	51	83	17	27	0	0	8	10
Missouri	57	96	-41.0%	57	96	0	0	0	0	0	0
Nebraska	96	158	-39.4%	96	158	0	0	0	0	0	0
North Dakota	243	363	-33.0%	243	363	0	0	0	0	0	0
South Dakota	464	716	-35.2%	464	716	0	0	0	0	0	0
South Atlantic	1,339	2,052	-34.7%	1,141	1,606	141	372	1	2	56	73
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	NM	24	NM	NM	24	0	0	0	0	0	0
Georgia	270	335	-19.2%	268	333	NM	1	0	0	1	1
Maryland	89	300	-70.2%	0	0	89	300	0	0	0	0
North Carolina	485	718	-32.4%	480	711	NM	5	0	1	NM	0
South Carolina	221	315	-29.8%	216	307	NM	7	0	0	0	0
Virginia	112	167	-32.9%	109	162	NM	6	0	0	0	0
West Virginia	144	194	-25.9%	50	68	39	53	0	0	54	72
East South Central	2,058	2,013	2.3%	2,057	2,012	NM	1	0	0	0	0
Alabama	876	958	-8.5%	876	958	0	0	0	0	0	0
Kentucky	385	318	20.9%	384	317	NM	1	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	797	737	8.2%	797	737	0	0	0	0	0	0
West South Central	532	527	1.0%	432	437	100	89	0	0	0	0
Arkansas	216	217	-0.7%	210	213	NM	4	0	0	0	0
Louisiana	92	84	8.9%	0	0	92	84	0	0	0	0
Oklahoma	147	146	1.1%	147	146	0	0	0	0	0	0
Texas	77	79	-2.5%	74	78	3	1	0	0	0	0
Mountain	2,346	2,322	1.0%	2,261	2,239	85	82	0	0	0	0
Arizona	436	486	-10.4%	436	486	0	0	0	0	0	0
Colorado	99	107	-7.6%	85	93	NM	14	0	0	0	0
Idaho	747	728	2.5%	691	673	56	56	0	0	0	0
Montana	777	753	3.2%	768	744	NM	9	0	0	0	0
Nevada	154	112	38.2%	149	109	NM	3	0	0	0	0
New Mexico	NM	10	NM	NM	10	0	0	0	0	0	0
Utah	62	62	0.5%	61	61	1	1	0	0	0	0
Wyoming	63	64	-1.8%	63	64	0	0	0	0	0	0
Pacific Contiguous	9,526	9,119	4.5%	9,394	9,011	132	108	NM	0	0	0
California	1,682	1,186	41.9%	1,595	1,121	87	65	NM	0	0	0
Oregon	2,518	2,505	0.5%	2,502	2,489	NM	16	0	0	0	0
Washington	5,325	5,428	-1.9%	5,297	5,401	28	27	0	0	0	0
Pacific Noncontiguous	116	126	-7.8%	99	107	2	3	NM	13	NM	3
Alaska	110	119	-7.3%	98	107	0	0	NM	13	0	0
Hawaii	5	6	-17.1%	1	1	2	3	0	0	NM	3
U.S. Total	20,551	21,913	-6.2%	18,793	19,630	1,652	2,150	15	16	91	116

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Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

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

by State, by Sector, Year-to-Date through November 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	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	6,462	6,704	-3.6%	939	953	5,422	5,646	5	4	96	101
Connecticut	473	490	-3.5%	33	36	440	455	0	0	0	0
Maine	2,817	2,887	-2.4%	0	0	2,721	2,785	0	0	96	101
Massachusetts	977	1,003	-2.6%	237	237	734	762	5	4	0	0
New Hampshire	1,111	1,199	-7.3%	326	328	785	870	0	0	0	0
Rhode Island	3	3	-5.5%	0	0	3	3	0	0	0	0
Vermont	1,081	1,122	-3.6%	343	352	739	770	0	0	0	0
Middle Atlantic	30,530	30,886	-1.2%	23,085	22,985	7,385	7,843	6	5	55	54
New Jersey	25	32	-21.5%	0	0	25	32	0	0	0	0
New York	26,850	26,977	-0.5%	22,995	22,857	3,794	4,060	6	5	55	54
Pennsylvania	3,655	3,878	-5.7%	90	127	3,566	3,751	0	0	0	0
East North Central	3,522	4,126	-14.6%	3,123	3,668	287	321	1	1	111	137
Illinois	118	134	-12.0%	41	56	75	77	1	1	0	0
Indiana	174	202	-13.5%	174	202	0	0	0	0	0	0
Michigan	1,180	1,422	-17.0%	1,082	1,305	90	107	0	0	NM	9
Ohio	230	221	4.1%	208	206	22	15	0	0	0	0
Wisconsin	1,820	2,148	-15.3%	1,617	1,899	99	121	0	0	103	128
West North Central	10,929	12,204	-10.4%	10,636	11,880	204	241	0	0	89	83
Iowa	674	826	-18.4%	666	820	8	6	0	0	0	0
Kansas	18	24	-27.1%	0	0	18	24	0	0	0	0
Minnesota	807	942	-14.3%	540	648	179	211	0	0	89	83
Missouri	689	739	-6.7%	689	739	0	0	0	0	0	0
Nebraska	1,061	1,235	-14.0%	1,061	1,235	0	0	0	0	0	0
North Dakota	2,539	2,841	-10.6%	2,539	2,841	0	0	0	0	0	0
South Dakota	5,141	5,598	-8.2%	5,141	5,598	0	0	0	0	0	0
South Atlantic	16,538	17,481	-5.4%	13,287	13,713	2,601	3,142	15	14	634	613
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	199	204	-2.6%	199	204	0	0	0	0	0	0
Georgia	3,150	3,176	-0.8%	3,125	3,158	NM	9	0	0	10	10
Maryland	2,001	2,507	-20.2%	0	0	2,001	2,507	0	0	0	0
North Carolina	5,618	5,770	-2.6%	5,552	5,712	45	47	13	12	NM	0
South Carolina	2,558	2,645	-3.3%	2,493	2,571	63	72	2	2	0	0
Virginia	1,405	1,559	-9.8%	1,355	1,496	50	62	0	0	0	0
West Virginia	1,607	1,620	-0.8%	563	572	427	445	0	0	617	603
East South Central	22,212	23,749	-6.5%	22,203	23,739	NM	10	0	0	0	0
Alabama	9,658	10,110	-4.5%	9,658	10,110	0	0	0	0	0	0
Kentucky	3,643	4,106	-11.3%	3,634	4,097	NM	10	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	8,911	9,532	-6.5%	8,911	9,532	0	0	0	0	0	0
West South Central	6,038	6,794	-11.1%	4,908	5,627	1,129	1,166	NM	1	0	0
Arkansas	2,451	2,776	-11.7%	2,399	2,731	53	44	0	0	0	0
Louisiana	1,039	1,093	-4.9%	0	0	1,039	1,093	0	0	0	0
Oklahoma	1,627	1,885	-13.7%	1,627	1,885	0	0	0	0	0	0
Texas	920	1,042	-11.7%	882	1,011	37	29	NM	1	0	0
Mountain	27,886	32,897	-15.2%	26,866	31,687	1,008	1,197	13	13	0	0
Arizona	5,646	6,478	-12.8%	5,646	6,478	0	0	0	0	0	0
Colorado	1,502	1,711	-12.2%	1,305	1,500	184	198	13	13	0	0
Idaho	8,347	10,311	-19.1%	7,697	9,519	650	793	0	0	0	0
Montana	8,608	10,667	-19.3%	8,506	10,540	103	127	0	0	0	0
Nevada	2,177	1,810	20.3%	2,124	1,746	52	63	0	0	0	0
New Mexico	127	140	-9.5%	127	140	0	0	0	0	0	0
Utah	719	866	-17.0%	709	859	10	7	0	0	0	0
Wyoming	760	913	-16.8%	752	904	8	9	0	0	0	0
Pacific Contiguous	125,897	133,254	-5.5%	123,315	131,315	2,567	1,928	NM	11	0	0
California	38,031	24,882	52.8%	35,952	23,544	2,064	1,327	NM	11	0	0
Oregon	26,905	32,870	-18.1%	26,715	32,643	189	227	0	0	0	0
Washington	60,962	75,502	-19.3%	60,648	75,128	314	373	0	0	0	0
Pacific Noncontiguous	1,351	1,631	-17.2%	1,160	1,397	20	40	139	163	32	32
Alaska	1,289	1,541	-16.4%	1,150	1,379	0	0	139	163	0	0
Hawaii	62	90	-30.6%	10	18	20	40	0	0	32	32
U.S. Total	251,366	269,727	-6.8%	229,521	246,963	20,632	21,534	195	211	1,018	1,019

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
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Notes: See Glossary for definitions. Values for 2019 are preliminary. Values for 2018 are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 1.11.A. Utility Scale Facility Net Generation from Renewable Sources Excluding Hydroelectric by State, by Sector, November 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	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	917	922	-0.5%	56	64	752	738	15	16	94	103
Connecticut	74	66	13.1%	0	0	74	66	NM	0	NM	0
Maine	418	455	-8.0%	0	0	321	346	4	6	93	103
Massachusetts	178	160	11.0%	11	7	161	148	5	5	NM	0
New Hampshire	124	133	-6.5%	10	22	110	107	4	4	0	0
Rhode Island	47	36	30.4%	0	0	46	35	1	1	0	0
Vermont	75	72	4.6%	35	35	40	37	0	0	0	0
Middle Atlantic	1,145	1,247	-8.2%	4	4	1,037	1,144	48	46	55	53
New Jersey	142	123	16.1%	4	4	118	104	20	14	NM	0
New York	550	587	-6.3%	0	0	517	553	17	19	16	15
Pennsylvania	453	538	-15.8%	0	0	403	487	11	13	39	37
East North Central	2,976	2,932	1.5%	339	352	2,490	2,418	12	19	135	142
Illinois	1,200	1,103	8.8%	8	9	1,191	1,094	NM	1	0	0
Indiana	585	555	5.4%	32	30	546	518	2	2	5	6
Michigan	712	738	-3.4%	213	188	440	482	4	11	55	57
Ohio	245	244	0.2%	NM	1	216	220	1	1	26	22
Wisconsin	234	291	-19.6%	85	124	97	105	NM	5	48	57
West North Central	7,958	6,350	25.3%	2,723	2,151	5,164	4,130	14	11	58	58
Iowa	2,522	1,963	28.5%	1,848	1,353	667	603	3	4	4	4
Kansas	1,981	1,473	34.5%	168	146	1,812	1,326	NM	1	0	0
Minnesota	1,193	1,095	8.9%	233	234	903	803	NM	4	53	55
Missouri	244	259	-5.6%	NM	3	238	255	4	1	0	0
Nebraska	720	470	53.2%	31	21	688	448	2	1	0	0
North Dakota	997	847	17.7%	364	324	632	522	NM	NM	NM	0
South Dakota	302	244	23.8%	77	70	225	174	0	0	0	0
South Atlantic	2,740	2,590	5.8%	412	377	1,462	1,334	29	36	838	843
Delaware	8	9	-11.8%	NM	0	6	7	1	1	NM	1
District of Columbia	6	4	34.8%	0	0	NM	0	5	4	0	0
Florida	599	602	-0.5%	256	221	177	218	4	4	163	160
Georgia	573	491	16.8%	21	17	227	156	NM	0	325	317
Maryland	113	112	0.8%	NM	1	109	101	3	2	0	8
North Carolina	721	630	14.5%	34	22	574	493	7	13	106	102
South Carolina	245	206	19.0%	29	19	92	64	0	0	124	123
Virginia	324	378	-14.2%	71	97	125	137	9	12	119	132
West Virginia	150	158	-4.8%	0	0	150	158	0	0	0	0
East South Central	594	560	6.0%	11	11	77	56	NM	0	506	492
Alabama	316	298	6.3%	NM	2	24	19	0	0	291	277
Kentucky	37	41	-10.5%	9	10	NM	1	0	0	27	31
Mississippi	151	132	14.8%	0	0	25	18	0	0	126	113
Tennessee	89	90	-0.5%	NM	0	28	18	NM	0	61	71
West South Central	10,218	8,945	14.2%	138	136	9,717	8,385	7	8	357	416
Arkansas	103	117	-11.8%	NM	0	19	19	1	1	83	97
Louisiana	182	218	-16.8%	NM	0	6	8	0	0	176	210
Oklahoma	2,434	2,185	11.4%	114	112	2,294	2,045	0	0	26	28
Texas	7,499	6,424	16.7%	24	23	7,398	6,313	5	7	72	80
Mountain	3,804	3,582	6.2%	456	313	3,264	3,227	50	8	35	34
Arizona	339	385	-12.1%	39	43	299	342	NM	1	0	0
Colorado	1,010	835	21.0%	169	25	839	809	NM	1	0	0
Idaho	306	306	0.0%	15	15	256	258	1	1	34	32
Montana	208	214	-2.6%	19	19	188	193	0	0	1	2
Nevada	645	613	5.2%	2	2	597	606	46	4	0	0
New Mexico	728	649	12.2%	20	17	708	632	NM	0	0	0
Utah	219	241	-9.2%	NM	19	202	221	0	1	0	0
Wyoming	350	340	3.0%	176	174	174	166	0	0	0	0
Pacific Contiguous	5,280	4,843	9.0%	506	530	4,503	4,051	72	77	199	185
California	3,904	3,600	8.4%	104	129	3,677	3,358	68	73	55	40
Oregon	628	579	8.4%	65	75	514	460	2	2	47	42
Washington	748	663	12.7%	337	326	313	233	NM	1	96	103
Pacific Noncontiguous	114	112	1.3%	15	16	82	76	17	19	NM	0
Alaska	16	16	1.2%	NM	8	NM	5	3	3	NM	0
Hawaii	98	97	1.3%	7	8	77	72	14	16	0	0
U.S. Total	35,745	32,083	11.4%	4,660	3,954	28,548	25,561	262	241	2,276	2,328

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Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

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

by State, by Sector, Year-to-Date through November 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	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	10,595	10,366	2.2%	727	711	8,682	8,486	141	163	1,045	1,005
Connecticut	868	779	11.4%	3	3	863	775	NM	1	NM	0
Maine	4,469	4,595	-2.7%	0	0	3,388	3,532	41	62	1,040	1,000
Massachusetts	2,263	2,193	3.2%	143	70	2,066	2,067	49	51	NM	5
New Hampshire	1,647	1,612	2.1%	187	225	1,420	1,347	40	40	0	0
Rhode Island	461	362	27.1%	0	0	454	356	7	7	0	0
Vermont	889	825	7.8%	395	414	492	409	2	2	0	0
Middle Atlantic	13,386	13,017	2.8%	71	73	12,144	11,714	562	592	609	638
New Jersey	1,864	1,816	2.7%	71	73	1,537	1,480	251	258	5	5
New York	6,291	5,842	7.7%	0	0	5,941	5,477	186	202	164	162
Pennsylvania	5,231	5,359	-2.4%	0	0	4,666	4,757	125	131	441	471
East North Central	31,971	29,098	9.9%	3,742	3,523	26,640	23,884	159	223	1,431	1,469
Illinois	12,775	11,090	15.2%	102	95	12,666	10,988	7	8	0	0
Indiana	6,252	5,542	12.8%	394	395	5,785	5,063	18	20	55	63
Michigan	7,574	7,326	3.4%	2,142	1,909	4,793	4,677	53	118	586	621
Ohio	2,580	2,312	11.6%	17	17	2,280	2,028	13	12	270	255
Wisconsin	2,789	2,828	-1.4%	1,086	1,105	1,116	1,129	68	65	520	529
West North Central	78,810	68,935	14.3%	26,153	22,314	51,829	45,801	168	170	660	650
Iowa	24,200	19,343	25.1%	17,163	13,291	6,942	5,978	40	42	55	31
Kansas	19,621	17,178	14.2%	1,767	1,730	17,840	15,437	14	14	0	-3
Minnesota	12,689	12,306	3.1%	2,395	2,516	9,636	9,121	57	50	601	618
Missouri	2,793	2,775	0.6%	28	34	2,721	2,691	42	47	2	3
Nebraska	6,747	5,055	33.5%	330	225	6,406	4,816	12	14	0	0
North Dakota	10,093	9,714	3.9%	3,709	3,747	6,379	5,963	NM	NM	2	1
South Dakota	2,667	2,563	4.1%	761	770	1,906	1,793	0	0	0	0
South Atlantic	34,337	32,404	6.0%	5,999	4,792	18,591	17,558	373	458	9,375	9,596
Delaware	100	106	-4.8%	6	6	80	83	5	5	10	11
District of Columbia	64	51	23.6%	0	0	14	0	50	51	0	0
Florida	7,768	6,907	12.5%	3,784	2,482	2,215	2,597	41	46	1,728	1,782
Georgia	6,603	6,467	2.1%	292	278	2,677	2,431	2	2	3,632	3,756
Maryland	1,372	1,376	-0.3%	7	8	1,281	1,255	34	25	49	87
North Carolina	9,619	8,705	10.5%	398	369	7,989	7,010	109	176	1,124	1,149
South Carolina	2,952	2,585	14.2%	366	361	1,090	836	0	0	1,496	1,388
Virginia	4,289	4,602	-6.8%	1,146	1,288	1,674	1,740	132	152	1,337	1,422
West Virginia	1,570	1,605	-2.2%	0	0	1,570	1,605	0	0	0	0
East South Central	6,778	6,670	1.6%	145	152	1,209	1,076	4	4	5,420	5,438
Alabama	3,545	3,505	1.1%	28	29	485	489	0	0	3,032	2,987
Kentucky	435	426	2.1%	114	122	8	9	0	0	313	295
Mississippi	1,597	1,631	-2.1%	0	0	309	322	0	0	1,288	1,309
Tennessee	1,201	1,108	8.5%	NM	1	407	256	4	4	788	847
West South Central	112,386	102,643	9.5%	1,609	1,547	106,502	96,297	76	86	4,199	4,713
Arkansas	1,461	1,426	2.4%	NM	1	256	253	11	5	1,193	1,166
Louisiana	2,017	2,438	-17.3%	NM	1	69	71	0	0	1,946	2,365
Oklahoma	26,692	25,161	6.1%	1,340	1,271	25,089	23,609	0	0	263	280
Texas	82,217	73,618	11.7%	266	272	81,088	72,364	65	80	797	902
Mountain	45,647	42,773	6.7%	5,490	3,693	39,298	38,631	506	110	353	338
Arizona	5,629	5,603	0.5%	642	652	4,975	4,939	12	12	0	0
Colorado	11,330	9,861	14.9%	2,122	291	9,189	9,556	17	12	3	3
Idaho	3,455	3,478	-0.7%	157	159	2,960	2,996	8	10	330	313
Montana	2,144	1,980	8.3%	204	205	1,922	1,755	0	0	18	19
Nevada	8,417	7,946	5.9%	38	39	7,919	7,844	458	61	2	2
New Mexico	7,545	6,857	10.0%	288	252	7,254	6,602	NM	3	0	0
Utah	3,278	3,346	-2.0%	206	203	3,063	3,130	8	13	0	0
Wyoming	3,850	3,702	4.0%	1,834	1,892	2,016	1,809	0	0	0	0
Pacific Contiguous	74,138	73,090	1.4%	7,157	7,710	63,907	62,243	807	898	2,267	2,239
California	57,104	55,282	3.3%	1,903	2,119	53,739	51,687	770	860	691	616
Oregon	8,448	8,711	-3.0%	1,194	1,246	6,683	6,958	26	27	545	481
Washington	8,587	9,098	-5.6%	4,059	4,346	3,485	3,598	11	11	1,031	1,142
Pacific Noncontiguous	1,341	1,284	4.4%	180	175	957	885	201	222	2	3
Alaska	176	183	-3.8%	90	90	51	51	34	39	2	3
Hawaii	1,164	1,101	5.8%	90	84	907	834	168	183	0	0
U.S. Total	409,391	380,279	7.7%	51,272	44,688	329,760	306,575	2,997	2,927	25,362	26,089

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Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 1.12.A. Utility Scale Facility Net Generation from Hydroelectric (Pumped Storage) Power by State, by Sector, November 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	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	-38	-33	13.1%	0	0	-38	-33	0	0	0	0
Connecticut	-1	2	-155.7%	0	0	-1	2	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	-36	-36	2.4%	0	0	-36	-36	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	-80	-76	4.8%	-33	-21	-47	-55	0	0	0	0
New Jersey	0	0	-36.5%	0	0	0	0	0	0	0	0
New York	-33	-21	58.8%	-33	-21	0	0	0	0	0	0
Pennsylvania	-47	-55	-15.4%	0	0	-47	-55	0	0	0	0
East North Central	-37	-50	-25.6%	-37	-50	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	-37	-50	-25.6%	-37	-50	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	-2	10	-124.2%	-2	10	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	-2	10	-124.2%	-2	10	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	-242	-132	83.3%	-242	-132	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	-73	-2	NM	-73	-2	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	-100	-76	30.7%	-100	-76	0	0	0	0	0	0
Virginia	-70	-54	29.3%	-70	-54	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	-22	-39	-44.9%	-22	-39	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	-22	-39	-44.9%	-22	-39	0	0	0	0	0	0
West South Central	-9	-11	-13.5%	-9	-11	0	0	0	0	0	0
Arkansas	0	2	-77.7%	0	2	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	-10	-12	-22.9%	-10	-12	0	0	0	0	0	0
Texas	0	0	--	0	0	0	0	0	0	0	0
Mountain	-37	-25	45.9%	-37	-25	0	0	0	0	0	0
Arizona	-20	-15	37.0%	-20	-15	0	0	0	0	0	0
Colorado	-17	-11	58.5%	-17	-11	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	-41	14	-384.7%	-41	14	0	0	0	0	0	0
California	-43	16	-373.6%	-43	16	0	0	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	2	-1	-233.0%	2	-1	0	0	0	0	0	0
Pacific Noncontiguous	0	0	--	0	0	0	0	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	-509	-343	48.5%	-424	-254	-84	-88	0	0	0	0

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values for 2019 are preliminary. Values for 2018 are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 1.12.B. Utility Scale Facility Net Generation from Hydroelectric (Pumped Storage) Power

by State, by Sector, Year-to-Date through November 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	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	-408	-425	-3.9%	0	0	-408	-425	0	0	0	0
Connecticut	1	2	-65.1%	0	0	1	2	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	-409	-426	-4.1%	0	0	-409	-426	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	-906	-1,109	-18.3%	-378	-510	-528	-599	0	0	0	0
New Jersey	-87	-115	-24.0%	-87	-115	0	0	0	0	0	0
New York	-291	-395	-26.4%	-291	-395	0	0	0	0	0	0
Pennsylvania	-528	-599	-11.9%	0	0	-528	-599	0	0	0	0
East North Central	-665	-645	3.0%	-665	-645	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	-665	-645	3.0%	-665	-645	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	340	36	854.7%	340	36	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	340	36	854.7%	340	36	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	-2,391	-2,386	0.2%	-2,391	-2,386	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	-527	-519	1.5%	-527	-519	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	-845	-652	29.6%	-845	-652	0	0	0	0	0	0
Virginia	-1,019	-1,215	-16.1%	-1,019	-1,215	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	-561	-557	0.6%	-561	-557	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	-561	-557	0.6%	-561	-557	0	0	0	0	0	0
West South Central	-46	-93	-50.4%	-46	-93	0	0	0	0	0	0
Arkansas	50	33	51.6%	50	33	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	-97	-126	-23.6%	-97	-126	0	0	0	0	0	0
Texas	0	0	--	0	0	0	0	0	0	0	0
Mountain	-178	-235	-24.1%	-178	-235	0	0	0	0	0	0
Arizona	8	11	-29.3%	8	11	0	0	0	0	0	0
Colorado	-186	-246	-24.3%	-186	-246	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	83	32	160.8%	83	32	0	0	0	0	0	0
California	76	2	NM	76	2	0	0	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	7	29	-77.0%	7	29	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	-4,731	-5,382	-12.1%	-3,795	-4,359	-936	-1,024	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 1.13.A. Utility Scale Facility Net Generation from Other Energy Sources by State, by Sector, November 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	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	162	142	14.4%	0	0	150	124	4	5	8	12
Connecticut	52	34	52.9%	0	0	52	34	0	0	0	0
Maine	26	33	-19.4%	0	0	14	15	4	5	8	12
Massachusetts	79	71	11.0%	0	0	79	71	0	0	0	0
New Hampshire	5	4	20.5%	0	0	5	4	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	-100.0%	0	0	0	0	0	0	0	0
Middle Atlantic	187	186	0.7%	0	0	141	147	40	33	6	6
New Jersey	54	45	21.2%	0	0	36	32	12	6	6	6
New York	88	73	19.5%	0	0	68	56	19	17	0	0
Pennsylvania	45	68	-33.2%	0	0	37	59	8	9	0	0
East North Central	51	77	-33.9%	2	1	7	8	8	12	35	55
Illinois	0	21	-101.1%	0	0	0	-1	0	0	0	23
Indiana	32	30	8.1%	0	0	0	0	2	2	30	28
Michigan	14	22	-36.6%	0	0	7	10	5	10	1	2
Ohio	1	1	90.8%	0	0	0	0	0	0	1	1
Wisconsin	4	4	7.3%	2	2	0	0	0	0	NM	2
West North Central	37	40	-7.0%	15	20	14	14	NM	1	5	5
Iowa	0	0	--	0	0	0	0	0	0	0	0
Kansas	0	0	-0.2%	0	0	0	0	0	0	0	0
Minnesota	32	34	-6.4%	11	15	14	14	NM	1	4	4
Missouri	0	0	-100.0%	0	0	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	4	5	-10.8%	4	5	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	384	369	4.0%	0	0	215	204	10	10	158	154
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	260	257	1.3%	0	0	127	130	0	0	133	127
Georgia	7	4	73.3%	0	0	0	0	0	0	7	4
Maryland	28	21	33.1%	0	0	28	21	0	0	0	0
North Carolina	45	44	1.4%	0	0	30	24	0	0	15	20
South Carolina	4	4	-16.5%	0	0	1	1	0	0	3	3
Virginia	40	39	3.5%	0	0	30	28	10	10	0	0
West Virginia	0	0	-6.6%	0	0	0	0	0	0	0	0
East South Central	4	8	-47.4%	4	8	0	0	0	0	0	1
Alabama	0	0	-100.0%	0	0	0	0	0	0	0	0
Kentucky	4	8	-46.0%	4	8	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	0	1	-65.5%	0	0	0	0	0	0	0	1
West South Central	87	86	0.2%	0	0	7	11	0	0	79	76
Arkansas	1	0	NM	0	0	0	0	0	0	1	0
Louisiana	35	40	-13.4%	0	0	0	0	0	0	35	40
Oklahoma	0	5	-90.1%	0	0	0	5	0	0	0	0
Texas	51	41	23.1%	0	0	7	6	0	0	44	36
Mountain	56	62	-11.1%	5	7	24	25	0	0	26	30
Arizona	0	0	68.6%	0	0	0	0	0	0	0	0
Colorado	5	4	18.0%	0	0	2	1	0	0	4	4
Idaho	5	4	31.3%	0	0	0	0	0	0	5	4
Montana	23	25	-7.1%	0	0	23	25	0	0	0	0
Nevada	0	3	-87.4%	0	3	0	0	0	0	0	0
New Mexico	0	0	-49.3%	0	0	0	0	0	0	0	0
Utah	15	20	-26.5%	5	4	0	0	0	0	10	16
Wyoming	8	7	8.1%	0	0	0	0	0	0	8	7
Pacific Contiguous	70	73	-3.8%	-1	-2	21	17	0	0	50	57
California	62	67	-8.2%	-1	-1	13	11	0	0	50	57
Oregon	4	2	133.4%	0	0	4	2	0	0	0	0
Washington	4	4	9.7%	0	0	4	4	0	0	0	0
Pacific Noncontiguous	32	32	0.9%	15	16	0	0	17	16	0	0
Alaska	0	0	3.9%	0	0	0	0	0	0	0	0
Hawaii	32	32	0.9%	15	17	0	0	17	16	0	0
U.S. Total	1,069	1,075	-0.5%	41	50	580	551	81	77	367	396

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Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

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

by State, by Sector, Year-to-Date through November 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	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	1,729	1,579	9.5%	0	0	1,566	1,399	51	59	113	121
Connecticut	532	428	24.2%	0	0	532	428	0	0	0	0
Maine	310	338	-8.3%	0	0	147	157	51	59	113	121
Massachusetts	838	769	8.9%	0	0	838	770	0	0	0	0
New Hampshire	50	44	13.5%	0	0	50	44	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	-100.0%	0	0	0	0	0	0	0	0
Middle Atlantic	2,249	2,003	12.3%	0	0	1,738	1,591	458	392	54	19
New Jersey	561	499	12.4%	0	0	361	358	147	123	54	19
New York	878	797	10.2%	0	0	666	611	212	185	0	0
Pennsylvania	810	707	14.6%	0	0	711	622	99	84	0	0
East North Central	747	762	-2.0%	18	13	87	81	83	130	558	538
Illinois	219	203	7.7%	0	0	-8	-17	0	0	226	221
Indiana	298	286	4.1%	0	0	0	0	22	19	276	267
Michigan	176	229	-23.0%	0	0	95	101	62	111	19	16
Ohio	11	6	91.7%	-1	-2	0	-3	0	0	12	11
Wisconsin	43	39	11.5%	20	16	0	0	0	0	24	23
West North Central	384	424	-9.4%	176	216	133	128	26	27	49	52
Iowa	0	0	--	0	0	0	0	0	0	0	0
Kansas	5	5	-0.3%	0	0	0	0	0	0	5	5
Minnesota	330	371	-11.1%	126	168	133	128	26	27	44	47
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	50	47	4.9%	50	47	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	4,317	4,047	6.7%	-1	-1	2,479	2,262	148	137	1,691	1,648
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	2,899	2,718	6.6%	-1	0	1,525	1,391	0	0	1,375	1,328
Georgia	86	78	11.2%	0	0	0	0	0	0	86	78
Maryland	301	301	0.2%	0	0	301	301	0	0	0	0
North Carolina	491	495	-0.8%	0	0	295	284	0	0	196	211
South Carolina	39	38	1.1%	0	0	5	7	0	0	34	31
Virginia	507	428	18.3%	0	0	359	291	148	137	0	0
West Virginia	-6	-11	-48.5%	0	0	-6	-11	0	0	0	0
East South Central	44	65	-32.3%	40	57	0	0	0	0	4	8
Alabama	0	0	-100.0%	0	0	0	0	0	0	0	0
Kentucky	40	57	-30.5%	40	57	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	4	8	-45.9%	0	0	0	0	0	0	4	8
West South Central	909	1,062	-14.4%	0	0	80	113	0	0	829	949
Arkansas	4	5	-22.3%	0	0	0	0	0	0	4	5
Louisiana	434	595	-27.1%	0	0	0	0	0	0	434	595
Oklahoma	7	52	-87.3%	0	0	1	49	0	0	6	4
Texas	464	410	13.3%	0	0	79	65	0	0	385	345
Mountain	648	695	-6.8%	77	75	278	290	0	0	293	331
Arizona	-4	-2	64.2%	0	0	-4	-2	0	0	0	0
Colorado	56	54	2.8%	0	0	16	16	0	0	40	38
Idaho	60	59	2.4%	0	0	0	0	0	0	60	59
Montana	266	276	-3.7%	0	0	266	276	0	0	0	0
Nevada	20	27	-24.7%	20	27	0	0	0	0	0	0
New Mexico	-1	-1	18.3%	-1	-1	0	0	0	0	0	0
Utah	181	204	-11.0%	58	48	0	0	0	0	124	155
Wyoming	69	78	-12.2%	0	0	0	0	0	0	69	78
Pacific Contiguous	792	852	-7.1%	-15	-17	246	239	0	0	560	631
California	700	764	-8.4%	-14	-16	154	149	0	0	560	631
Oregon	32	34	-6.5%	0	-1	32	35	0	0	0	0
Washington	60	54	10.4%	0	-1	60	55	0	0	0	0
Pacific Noncontiguous	356	344	3.4%	151	170	0	-1	205	176	0	0
Alaska	-3	-3	8.2%	-3	-3	0	0	0	0	0	0
Hawaii	359	347	3.5%	154	172	0	-1	205	176	0	0
U.S. Total	12,175	11,834	2.9%	447	513	6,607	6,103	971	923	4,150	4,296

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Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 1.14.A. Utility Scale Facility Net Generation from Wind by State, by Sector, November 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	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	317	357	-11.1%	18	23	295	330	4	3	NM	0
Connecticut	NM	1	NM	0	0	NM	1	0	0	0	0
Maine	213	240	-11.0%	0	0	213	240	0	0	0	0
Massachusetts	18	24	-23.9%	NM	6	11	15	NM	3	NM	0
New Hampshire	31	41	-23.9%	0	0	31	41	0	0	0	0
Rhode Island	22	16	37.4%	0	0	21	15	1	1	0	0
Vermont	32	36	-9.7%	14	17	18	18	0	0	0	0
Middle Atlantic	639	732	-12.7%	0	0	639	732	NM	0	NM	NM
New Jersey	NM	2	NM	0	0	NM	2	0	0	0	0
New York	341	389	-12.3%	0	0	341	388	NM	0	NM	NM
Pennsylvania	296	341	-13.1%	0	0	296	341	0	0	0	0
East North Central	2,519	2,414	4.3%	276	268	2,234	2,137	NM	3	NM	7
Illinois	1,163	1,065	9.2%	NM	1	1,162	1,063	NM	0	0	0
Indiana	531	508	4.5%	0	0	531	508	0	0	0	0
Michigan	524	510	2.7%	209	186	314	324	0	0	0	0
Ohio	176	183	-3.8%	NM	1	170	176	0	0	NM	6
Wisconsin	125	148	-15.7%	65	80	58	66	NM	2	1	1
West North Central	7,713	6,142	25.6%	2,696	2,112	5,013	4,026	NM	4	0	0
Iowa	2,503	1,944	28.8%	1,846	1,351	657	592	0	0	0	0
Kansas	1,975	1,467	34.6%	167	146	1,806	1,320	NM	1	0	0
Minnesota	996	936	6.4%	217	207	778	727	NM	2	0	0
Missouri	229	243	-6.1%	0	0	229	243	0	0	0	0
Nebraska	711	461	54.3%	25	14	686	447	0	0	0	0
North Dakota	996	847	17.6%	364	324	632	522	NM	NM	0	0
South Dakota	302	244	23.8%	77	70	224	174	0	0	0	0
South Atlantic	252	261	-3.5%	0	0	252	261	1	1	0	0
Delaware	1	1	-11.6%	0	0	0	0	1	1	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	0	0	--	0	0	0	0	0	0	0	0
Georgia	0	0	--	0	0	0	0	0	0	0	0
Maryland	51	46	10.2%	0	0	51	46	0	0	0	0
North Carolina	51	57	-10.8%	0	0	51	57	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	150	158	-4.8%	0	0	150	158	0	0	0	0
East South Central	NM	3	NM	0	0	NM	3	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	3	NM	0	0	NM	3	0	0	0	0
West South Central	9,524	8,224	15.8%	133	131	9,386	8,089	4	4	NM	1
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	2,403	2,151	11.7%	110	108	2,293	2,043	0	0	0	0
Texas	7,121	6,074	17.3%	23	23	7,093	6,046	4	4	NM	1
Mountain	2,456	2,222	10.6%	377	231	2,079	1,991	NM	0	0	0
Arizona	42	44	-5.3%	0	0	42	44	0	0	0	0
Colorado	926	756	22.4%	169	25	757	731	0	0	0	0
Idaho	225	222	1.3%	14	13	212	209	0	0	0	0
Montana	205	210	-2.2%	19	19	186	191	0	0	0	0
Nevada	25	26	-5.8%	0	0	25	26	0	0	0	0
New Mexico	641	561	14.2%	0	0	641	561	NM	0	0	0
Utah	51	62	-18.3%	0	0	51	62	0	0	0	0
Wyoming	341	340	0.6%	176	174	166	166	0	0	0	0
Pacific Contiguous	2,173	1,597	36.0%	415	389	1,757	1,207	1	1	0	0
California	1,063	639	66.5%	41	27	1,022	610	1	1	0	0
Oregon	494	443	11.5%	60	70	433	373	0	0	0	0
Washington	616	516	19.4%	313	292	303	224	0	0	0	0
Pacific Noncontiguous	60	61	-1.5%	NM	8	52	53	0	0	0	0
Alaska	13	13	1.4%	NM	8	NM	5	0	0	0	0
Hawaii	48	49	-2.2%	0	0	48	49	0	0	0	0
U.S. Total	25,656	22,014	16.5%	3,923	3,162	21,709	18,827	16	16	NM	9

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Notes: See Glossary for definitions. Values for 2019 are preliminary. Values for 2018 are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 1.14.B. Utility Scale Facility Net Generation from Wind

by State, by Sector, Year-to-Date through November 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	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	3,309	3,192	3.7%	207	208	3,070	2,954	30	27	NM	3
Connecticut	12	11	5.4%	0	0	12	11	0	0	0	0
Maine	2,172	2,135	1.7%	0	0	2,172	2,135	0	0	0	0
Massachusetts	202	204	-0.8%	51	53	126	128	23	20	NM	3
New Hampshire	369	364	1.2%	0	0	369	364	0	0	0	0
Rhode Island	206	143	43.9%	0	0	198	136	7	7	0	0
Vermont	349	335	4.4%	156	155	194	180	0	0	0	0
Middle Atlantic	7,246	6,864	5.6%	0	0	7,239	6,856	NM	3	NM	6
New Jersey	20	20	-0.7%	0	0	20	20	0	0	0	0
New York	4,008	3,614	10.9%	0	0	4,001	3,606	NM	3	NM	6
Pennsylvania	3,217	3,230	-0.4%	0	0	3,217	3,230	0	0	0	0
East North Central	26,451	23,421	12.9%	2,878	2,636	23,477	20,697	25	25	71	62
Illinois	12,331	10,637	15.9%	11	11	12,316	10,622	NM	4	0	0
Indiana	5,562	4,841	14.9%	0	0	5,562	4,841	0	0	0	0
Michigan	5,249	4,911	6.9%	2,059	1,825	3,190	3,086	0	0	0	0
Ohio	1,802	1,552	16.1%	10	10	1,724	1,483	3	3	64	56
Wisconsin	1,507	1,479	1.9%	798	790	685	665	18	18	7	6
West North Central	75,545	65,816	14.8%	25,819	21,867	49,683	43,906	43	43	0	0
Iowa	23,982	19,140	25.3%	17,144	13,270	6,834	5,867	4	3	0	0
Kansas	19,547	17,112	14.2%	1,766	1,728	17,768	15,370	14	14	0	0
Minnesota	10,022	9,779	2.5%	2,175	2,199	7,825	7,557	23	23	0	0
Missouri	2,592	2,567	1.0%	0	0	2,592	2,567	0	0	0	0
Nebraska	6,645	4,943	34.4%	264	153	6,381	4,790	0	0	0	0
North Dakota	10,091	9,713	3.9%	3,709	3,747	6,379	5,963	NM	NM	0	0
South Dakota	2,666	2,561	4.1%	761	770	1,905	1,791	0	0	0	0
South Atlantic	2,564	2,623	-2.2%	0	0	2,559	2,618	5	5	0	0
Delaware	5	5	2.1%	0	0	0	0	5	5	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	0	0	--	0	0	0	0	0	0	0	0
Georgia	0	0	--	0	0	0	0	0	0	0	0
Maryland	522	520	0.4%	0	0	522	520	0	0	0	0
North Carolina	466	493	-5.4%	0	0	466	493	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	1,570	1,605	-2.2%	0	0	1,570	1,605	0	0	0	0
East South Central	38	37	1.1%	0	0	38	37	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	38	37	1.1%	0	0	38	37	0	0	0	0
West South Central	103,335	93,946	10.0%	1,540	1,478	101,734	92,410	49	49	11	9
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	26,353	24,802	6.3%	1,282	1,213	25,071	23,589	0	0	0	0
Texas	76,981	69,144	11.3%	258	264	76,663	68,821	49	49	11	9
Mountain	25,965	23,799	9.1%	4,299	2,528	21,658	21,265	NM	3	3	3
Arizona	516	484	6.7%	0	0	516	484	0	0	0	0
Colorado	10,034	8,699	15.3%	2,117	286	7,912	8,411	NM	0	3	3
Idaho	2,414	2,422	-0.4%	145	146	2,269	2,277	0	0	0	0
Montana	2,094	1,928	8.6%	204	205	1,890	1,723	0	0	0	0
Nevada	300	285	5.3%	0	0	300	285	0	0	0	0
New Mexico	6,178	5,539	11.5%	0	0	6,175	5,536	NM	3	0	0
Utah	754	741	1.8%	0	0	754	741	0	0	0	0
Wyoming	3,675	3,702	-0.7%	1,834	1,892	1,841	1,809	0	0	0	0
Pacific Contiguous	27,697	27,955	-0.9%	5,651	5,966	22,035	21,980	5	5	5	5
California	13,918	13,454	3.5%	775	821	13,132	12,623	5	5	5	5
Oregon	6,696	7,059	-5.1%	1,139	1,186	5,558	5,873	0	0	0	0
Washington	7,083	7,443	-4.8%	3,737	3,959	3,346	3,484	0	0	0	0
Pacific Noncontiguous	687	691	-0.5%	90	90	598	601	0	0	0	0
Alaska	140	142	-0.9%	90	90	51	51	0	0	0	0
Hawaii	547	550	-0.4%	0	0	547	550	0	0	0	0
U.S. Total	272,838	248,345	9.9%	40,485	34,774	232,091	213,325	165	159	97	87

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Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 1.15.A. Utility Scale Facility Net Generation from Biomass by State, by Sector, November 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	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	498	512	-2.8%	27	37	367	359	10	12	93	103
Connecticut	63	60	5.2%	0	0	63	60	0	0	0	0
Maine	204	214	-4.7%	0	0	107	105	4	6	93	103
Massachusetts	86	96	-10.3%	0	0	84	94	2	2	0	0
New Hampshire	93	92	1.1%	10	22	79	67	4	4	0	0
Rhode Island	19	18	5.1%	0	0	19	18	0	0	0	0
Vermont	32	31	1.8%	17	16	NM	15	0	0	0	0
Middle Atlantic	380	439	-13.4%	0	0	288	348	39	39	53	52
New Jersey	64	66	-3.9%	0	0	52	59	11	8	0	0
New York	166	179	-7.5%	0	0	135	146	16	18	15	15
Pennsylvania	151	193	-22.0%	0	0	101	143	11	13	38	37
East North Central	410	497	-17.5%	50	78	223	268	8	16	128	136
Illinois	33	35	-7.3%	7	8	26	28	0	0	0	0
Indiana	34	38	-10.7%	23	26	4	4	2	2	5	6
Michigan	180	225	-19.8%	0	0	121	157	4	10	55	57
Ohio	58	57	2.3%	0	0	37	40	1	1	21	16
Wisconsin	105	142	-26.2%	20	44	35	39	2	3	48	57
West North Central	145	161	-10.1%	25	38	52	57	10	7	58	58
Iowa	17	19	-9.3%	NM	2	9	10	3	3	4	4
Kansas	5	5	-10.6%	0	0	5	6	0	0	0	0
Minnesota	107	121	-11.6%	17	27	36	37	NM	2	53	55
Missouri	9	8	15.2%	NM	3	NM	4	4	1	0	0
Nebraska	7	8	-17.8%	5	7	0	0	2	1	0	0
North Dakota	NM	0	NM	0	0	0	0	0	0	NM	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	1,473	1,561	-5.6%	92	169	524	521	20	28	838	843
Delaware	4	5	-16.2%	0	0	3	4	0	0	NM	1
District of Columbia	5	4	14.8%	0	0	0	0	5	4	0	0
Florida	317	421	-24.7%	7	63	144	194	4	4	163	160
Georgia	443	382	15.9%	0	0	118	65	0	0	325	317
Maryland	30	37	-19.5%	0	0	29	28	2	2	0	8
North Carolina	218	204	6.9%	0	0	112	96	NM	7	106	102
South Carolina	182	176	3.2%	29	19	29	34	0	0	124	123
Virginia	274	330	-17.1%	57	86	89	100	9	12	119	132
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	522	511	2.2%	7	8	10	11	0	0	506	492
Alabama	294	280	4.8%	0	0	NM	3	0	0	291	277
Kentucky	35	39	-12.1%	7	8	NM	1	0	0	27	31
Mississippi	127	114	11.3%	0	0	NM	1	0	0	126	113
Tennessee	66	77	-13.8%	0	0	6	6	0	0	61	71
West South Central	401	471	-14.9%	0	0	44	53	1	3	356	415
Arkansas	90	105	-14.8%	0	0	6	7	1	1	83	97
Louisiana	182	218	-16.8%	0	0	6	8	0	0	176	210
Oklahoma	28	30	-7.7%	0	0	NM	2	0	0	26	28
Texas	102	118	-13.3%	0	0	30	35	1	3	72	79
Mountain	88	93	-5.7%	NM	1	51	56	1	2	35	34
Arizona	17	19	-14.5%	0	0	17	19	0	0	0	0
Colorado	14	14	-1.1%	0	0	14	14	0	0	0	0
Idaho	46	45	1.0%	NM	1	10	11	1	1	33	32
Montana	1	2	-38.1%	0	0	0	0	0	0	1	2
Nevada	4	4	-2.4%	0	0	4	4	0	0	0	0
New Mexico	1	2	-25.1%	0	0	1	2	0	0	0	0
Utah	5	7	-23.8%	0	0	5	6	0	1	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	665	721	-7.8%	30	47	377	423	62	68	196	183
California	452	486	-7.1%	2	8	339	375	58	65	53	38
Oregon	84	88	-5.0%	4	5	30	39	2	2	47	42
Washington	129	147	-11.8%	24	34	8	9	NM	1	96	103
Pacific Noncontiguous	23	29	-21.5%	2	5	4	4	17	19	NM	0
Alaska	3	3	0.4%	0	0	0	0	3	3	NM	0
Hawaii	19	26	-24.2%	2	5	4	4	14	16	0	0
U.S. Total	4,605	4,995	-7.8%	234	383	1,940	2,100	167	195	2,263	2,316

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Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 1.15.B. Utility Scale Facility Net Generation from Biomass

by State, by Sector, Year-to-Date through November 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	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	5,791	6,035	-4.1%	385	449	4,259	4,453	107	133	1,040	1,000
Connecticut	704	690	2.0%	0	0	704	690	0	0	0	0
Maine	2,286	2,448	-6.6%	0	0	1,205	1,386	41	62	1,040	1,000
Massachusetts	953	1,066	-10.6%	0	0	930	1,038	23	28	0	0
New Hampshire	1,278	1,248	2.4%	187	225	1,051	983	40	40	0	0
Rhode Island	188	193	-2.5%	0	0	188	193	0	0	0	0
Vermont	382	390	-2.0%	198	224	182	163	2	2	0	0
Middle Atlantic	4,401	4,878	-9.8%	0	0	3,377	3,794	431	463	592	621
New Jersey	736	856	-14.0%	0	0	603	715	133	141	0	0
New York	1,733	1,952	-11.2%	0	0	1,396	1,600	179	196	158	157
Pennsylvania	1,932	2,070	-6.7%	0	0	1,378	1,479	120	127	434	464
East North Central	4,798	5,068	-5.3%	634	690	2,686	2,788	119	185	1,358	1,404
Illinois	382	390	-2.0%	89	82	293	308	0	0	0	0
Indiana	375	421	-10.9%	257	293	45	45	18	20	55	63
Michigan	2,171	2,300	-5.6%	0	0	1,534	1,563	51	116	586	621
Ohio	635	645	-1.6%	0	0	424	442	7	6	204	197
Wisconsin	1,234	1,311	-5.9%	288	315	390	430	44	43	513	523
West North Central	1,662	1,976	-15.8%	313	431	565	769	124	126	660	650
Iowa	203	191	6.2%	12	14	99	107	37	39	55	31
Kansas	56	58	-4.8%	0	0	56	61	0	0	0	-3
Minnesota	1,230	1,518	-19.0%	217	315	377	557	34	27	601	618
Missouri	100	121	-17.8%	23	29	33	44	41	46	2	3
Nebraska	72	85	-16.0%	60	72	0	0	12	14	0	0
North Dakota	2	1	134.2%	0	0	0	0	0	0	2	1
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	17,273	18,221	-5.2%	1,921	2,126	5,743	6,173	240	328	9,368	9,594
Delaware	47	54	-12.0%	0	0	38	42	0	0	10	11
District of Columbia	50	51	-3.0%	0	0	0	0	50	51	0	0
Florida	4,109	4,671	-12.0%	612	611	1,736	2,240	35	41	1,725	1,780
Georgia	4,681	4,565	2.5%	0	0	1,050	809	0	0	3,632	3,756
Maryland	374	482	-22.4%	0	0	305	379	20	15	49	87
North Carolina	2,305	2,409	-4.3%	0	0	1,176	1,191	6	69	1,124	1,149
South Carolina	2,220	2,108	5.3%	360	359	368	361	0	0	1,492	1,388
Virginia	3,486	3,880	-10.2%	949	1,156	1,071	1,151	130	152	1,337	1,422
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	5,713	5,784	-1.2%	78	85	221	267	0	0	5,415	5,432
Alabama	3,171	3,164	0.3%	0	0	140	177	0	0	3,032	2,987
Kentucky	397	388	2.4%	78	85	7	8	0	0	313	295
Mississippi	1,299	1,321	-1.7%	0	0	10	11	0	0	1,288	1,309
Tennessee	846	912	-7.2%	0	0	64	70	0	0	782	841
West South Central	4,781	5,432	-12.0%	0	0	576	694	17	35	4,187	4,704
Arkansas	1,264	1,233	2.5%	0	0	66	62	5	5	1,193	1,166
Louisiana	2,015	2,436	-17.3%	0	0	69	71	0	0	1,946	2,365
Oklahoma	280	301	-6.7%	0	0	18	21	0	0	263	280
Texas	1,221	1,463	-16.5%	0	0	423	540	12	30	786	893
Mountain	959	954	0.6%	12	14	585	585	16	23	346	333
Arizona	215	199	8.3%	0	0	215	199	0	0	0	0
Colorado	147	150	-1.6%	0	0	147	150	0	0	0	0
Idaho	452	445	1.5%	12	14	105	109	8	10	328	313
Montana	18	19	-5.6%	0	0	0	0	0	0	18	19
Nevada	48	48	-1.4%	0	0	48	48	0	0	0	0
New Mexico	16	19	-17.4%	0	0	16	19	0	0	0	0
Utah	62	73	-14.0%	0	0	54	60	8	13	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	7,717	8,028	-3.9%	407	526	4,430	4,534	646	752	2,233	2,216
California	5,273	5,429	-2.9%	36	86	3,971	4,036	609	714	657	593
Oregon	981	945	3.7%	50	54	360	385	26	27	545	481
Washington	1,463	1,654	-11.5%	322	386	99	114	11	11	1,031	1,142
Pacific Noncontiguous	304	321	-5.2%	54	50	46	47	201	222	2	3
Alaska	36	42	-13.5%	0	0	0	0	34	39	2	3
Hawaii	268	279	-3.9%	54	50	46	47	168	183	0	0
U.S. Total	53,398	56,697	-5.8%	3,804	4,369	22,489	24,103	1,903	2,267	25,202	25,957

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Negative generation denotes that electric power consumed for plant use exceeds gross generation.
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Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 1.16.A. Utility Scale Facility Net Generation from Geothermal by State, by Sector, November 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	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 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	354	337	5.3%	NM	19	296	318	42	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	NM	7	NM	0	0	NM	7	0	0	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	305	291	4.7%	0	0	262	291	42	0	0	0
New Mexico	7	1	383.9%	0	0	7	1	0	0	0	0
Utah	NM	37	NM	NM	19	NM	19	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	756	985	-23.3%	32	65	723	920	0	0	0	0
California	743	970	-23.5%	32	65	711	905	0	0	0	0
Oregon	NM	15	NM	0	0	NM	15	0	0	0	0
Washington	0	0	--	0	0	0	0	0	0	0	0
Pacific Noncontiguous	NM	9	NM	0	0	NM	9	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	NM	9	NM	0	0	NM	9	0	0	0	0
U.S. Total	1,112	1,331	-16.5%	49	84	1,021	1,247	42	0	0	0

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values for 2019 are preliminary. Values for 2018 are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 1.16.B. Utility Scale Facility Net Generation from Geothermal

by State, by Sector, Year-to-Date through November 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	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 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	3,953	3,613	9.4%	206	203	3,348	3,410	399	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	66	76	-12.4%	0	0	66	76	0	0	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	3,428	3,119	9.9%	0	0	3,028	3,119	399	0	0	0
New Mexico	57	12	386.9%	0	0	57	12	0	0	0	0
Utah	402	406	-0.9%	206	203	196	203	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	10,637	10,808	-1.6%	617	716	10,020	10,092	0	0	0	0
California	10,500	10,647	-1.4%	617	716	9,883	9,931	0	0	0	0
Oregon	137	161	-14.6%	0	0	137	161	0	0	0	0
Washington	0	0	--	0	0	0	0	0	0	0	0
Pacific Noncontiguous	106	100	5.4%	0	0	106	100	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	106	100	5.4%	0	0	106	100	0	0	0	0
U.S. Total	14,696	14,521	1.2%	824	919	13,474	13,602	399	0	0	0

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Notes: See Glossary for definitions. Values for 2019 are preliminary. Values for 2018 are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 1.17.A. Net Generation from Solar Photovoltaic by State, by Sector, November 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	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	277	210	31.9%	102	53	175	157	11	3	90	50	NM	88	NM	0	95	88	NM	6	NM	0	7	6	73	63
Connecticut	44	32	37.4%	10	5	34	27	0	0	10	4	NM	11	NM	0	13	11	NM	1	NM	0	2	1	19	15
Maine	NM	3	NM	NM	1	4	3	0	0	NM	1	2	1	0	0	2	1	0	0	0	0	0	0	2	2
Massachusetts	186	149	24.4%	73	40	112	109	7	1	66	39	NM	68	NM	0	68	68	NM	5	NM	0	5	4	39	37
New Hampshire	7	6	24.8%	0	0	7	6	0	0	0	0	2	2	0	0	2	2	0	0	0	0	0	0	4	3
Rhode Island	17	8	102.4%	6	2	11	7	0	0	6	2	8	4	0	0	8	4	0	0	0	0	0	0	3	3
Vermont	19	11	63.8%	12	6	7	6	4	2	8	4	3	2	0	0	3	2	0	NM	0	0	0	NM	4	4
Middle Atlantic	380	286	32.6%	125	76	255	211	4	4	110	64	120	102	9	7	111	96	NM	12	NM	1	14	12	130	103
New Jersey	207	165	25.6%	77	54	130	111	4	4	64	44	69	62	8	6	61	56	NM	8	NM	0	10	8	59	47
New York	140	96	46.4%	43	18	97	77	0	0	42	18	NM	32	NM	0	41	32	NM	1	NM	0	1	1	55	45
Pennsylvania	33	26	26.4%	6	3	28	23	0	0	5	3	NM	9	NM	0	9	8	NM	4	NM	0	3	3	15	11
East North Central	90	49	85.7%	47	21	43	28	14	6	32	14	NM	17	NM	1	23	17	3	1	0	0	3	1	17	10
Illinois	17	9	99.9%	4	3	14	6	NM	0	3	2	NM	4	NM	0	8	4	0	NM	0	0	0	NM	6	2
Indiana	28	15	83.3%	20	9	8	6	9	4	11	6	NM	4	NM	0	5	4	0	0	0	0	0	0	3	2
Michigan	14	7	94.1%	9	3	5	4	4	2	4	1	NM	NM	NM	NM	2	2	NM	0	0	0	NM	0	3	2
Ohio	21	12	73.8%	10	4	11	8	NM	0	9	4	NM	6	NM	0	6	6	1	0	0	0	1	0	3	2
Wisconsin	10	5	84.9%	5	1	6	4	0	0	4	1	NM	NM	NM	NM	2	2	1	1	0	0	1	1	3	2
West North Central	140	77	80.7%	100	47	40	30	NM	1	99	47	18	14	0	0	18	14	2	1	0	0	2	1	20	15
Iowa	NM	8	NM	NM	0	10	8	NM	0	NM	0	6	5	0	0	6	5	0	0	0	0	0	0	4	3
Kansas	NM	2	NM	NM	0	3	2	NM	0	NM	0	1	1	0	0	1	1	0	0	0	0	0	0	2	1
Minnesota	96	43	122.5%	89	38	6	5	NM	0	89	38	2	1	0	0	2	1	1	1	0	0	1	1	3	3
Missouri	26	22	18.9%	6	7	20	15	0	0	6	7	9	7	0	0	9	7	0	0	0	0	0	0	10	8
Nebraska	3	2	65.8%	2	1	1	1	NM	0	NM	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
North Dakota	0	0	57.2%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
South Dakota	NM	0	NM	NM	0	0	0	0	0	NM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
South Atlantic	1,211	921	31.5%	1,015	768	197	154	319	208	686	552	59	52	9	7	51	45	NM	21	NM	0	23	21	123	88
Delaware	11	10	7.4%	3	3	8	7	NM	0	3	3	2	2	0	0	2	2	0	1	0	0	0	1	5	4
District of Columbia	NM	5	NM	NM	0	6	5	0	0	NM	0	3	3	0	0	3	3	0	0	0	0	0	0	3	2
Florida	340	216	57.4%	282	181	57	35	249	157	33	23	NM	9	NM	0	10	8	NM	1	NM	0	1	1	46	26
Georgia	NM	128	NM	130	109	NM	19	21	17	109	91	NM	NM	NM	0	3	NM	NM	NM	0	0	NM	NM	NM	NM
Maryland	84	76	10.0%	32	28	52	48	NM	1	30	27	NM	15	NM	1	16	15	2	2	0	0	2	2	34	31
North Carolina	472	384	22.8%	452	369	20	15	34	22	412	341	15	14	6	6	8	8	0	0	0	0	0	0	11	7
South Carolina	86	48	78.3%	64	30	22	18	NM	0	63	30	5	5	0	0	5	5	NM	2	NM	0	2	2	15	11
Virginia	60	54	12.9%	50	47	10	6	15	11	36	37	NM	2	NM	0	3	2	0	0	0	0	0	0	7	4
West Virginia	1	1	13.4%	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
East South Central	80	55	44.3%	69	46	11	10	4	4	64	42	NM	7	NM	0	7	6	NM	NM	NM	0	0	NM	4	3
Alabama	NM	18	NM	23	17	NM	NM	NM	2	21	16	NM	1	0	0	NM	1	0	0	0	0	0	0	NM	NM
Kentucky	5	4	22.1%	2	2	3	2	2	2	NM	0	1	1	0	0	1	1	0	0	0	0	0	0	1	1
Mississippi	25	18	38.3%	24	17	1	1	0	0	24	17	1	0	0	0	1	0	NM	NM	0	0	NM	NM	0	0
Tennessee	26	15	74.1%	20	9	6	6	NM	0	20	9	NM	4	NM	0	4	4	NM	NM	NM	0	NM	NM	2	2
West South Central	388	320	21.1%	293	249	95	72	4	5	288	244	20	15	1	0	19	15	0	0	0	0	0	0	76	56
Arkansas	16	13	21.3%	14	12	3	2	NM	0	13	12	2	1	1	0	1	1	0	0	0	0	0	0	2	1
Louisiana	NM	16	NM	NM	0	17	16	NM	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	16	15
Oklahoma	5	5	-0.8%	4	4	1	1	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Texas	350	286	22.4%	276	233	74	53	NM	1	275	232	NM	14	NM	0	17	13	0	0	0	0	0	0	57	40
Mountain	1,203	1,170	2.8%	877	877	326	294	61	62	809	809	95	94	6	5	90	89	NM	5	NM	0	5	5	232	200
Arizona	430	448	-3.9%	255	280	176	168	39	43	215	237	NM	55	NM	1	54	54	1	2	0	0	1	2	121	111
Colorado	111	104	6.8%	70	65	41	39	NM	0	68	64	NM	16	NM	1	15	15	0	0	0	0	0	0	26	24
Idaho	33	34	-1.1%	30	31	4	2	0	0	29	31	0	0	0	0	0	0	NM	0	NM	0	0	0	3	2
Montana	NM	3	NM	NM	2	1	1	0	0	NM	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Nevada	356	315	13.1%	307	279	49	36	2	2	302	272	11	11	4	4	8	7	3	3	0	0	3	2	38	26
New Mexico	102	104	-1.2%	79	85	23	19	20	17	59	68	7	6	0	0	7	6	0	0	0	0	0	0	17	13
Utah	158	163	-3.2%	126	135	32	28	0	0	126	135	6	5	0	0	6	5	1	1	0	0	1	1	25	22
Wyoming	9	0	NM	8	0	1	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pacific Contiguous	2,585	2,304	12.2%	1,574	1,426	1,011	878	29	28	1,533	1,388	254	232	9	8	245	224	NM	128	NM	1	144	127	623	528
California	2,528	2,256	12.1%	1,534	1,392	995	864	29	28	1,494	1,354	249	228	9	8	240	220	NM	127	NM	1	143	126	611	518
Oregon	47	42	12.3%	37	33	9	8	NM	0	37	33	4	3	0	0	4	3	1	1	0	0	1	1	5	4
Washington	10	6	59.0%	2	1	8	6	0	0	2	1	1	1	0	0	1	1	0	0	0	0	0	0	6	5
Pacific Noncontiguous	108	86	25.7%	29	13	79	73	5	3	24	10	30	29	0	0	30	29	0	0	0	0	0	0	49	44
Alaska	0	0	89.9%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hawaii	108	86	25.7%	29	13	79	73	5	3	24	10	30	29	0	0	30	29	0	0	0	0	0	0	49	44
U.S. Total	6,463	5,480	17.9%	4,231	3,575	2,231	1,905	454	324	3,736	3,219	725	652	37	29	688	623	203	177	5	3	198	174	1,346	1,108

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values for 2019 are preliminary. Values for 2018 are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Sources: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report;
Estimated small scale solar photovoltaic generation and small scale solar photovoltaic capacity are based on data from Form EIA-861M, Form EIA-861 and from estimation methods described in the technical notes.

Table 1.17.B. Net Generation from Solar Photovoltaic
by State, by Sector, Year-to-Date through November 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	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	4,622	3,944	17.2%	1,495	1,138	3,126	2,806	135	54	1,353	1,078	1,685	1,537	4	3	1,681	1,533	127	112	3	2	124	109	1,322	1,163
Connecticut	728	549	32.6%	152	78	576	471	3	3	148	74	216	188	NM	1	215	187	28	24	NM	0	28	23	333	261
Maine	83	63	31.2%	11	11	72	52	0	0	11	11	30	18	0	0	30	18	0	0	0	0	0	0	42	34
Massachusetts	3,153	2,892	9.0%	1,107	923	2,045	1,969	91	17	1,011	901	1,235	1,210	3	3	1,232	1,207	89	79	2	2	87	77	727	685
New Hampshire	123	102	20.4%	0	0	123	102	0	0	0	0	39	30	0	0	39	30	7	7	0	0	7	7	77	65
Rhode Island	232	114	103.0%	67	27	165	88	0	0	67	27	111	46	0	0	111	46	0	0	0	0	0	0	54	41
Vermont	303	224	35.2%	157	100	146	124	41	34	116	66	54	45	0	0	54	45	2	2	0	0	2	2	89	77
Middle Atlantic	6,069	4,892	24.1%	1,739	1,274	4,330	3,618	71	73	1,528	1,064	2,026	1,752	128	126	1,898	1,626	236	201	13	12	223	190	2,208	1,803
New Jersey	3,213	2,745	17.0%	1,108	939	2,105	1,805	71	73	913	744	1,110	1,022	118	118	992	904	153	123	5	5	148	118	965	783
New York	2,313	1,694	36.5%	549	275	1,764	1,419	0	0	544	272	760	583	4	4	756	579	17	16	NM	0	16	16	992	824
Pennsylvania	543	453	19.8%	82	59	461	394	0	0	71	48	155	147	5	5	150	142	66	62	7	7	59	55	251	196
East North Central	1,406	1,086	29.4%	723	610	683	476	229	196	477	399	396	311	14	13	382	298	47	27	2	2	45	25	256	153
Illinois	237	153	54.4%	61	63	175	90	2	2	56	58	101	61	3	3	98	58	0	1	0	0	0	1	77	32
Indiana	438	373	17.5%	316	280	123	93	137	103	178	177	83	63	NM	0	82	63	3	3	0	0	3	3	38	28
Michigan	259	190	36.1%	155	114	104	76	83	84	69	28	52	43	2	2	50	41	3	2	0	0	3	2	51	32
Ohio	330	261	26.5%	143	115	186	146	7	7	132	103	117	110	3	3	114	108	25	8	2	2	23	6	49	32
Wisconsin	142	109	30.3%	48	38	95	71	0	0	41	33	43	33	6	5	37	28	16	13	0	0	16	13	41	30
West North Central	2,182	1,595	36.8%	1,603	1,143	580	452	21	16	1,581	1,126	274	222	1	1	273	220	22	17	0	0	22	17	284	214
Iowa	167	131	27.8%	15	11	152	120	7	7	8	4	94	76	0	0	94	76	5	4	0	0	5	4	53	40
Kansas	54	33	64.1%	18	8	36	25	NM	2	16	6	14	10	0	0	14	10	0	0	0	0	0	0	22	16
Minnesota	1,535	1,087	41.2%	1,437	1,010	98	77	3	3	1,434	1,007	32	27	0	0	32	27	11	9	0	0	11	9	55	41
Missouri	378	306	23.8%	101	87	278	219	4	4	95	81	128	106	1	1	127	105	6	4	0	0	6	4	145	111
Nebraska	45	36	23.3%	31	26	14	10	6	0	25	26	5	4	0	0	5	4	1	1	0	0	1	1	9	6
North Dakota	1	0	97.6%	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
South Dakota	3	3	12.7%	NM	2	1	1	0	0	NM	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1
South Atlantic	17,223	13,646	26.2%	14,473	11,509	2,750	2,137	4,050	2,615	10,288	8,766	847	739	128	125	719	615	320	287	7	2	313	285	1,717	1,238
Delaware	166	150	10.3%	48	47	118	103	6	6	42	40	33	30	0	1	33	30	8	8	0	0	8	8	77	65
District of Columbia	93	67	39.8%	14	0	79	67	0	0	14	0	39	40	0	0	39	40	0	0	0	0	0	0	41	26
Florida	4,267	2,581	65.3%	3,632	2,185	635	396	3,145	1,820	479	357	134	108	6	5	128	102	12	12	3	2	9	10	498	283
Georgia	2,209	2,154	2.6%	1,922	1,902	287	252	292	278	1,628	1,622	41	34	2	2	39	32	229	203	0	0	229	203	19	16
Maryland	1,411	1,178	19.8%	475	373	936	805	7	8	453	356	268	228	15	10	253	218	34	35	0	0	34	35	648	552
North Carolina	7,102	6,000	18.4%	6,848	5,803	254	197	398	369	6,347	5,327	219	216	103	107	115	109	7	6	0	0	7	6	132	82
South Carolina	1,039	709	46.5%	732	477	308	232	5	2	723	475	74	59	0	0	74	59	29	20	NM	0	25	20	208	152
Virginia	924	797	15.8%	802	721	122	76	197	132	603	589	36	21	NM	0	34	21	2	1	0	0	2	1	86	53
West Virginia	11	9	27.6%	0	0	11	9	0	0	0	0	4	2	0	0	4	2	0	0	0	0	0	0	8	7
East South Central	1,179	984	19.9%	1,027	848	152	136	68	66	950	772	105	97	4	4	101	93	8	7	6	6	3	1	49	42
Alabama	386	352	9.9%	373	341	13	10	28	29	345	312	9	7	0	0	9	7	1	1	0	0	1	1	3	3
Kentucky	75	68	11.2%	38	38	38	30	36	36	NM	1	21	18	0	0	21	18	1	0	0	0	1	0	15	12
Mississippi	312	321	-2.8%	299	310	13	10	0	0	299	310	7	7	0	0	7	7	1	0	0	0	1	0	5	4
Tennessee	406	244	66.5%	318	159	89	85	NM	1	305	148	67	66	4	4	63	62	6	6	6	6	0	0	25	24
West South Central	5,474	4,173	31.2%	4,271	3,264	1,203	909	69	69	4,193	3,194	266	200	10	2	256	198	6	2	0	0	6	2	941	708
Arkansas	230	213	7.7%	197	193	33	20	NM	1	190	192	15	7	5	0	10	7	3	1	0	0	3	1	20	12
Louisiana	227	216	5.2%	NM	1	225	214	NM	1	0	0	15	14	0	0	15	14	0	0	0	0	0	0	210	200
Oklahoma	76	69	11.2%	58	58	18	10	58	58	0	0	4	3	0	0	4	3	1	0	0	0	1	0	13	6
Texas	4,941	3,675	34.4%	4,015	3,011	927	664	8	8	4,003	3,002	231	176	4	2	226	174	2	1	0	0	2	1	698	489
Mountain	18,281	17,141	6.7%	13,839	13,349	4,442	3,792	973	948	12,776	12,314	1,285	1,239	85	85	1,200	1,154	68	67	5	2	63	65	3,179	2,573
Arizona	6,535	6,275	4.1%	4,126	4,159	2,409	2,116	642	652	3,472	3,495	721	695	12	12	709	682	13	23	0	0	13	23	1,686	1,410
Colorado	1,745	1,566	11.5%	1,149	1,012	596	553	5	5	1,129	995	222	220	15	12	207	208	2	2	0	0	2	2	387	343
Idaho	578	566	2.1%	523	535	55	32	0	0	520	535	6	5	0	0	6	5	5	1	NM	0	2	1	47	26
Montana	55	51	6.8%	31	33	23	19	0	0	31	33	7	5	0	0	7	5	0	0	0	0	0	0	17	13
Nevada	5,122	4,661	9.9%	4,482	4,198	639	463	38	39	4,384	4,095	162	162	59	61	104	101	38	32	2	2	35	30	500	333
New Mexico	1,572	1,519	3.4%	1,294	1,287	278	232	288	252	1,006	1,035	81	76	0	0	81	76	1	1	0	0	1	1	195	156
Utah	2,492	2,497	-0.2%	2,059	2,126	433	371	0	0	2,059	2,126	83	75	0	0	83	75	9	8	0	0	9	8	341	289
Wyoming	183	6	NM	175	0	9	6	0	0	175	0	2	2	0	0	2	2	0	0	0	0	0	0	6	4
Pacific Contiguous	40,654	36,389	11.7%	25,897	23,908	14,757	12,481	481	503	25,232	23,245	3,745	3,236	156	141	3,589	3,095	2,087	1,801	29	18	2,059	1,782	9,110	7,604
California	39,528	35,500	11.3%	25,223	23,361	14,305	12,139	475	497	24,564	22,704	3,599	3,130	156	141	3,444	2,989	2,072	1,786	29	18	2,043	1,768	8,818	7,382
Oregon	883	743	18.8%	634	546	250	198	6	6	628	540	115	83	0	0	115	83	15	14	0	0	15	14	119	100
Washington	243	146	67.1%	40	1	203	144	0	0	40	1	30	23	0	0	30	23	1	0	0	0	1	0	173	121
Pacific Noncontiguous	1,280	1,130	13.3%	244	172	1,037	958	36	35	208	137	405	378	0	0	405	378	3	2	0	0	3	2	628	578
Alaska	4	3	48.8%	0	0	4	3	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	3	2
Hawaii	1,276	1,127	13.2%	244	172	1,033	955	36	35	208	137	404	377	0	0	404	377	3	2	0	0	3	2	625	576
U.S. Total	98,371	84,980	15.8%	65,311	57,216	33,060	27,764	6,132	4,575	58,586	52,096	11,033	9,710	529	501	10,503	9,209	2,925	2,524	63	45	2,863	2,479	19,695	16,076

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values for 2019 are preliminary. Values for 2018 are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Sources: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report;
Estimated small scale solar photovoltaic generation and small scale solar photovoltaic capacity are based on data from Form EIA-861M, Form EIA-861 and from estimation methods described in the technical notes.

Table 1.18.A. Utility Scale Facility Net Generation from Solar Thermal by State, by Sector, November 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	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 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	1	-95.6%	0	1	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	1	-95.6%	0	1	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	29	54	-46.7%	0	0	29	54	0	0	0	0
Arizona	25	41	-39.1%	0	0	25	41	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	4	13	-71.6%	0	0	4	13	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	112	113	-0.9%	0	0	112	113	0	0	0	0
California	112	113	-0.9%	0	0	112	113	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	141	168	-16.0%	0	1	141	167	0	0	0	0

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values for 2019 are preliminary. Values for 2018 are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 1.18.B. Utility Scale Facility Net Generation from Solar Thermal

by State, by Sector, Year-to-Date through November 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	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 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	27	51	-46.2%	27	51	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	27	51	-46.2%	27	51	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	930	1,057	-12.0%	0	0	930	1,057	0	0	0	0
Arizona	771	761	1.3%	0	0	771	761	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	159	296	-46.2%	0	0	159	296	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	2,190	2,392	-8.4%	0	0	2,190	2,392	0	0	0	0
California	2,190	2,392	-8.4%	0	0	2,190	2,392	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	0	0	--	0	0	0	0	0	0	0	0
Pacific Noncontiguous	0	0	--	0	0	0	0	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	3,148	3,500	-10.1%	27	51	3,120	3,449	0	0	0	0

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values for 2019 are preliminary. Values for 2018 are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Chapter 2

Consumption of Fossil Fuels

Table 2.1.A. Coal: Consumption for Electricity Generation, by Sector, 2009-November 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	636,213	473,617	159,976	87	2,534
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	64,845	47,762	16,817	11	255
February	45,793	34,002	11,552	9	230
March	44,474	32,312	11,930	8	224
April	40,515	30,350	9,965	7	193
May	47,293	35,261	11,815	6	211
June	56,078	42,502	13,360	6	210
July	63,818	48,277	15,322	6	212
August	63,737	47,866	15,660	7	204
Sept	53,914	40,293	13,415	7	199
October	48,422	35,547	12,695	6	173
November	51,702	37,956	13,537	7	202
December	55,624	41,488	13,908	7	221
Year 2019					
January	55,831	41,298	14,305	10	218
February	45,056	33,365	11,484	8	198
March	44,038	31,673	12,185	9	172
April	33,432	24,481	8,781	6	165
May	40,061	30,220	9,654	6	182
June	44,274	33,482	10,611	4	176
July	56,061	42,233	13,617	6	205
August	52,512	39,619	12,686	5	202
Sept	47,802	35,731	11,876	6	189
October	37,465	26,979	10,313	6	168
November	42,021	30,311	11,517	6	187
Year to Date					
2017	605,453	442,657	160,164	85	2,547
2018	580,590	432,129	146,068	80	2,313
2019	498,553	369,391	127,029	70	2,062
Rolling 12 Months Ending in November					
2018	639,047	473,861	162,547	90	2,549
2019	554,177	410,880	140,937	77	2,283

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 2018 and prior years are final. Values for 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-November 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	13,813	2,268	1,356	490	9,700
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	1,434	237	144	65	987
February	1,285	216	126	51	892
March	1,254	202	119	49	885
April	1,095	188	100	40	767
May	1,081	173	106	33	769
June	1,081	184	107	30	759
July	1,078	189	105	34	750
August	1,064	181	103	35	745
Sept	1,061	183	97	38	743
October	984	159	72	35	718
November	1,167	173	141	40	813
December	1,229	182	135	40	872
Year 2019					
January	1,305	212	168	49	876
February	1,140	201	91	45	802
March	1,127	202	108	45	772
April	1,044	155	104	33	752
May	1,009	136	108	34	731
June	1,024	177	115	26	705
July	976	186	95	34	661
August	1,004	208	79	37	681
Sept	934	180	62	37	655
October	998	177	70	32	720
November	1,062	177	63	38	783
Year to Date					
2017	13,382	2,595	1,039	459	9,289
2018	12,584	2,086	1,220	450	8,827
2019	11,623	2,012	1,062	410	8,139
Rolling 12 Months Ending in November					
2018	13,869	2,294	1,339	506	9,731
2019	12,852	2,194	1,197	450	9,011

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 2018 and prior years are final. Values for 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.C. Coal: Consumption for Electricity Generation and Useful Thermal Output, by Sector, 2009-November 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	650,027	475,885	161,332	577	12,233
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	66,279	47,999	16,961	76	1,242
February	47,079	34,219	11,679	59	1,122
March	45,728	32,513	12,049	57	1,109
April	41,610	30,538	10,065	47	960
May	48,374	35,435	11,921	39	979
June	57,159	42,687	13,467	36	969
July	64,895	48,467	15,427	40	962
August	64,801	48,047	15,763	42	949
Sept	54,975	40,475	13,512	45	943
October	49,406	35,706	12,768	42	891
November	52,868	38,129	13,677	47	1,015
December	56,853	41,670	14,043	47	1,093
Year 2019					
January	57,135	41,510	14,472	58	1,095
February	46,196	33,567	11,575	53	1,001
March	45,165	31,874	12,292	54	944
April	34,476	24,636	8,884	39	918
May	41,070	30,356	9,762	40	913
June	45,298	33,659	10,726	31	881
July	57,038	42,419	13,712	40	866
August	53,517	39,827	12,765	42	883
Sept	48,736	35,911	11,938	42	844
October	38,463	27,156	10,383	38	887
November	43,082	30,488	11,580	44	970
Year to Date					
2017	618,835	445,252	161,203	545	11,836
2018	593,173	434,215	147,288	530	11,141
2019	510,176	371,404	128,091	480	10,201
Rolling 12 Months Ending in November					
2018	652,916	476,155	163,886	595	12,280
2019	567,029	413,074	142,135	527	11,294

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 2018 and prior years are final. Values for 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-November 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	28,614	18,345	9,467	269	534
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	9,468	4,469	4,861	66	72
February	1,451	1,118	270	14	49
March	1,497	1,096	348	12	42
April	1,601	1,169	383	15	34
May	1,863	1,340	463	18	43
June	1,895	1,378	464	18	35
July	1,753	1,216	454	27	56
August	1,870	1,295	516	24	35
Sept	1,863	1,401	411	18	33
October	1,814	1,368	390	16	40
November	1,799	1,281	452	22	45
December	1,740	1,216	455	20	49
Year 2019					
January	2,423	1,611	745	23	44
February	1,411	1,013	343	13	41
March	1,449	1,072	323	16	39
April	1,397	988	348	15	46
May	1,653	1,227	370	18	37
June	1,731	1,325	351	18	37
July	1,820	1,287	475	25	33
August	1,892	1,448	383	22	39
Sept	1,661	1,262	336	27	37
October	1,697	1,263	376	24	33
November	1,599	1,178	360	23	37
Year to Date					
2017	18,282	13,788	3,910	160	424
2018	26,874	17,128	9,012	250	485
2019	18,732	13,673	4,411	224	424
Rolling 12 Months Ending in November					
2018	30,288	18,907	10,563	281	537
2019	20,472	14,890	4,865	243	473

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 2018 and prior years are final. Values for 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-November 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	2,614	103	354	350	1,807
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	701	58	132	109	402
February	179	4	12	25	138
March	156	3	13	21	118
April	136	3	12	17	104
May	147	4	18	16	109
June	162	5	14	15	128
July	156	3	11	28	114
August	143	4	12	23	104
Sept	130	7	15	15	93
October	190	5	16	16	153
November	228	3	20	30	174
December	287	3	80	35	169
Year 2019					
January	375	20	45	45	266
February	186	8	21	27	130
March	172	4	22	29	118
April	160	3	19	17	120
May	267	6	18	120	124
June	143	4	18	13	108
July	120	4	14	25	76
August	151	6	14	23	108
Sept	157	4	21	28	104
October	139	4	21	21	93
November	261	4	19	32	206
Year to Date					
2017	1,640	54	173	192	1,220
2018	2,327	100	274	315	1,638
2019	2,131	66	232	380	1,452
Rolling 12 Months Ending in November					
2018	2,700	118	321	361	1,900
2019	2,417	70	311	415	1,621

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 2018 and prior years are final. Values for 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-November 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	31,228	18,448	9,820	619	2,341
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	10,169	4,527	4,993	175	474
February	1,630	1,122	282	39	187
March	1,653	1,099	361	33	160
April	1,738	1,172	395	32	138
May	2,010	1,343	480	34	152
June	2,057	1,383	478	33	164
July	1,909	1,219	465	55	170
August	2,012	1,298	528	46	140
Sept	1,993	1,407	426	34	127
October	2,003	1,373	406	31	193
November	2,027	1,284	472	52	219
December	2,027	1,220	534	55	218
Year 2019					
January	2,798	1,630	790	68	310
February	1,597	1,021	365	40	171
March	1,621	1,076	344	44	156
April	1,557	991	367	33	166
May	1,920	1,233	388	138	161
June	1,874	1,328	369	31	146
July	1,939	1,291	489	50	109
August	2,042	1,454	397	45	147
Sept	1,819	1,266	357	56	140
October	1,836	1,268	397	45	127
November	1,860	1,182	380	55	243
Year to Date					
2017	19,921	13,842	4,083	352	1,644
2018	29,201	17,228	9,286	565	2,123
2019	20,863	13,740	4,643	604	1,876
Rolling 12 Months Ending in November					
2018	32,988	19,025	10,884	642	2,437
2019	22,889	14,960	5,177	659	2,094

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 2018 and prior years are final. Values for 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-November 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	3,623	2,740	704	2	177
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	377	296	67	0	14
February	305	234	60	0	11
March	255	198	43	0	13
April	271	193	63	0	15
May	212	140	58	0	14
June	338	269	51	0	18
July	367	284	66	0	17
August	352	272	66	0	15
Sept	325	259	50	0	15
October	229	158	54	0	16
November	271	196	63	0	13
December	321	241	65	0	16
Year 2019					
January	329	258	56	0	14
February	283	222	50	0	11
March	266	193	60	0	13
April	182	107	60	0	15
May	298	219	63	0	15
June	218	151	53	0	14
July	314	227	61	0	25
August	278	203	59	0	15
Sept	259	183	59	0	17
October	82	64	3	0	14
November	130	101	15	0	14
Year to Date					
2017	3,198	2,500	498	2	198
2018	3,301	2,499	639	2	161
2019	2,639	1,930	540	1	167
Rolling 12 Months Ending in November					
2018	3,593	2,731	683	2	178
2019	2,960	2,171	605	2	183

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 2018 and prior years are final. Values for 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-November 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	929	12	93	10	814
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	88	1	9	2	76
February	78	1	8	2	67
March	72	1	9	1	61
April	83	1	10	1	71
May	70	1	6	0	63
June	75	1	1	0	73
July	81	1	9	0	71
August	77	1	9	0	66
Sept	74	1	7	1	65
October	77	0	9	1	67
November	71	1	8	2	61
December	83	1	8	2	72
Year 2019					
January	74	1	8	2	63
February	65	1	8	1	55
March	77	1	9	1	66
April	75	2	9	1	63
May	78	1	9	0	69
June	73	1	7	0	65
July	79	2	8	0	69
August	71	0	8	0	63
Sept	91	2	7	0	82
October	58	1	2	0	56
November	53	2	9	0	42
Year to Date					
2017	901	10	106	13	773
2018	846	11	85	9	742
2019	795	14	83	5	692
Rolling 12 Months Ending in November					
2018	923	12	95	11	805
2019	878	16	92	7	764

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

Table 2.3.C. Petroleum Coke: Consumption for Electricity Generation and Useful Thermal Output, by Sector, 2009-November 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	4,552	2,752	797	12	991
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	466	297	76	2	90
February	382	235	68	2	78
March	327	199	52	2	74
April	354	195	72	1	86
May	281	141	63	0	77
June	413	270	52	0	91
July	448	285	75	0	88
August	429	273	75	0	81
Sept	399	260	58	1	80
October	306	159	63	1	83
November	342	196	70	2	74
December	404	242	73	2	88
Year 2019					
January	402	260	64	2	77
February	349	224	58	1	66
March	343	194	68	2	79
April	257	110	69	1	78
May	376	220	72	0	84
June	291	152	60	0	79
July	393	230	69	0	95
August	349	203	68	0	78
Sept	350	185	67	0	98
October	140	65	5	0	70
November	182	102	24	0	56
Year to Date					
2017	4,099	2,509	604	15	970
2018	4,148	2,510	724	10	903
2019	3,434	1,945	624	7	859
Rolling 12 Months Ending in November					
2018	4,516	2,743	778	13	983
2019	3,838	2,187	697	9	947

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

Table 2.4.A. Natural Gas: Consumption for Electricity Generation, by Sector, 2009-November 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	10,831,005	5,551,179	4,662,650	52,650	564,527
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	805,695	425,891	327,248	4,145	48,412
February	706,362	363,822	296,205	3,886	42,449
March	772,285	395,826	329,057	4,071	43,332
April	722,530	372,400	303,312	3,616	43,201
May	868,386	459,568	358,973	4,201	45,644
June	973,815	520,305	401,965	4,633	46,911
July	1,245,456	639,299	549,392	5,518	51,247
August	1,208,717	605,610	545,979	5,593	51,534
Sept	1,051,744	530,570	468,661	4,838	47,675
October	909,137	457,374	400,209	4,290	47,263
November	784,477	395,480	337,206	3,760	48,031
December	782,403	385,034	344,443	4,098	48,828
Year 2019					
January	860,182	432,109	372,632	4,518	50,923
February	793,854	406,473	339,122	4,129	44,129
March	816,094	415,434	349,786	4,332	46,542
April	755,266	392,669	313,432	4,039	45,125
May	852,645	449,587	351,949	4,219	46,889
June	1,012,593	537,266	424,123	4,356	46,848
July	1,294,933	673,464	566,156	5,002	50,310
August	1,308,794	687,816	564,983	5,152	50,843
Sept	1,115,478	581,753	481,162	4,663	47,900
October	981,622	509,473	419,827	4,361	47,961
November	843,507	422,466	366,844	4,300	49,896
Year to Date					
2017	8,701,365	4,350,429	3,812,813	45,801	492,322
2018	10,048,602	5,166,145	4,318,207	48,552	515,699
2019	10,634,966	5,508,512	4,550,017	49,071	527,367
Rolling 12 Months Ending in November					
2018	10,854,997	5,570,600	4,667,381	52,811	564,207
2019	11,417,370	5,893,546	4,894,460	53,170	576,195

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 2.4.B. Natural Gas: Consumption for Useful Thermal Output, by Sector, 2009-November 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	1,206,711	43,156	331,952	81,856	749,746
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	107,339	3,929	28,934	7,417	67,059
February	94,855	3,366	26,629	6,706	58,155
March	100,280	3,557	28,088	6,844	61,791
April	92,998	2,942	25,265	6,133	58,658
May	94,775	3,306	26,238	6,099	59,132
June	97,069	3,642	26,642	6,537	60,249
July	107,044	4,484	30,339	7,649	64,572
August	105,972	4,079	29,861	7,691	64,340
Sept	99,352	3,479	27,089	6,581	62,203
October	99,117	3,013	27,218	6,411	62,474
November	101,925	3,185	27,080	6,829	64,830
December	105,987	4,174	28,570	6,959	66,284
Year 2019					
January	113,273	3,938	32,017	7,638	69,679
February	100,249	3,737	27,224	6,934	62,353
March	104,802	3,673	29,363	6,898	64,868
April	97,096	3,166	26,597	6,152	61,182
May	98,298	3,357	26,479	6,008	62,454
June	99,574	4,099	27,805	6,326	61,344
July	104,290	4,807	29,111	6,784	63,588
August	106,098	4,697	30,993	6,666	63,741
Sept	99,974	4,233	27,776	6,333	61,631
October	100,738	3,233	27,527	6,433	63,546
November	104,466	3,759	28,112	6,992	65,603
Year to Date					
2017	1,061,951	35,011	282,273	94,835	649,831
2018	1,100,724	38,982	303,383	74,897	683,463
2019	1,128,857	42,699	313,005	73,164	699,989
Rolling 12 Months Ending in November					
2018	1,207,624	42,711	331,054	84,385	749,473
2019	1,234,844	46,873	341,574	80,123	766,273

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Table 2.4.C. Natural Gas: Consumption for Electricity Generation and Useful Thermal Output, by Sector, 2009-November 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	12,037,717	5,594,335	4,994,602	134,507	1,314,273
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	913,034	429,820	356,181	11,562	115,471
February	801,217	367,188	322,834	10,592	100,604
March	872,565	399,383	357,145	10,914	105,123
April	815,528	375,343	328,576	9,750	101,859
May	963,161	462,873	385,211	10,300	104,776
June	1,070,884	523,947	428,607	11,170	107,160
July	1,352,499	643,783	579,731	13,167	115,819
August	1,314,688	609,689	575,840	13,285	115,874
Sept	1,151,095	534,049	495,750	11,419	109,877
October	1,008,253	460,387	427,427	10,702	109,737
November	886,401	398,665	364,286	10,589	112,861
December	888,390	389,208	373,013	11,058	115,112
Year 2019					
January	973,455	436,047	404,649	12,156	120,602
February	894,102	410,211	366,347	11,063	106,482
March	920,896	419,107	379,148	11,230	111,410
April	852,362	395,835	340,029	10,191	106,307
May	950,942	452,945	378,428	10,226	109,343
June	1,112,167	541,365	451,928	10,682	108,191
July	1,399,223	678,271	595,267	11,786	113,898
August	1,414,892	692,513	595,976	11,819	114,585
Sept	1,215,452	585,986	508,938	10,996	109,531
October	1,082,361	512,706	447,354	10,794	111,507
November	947,972	426,225	394,956	11,292	115,499
Year to Date					
2017	9,763,316	4,385,439	4,095,086	140,637	1,142,153
2018	11,149,327	5,205,127	4,621,589	123,449	1,199,161
2019	11,763,823	5,551,211	4,863,021	122,235	1,227,356
Rolling 12 Months Ending in November					
2018	12,062,621	5,613,311	4,998,435	137,196	1,313,680
2019	12,652,214	5,940,419	5,236,034	133,293	1,342,468

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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-November 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	270,235	23,580	223,513	19,790	3,352
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	23,568	2,389	19,205	1,673	301
February	22,069	2,186	17,993	1,576	314
March	23,672	2,377	19,280	1,692	324
April	22,281	2,159	18,159	1,633	330
May	22,748	2,125	18,722	1,609	291
June	21,854	1,777	18,189	1,607	281
July	22,507	1,817	18,773	1,651	266
August	23,061	1,739	19,377	1,696	249
Sept	20,472	1,604	17,004	1,643	222
October	22,360	1,779	18,634	1,687	259
November	22,405	1,812	18,708	1,630	255
December	23,237	1,815	19,468	1,695	259
Year 2019					
January	20,479	1,594	16,976	1,650	259
February	18,816	1,460	15,676	1,443	236
March	21,453	1,748	17,851	1,578	275
April	19,035	1,540	16,347	902	247
May	19,116	1,596	16,802	504	214
June	19,846	1,544	17,003	1,084	216
July	20,607	1,593	17,527	1,277	209
August	20,903	1,621	17,778	1,281	223
Sept	19,763	1,592	16,684	1,264	224
October	20,281	1,605	17,015	1,395	266
November	19,989	1,576	16,751	1,404	257
Year to Date					
2017	254,125	22,926	209,356	18,311	3,533
2018	246,998	21,764	204,045	18,096	3,093
2019	220,288	17,469	186,410	13,782	2,626
Rolling 12 Months Ending in November					
2018	270,984	23,913	223,740	19,906	3,427
2019	243,524	19,285	205,878	15,477	2,885

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
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 2018 and prior years are final. Values for 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 2.5.B. Landfill Gas: Consumption for Useful Thermal Output, by Sector, 2009-November 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	3,621	0	1,867	911	843
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	321	0	176	68	77
February	320	0	165	79	77
March	340	0	175	82	83
April	335	0	164	85	86
May	285	0	140	71	74
June	259	0	146	46	68
July	278	0	139	76	64
August	302	0	157	82	63
Sept	290	0	150	82	58
October	334	0	170	95	69
November	276	0	134	73	68
December	280	0	152	71	57
Year 2019					
January	376	0	222	84	71
February	345	0	215	67	62
March	391	0	234	80	78
April	366	0	186	102	77
May	214	0	79	64	71
June	242	0	108	77	57
July	259	0	144	42	73
August	240	0	103	73	64
Sept	240	0	101	74	64
October	340	0	189	77	74
November	342	0	207	59	76
Year to Date					
2017	3,616	2	1,783	1,018	814
2018	3,341	0	1,715	840	787
2019	3,355	0	1,787	799	768
Rolling 12 Months Ending in November					
2018	3,665	0	1,880	921	863
2019	3,634	0	1,939	870	825

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 2018 and prior years are final. Values for 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 2.5.C. Landfill Gas: Consumption for Electricity Generation and Useful Thermal Output, by Sector, 2009-November 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	273,856	23,580	225,380	20,701	4,196
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	23,890	2,389	19,382	1,741	378
February	22,390	2,186	18,158	1,655	390
March	24,012	2,377	19,455	1,774	407
April	22,616	2,159	18,323	1,718	416
May	23,033	2,125	18,862	1,680	366
June	22,113	1,777	18,335	1,652	349
July	22,785	1,817	18,912	1,726	330
August	23,363	1,739	19,534	1,778	313
Sept	20,763	1,604	17,154	1,725	280
October	22,694	1,779	18,804	1,783	328
November	22,681	1,812	18,842	1,703	324
December	23,516	1,815	19,620	1,766	316
Year 2019					
January	20,855	1,594	17,198	1,734	330
February	19,160	1,460	15,891	1,511	299
March	21,844	1,748	18,085	1,658	353
April	19,401	1,540	16,533	1,004	324
May	19,329	1,596	16,881	567	285
June	20,089	1,544	17,112	1,161	272
July	20,866	1,593	17,671	1,320	282
August	21,143	1,621	17,881	1,354	288
Sept	20,003	1,592	16,785	1,338	288
October	20,621	1,605	17,204	1,472	340
November	20,331	1,576	16,958	1,463	333
Year to Date					
2017	257,741	22,928	211,138	19,328	4,347
2018	250,339	21,764	205,760	18,935	3,880
2019	223,643	17,469	188,198	14,581	3,394
Rolling 12 Months Ending in November					
2018	274,649	23,913	225,620	20,827	4,290
2019	247,159	19,285	207,818	16,347	3,710

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
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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-November 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	16,783	467	13,859	2,448	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	1,370	28	1,147	195	0
February	1,297	26	1,090	180	1
March	1,398	40	1,153	204	1
April	1,356	38	1,117	200	1
May	1,419	43	1,158	217	1
June	1,476	42	1,218	214	1
July	1,479	48	1,224	207	1
August	1,483	47	1,220	215	1
Sept	1,334	36	1,097	199	1
October	1,387	43	1,140	205	0
November	1,369	39	1,127	202	0
December	1,416	37	1,169	210	0
Year 2019					
January	1,299	30	1,078	191	1
February	1,138	20	948	169	1
March	1,238	20	1,037	180	1
April	1,223	28	1,008	186	1
May	1,324	26	1,107	189	1
June	1,307	25	1,092	190	1
July	1,345	27	1,132	185	1
August	1,372	29	1,152	190	1
Sept	1,265	21	1,061	182	1
October	1,251	28	1,045	177	1
November	1,234	25	1,056	152	1
Year to Date					
2017	14,970	390	12,249	2,323	7
2018	15,367	430	12,691	2,239	9
2019	13,995	278	11,717	1,992	9
Rolling 12 Months Ending in November					
2018	16,746	461	13,823	2,453	9
2019	15,411	315	12,886	2,201	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.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report.

Table 2.6.B. Biogenic Municipal Solid Waste: Consumption for Useful Thermal Output, by Sector, 2009-November 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	2,050	0	752	1,109	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	182	0	64	102	17
February	163	0	60	91	12
March	169	0	64	93	12
April	160	0	54	90	16
May	176	0	59	101	16
June	177	0	65	95	18
July	180	0	65	98	17
August	183	0	66	95	21
Sept	144	0	58	68	17
October	160	0	61	83	16
November	173	0	66	93	14
December	182	0	70	100	13
Year 2019					
January	164	0	66	83	15
February	149	0	63	70	15
March	147	0	67	64	16
April	109	0	56	37	17
May	120	0	64	45	12
June	129	0	64	50	15
July	128	0	67	45	16
August	130	0	62	47	21
Sept	117	0	53	48	15
October	122	0	57	50	15
November	131	0	63	53	15
Year to Date					
2017	1,957	0	751	1,015	191
2018	1,867	0	682	1,009	176
2019	1,445	0	682	591	172
Rolling 12 Months Ending in November					
2018	2,035	0	745	1,096	193
2019	1,627	0	751	692	184

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.
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Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.
Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report.

Table 2.6.C. Biogenic Municipal Solid Waste: Consumption for Electricity Generation and Useful Thermal Output, by Sector, 2009-November 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	18,833	467	14,611	3,557	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	1,552	28	1,211	296	17
February	1,459	26	1,150	271	13
March	1,567	40	1,217	297	13
April	1,516	38	1,171	290	17
May	1,595	43	1,217	319	17
June	1,653	42	1,283	309	19
July	1,659	48	1,288	305	18
August	1,666	47	1,286	311	22
Sept	1,478	36	1,156	268	18
October	1,547	43	1,201	288	16
November	1,542	39	1,193	295	14
December	1,598	37	1,238	310	13
Year 2019					
January	1,463	30	1,144	273	16
February	1,286	20	1,011	239	16
March	1,385	20	1,105	244	17
April	1,332	28	1,063	223	18
May	1,444	26	1,171	234	13
June	1,436	25	1,156	241	15
July	1,473	27	1,199	229	17
August	1,503	29	1,215	238	22
Sept	1,382	21	1,114	230	16
October	1,373	28	1,101	227	16
November	1,364	25	1,119	205	15
Year to Date					
2017	16,926	390	13,000	3,338	199
2018	17,235	430	13,373	3,247	185
2019	15,440	278	12,398	2,583	181
Rolling 12 Months Ending in November					
2018	18,781	461	14,568	3,549	202
2019	17,039	315	13,637	2,893	194

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 2018 and prior years are final. Values for 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 2.7.A. Wood / Wood Waste Biomass: Consumption for Electricity Generation, by Sector, 2009-November 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	362,489	45,856	143,288	520	172,826
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	33,271	4,713	13,790	63	14,705
February	28,971	3,689	12,141	42	13,098
March	31,506	4,501	12,243	36	14,726
April	26,929	2,966	10,597	16	13,349
May	29,601	3,196	11,683	32	14,690
June	31,260	3,909	12,733	53	14,564
July	33,531	4,670	13,260	59	15,542
August	32,229	4,427	12,624	69	15,110
Sept	28,770	3,340	11,278	52	14,100
October	28,047	3,376	10,642	27	14,003
November	28,623	3,741	10,733	20	14,129
December	29,750	3,326	11,563	51	14,810
Year 2019					
January	31,372	4,520	12,598	52	14,201
February	27,238	3,766	10,415	57	13,000
March	28,084	3,557	10,500	72	13,955
April	26,149	3,119	9,721	24	13,285
May	29,821	4,146	11,946	18	13,710
June	28,494	3,285	11,233	31	13,945
July	30,868	4,378	11,758	101	14,630
August	33,336	4,707	13,628	63	14,938
Sept	28,712	3,644	11,790	51	13,227
October	25,989	2,745	10,122	42	13,080
November	25,826	2,218	10,030	35	13,543
Year to Date					
2017	330,752	38,231	138,498	417	153,606
2018	332,739	42,529	131,725	469	158,016
2019	315,888	40,085	123,742	546	151,513
Rolling 12 Months Ending in November					
2018	365,958	47,104	145,103	512	173,238
2019	345,638	43,412	135,305	597	166,323

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 2018 and prior years are final. Values for 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 2.7.B. Wood / Wood Waste Biomass: Consumption for Useful Thermal Output, by Sector, 2009-November 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	1,027,669	10,297	21,623	4,806	990,943
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	89,507	844	2,115	454	86,093
February	80,320	878	2,141	474	76,827
March	86,499	948	1,966	493	83,092
April	82,407	869	1,533	339	79,665
May	85,415	673	1,679	319	82,744
June	84,062	655	1,683	402	81,323
July	89,005	991	1,899	382	85,733
August	89,621	854	1,930	417	86,420
Sept	81,558	655	1,676	336	78,891
October	84,335	1,005	1,607	329	81,395
November	85,962	891	1,635	343	83,093
December	88,978	1,033	1,759	518	85,668
Year 2019					
January	88,292	1,038	1,788	544	84,922
February	79,854	874	1,545	478	76,957
March	80,838	961	1,650	436	77,792
April	79,412	906	1,921	344	76,242
May	80,280	997	1,872	356	77,055
June	78,695	874	1,973	342	75,505
July	80,884	865	1,950	403	77,667
August	83,625	900	1,945	398	80,382
Sept	77,308	914	1,881	394	74,119
October	78,170	743	1,542	422	75,463
November	80,353	756	1,650	442	77,506
Year to Date					
2017	944,523	10,577	20,800	3,999	909,148
2018	938,691	9,264	19,864	4,288	905,276
2019	887,713	9,829	19,715	4,559	853,609
Rolling 12 Months Ending in November					
2018	1,030,595	10,342	22,050	4,811	993,391
2019	976,691	10,863	21,474	5,077	939,277

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 2018 and prior years are final. Values for 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 2.7.C. Wood / Wood Waste Biomass: Consumption for Electricity Generation and Useful Thermal Output, by Sector, 2009-November 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	1,390,158	56,153	164,911	5,326	1,163,769
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	122,778	5,557	15,905	517	100,799
February	109,291	4,567	14,282	516	89,926
March	118,005	5,449	14,209	528	97,818
April	109,336	3,835	12,131	356	93,015
May	115,016	3,869	13,362	351	97,434
June	115,322	4,564	14,416	455	95,887
July	122,537	5,661	15,160	441	101,275
August	121,850	5,281	14,554	486	101,530
Sept	110,328	3,995	12,954	388	92,991
October	112,382	4,381	12,248	356	95,397
November	114,586	4,633	12,368	363	97,222
December	118,728	4,360	13,322	569	100,478
Year 2019					
January	119,663	5,558	14,386	596	99,123
February	107,092	4,640	11,960	535	89,957
March	108,923	4,518	12,150	508	91,747
April	105,561	4,025	11,642	368	89,527
May	110,101	5,144	13,818	374	90,765
June	107,188	4,159	13,206	373	89,450
July	111,752	5,243	13,708	505	92,297
August	116,961	5,608	15,573	461	95,320
Sept	106,020	4,558	13,671	446	87,345
October	104,159	3,488	11,664	464	88,543
November	106,179	2,974	11,680	477	91,049
Year to Date					
2017	1,275,276	48,808	159,298	4,416	1,062,754
2018	1,271,430	51,793	151,589	4,757	1,063,291
2019	1,203,600	49,915	143,458	5,105	1,005,123
Rolling 12 Months Ending in November					
2018	1,396,552	57,447	167,153	5,323	1,166,629
2019	1,322,328	54,274	156,779	5,674	1,105,600

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 2018 and prior years are final. Values for 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 2.8.A. Consumption of Coal for Electricity Generation by State, by Sector, November 2019 and November 2018 (Thousand Tons)

Census Division and State	All Sectors			Electric Power Sector							
				Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	14	NM	NM	12	NM	1	24	0	0	NM	0
Connecticut	0	23	-100.0%	0	0	0	23	0	0	0	0
Maine	1	1	32.0%	0	0	1	1	0	0	NM	0
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	12	NM	NM	12	NM	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	1,826	1,794	1.8%	0	0	1,825	1,791	0	0	1	2
New Jersey	33	34	-2.1%	0	0	33	34	0	0	0	0
New York	0	1	-100.0%	0	0	0	1	0	0	0	0
Pennsylvania	1,792	1,758	1.9%	0	0	1,791	1,756	0	0	1	2
East North Central	8,912	11,491	-22.0%	5,234	6,951	3,620	4,481	1	0	56	59
Illinois	2,511	2,728	-8.0%	153	202	2,313	2,482	0	0	45	44
Indiana	2,651	3,347	-21.0%	2,448	3,145	202	201	1	0	0	0
Michigan	1,299	1,799	-28.0%	1,279	1,781	18	17	0	0	2	1
Ohio	1,306	1,996	-35.0%	219	215	1,087	1,781	0	0	0	0
Wisconsin	1,146	1,621	-29.0%	1,136	1,607	0	0	0	0	10	14
West North Central	8,604	9,777	-12.0%	8,517	9,683	0	0	2	2	86	92
Iowa	996	1,454	-32.0%	952	1,416	0	0	1	2	42	36
Kansas	976	994	-1.8%	976	994	0	0	0	0	0	0
Minnesota	892	1,354	-34.0%	888	1,337	0	0	0	0	4	17
Missouri	2,619	2,829	-7.4%	2,619	2,828	0	0	0	0	0	0
Nebraska	1,064	1,261	-16.0%	1,026	1,222	0	0	0	0	37	38
North Dakota	1,902	1,797	5.8%	1,899	1,796	0	0	0	0	3	1
South Dakota	156	88	76.0%	156	88	0	0	0	0	0	0
South Atlantic	5,444	6,442	-15.0%	4,831	5,619	599	804	1	1	13	17
Delaware	1	0	--	0	0	1	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	868	987	-12.0%	867	986	0	0	0	0	NM	1
Georgia	820	1,633	-50.0%	816	1,629	0	0	0	0	4	4
Maryland	216	359	-40.0%	0	0	216	358	0	0	0	2
North Carolina	1,067	768	39.0%	1,061	762	3	3	1	1	2	2
South Carolina	462	659	-30.0%	462	659	0	0	0	0	0	0
Virginia	168	393	-57.0%	161	355	1	30	0	0	6	8
West Virginia	1,843	1,642	12.0%	1,464	1,229	378	413	0	0	0	0
East South Central	3,704	4,255	-13.0%	3,525	3,956	169	292	0	0	9	8
Alabama	1,233	1,027	20.0%	1,232	1,026	0	0	0	0	NM	1
Kentucky	1,561	2,334	-33.0%	1,561	2,334	0	0	0	0	0	0
Mississippi	186	447	-58.0%	17	155	169	292	0	0	0	0
Tennessee	723	448	62.0%	715	441	0	0	0	0	8	6
West South Central	6,248	9,378	-33.0%	2,563	4,864	3,679	4,505	0	0	6	10
Arkansas	1,150	1,688	-32.0%	932	1,425	217	262	0	0	1	1
Louisiana	251	642	-61.0%	126	403	125	238	0	0	0	0
Oklahoma	221	693	-68.0%	174	551	42	132	0	0	6	9
Texas	4,626	6,356	-27.0%	1,331	2,484	3,295	3,872	0	0	0	0
Mountain	6,484	7,834	-17.0%	5,456	6,756	1,019	1,069	0	0	9	9
Arizona	816	1,370	-40.0%	816	1,370	0	0	0	0	0	0
Colorado	1,210	1,307	-7.4%	1,210	1,307	0	0	0	0	0	0
Idaho	NM	1	NM	0	0	0	0	0	0	NM	1
Montana	912	954	-4.4%	25	24	886	929	0	0	1	1
Nevada	86	145	-41.0%	30	81	56	64	0	0	0	0
New Mexico	730	808	-9.7%	730	808	0	0	0	0	0	0
Utah	1,050	1,176	-11.0%	1,012	1,137	38	39	0	0	0	0
Wyoming	1,680	2,073	-19.0%	1,632	2,029	40	37	0	0	8	7
Pacific Contiguous	668	569	17.0%	136	68	526	497	0	0	6	5
California	5	4	24.0%	0	0	0	0	0	0	5	4
Oregon	136	68	101.0%	136	68	0	0	0	0	0	0
Washington	527	497	5.9%	0	0	526	497	0	0	1	1
Pacific Noncontiguous	118	124	-5.3%	37	48	78	73	2	3	0	0
Alaska	53	66	-20.0%	37	48	13	15	2	3	0	0
Hawaii	65	58	11.0%	0	0	65	58	0	0	0	0
U.S. Total	42,021	51,702	-19.0%	30,311	37,956	11,517	13,537	6	7	187	202

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
Notes: See Glossary for definitions. Values for 2019 are preliminary. Values for 2018 are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

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

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	202	463	-56.0%	139	257	59	202	0	0	4	4
Connecticut	48	191	-75.0%	0	0	48	191	0	0	0	0
Maine	16	14	10.0%	0	0	12	10	0	0	4	4
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	139	257	-46.0%	139	257	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	19,495	21,759	-10.0%	0	0	19,465	21,722	0	0	30	36
New Jersey	404	460	-12.0%	0	0	404	460	0	0	0	0
New York	187	254	-26.0%	0	0	187	250	0	0	0	4
Pennsylvania	18,904	21,045	-10.0%	0	0	18,874	21,012	0	0	30	33
East North Central	108,095	132,242	-18.0%	64,115	79,698	43,364	51,899	17	18	598	627
Illinois	27,860	33,198	-16.0%	1,773	2,024	25,623	30,704	8	9	456	461
Indiana	28,940	35,745	-19.0%	27,089	33,779	1,841	1,957	9	9	0	0
Michigan	19,597	22,292	-12.0%	19,403	22,066	175	195	0	0	19	31
Ohio	18,014	23,044	-22.0%	2,288	4,000	15,725	19,043	0	0	0	1
Wisconsin	13,684	17,964	-24.0%	13,562	17,829	0	0	0	0	122	134
West North Central	94,514	108,101	-13.0%	93,524	107,007	0	0	18	20	972	1,075
Iowa	11,851	14,703	-19.0%	11,374	14,228	0	0	15	17	462	458
Kansas	10,620	11,858	-10.0%	10,620	11,858	0	0	0	0	0	0
Minnesota	9,757	12,313	-21.0%	9,607	12,078	0	0	1	0	150	235
Missouri	30,045	33,898	-11.0%	30,043	33,895	0	0	2	2	0	0
Nebraska	12,154	13,538	-10.0%	11,824	13,187	0	0	0	0	330	351
North Dakota	18,588	20,514	-9.4%	18,557	20,484	0	0	0	0	31	30
South Dakota	1,499	1,277	17.0%	1,499	1,277	0	0	0	0	0	0
South Atlantic	65,429	79,094	-17.0%	58,512	69,066	6,757	9,850	9	10	151	168
Delaware	85	163	-48.0%	0	0	85	163	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	8,973	12,308	-27.0%	8,961	12,291	0	0	0	0	12	17
Georgia	12,797	15,563	-18.0%	12,761	15,524	0	0	0	0	36	39
Maryland	2,405	4,134	-42.0%	0	0	2,397	4,120	0	0	8	14
North Carolina	11,593	11,621	-0.2%	11,518	11,544	43	43	8	9	24	25
South Carolina	5,848	7,523	-22.0%	5,846	7,520	0	0	0	0	2	3
Virginia	1,748	4,174	-58.0%	1,620	3,835	58	267	1	1	70	71
West Virginia	21,978	23,609	-6.9%	17,806	18,351	4,173	5,257	0	0	0	0
East South Central	49,008	54,774	-11.0%	46,355	51,934	2,549	2,699	0	0	104	140
Alabama	13,174	15,165	-13.0%	13,158	15,153	0	0	0	0	16	13
Kentucky	23,028	25,859	-11.0%	23,028	25,859	0	0	0	0	0	0
Mississippi	3,804	4,093	-7.1%	1,255	1,394	2,549	2,699	0	0	0	0
Tennessee	9,003	9,657	-6.8%	8,914	9,529	0	0	0	0	88	128
West South Central	82,173	101,450	-19.0%	41,989	54,547	40,119	46,793	0	0	65	110
Arkansas	12,663	15,710	-19.0%	10,650	13,136	2,005	2,567	0	0	7	8
Louisiana	5,051	7,491	-33.0%	3,826	4,978	1,224	2,513	0	0	0	0
Oklahoma	5,178	8,713	-41.0%	4,743	7,542	377	1,069	0	0	58	102
Texas	59,282	69,535	-15.0%	22,769	28,891	36,512	40,645	0	0	0	0
Mountain	72,933	77,754	-6.2%	63,129	68,692	9,716	8,969	0	0	88	94
Arizona	12,178	15,321	-21.0%	12,178	15,321	0	0	0	0	0	0
Colorado	13,114	13,797	-5.0%	13,113	13,795	0	0	0	0	1	3
Idaho	4	4	-3.9%	0	0	0	0	0	0	4	4
Montana	8,582	7,856	9.2%	260	207	8,319	7,645	0	0	3	5
Nevada	1,430	1,175	22.0%	884	651	546	524	0	0	0	0
New Mexico	7,529	6,465	16.0%	7,529	6,465	0	0	0	0	0	0
Utah	10,679	10,997	-2.9%	10,308	10,623	371	374	0	0	0	0
Wyoming	19,417	22,139	-12.0%	18,856	21,631	480	425	0	0	80	83
Pacific Contiguous	5,562	3,832	45.0%	1,298	649	4,214	3,125	0	0	50	58
California	44	52	-17.0%	0	0	0	0	0	0	44	52
Oregon	1,298	649	100.0%	1,298	649	0	0	0	0	0	0
Washington	4,220	3,131	35.0%	0	0	4,214	3,125	0	0	6	6
Pacific Noncontiguous	1,142	1,121	1.9%	330	280	786	808	26	33	0	0
Alaska	484	449	7.9%	330	280	128	136	26	33	0	0
Hawaii	657	672	-2.2%	0	0	657	672	0	0	0	0
U.S. Total	498,553	580,590	-14.0%	369,391	432,129	127,029	146,068	70	80	2,062	2,313

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Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 2.9.A. Consumption of Petroleum Liquids for Electricity Generation by State, by Sector, November 2019 and November 2018 (Thousand Barrels)

				Electric Power Sector							
Census Division and State	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	39	57	-32.0%	6	21	30	30	2	5	1	1
Connecticut	13	9	45.0%	1	1	NM	7	NM	1	0	0
Maine	3	11	-73.0%	0	0	2	9	0	0	1	1
Massachusetts	13	10	29.0%	NM	1	10	7	NM	2	0	0
New Hampshire	5	23	-77.0%	2	18	2	3	1	2	0	0
Rhode Island	NM	4	NM	0	0	NM	3	0	0	NM	0
Vermont	NM	1	NM	NM	1	0	0	0	0	0	0
Middle Atlantic	67	120	-44.0%	14	12	49	101	NM	1	3	6
New Jersey	12	5	137.0%	0	1	12	4	0	0	0	0
New York	24	22	12.0%	13	11	NM	6	NM	1	1	4
Pennsylvania	31	93	-67.0%	0	0	29	91	NM	0	1	2
East North Central	76	96	-21.0%	37	48	38	45	0	0	1	2
Illinois	5	10	-50.0%	1	2	4	8	0	0	0	0
Indiana	16	27	-42.0%	15	25	0	0	0	0	1	2
Michigan	11	14	-22.0%	10	13	0	0	0	0	0	0
Ohio	37	41	-7.8%	3	3	34	37	0	0	0	0
Wisconsin	NM	5	NM	NM	5	0	0	NM	0	0	0
West North Central	55	55	-0.4%	53	53	NM	1	0	0	0	0
Iowa	14	10	45.0%	13	9	1	0	0	0	0	0
Kansas	11	8	34.0%	11	8	0	0	0	0	0	0
Minnesota	NM	4	NM	NM	3	NM	1	0	0	0	0
Missouri	11	21	-47.0%	11	21	0	0	0	0	0	0
Nebraska	NM	2	NM	NM	2	0	0	0	0	0	0
North Dakota	4	7	-37.0%	4	7	0	0	0	0	0	0
South Dakota	NM	3	NM	NM	3	0	0	NM	0	0	0
South Atlantic	165	288	-43.0%	118	198	25	64	15	14	NM	13
Delaware	NM	1	NM	0	0	NM	1	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	NM	27	NM	14	24	NM	0	0	0	NM	3
Georgia	NM	42	NM	10	23	5	11	0	0	NM	7
Maryland	6	13	-58.0%	0	0	5	13	0	0	0	0
North Carolina	34	47	-28.0%	31	44	NM	2	NM	0	NM	1
South Carolina	22	30	-27.0%	19	28	2	0	NM	0	1	1
Virginia	40	108	-63.0%	20	59	6	36	14	13	NM	0
West Virginia	24	20	19.0%	24	20	0	0	0	0	0	0
East South Central	36	46	-22.0%	31	44	5	1	0	0	NM	1
Alabama	NM	4	NM	2	2	5	1	0	0	NM	1
Kentucky	17	17	1.9%	17	17	0	0	0	0	0	0
Mississippi	1	3	-67.0%	1	3	0	0	0	0	0	0
Tennessee	11	23	-51.0%	11	22	0	0	0	0	0	0
West South Central	26	21	27.0%	19	17	4	3	0	0	3	1
Arkansas	13	2	496.0%	11	2	2	0	0	0	0	0
Louisiana	2	2	23.0%	2	2	0	0	0	0	0	0
Oklahoma	2	5	-59.0%	2	5	0	0	0	0	0	0
Texas	9	12	-26.0%	NM	8	2	3	0	0	3	0
Mountain	31	33	-5.9%	30	32	2	2	NM	0	0	0
Arizona	8	8	-5.0%	8	8	0	0	NM	0	0	0
Colorado	NM	6	NM	NM	5	0	0	0	0	0	0
Idaho	0	0	-100.0%	0	0	0	0	0	0	0	0
Montana	NM	1	NM	NM	0	1	1	0	0	0	0
Nevada	2	1	22.0%	1	1	0	0	0	0	0	0
New Mexico	4	4	12.0%	4	4	0	0	0	0	0	0
Utah	8	6	41.0%	8	6	0	0	0	0	0	0
Wyoming	7	8	-6.7%	7	7	0	0	0	0	0	0
Pacific Contiguous	11	10	5.3%	7	6	2	2	NM	0	1	1
California	7	5	27.0%	5	5	1	0	0	0	NM	0
Oregon	2	1	9.3%	2	1	0	0	NM	0	0	0
Washington	2	3	-31.0%	NM	NM	2	2	0	0	NM	1
Pacific Noncontiguous	1,093	1,074	1.8%	863	850	204	201	4	2	22	20
Alaska	136	112	21.0%	130	106	0	0	1	1	5	5
Hawaii	957	962	-0.4%	733	744	204	201	3	1	17	16
U.S. Total	1,599	1,799	-11.0%	1,178	1,281	360	452	23	22	37	45

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Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 2.9.B. Consumption of Petroleum Liquids for Electricity Generation by State, by Sector, Year-to-Date through November 2019 and November 2018 (Thousand Barrels)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	493	2,091	-76.0%	61	340	388	1,703	33	34	11	14
Connecticut	166	596	-72.0%	9	9	152	583	3	3	2	1
Maine	43	314	-86.0%	0	0	29	296	7	6	8	13
Massachusetts	202	763	-73.0%	24	122	168	630	10	10	1	1
New Hampshire	41	295	-86.0%	25	199	NM	82	11	13	0	0
Rhode Island	37	114	-67.0%	0	0	35	112	1	1	NM	0
Vermont	NM	10	NM	NM	10	0	0	0	0	0	0
Middle Atlantic	1,369	4,349	-69.0%	361	1,059	948	3,204	24	35	35	50
New Jersey	120	455	-74.0%	3	4	116	446	1	4	1	1
New York	768	2,581	-70.0%	359	1,052	383	1,479	13	19	14	31
Pennsylvania	480	1,312	-63.0%	0	3	449	1,280	10	12	21	18
East North Central	872	1,041	-16.0%	549	581	309	431	4	7	11	21
Illinois	80	97	-18.0%	12	15	68	82	NM	0	0	0
Indiana	225	222	1.3%	218	203	0	1	NM	1	6	17
Michigan	177	233	-24.0%	174	227	0	0	2	5	1	1
Ohio	302	413	-27.0%	66	63	233	346	1	1	3	2
Wisconsin	89	76	18.0%	80	73	8	2	1	0	0	0
West North Central	623	648	-4.0%	602	600	17	45	2	2	2	1
Iowa	125	122	2.7%	118	115	7	7	0	0	0	0
Kansas	124	110	12.0%	124	110	0	0	0	0	0	0
Minnesota	80	96	-17.0%	66	55	NM	38	2	2	1	1
Missouri	166	208	-20.0%	166	208	0	0	0	0	0	0
Nebraska	43	32	34.0%	43	32	0	0	0	0	0	0
North Dakota	62	62	0.5%	62	62	0	0	0	0	0	0
South Dakota	23	19	21.0%	23	19	0	0	NM	0	0	0
South Atlantic	2,264	5,953	-62.0%	1,655	4,220	398	1,469	134	155	77	109
Delaware	74	327	-77.0%	0	12	73	315	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	480	979	-51.0%	461	934	7	27	0	0	13	18
Georgia	177	456	-61.0%	106	229	21	167	6	7	43	53
Maryland	175	543	-68.0%	4	11	169	527	1	2	1	3
North Carolina	389	1,163	-67.0%	363	1,067	15	73	NM	4	10	19
South Carolina	176	579	-70.0%	162	558	7	11	NM	0	7	11
Virginia	589	1,647	-64.0%	357	1,177	105	324	125	142	3	5
West Virginia	205	260	-21.0%	203	234	2	26	0	0	0	0
East South Central	462	553	-16.0%	445	480	8	60	0	0	9	12
Alabama	33	134	-75.0%	20	67	7	60	0	0	5	8
Kentucky	146	159	-8.3%	146	159	0	0	0	0	0	0
Mississippi	23	46	-50.0%	22	43	0	0	0	0	1	3
Tennessee	259	213	22.0%	257	211	1	0	0	0	2	1
West South Central	217	233	-6.9%	166	181	40	43	1	1	10	8
Arkansas	73	56	30.0%	52	44	19	9	0	0	3	3
Louisiana	19	39	-51.0%	19	39	0	0	0	0	0	0
Oklahoma	35	31	13.0%	32	29	0	0	0	0	2	2
Texas	89	107	-16.0%	63	69	21	34	1	1	5	3
Mountain	378	348	8.6%	345	308	33	40	NM	0	0	0
Arizona	104	91	14.0%	104	91	0	0	NM	0	0	0
Colorado	26	32	-20.0%	25	31	0	1	0	0	0	0
Idaho	0	0	13.0%	0	0	0	0	0	0	0	0
Montana	30	34	-12.0%	NM	1	26	33	0	0	0	0
Nevada	24	20	21.0%	20	14	4	5	0	0	0	0
New Mexico	58	39	49.0%	58	39	0	0	0	0	0	0
Utah	63	58	8.6%	60	56	3	2	0	0	0	0
Wyoming	74	74	-1.1%	73	74	0	0	0	0	0	0
Pacific Contiguous	130	153	-14.0%	72	74	37	33	NM	2	20	44
California	94	113	-17.0%	62	58	18	16	1	1	12	36
Oregon	8	8	-3.4%	8	8	0	0	NM	0	0	0
Washington	29	32	-9.2%	NM	7	18	16	0	0	8	8
Pacific Noncontiguous	11,923	11,505	3.6%	9,417	9,284	2,232	1,982	25	13	250	225
Alaska	1,519	1,304	17.0%	1,451	1,244	0	0	7	5	61	55
Hawaii	10,404	10,202	2.0%	7,966	8,040	2,232	1,982	18	9	189	170
U.S. Total	18,732	26,874	-30.0%	13,673	17,128	4,411	9,012	224	250	424	485

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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, November 2019 and November 2018 (Thousand Tons)

				Electric Power Sector							
Census Division and State	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 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	1	1	-29.0%	0	0	0	0	0	0	1	1
New Jersey	1	1	39.0%	0	0	0	0	0	0	1	1
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	0	0	-100.0%	0	0	0	0	0	0	0	0
East North Central	17	90	-81.0%	11	37	0	48	0	0	6	5
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	13	38	-65.0%	7	33	0	0	0	0	6	5
Ohio	0	48	-100.0%	0	0	0	48	0	0	0	0
Wisconsin	4	4	-5.5%	4	4	0	0	0	0	0	0
West North Central	0	0	-100.0%	0	0	0	0	0	0	0	0
Iowa	0	0	-100.0%	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	40	10	298.0%	38	7	0	0	0	0	NM	3
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	38	7	449.0%	38	7	0	0	0	0	0	0
Georgia	NM	3	NM	0	0	0	0	0	0	NM	3
Maryland	0	0	--	0	0	0	0	0	0	0	0
North Carolina	0	0	--	0	0	0	0	0	0	0	0
South Carolina	0	0	--	0	0	0	0	0	0	0	0
Virginia	0	0	--	0	0	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	0	0	--	0	0	0	0	0	0	0	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	0	0	--	0	0	0	0	0	0	0	0
West South Central	56	155	-64.0%	52	151	0	0	0	0	NM	3
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	52	151	-66.0%	52	151	0	0	0	0	0	0
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	NM	3	NM	0	0	0	0	0	0	NM	3
Mountain	15	15	0.6%	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	0.6%	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	130	271	-52.0%	101	196	15	63	0	0	14	13

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

				Electric Power Sector							
Census Division and State	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 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	15	19	-21.0%	0	0	0	0	0	0	15	19
New Jersey	7	6	11.0%	0	0	0	0	0	0	7	6
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	8	13	-36.0%	0	0	0	0	0	0	8	13
East North Central	806	1,058	-24.0%	350	511	393	501	0	0	62	46
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	375	515	-27.0%	314	471	0	0	0	0	62	44
Ohio	394	502	-22.0%	0	0	393	501	0	0	0	1
Wisconsin	37	41	-9.6%	37	41	0	0	0	0	0	0
West North Central	11	7	58.0%	0	0	0	0	1	2	10	5
Iowa	11	7	58.0%	0	0	0	0	1	2	10	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	423	551	-23.0%	395	519	0	0	0	0	29	32
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	395	519	-24.0%	395	519	0	0	0	0	0	0
Georgia	29	32	-11.0%	0	0	0	0	0	0	29	32
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	1,237	1,528	-19.0%	1,185	1,469	0	0	0	0	51	59
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	1,188	1,490	-20.0%	1,185	1,469	0	0	0	0	3	21
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	49	37	30.0%	0	0	0	0	0	0	49	37
Mountain	147	139	6.1%	0	0	147	139	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	147	139	6.1%	0	0	147	139	0	0	0	0
Nevada	0	0	--	0	0	0	0	0	0	0	0
New Mexico	0	0	--	0	0	0	0	0	0	0	0
Utah	0	0	--	0	0	0	0	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	0	0	--	0	0	0	0	0	0	0	0
California	0	0	--	0	0	0	0	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	0	0	--	0	0	0	0	0	0	0	0
Pacific Noncontiguous	0	0	--	0	0	0	0	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	2,639	3,301	-20.0%	1,930	2,499	540	639	1	2	167	161

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
Notes: See Glossary for definitions. Values for 2019 are preliminary. Values for 2018 are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 2.11.A. Consumption of Natural Gas for Electricity Generation by State, by Sector, November 2019 and November 2018 (Million Cubic Feet)

				Electric Power Sector							
Census Division and State	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	26,454	26,793	-1.3%	NM	114	25,143	25,573	482	431	740	675
Connecticut	12,113	12,690	-4.5%	35	50	11,564	12,113	187	209	327	319
Maine	658	980	-33.0%	0	0	482	840	13	12	163	128
Massachusetts	7,621	7,493	1.7%	NM	57	7,200	7,137	260	188	110	111
New Hampshire	1,676	1,401	20.0%	3	6	1,653	1,374	4	5	16	16
Rhode Island	4,385	4,227	3.8%	0	0	4,245	4,109	16	17	124	101
Vermont	0	1	-78.0%	0	1	0	0	0	0	0	0
Middle Atlantic	102,702	87,496	17.0%	6,708	6,974	94,135	78,912	681	550	1,179	1,060
New Jersey	23,183	18,522	25.0%	NM	109	22,844	18,192	83	66	173	156
New York	28,591	28,444	0.5%	6,622	6,865	21,121	20,849	537	438	311	293
Pennsylvania	50,929	40,529	26.0%	3	1	50,170	39,872	61	46	695	611
East North Central	85,497	76,872	11.0%	30,657	23,662	51,713	50,619	660	562	2,467	2,029
Illinois	9,586	9,937	-3.5%	925	561	8,074	8,871	192	166	394	339
Indiana	19,234	15,937	21.0%	7,611	5,975	10,256	8,898	87	54	1,280	1,009
Michigan	20,448	14,337	43.0%	7,772	4,393	12,115	9,435	254	254	307	256
Ohio	24,673	28,440	-13.0%	3,575	5,324	20,945	22,949	67	55	87	112
Wisconsin	11,556	8,221	41.0%	10,774	7,409	322	466	60	33	399	313
West North Central	14,109	13,751	2.6%	13,073	10,956	527	2,323	141	122	369	350
Iowa	4,434	2,443	81.0%	4,162	2,222	NM	3	54	32	213	185
Kansas	1,384	1,556	-11.0%	1,304	1,471	0	0	0	0	80	86
Minnesota	4,158	3,208	30.0%	3,579	2,627	505	483	31	44	43	54
Missouri	2,073	4,444	-53.0%	1,988	2,552	16	1,837	56	44	14	12
Nebraska	466	764	-39.0%	466	762	0	0	1	2	0	0
North Dakota	950	591	61.0%	932	578	0	0	0	0	19	14
South Dakota	644	745	-14.0%	644	745	0	0	0	0	0	0
South Atlantic	193,907	200,752	-3.4%	155,441	165,685	34,976	31,793	847	765	2,642	2,509
Delaware	1,949	1,919	1.6%	5	14	1,445	1,407	0	0	498	498
District of Columbia	63	20	213.0%	0	0	0	0	63	20	0	0
Florida	88,247	95,149	-7.3%	84,804	90,484	2,737	3,964	9	12	697	689
Georgia	32,636	25,081	30.0%	26,076	18,851	6,224	5,933	0	0	336	297
Maryland	6,740	6,404	5.2%	682	2,377	5,362	3,354	678	636	17	38
North Carolina	23,502	26,910	-13.0%	18,424	22,234	4,916	4,514	85	87	78	75
South Carolina	12,736	16,210	-21.0%	11,571	14,311	1,077	1,826	0	0	88	72
Virginia	26,966	28,178	-4.3%	13,424	17,293	12,801	10,188	13	11	729	685
West Virginia	1,068	881	21.0%	454	120	414	606	0	0	199	155
East South Central	76,216	72,991	4.4%	53,776	48,638	21,141	22,925	98	92	1,202	1,336
Alabama	28,476	30,924	-7.9%	8,905	11,430	18,977	18,862	0	0	594	631
Kentucky	9,626	8,962	7.4%	9,021	8,120	521	755	0	0	84	86
Mississippi	27,406	24,332	13.0%	25,594	20,767	1,633	3,297	0	0	178	268
Tennessee	10,708	8,773	22.0%	10,255	8,321	9	10	98	92	346	350
West South Central	192,981	170,930	13.0%	71,277	61,775	86,390	75,202	391	284	34,923	33,669
Arkansas	11,106	6,813	63.0%	10,970	6,046	0	613	NM	21	100	133
Louisiana	33,591	28,766	17.0%	17,082	14,668	2,804	1,297	54	68	13,651	12,733
Oklahoma	21,815	22,051	-1.1%	16,068	16,524	5,436	5,306	0	0	311	221
Texas	126,469	113,300	12.0%	27,156	24,537	78,150	67,986	302	195	20,861	20,582
Mountain	68,048	62,203	9.4%	54,752	50,852	12,064	9,986	175	174	1,057	1,191
Arizona	25,695	21,571	19.0%	19,986	18,142	5,663	3,388	47	40	0	0
Colorado	10,740	9,519	13.0%	8,771	8,180	1,935	1,310	6	1	29	28
Idaho	2,864	3,012	-4.9%	1,630	1,910	1,168	1,042	14	14	51	46
Montana	458	548	-16.0%	328	322	127	223	0	0	4	3
Nevada	14,649	13,481	8.7%	13,042	11,993	1,305	1,320	19	16	284	153
New Mexico	7,230	7,612	-5.0%	5,366	4,815	1,824	2,652	40	45	0	100
Utah	5,735	5,840	-1.8%	5,354	5,271	43	47	48	59	289	463
Wyoming	677	620	9.1%	276	219	1	4	0	0	400	397
Pacific Contiguous	80,912	70,602	15.0%	34,036	24,762	40,755	39,874	827	781	5,294	5,185
California	59,832	56,985	5.0%	22,225	18,287	31,586	32,806	808	759	5,212	5,133
Oregon	13,334	12,483	6.8%	6,551	5,660	6,720	6,774	18	15	45	34
Washington	7,745	1,135	583.0%	5,260	816	2,449	294	0	6	36	18
Pacific Noncontiguous	2,680	2,087	28.0%	2,657	2,061	0	0	0	0	23	26
Alaska	2,680	2,087	28.0%	2,657	2,061	0	0	0	0	23	26
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	843,507	784,477	7.5%	422,466	395,480	366,844	337,206	4,300	3,760	49,896	48,031

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Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

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

				Electric Power Sector							
Census Division and State	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	325,334	344,821	-5.7%	1,774	2,565	310,428	328,853	5,136	5,401	7,996	8,003
Connecticut	132,644	128,162	3.5%	314	478	126,921	122,213	1,969	2,105	3,440	3,365
Maine	10,632	15,273	-30.0%	0	0	8,657	13,244	136	137	1,839	1,892
Massachusetts	104,960	124,936	-16.0%	1,385	1,678	99,571	119,133	2,767	2,906	1,237	1,219
New Hampshire	23,726	21,273	12.0%	64	398	23,446	20,662	44	29	173	183
Rhode Island	53,357	55,164	-3.3%	0	0	51,833	53,600	216	219	1,307	1,345
Vermont	16	15	5.6%	11	11	0	0	4	4	0	0
Middle Atlantic	1,227,669	1,118,993	9.7%	84,453	89,366	1,122,973	1,008,647	7,191	7,498	13,052	13,482
New Jersey	260,642	250,200	4.2%	1,478	1,507	256,451	245,773	800	1,022	1,913	1,899
New York	351,961	372,905	-5.6%	82,937	87,802	259,839	275,430	5,743	5,857	3,441	3,817
Pennsylvania	615,066	495,887	24.0%	38	57	606,683	487,444	647	619	7,698	7,767
East North Central	1,064,528	947,489	12.0%	393,330	351,530	638,967	565,033	7,352	7,319	24,878	23,607
Illinois	144,018	134,707	6.9%	13,154	10,214	125,060	118,542	1,997	1,945	3,808	4,005
Indiana	210,832	184,302	14.0%	95,415	84,673	101,592	87,491	901	809	12,924	11,329
Michigan	236,229	218,614	8.1%	93,656	86,364	136,640	126,223	2,937	2,930	2,995	3,097
Ohio	331,796	291,685	14.0%	63,955	66,396	265,916	223,207	997	1,118	929	965
Wisconsin	141,653	118,180	20.0%	127,150	103,882	9,759	9,571	521	516	4,223	4,210
West North Central	233,790	212,218	10.0%	202,342	184,107	26,686	23,421	1,609	1,465	3,153	3,225
Iowa	50,398	45,744	10.0%	47,836	43,219	NM	71	536	451	1,954	2,004
Kansas	29,088	27,506	5.8%	28,636	27,072	0	0	0	0	452	434
Minnesota	67,608	58,441	16.0%	58,545	50,188	8,121	7,285	412	436	530	531
Missouri	55,106	54,038	2.0%	35,884	37,291	18,493	16,065	625	547	104	135
Nebraska	10,803	8,870	22.0%	10,766	8,839	0	0	36	31	0	0
North Dakota	10,984	9,052	21.0%	10,872	8,931	0	0	0	0	112	121
South Dakota	9,803	8,566	14.0%	9,803	8,566	0	0	0	0	0	0
South Atlantic	2,605,789	2,482,881	5.0%	2,132,190	2,006,523	435,240	442,485	10,723	9,526	27,636	24,348
Delaware	31,837	38,881	-18.0%	301	264	26,220	34,718	0	0	5,317	3,898
District of Columbia	587	557	5.5%	0	0	0	0	587	557	0	0
Florida	1,236,945	1,187,942	4.1%	1,175,646	1,119,763	53,469	60,677	96	136	7,733	7,366
Georgia	384,718	348,788	10.0%	289,609	262,914	91,691	82,555	1	0	3,417	3,319
Maryland	101,183	97,984	3.3%	22,351	24,411	69,440	65,277	9,098	7,869	294	428
North Carolina	286,235	306,604	-6.6%	228,631	259,957	56,010	45,127	862	894	732	626
South Carolina	166,843	159,396	4.7%	159,227	133,678	6,886	24,998	3	2	727	718
Virginia	380,212	330,940	15.0%	252,262	203,632	120,769	120,516	75	69	7,107	6,724
West Virginia	17,228	11,789	46.0%	4,164	1,905	10,755	8,617	0	0	2,309	1,268
East South Central	937,470	947,017	-1.0%	660,729	652,385	262,632	281,124	955	1,018	13,153	12,490
Alabama	382,834	391,620	-2.2%	145,357	142,661	230,885	242,485	0	0	6,592	6,474
Kentucky	101,558	107,218	-5.3%	96,637	98,974	4,061	7,508	0	0	860	735
Mississippi	339,264	348,611	-2.7%	309,768	315,126	27,553	31,008	0	40	1,943	2,438
Tennessee	113,814	99,568	14.0%	108,967	95,624	134	123	955	978	3,759	2,842
West South Central	2,621,516	2,463,070	6.4%	1,032,756	954,152	1,217,672	1,148,191	4,832	3,890	366,255	356,838
Arkansas	142,399	143,131	-0.5%	134,830	134,732	5,823	6,590	381	415	1,365	1,393
Louisiana	478,107	412,633	16.0%	294,094	252,341	36,633	27,117	654	700	146,726	132,474
Oklahoma	313,540	300,725	4.3%	208,379	193,447	101,926	104,323	0	0	3,234	2,954
Texas	1,687,470	1,606,582	5.0%	395,452	373,631	1,073,290	1,010,160	3,797	2,774	214,930	220,016
Mountain	818,976	742,068	10.0%	658,118	600,944	147,811	126,808	2,049	1,972	10,998	12,344
Arizona	325,876	262,390	24.0%	248,314	208,887	77,011	52,944	551	559	0	0
Colorado	116,481	113,130	3.0%	97,338	92,339	18,801	20,491	16	1	327	299
Idaho	27,261	20,904	30.0%	13,874	10,554	12,696	9,829	153	154	538	368
Montana	5,219	4,493	16.0%	3,914	3,516	1,287	958	0	0	18	19
Nevada	175,460	185,342	-5.3%	158,908	168,654	13,833	13,772	241	238	2,478	2,676
New Mexico	95,840	89,543	7.0%	72,011	60,496	23,299	28,305	478	461	53	282
Utah	66,349	60,471	9.7%	60,936	54,810	869	494	610	559	3,934	4,608
Wyoming	6,489	5,795	12.0%	2,824	1,688	14	15	0	0	3,651	4,092
Pacific Contiguous	770,667	766,640	0.5%	313,851	301,418	387,607	393,646	9,224	10,462	59,985	61,115
California	552,731	589,074	-6.2%	191,979	201,961	292,655	316,584	8,984	10,202	59,113	60,327
Oregon	130,825	109,952	19.0%	64,577	55,649	65,591	53,727	209	190	448	386
Washington	87,112	67,614	29.0%	57,295	43,809	29,362	23,334	30	70	424	401
Pacific Noncontiguous	29,227	23,405	25.0%	28,968	23,155	0	0	0	3	259	247
Alaska	29,227	23,405	25.0%	28,968	23,155	0	0	0	3	259	247
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	10,634,966	10,048,602	5.8%	5,508,512	5,166,145	4,550,017	4,318,207	49,071	48,552	527,367	515,699

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Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 2.12.A. Consumption of Landfill Gas for Electricity Generation by State, by Sector, November 2019 and November 2018 (Million Cubic Feet)

				Electric Power Sector							
Census Division and State	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	862	945	-8.8%	0	0	840	923	22	23	0	0
Connecticut	NM	23	NM	0	0	NM	23	0	0	0	0
Maine	NM	55	NM	0	0	NM	55	0	0	0	0
Massachusetts	298	337	-12.0%	0	0	298	337	0	0	0	0
New Hampshire	88	147	-40.0%	0	0	66	125	22	23	0	0
Rhode Island	388	359	8.1%	0	0	388	359	0	0	0	0
Vermont	NM	24	NM	0	0	NM	24	0	0	0	0
Middle Atlantic	3,672	4,211	-13.0%	0	0	3,524	4,095	NM	44	94	73
New Jersey	390	520	-25.0%	0	0	374	509	NM	11	0	0
New York	1,273	1,381	-7.8%	0	0	1,273	1,381	0	0	0	0
Pennsylvania	2,009	2,311	-13.0%	0	0	1,877	2,205	NM	33	94	73
East North Central	4,685	5,147	-9.0%	731	799	3,929	4,311	4	14	21	24
Illinois	808	972	-17.0%	181	226	627	746	0	0	0	0
Indiana	648	663	-2.3%	549	572	99	91	0	0	0	0
Michigan	1,515	1,698	-11.0%	0	0	1,515	1,698	0	0	0	0
Ohio	885	925	-4.3%	0	0	885	925	0	0	0	0
Wisconsin	829	889	-6.8%	0	0	803	851	4	14	21	24
West North Central	721	803	-10.0%	238	273	483	530	0	0	0	0
Iowa	184	196	-5.7%	0	0	184	196	0	0	0	0
Kansas	117	130	-9.9%	0	0	117	130	0	0	0	0
Minnesota	164	175	-6.3%	NM	59	111	116	0	0	0	0
Missouri	134	161	-17.0%	64	73	71	89	0	0	0	0
Nebraska	121	142	-14.0%	121	142	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	3,996	4,588	-13.0%	311	342	3,428	3,932	NM	184	142	130
Delaware	86	100	-13.0%	0	0	78	90	0	0	NM	10
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	745	1,009	-26.0%	118	130	627	879	0	0	0	0
Georgia	614	572	7.3%	0	0	606	572	0	0	8	0
Maryland	205	223	-8.2%	0	0	125	146	NM	76	0	0
North Carolina	830	975	-15.0%	0	0	814	885	NM	90	0	0
South Carolina	341	357	-4.5%	188	207	NM	30	0	0	NM	121
Virginia	1,174	1,353	-13.0%	6	5	1,151	1,330	NM	17	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	400	444	-10.0%	169	198	231	246	0	0	0	0
Alabama	62	69	-9.7%	0	0	62	69	0	0	0	0
Kentucky	183	216	-15.0%	169	198	NM	18	0	0	0	0
Mississippi	NM	19	NM	0	0	NM	19	0	0	0	0
Tennessee	135	140	-3.8%	0	0	135	140	0	0	0	0
West South Central	809	1,084	-25.0%	0	0	809	1,031	0	53	0	0
Arkansas	88	95	-7.0%	0	0	88	95	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	NM	41	NM	0	0	NM	41	0	0	0	0
Texas	684	948	-28.0%	0	0	684	895	0	53	0	0
Mountain	466	545	-15.0%	NM	27	418	467	27	51	0	0
Arizona	70	80	-12.0%	0	0	70	80	0	0	0	0
Colorado	79	114	-31.0%	0	0	79	114	0	0	0	0
Idaho	48	60	-21.0%	NM	27	NM	13	19	20	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	120	126	-4.9%	0	0	120	126	0	0	0	0
New Mexico	NM	14	NM	0	0	NM	14	0	0	0	0
Utah	140	151	-7.5%	0	0	132	120	8	31	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	4,321	4,578	-5.6%	107	173	3,090	3,173	1,124	1,204	0	29
California	3,773	4,010	-5.9%	NM	57	2,676	2,753	1,090	1,171	0	29
Oregon	456	473	-3.6%	100	116	322	324	NM	33	0	0
Washington	92	96	-4.2%	0	0	92	96	0	0	0	0
Pacific Noncontiguous	59	58	2.1%	0	0	0	0	59	58	0	0
Alaska	59	58	2.1%	0	0	0	0	59	58	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	19,989	22,405	-11.0%	1,576	1,812	16,751	18,708	1,404	1,630	257	255

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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 November 2019 and November 2018 (Million Cubic Feet)

				Electric Power Sector							
Census Division and State	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	8,982	10,098	-11.0%	0	0	8,765	9,882	217	216	0	0
Connecticut	205	242	-15.0%	0	0	205	242	0	0	0	0
Maine	542	630	-14.0%	0	0	542	630	0	0	0	0
Massachusetts	3,269	3,661	-11.0%	0	0	3,269	3,661	0	0	0	0
New Hampshire	951	1,542	-38.0%	0	0	734	1,326	217	216	0	0
Rhode Island	3,813	3,768	1.2%	0	0	3,813	3,768	0	0	0	0
Vermont	202	255	-21.0%	0	0	202	255	0	0	0	0
Middle Atlantic	42,308	47,041	-10.0%	0	0	40,799	45,479	504	491	1,005	1,071
New Jersey	5,578	6,796	-18.0%	0	0	5,430	6,654	148	142	0	0
New York	13,762	14,881	-7.5%	0	0	13,762	14,881	0	0	0	0
Pennsylvania	22,968	25,363	-9.4%	0	0	21,607	23,944	356	349	1,005	1,071
East North Central	53,175	56,964	-6.7%	8,208	8,769	44,430	47,684	309	275	228	236
Illinois	9,103	10,909	-17.0%	2,145	2,439	6,957	8,470	0	0	0	0
Indiana	7,108	7,433	-4.4%	6,063	6,330	1,045	1,103	0	0	0	0
Michigan	17,726	18,261	-2.9%	0	0	17,726	18,261	0	0	0	0
Ohio	10,054	10,373	-3.1%	0	0	10,054	10,373	0	0	0	0
Wisconsin	9,185	9,988	-8.0%	0	0	8,648	9,477	309	275	228	236
West North Central	7,872	9,116	-14.0%	2,546	2,944	5,325	6,172	0	0	0	0
Iowa	2,047	2,229	-8.1%	0	0	2,047	2,229	0	0	0	0
Kansas	1,285	1,378	-6.8%	0	0	1,285	1,378	0	0	0	0
Minnesota	1,786	2,250	-21.0%	565	628	1,221	1,622	0	0	0	0
Missouri	1,449	1,716	-16.0%	676	772	773	944	0	0	0	0
Nebraska	1,305	1,544	-15.0%	1,305	1,544	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	43,137	48,577	-11.0%	3,472	3,794	37,213	41,361	1,059	1,949	1,392	1,472
Delaware	942	1,057	-11.0%	0	0	847	956	0	0	95	101
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	8,348	10,327	-19.0%	1,377	1,552	6,972	8,775	0	0	0	0
Georgia	6,244	6,157	1.4%	0	0	6,116	6,063	0	0	128	93
Maryland	2,105	2,437	-14.0%	0	0	1,365	1,626	740	811	0	0
North Carolina	9,169	10,312	-11.0%	0	0	9,013	9,360	155	952	0	0
South Carolina	3,495	3,788	-7.7%	2,024	2,194	301	317	0	0	1,169	1,277
Virginia	12,835	14,499	-11.0%	71	48	12,599	14,264	164	187	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	4,400	4,836	-9.0%	1,858	2,156	2,542	2,680	0	0	0	0
Alabama	682	751	-9.3%	0	0	682	751	0	0	0	0
Kentucky	2,025	2,345	-14.0%	1,858	2,156	168	189	0	0	0	0
Mississippi	213	211	0.8%	0	0	213	211	0	0	0	0
Tennessee	1,480	1,528	-3.1%	0	0	1,480	1,528	0	0	0	0
West South Central	9,940	11,822	-16.0%	0	0	9,751	11,276	189	546	0	0
Arkansas	968	994	-2.6%	0	0	968	994	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	399	426	-6.3%	0	0	399	426	0	0	0	0
Texas	8,573	10,402	-18.0%	0	0	8,384	9,857	189	546	0	0
Mountain	5,171	5,889	-12.0%	233	298	4,583	5,085	355	505	0	0
Arizona	769	867	-11.0%	0	0	769	867	0	0	0	0
Colorado	870	1,241	-30.0%	0	0	870	1,241	0	0	0	0
Idaho	460	623	-26.0%	233	298	81	143	146	182	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	1,306	1,372	-4.8%	0	0	1,306	1,372	0	0	0	0
New Mexico	98	153	-36.0%	0	0	98	153	0	0	0	0
Utah	1,668	1,632	2.2%	0	0	1,460	1,309	209	323	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	44,650	51,919	-14.0%	1,152	3,803	33,002	34,426	10,496	13,376	0	315
California	38,875	43,986	-12.0%	75	911	28,613	29,758	10,187	13,002	0	315
Oregon	4,771	5,275	-9.6%	1,077	1,330	3,385	3,571	309	374	0	0
Washington	1,004	2,658	-62.0%	0	1,562	1,004	1,096	0	0	0	0
Pacific Noncontiguous	653	737	-11.0%	0	0	0	0	653	737	0	0
Alaska	653	737	-11.0%	0	0	0	0	653	737	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	220,288	246,998	-11.0%	17,469	21,764	186,410	204,045	13,782	18,096	2,626	3,093

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Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 2.13.A. Consumption of Biogenic Municipal Solid Waste for Electricity Generation by State, by Sector, November 2019 and November 2018 (Thousand Tons)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	288	281	2.4%	0	0	277	267	12	14	0	0
Connecticut	105	80	31.0%	0	0	105	80	0	0	0	0
Maine	20	23	-14.0%	0	0	8	9	12	14	0	0
Massachusetts	154	167	-8.3%	0	0	154	167	0	0	0	0
New Hampshire	10	11	-3.7%	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	395	458	-14.0%	0	0	330	362	65	96	0	0
New Jersey	107	116	-7.5%	0	0	83	92	25	24	0	0
New York	161	172	-6.3%	0	0	121	124	40	47	0	0
Pennsylvania	127	170	-26.0%	0	0	127	146	0	24	0	0
East North Central	15	20	-25.0%	3	3	0	0	12	17	0	0
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	2	2	3.6%	0	0	0	0	2	2	0	0
Michigan	10	15	-34.0%	0	0	0	0	10	15	0	0
Ohio	0	0	--	0	0	0	0	0	0	0	0
Wisconsin	3	3	2.7%	3	3	0	0	0	0	0	0
West North Central	42	60	-30.0%	22	36	20	23	NM	1	0	0
Iowa	0	0	--	0	0	0	0	0	0	0	0
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	42	60	-30.0%	22	36	20	23	NM	1	0	0
Missouri	0	0	--	0	0	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	410	458	-11.0%	0	0	380	423	30	35	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	276	309	-11.0%	0	0	276	309	0	0	0	0
Georgia	0	0	--	0	0	0	0	0	0	0	0
Maryland	49	51	-5.3%	0	0	49	51	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	86	98	-13.0%	0	0	56	63	30	35	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	0	--	0	0	0	0	0	0	1	0
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	1	0	--	0	0	0	0	0	0	1	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	49	52	-6.3%	0	0	49	52	0	0	0	0
California	29	33	-10.0%	0	0	29	33	0	0	0	0
Oregon	10	10	-2.5%	0	0	10	10	0	0	0	0
Washington	10	10	2.9%	0	0	10	10	0	0	0	0
Pacific Noncontiguous	34	39	-13.0%	0	0	0	0	34	39	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	34	39	-13.0%	0	0	0	0	34	39	0	0
U.S. Total	1,234	1,369	-9.9%	25	39	1,056	1,127	152	202	1	0

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Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 2.13.B. Consumption of Biogenic Municipal Solid Waste for Electricity Generation by State, by Sector, Year-to-Date through November 2019 and November 2018 (Thousand Tons)

				Electric Power Sector							
Census Division and State	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	3,032	3,272	-7.3%	0	0	2,903	3,112	128	159	0	0
Connecticut	1,057	1,060	-0.3%	0	0	1,057	1,060	0	0	0	0
Maine	228	262	-13.0%	0	0	99	102	128	159	0	0
Massachusetts	1,641	1,838	-11.0%	0	0	1,641	1,838	0	0	0	0
New Hampshire	106	113	-5.8%	0	0	106	113	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	4,542	4,982	-8.8%	0	0	3,608	3,926	933	1,057	0	0
New Jersey	1,166	1,310	-11.0%	0	0	866	995	300	315	0	0
New York	1,698	1,876	-9.5%	0	0	1,263	1,363	435	513	0	0
Pennsylvania	1,677	1,797	-6.6%	0	0	1,480	1,568	198	229	0	0
East North Central	165	214	-23.0%	33	32	0	0	132	182	0	0
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	17	18	-7.6%	0	0	0	0	17	18	0	0
Michigan	116	164	-30.0%	0	0	0	0	116	164	0	0
Ohio	0	0	--	0	0	0	0	0	0	0	0
Wisconsin	33	32	3.8%	33	32	0	0	0	0	0	0
West North Central	436	615	-29.0%	245	398	191	207	0	11	0	0
Iowa	0	0	--	0	0	0	0	0	0	0	0
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	436	615	-29.0%	245	398	191	207	0	11	0	0
Missouri	0	0	--	0	0	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	4,802	5,224	-8.1%	0	0	4,418	4,807	384	417	0	0
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	3,198	3,557	-10.0%	0	0	3,198	3,557	0	0	0	0
Georgia	0	0	--	0	0	0	0	0	0	0	0
Maryland	564	598	-5.6%	0	0	564	598	0	0	0	0
North Carolina	0	0	--	0	0	0	0	0	0	0	0
South Carolina	0	0	--	0	0	0	0	0	0	0	0
Virginia	1,039	1,069	-2.8%	0	0	656	652	384	417	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	0	0	--	0	0	0	0	0	0	0	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	0	0	--	0	0	0	0	0	0	0	0
West South Central	9	9	6.1%	0	0	0	0	0	0	9	9
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	9	9	6.1%	0	0	0	0	0	0	9	9
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	596	639	-6.8%	0	0	596	639	0	0	0	0
California	356	393	-9.4%	0	0	356	393	0	0	0	0
Oregon	104	102	1.7%	0	0	104	102	0	0	0	0
Washington	135	144	-5.7%	0	0	135	144	0	0	0	0
Pacific Noncontiguous	414	413	0.3%	0	0	0	0	414	413	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	414	413	0.3%	0	0	0	0	414	413	0	0
U.S. Total	13,995	15,367	-8.9%	278	430	11,717	12,691	1,992	2,239	9	9

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

Table 2.14.A. Consumption of Wood / Wood Waste Biomass for Electricity Generation by State, by Sector, November 2019 and November 2018 (Billion Btus)

Census Division and State	All Sectors			Electric Power Sector: Electric Utilities		Electric Power Sector: Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	3,520	3,682	-4.4%	449	612	2,618	2,561	1	1	451	508
Connecticut	NM	292	NM	0	0	NM	292	0	0	0	0
Maine	1,597	1,609	-0.8%	0	0	1,146	1,101	0	0	451	508
Massachusetts	NM	149	NM	0	0	NM	149	0	0	0	0
New Hampshire	1,141	1,202	-5.1%	189	372	952	830	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	431	430	0.1%	260	240	NM	189	1	1	0	0
Middle Atlantic	777	758	2.5%	0	0	508	485	0	0	269	273
New Jersey	0	0	--	0	0	0	0	0	0	0	0
New York	590	566	4.1%	0	0	508	485	0	0	81	82
Pennsylvania	187	192	-2.3%	0	0	0	0	0	0	187	192
East North Central	1,628	2,317	-30.0%	272	494	744	1,168	0	0	612	655
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	1,032	1,469	-30.0%	0	0	735	1,156	0	0	297	313
Ohio	102	85	20.0%	0	0	10	12	0	0	93	73
Wisconsin	494	763	-35.0%	272	494	0	0	0	0	222	269
West North Central	434	455	-4.7%	NM	79	117	129	26	6	233	241
Iowa	6	1	622.0%	0	0	0	0	6	1	0	0
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	408	450	-9.3%	NM	79	117	129	0	0	233	241
Missouri	20	5	324.0%	0	0	0	0	20	5	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	8,951	9,819	-8.8%	1,081	2,071	2,674	2,409	8	13	5,189	5,326
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	904	2,027	-55.0%	18	736	NM	559	0	0	743	732
Georgia	3,075	2,627	17.0%	0	0	990	541	0	0	2,084	2,085
Maryland	8	55	-86.0%	0	0	0	0	8	13	0	42
North Carolina	1,380	1,133	22.0%	0	0	828	598	0	0	552	536
South Carolina	1,324	1,388	-4.6%	125	72	467	526	0	0	732	790
Virginia	2,259	2,588	-13.0%	938	1,263	245	185	0	0	1,077	1,141
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	3,020	2,894	4.4%	0	0	0	0	0	0	3,020	2,894
Alabama	1,994	1,862	7.1%	0	0	0	0	0	0	1,994	1,862
Kentucky	129	144	-10.0%	0	0	0	0	0	0	129	144
Mississippi	595	537	11.0%	0	0	0	0	0	0	595	537
Tennessee	302	351	-14.0%	0	0	0	0	0	0	302	351
West South Central	1,968	2,302	-15.0%	0	0	0	0	0	0	1,968	2,302
Arkansas	413	504	-18.0%	0	0	0	0	0	0	413	504
Louisiana	1,046	1,258	-17.0%	0	0	0	0	0	0	1,046	1,258
Oklahoma	151	167	-9.2%	0	0	0	0	0	0	151	167
Texas	359	374	-4.1%	0	0	0	0	0	0	359	374
Mountain	532	595	-11.0%	0	0	369	430	0	0	163	165
Arizona	232	288	-19.0%	0	0	232	288	0	0	0	0
Colorado	109	112	-3.1%	0	0	109	112	0	0	0	0
Idaho	178	174	2.6%	0	0	28	30	0	0	150	144
Montana	13	21	-38.0%	0	0	0	0	0	0	13	21
Nevada	0	0	--	0	0	0	0	0	0	0	0
New Mexico	0	0	--	0	0	0	0	0	0	0	0
Utah	0	0	--	0	0	0	0	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	4,996	5,802	-14.0%	357	485	3,000	3,552	0	0	1,638	1,765
California	3,426	3,917	-13.0%	0	0	2,807	3,189	0	0	619	729
Oregon	568	725	-22.0%	0	0	NM	363	0	0	375	362
Washington	1,002	1,159	-14.0%	357	485	0	0	0	0	644	674
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	25,826	28,623	-9.8%	2,218	3,741	10,030	10,733	35	20	13,543	14,129

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
Notes: See Glossary for definitions. Values for 2019 are preliminary. Values for 2018 are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

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

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	44,080	47,301	-6.8%	6,403	7,032	32,634	35,339	10	19	5,033	4,911
Connecticut	2,849	2,793	2.0%	0	0	2,849	2,793	0	0	0	0
Maine	17,846	20,795	-14.0%	0	0	12,813	15,875	0	9	5,033	4,911
Massachusetts	1,893	1,837	3.0%	0	0	1,893	1,837	0	0	0	0
New Hampshire	16,311	16,450	-0.8%	3,356	3,678	12,955	12,772	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	5,181	5,427	-4.5%	3,047	3,354	2,125	2,063	10	10	0	0
Middle Atlantic	8,239	9,802	-16.0%	0	0	5,231	5,796	0	0	3,008	4,007
New Jersey	0	0	--	0	0	0	0	0	0	0	0
New York	6,091	6,693	-9.0%	0	0	5,230	5,793	0	0	861	900
Pennsylvania	2,148	3,109	-31.0%	0	0	1	2	0	0	2,147	3,107
East North Central	21,527	22,362	-3.7%	4,002	4,299	11,004	11,310	0	0	6,521	6,753
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	14,071	14,555	-3.3%	0	0	10,882	11,178	0	0	3,189	3,377
Ohio	1,038	1,035	0.3%	0	0	122	133	0	0	916	902
Wisconsin	6,418	6,772	-5.2%	4,002	4,299	0	0	0	0	2,416	2,474
West North Central	5,303	7,540	-30.0%	934	981	1,305	3,508	410	326	2,654	2,724
Iowa	61	3	NM	0	0	0	0	61	3	0	0
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	5,013	7,280	-31.0%	934	981	1,305	3,508	120	66	2,654	2,724
Missouri	230	257	-11.0%	0	0	0	0	230	257	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	111,972	117,605	-4.8%	24,171	25,796	29,481	30,597	126	124	58,194	61,088
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	17,830	21,422	-17.0%	7,433	6,900	2,163	5,948	0	0	8,235	8,575
Georgia	33,135	31,334	5.7%	0	0	9,936	7,095	0	0	23,199	24,239
Maryland	383	606	-37.0%	0	0	0	0	126	124	257	482
North Carolina	14,283	14,208	0.5%	0	0	8,430	8,255	0	0	5,852	5,953
South Carolina	15,821	16,409	-3.6%	1,598	1,606	5,544	5,606	0	0	8,679	9,196
Virginia	30,520	33,626	-9.2%	15,140	17,289	3,408	3,694	0	0	11,972	12,643
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	32,947	33,508	-1.7%	0	0	1,131	1,573	0	0	31,816	31,935
Alabama	21,506	21,731	-1.0%	0	0	1,131	1,573	0	0	20,374	20,158
Kentucky	1,486	1,375	8.1%	0	0	0	0	0	0	1,486	1,375
Mississippi	6,071	6,217	-2.3%	0	0	0	0	0	0	6,071	6,217
Tennessee	3,884	4,186	-7.2%	0	0	0	0	0	0	3,884	4,186
West South Central	24,481	27,938	-12.0%	0	0	1,466	2,191	0	0	23,016	25,747
Arkansas	5,991	6,041	-0.8%	0	0	0	0	0	0	5,991	6,041
Louisiana	11,594	13,878	-16.0%	0	0	0	0	0	0	11,594	13,878
Oklahoma	1,487	1,623	-8.4%	0	0	0	22	0	0	1,487	1,601
Texas	5,409	6,396	-15.0%	0	0	1,466	2,169	0	0	3,943	4,227
Mountain	6,000	5,768	4.0%	0	0	4,320	4,144	0	0	1,680	1,625
Arizona	2,869	2,719	5.5%	0	0	2,869	2,719	0	0	0	0
Colorado	1,159	1,132	2.4%	0	0	1,159	1,132	0	0	0	0
Idaho	1,757	1,689	4.0%	0	0	292	292	0	0	1,465	1,397
Montana	215	228	-5.6%	0	0	0	0	0	0	215	228
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	61,338	60,913	0.7%	4,576	4,422	37,170	37,266	0	0	19,592	19,226
California	42,672	42,205	1.1%	0	0	34,472	34,498	0	0	8,200	7,707
Oregon	7,109	6,813	4.3%	0	0	2,698	2,768	0	0	4,411	4,045
Washington	11,557	11,896	-2.8%	4,576	4,422	0	0	0	0	6,980	7,474
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	315,888	332,739	-5.1%	40,085	42,529	123,742	131,725	546	469	151,513	158,016

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
Notes: See Glossary for definitions. Values for 2019 are preliminary. Values for 2018 are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Chapter 3

Fossil-Fuel Stocks for Electricity Generation

Table 3.1. Stocks of Coal, Petroleum Liquids, and Petroleum Coke: Electric Power Sector, 2009 - November 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	103,043	27,337	539	84,978	17,850	521	18,065	9,487	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	123,692	27,399	720	104,185	19,126	579	19,508	8,273	141
February	120,945	28,361	692	101,922	19,671	561	19,023	8,690	131
March	126,422	28,295	736	106,761	19,761	612	19,660	8,534	124
April	128,965	28,144	731	108,237	19,700	647	20,728	8,444	84
May	128,356	28,327	709	107,525	19,777	648	20,831	8,550	61
June	121,394	28,000	591	101,828	19,400	526	19,567	8,600	65
July	110,677	27,385	668	93,408	18,817	614	17,269	8,568	53
August	104,048	26,214	625	88,230	17,935	580	15,818	8,278	45
Sept	100,680	25,989	608	84,975	17,707	557	15,705	8,282	51
October	105,134	25,949	541	87,656	17,477	511	17,478	8,472	30
November	104,336	26,073	557	86,496	17,404	540	17,840	8,669	16
December	103,043	27,337	539	84,978	17,850	521	18,065	9,487	19
Year 2019, End of Month Stocks									
January	99,378	27,060	528	81,756	17,719	518	17,622	9,341	9
February	98,835	27,317	506	81,339	17,962	495	17,497	9,356	11
March	97,102	27,335	498	79,627	18,076	482	17,475	9,259	16
April	108,852	27,473	510	88,960	18,238	501	19,891	9,236	10
May	115,888	27,584	445	93,643	18,351	435	22,245	9,233	10
June	117,710	27,350	389	94,364	18,140	382	23,346	9,211	7
July	110,932	26,960	355	89,637	17,851	348	21,295	9,109	8
August	110,560	26,260	381	89,229	17,323	373	21,331	8,937	8
Sept	111,204	26,473	293	90,128	17,529	282	21,075	8,944	11
October	118,652	26,603	283	96,122	17,705	277	22,530	8,898	6
November	123,619	26,646	425	100,490	17,577	408	23,129	9,069	17

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

Census Division and State	Coal (Thousand Tons)			Petroleum Liquids (Thousand Barrels)			Petroleum Coke (Thousand Tons)		
	November 2019	November 2018	Percentage Change	November 2019	November 2018	Percentage Change	November 2019	November 2018	Percentage Change
New England	W	630	W	3,282	3,181	3.2%	0	0	--
Connecticut	W	W	W	1,191	1,133	5.2%	0	0	--
Maine	0	0	--	225	171	31.3%	0	0	--
Massachusetts	W	W	W	1,283	1,340	-4.2%	0	0	--
New Hampshire	W	W	W	349	325	7.2%	0	0	--
Rhode Island	0	W	W	193	170	13.5%	0	0	--
Vermont	0	0	--	40	42	-4.7%	0	0	--
Middle Atlantic	4,542	3,522	29.0%	5,448	5,007	8.8%	0	0	--
New Jersey	W	W	W	630	622	1.3%	0	0	--
New York	W	W	W	3,551	3,157	12.5%	0	0	--
Pennsylvania	4,409	3,334	32.2%	1,268	1,229	3.2%	0	0	--
East North Central	27,260	21,105	29.2%	1,044	1,022	2.1%	83	W	W
Illinois	4,165	5,513	-24.5%	69	72	-4.6%	0	0	--
Indiana	8,249	5,963	38.4%	81	94	-14.4%	W	W	W
Michigan	5,053	3,906	29.4%	261	291	-10.3%	W	W	W
Ohio	6,225	2,810	121.5%	464	366	26.7%	0	W	W
Wisconsin	3,568	2,913	22.5%	170	199	-14.8%	W	W	W
West North Central	22,663	21,557	5.1%	780	907	-14.0%	0	0	--
Iowa	4,383	3,640	20.4%	120	132	-9.2%	0	0	--
Kansas	3,145	3,693	-14.8%	102	114	-10.8%	0	0	--
Minnesota	3,744	2,716	37.9%	80	113	-29.2%	0	0	--
Missouri	6,526	7,383	-11.6%	330	372	-11.4%	0	0	--
Nebraska	2,613	2,153	21.4%	82	104	-21.1%	0	0	--
North Dakota	W	W	W	24	28	-13.9%	0	0	--
South Dakota	W	W	W	43	44	-3.1%	0	0	--
South Atlantic	22,047	17,056	29.3%	10,797	10,438	3.4%	W	W	W
Delaware	W	W	W	619	492	25.9%	0	0	--
District of Columbia	0	0	--	0	0	--	0	0	--
Florida	2,763	3,135	-11.9%	3,930	4,220	-6.9%	W	W	W
Georgia	4,829	3,230	49.5%	870	721	20.7%	0	0	--
Maryland	1,610	1,395	15.5%	692	603	14.7%	0	0	--
North Carolina	3,378	W	W	1,285	1,190	8.0%	0	0	--
South Carolina	2,333	1,856	25.7%	746	635	17.6%	0	0	--
Virginia	W	581	W	2,517	2,450	2.7%	0	0	--
West Virginia	6,025	W	W	137	127	7.7%	W	W	W
East South Central	11,514	9,718	18.5%	1,154	1,267	-9.0%	0	0	--
Alabama	2,407	W	W	211	193	9.0%	0	0	--
Kentucky	6,007	4,886	22.9%	221	226	-2.0%	0	0	--
Mississippi	W	W	W	35	180	-80.5%	0	0	--
Tennessee	W	2,232	W	686	668	2.8%	0	0	--
West South Central	17,225	13,277	29.7%	1,312	1,430	-8.3%	W	W	W
Arkansas	3,625	2,275	59.3%	168	157	7.2%	0	0	--
Louisiana	2,471	1,782	38.7%	226	341	-33.7%	W	W	W
Oklahoma	2,438	2,988	-18.4%	96	97	-0.7%	0	0	--
Texas	8,690	6,233	39.4%	821	835	-1.7%	0	0	--
Mountain	16,752	16,499	1.5%	338	358	-5.5%	W	W	W
Arizona	3,122	2,677	16.6%	135	135	0.3%	0	0	--
Colorado	3,696	4,122	-10.3%	111	122	-8.8%	0	0	--
Idaho	0	0	--	0	0	-36.8%	0	0	--
Montana	W	W	W	15	19	-22.1%	W	W	W
Nevada	W	W	W	2	2	-15.2%	0	0	--
New Mexico	W	W	W	18	22	-17.6%	0	0	--
Utah	2,979	3,575	-16.7%	29	28	2.8%	0	0	--
Wyoming	4,901	3,905	25.5%	28	29	-5.8%	0	0	--
Pacific Contiguous	W	W	W	346	354	-2.3%	0	0	--
California	0	0	--	172	189	-9.0%	0	0	--
Oregon	W	W	W	76	70	9.2%	0	0	--
Washington	W	W	W	98	95	2.8%	0	0	--
Pacific Noncontiguous	W	W	W	2,146	2,109	1.8%	0	0	--
Alaska	0	W	W	58	249	-76.8%	0	0	--
Hawaii	W	W	W	2,088	1,860	12.3%	0	0	--
U.S. Total	123,619	104,336	18.5%	26,646	26,073	2.2%	425	557	-23.7%

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
NM = Not meaningful due to large relative standard error or excessive percentage change.
Notes: See Glossary for definitions. Values for 2019 are preliminary. Values for 2018 are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.
Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

Table 3.3 Stocks of Coal, Petroleum Liquids, and Petroleum Coke: Electric Power Sector, by Census Divison, November 2019 and 2018

	Electric Power Sector			Electric Utilities		Independent Power Producers	
Census Division	**November 2019**	**November 2018**	**Percentage Change**	**November 2019**	**November 2018**	**November 2019**	**November 2018**
Coal (Thousand Tons)							
New England	W	630	W	W	W	W	W
Middle Atlantic	4,542	3,522	29.0%	0	0	4,542	3,522
East North Central	27,260	21,105	29.2%	17,848	14,053	9,412	7,052
West North Central	22,663	21,557	5.1%	22,663	21,557	0	0
South Atlantic	22,047	17,056	29.3%	19,479	14,917	2,569	2,138
East South Central	11,514	9,718	18.5%	11,514	9,718	0	0
West South Central	17,225	13,277	29.7%	12,269	9,972	4,955	3,306
Mountain	16,752	16,499	1.5%	W	W	W	W
Pacific Contiguous	W	W	W	W	W	W	W
Pacific Noncontiguous	W	W	W	0	W	W	W
U.S. Total	**123,619**	**104,336**	**18.5%**	**100,490**	**86,496**	**23,129**	**17,840**
Petroleum Liquids (Thousand Barrels)							
New England	3,282	3,181	3.2%	482	471	2,800	2,710
Middle Atlantic	5,448	5,007	8.8%	2,243	1,882	3,205	3,125
East North Central	1,044	1,022	2.1%	710	701	334	321
West North Central	780	907	-14.0%	756	882	24	24
South Atlantic	10,797	10,438	3.4%	8,584	8,533	2,213	1,905
East South Central	1,154	1,267	-9.0%	1,062	1,194	92	73
West South Central	1,312	1,430	-8.3%	1,051	1,117	261	314
Mountain	338	358	-5.5%	308	327	30	31
Pacific Contiguous	346	354	-2.3%	266	261	80	93
Pacific Noncontiguous	2,146	2,109	1.8%	2,114	2,035	32	74
U.S. Total	**26,646**	**26,073**	**2.2%**	**17,577**	**17,404**	**9,069**	**8,669**
Petroleum Coke (Thousand Tons)							
New England	0	0	--	0	0	0	0
Middle Atlantic	0	0	--	0	0	0	0
East North Central	83	W	W	83	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	0	--	0	0	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	**425**	**557**	**-23.7%**	**408**	**540**	**17**	**16**

W = Withheld to avoid disclosure of individual company data.
Notes: See Glossary for definitions. Values for 2019 are preliminary. Values for 2018 are final. See Technical Notes for a discussion of the sample design for the Form-923.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Source: U.S. Energy Information Administration, Form-923, 'Power Plant Operations Report.'

Table 3.4. Stocks of Coal by Coal Rank: Electric Power Sector, 2009 - November 2019
(Thousand Tons)

	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	41,766	58,238	3,039	103,043
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	48,376	72,242	3,074	123,692
February	48,090	69,946	2,909	120,945
March	49,456	73,752	3,213	126,422
April	50,915	74,726	3,324	128,965
May	51,788	73,355	3,212	128,356
June	48,787	69,416	3,191	121,394
July	44,841	62,989	2,847	110,677
August	42,691	58,541	2,816	104,048
Sept	40,700	57,136	2,845	100,680
October	42,887	59,231	3,016	105,134
November	42,673	58,554	3,108	104,336
December	41,766	58,238	3,039	103,043
Year 2019, End of Month Stocks				
January	40,184	56,311	2,883	99,378
February	41,501	54,596	2,738	98,835
March	44,493	49,383	3,054	97,102
April	49,163	56,333	3,344	108,852
May	52,191	60,281	3,023	115,888
June	54,298	60,523	2,551	117,710
July	50,264	57,645	2,558	110,932
August	49,819	58,007	2,240	110,560
Sept	49,073	59,147	2,211	111,204
October	51,335	64,172	2,334	118,652
November	52,636	66,930	3,274	123,619

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

Chapter 4

Receipts and Cost of Fossil Fuels

Table 4.1. Receipts, Average Cost, and Quality of Fossil Fuels: Total (All Sectors), 2009 - November 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	11,371,117	596,215	2.06	39.25	1.31	91.7	134,069	22,290	14.42	86.80	0.42	71.4
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	955,176	50,541	2.06	39.01	1.24	76.3	35,958	6,008	14.02	84.17	0.47	59.1
February	852,358	44,837	2.07	39.27	1.27	95.2	12,093	1,993	12.79	77.72	0.47	122.2
March	941,236	48,946	2.04	39.20	1.34	107.0	7,979	1,331	13.56	81.30	0.42	80.5
April	816,396	42,555	2.07	39.66	1.33	102.3	6,902	1,141	13.90	84.04	0.41	65.7
May	892,542	46,186	2.04	39.50	1.38	95.5	9,619	1,591	14.40	87.12	0.34	79.2
June	930,650	48,563	2.04	39.14	1.36	85.0	9,287	1,546	14.96	89.81	0.33	75.2
July	989,524	52,065	2.05	38.98	1.29	80.2	7,532	1,244	14.74	89.24	0.33	65.2
August	1,076,062	56,499	2.06	39.16	1.31	87.2	7,016	1,163	15.41	92.94	0.38	57.8
Sept	943,820	49,892	2.05	38.76	1.25	90.8	7,903	1,316	15.42	92.57	0.38	66.0
October	1,000,010	52,357	2.04	39.05	1.36	106.0	9,389	1,556	15.77	95.13	0.42	77.7
November	954,234	50,315	2.06	39.02	1.32	95.2	8,917	1,494	15.87	94.65	0.46	73.7
December	1,019,110	53,461	2.11	40.25	1.30	94.0	11,474	1,908	13.96	83.90	0.47	94.1
Year 2019												
January	1,002,966	52,325	2.10	40.31	1.32	91.6	8,613	1,426	12.40	74.90	0.46	51.0
February	847,217	44,418	2.07	39.54	1.28	96.2	8,421	1,380	13.15	80.25	0.48	86.4
March	820,727	41,993	2.08	40.69	1.51	93.0	7,501	1,243	14.41	86.95	0.47	76.7
April	869,217	44,771	2.07	40.19	1.37	129.9	6,948	1,152	14.83	89.43	0.52	74.0
May	890,175	45,861	2.06	39.91	1.39	111.7	6,587	1,095	14.47	87.01	0.50	57.1
June	867,346	44,942	2.03	39.18	1.35	99.2	6,735	1,120	13.68	82.26	0.49	59.8
July	938,765	49,119	2.02	38.68	1.28	86.1	5,853	977	13.78	82.54	0.48	50.4
August	979,702	51,071	2.00	38.44	1.27	95.4	5,115	860	14.24	84.72	0.51	42.1
Sept	889,826	46,443	1.96	37.59	1.27	95.3	8,156	1,344	12.62	76.57	0.48	73.9
October	895,193	46,349	1.99	38.37	1.29	120.5	6,655	1,103	13.69	82.56	0.50	60.1
November	843,916	44,365	1.96	37.38	1.26	103.0	7,794	1,281	12.97	78.88	0.49	68.9
Year to Date												
2017	11,279,235	590,513	2.06	39.33	1.28	95.4	86,224	14,354	11.60	69.68	0.49	72.1
2018	10,352,007	542,755	2.05	39.15	1.31	91.5	122,595	20,383	14.46	87.08	0.41	69.8
2019	9,845,051	511,656	2.03	39.11	1.32	100.3	78,376	12,982	13.58	82.01	0.49	62.2
Rolling 12 Months Ending in November												
2018	11,333,802	594,606	2.05	39.10	1.31	91.1	133,348	22,156	14.41	86.79	0.42	67.2
2019	10,864,161	565,117	2.04	39.22	1.32	99.7	89,849	14,889	13.63	82.25	0.49	65.0

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

- Values for 2018 and prior years are final. Values for 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 4.1. Receipts, Average Cost, and Quality of Fossil Fuels: Total (All Sectors), 2009 - November 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	66.1	11,244,158	10,885,764	3.55	3.67	90.4	2.83
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	53.2	836,690	809,816	5.06	5.23	88.7	3.59
February	7,769	277	2.43	68.09	5.49	72.4	734,114	711,064	3.61	3.73	88.8	2.82
March	7,841	281	2.54	70.89	5.54	86.2	805,795	779,565	3.18	3.29	89.3	2.59
April	6,564	232	2.56	72.38	6.09	65.5	758,992	735,470	3.14	3.24	90.2	2.61
May	4,344	152	2.41	68.58	6.09	54.2	894,444	866,280	3.06	3.16	89.9	2.59
June	7,382	260	2.73	77.61	5.97	62.9	1,014,537	982,204	3.13	3.23	91.7	2.64
July	8,307	293	2.71	76.81	5.73	65.3	1,272,002	1,231,687	3.23	3.34	91.1	2.73
August	8,443	298	2.79	78.94	5.67	69.4	1,243,192	1,203,931	3.28	3.38	91.6	2.72
Sept	8,158	288	2.94	83.35	5.63	72.2	1,093,336	1,057,919	3.12	3.22	91.9	2.65
October	5,892	208	2.48	70.32	5.77	68.1	951,710	921,416	3.43	3.55	91.4	2.76
November	6,696	235	2.21	63.10	5.87	68.6	817,552	791,715	4.18	4.31	89.3	3.05
December	6,718	238	2.03	57.24	5.90	59.0	821,793	794,697	4.72	4.89	89.5	3.29
Year 2019												
January	5,447	192	2.08	59.13	5.93	47.6	861,144	833,542	4.01	4.14	85.6	2.99
February	4,486	155	2.27	65.75	5.78	44.5	786,837	759,087	3.64	3.77	84.9	2.85
March	3,725	130	2.43	69.63	6.15	37.9	805,916	780,541	3.45	3.56	84.8	2.79
April	3,159	111	2.71	76.93	5.65	43.2	735,819	713,023	2.89	2.99	83.7	2.49
May	4,631	162	2.24	63.78	5.41	43.2	840,905	815,615	2.77	2.85	85.8	2.43
June	3,740	130	2.18	62.61	5.15	44.7	972,827	942,687	2.59	2.67	84.8	2.36
July	5,766	201	2.01	57.67	5.22	51.0	1,201,858	1,162,227	2.53	2.62	83.1	2.33
August	7,308	258	1.72	48.66	5.20	74.0	1,219,038	1,177,687	2.41	2.50	83.2	2.25
Sept	3,777	131	1.67	48.38	5.58	37.3	1,053,061	1,018,596	2.59	2.68	83.8	2.33
October	2,365	83	1.57	44.65	5.64	59.2	932,935	902,287	2.50	2.58	83.4	2.28
November	6,654	232	1.46	41.78	5.38	127.7	830,418	802,804	2.96	3.07	84.7	2.49
Year to Date												
2017	84,749	3,022	2.13	59.79	5.54	73.7	9,109,977	8,814,246	3.35	3.46	90.3	2.64
2018	78,404	2,772	2.58	73.01	5.72	66.8	10,422,364	10,091,067	3.46	3.57	90.5	2.79
2019	51,058	1,786	1.99	56.86	5.52	52.0	10,240,756	9,908,096	2.89	2.99	84.2	2.49
Rolling 12 Months Ending in November												
2018	86,492	3,059	2.54	71.88	5.72	67.7	11,264,202	10,905,553	3.47	3.58	90.4	2.79
2019	57,776	2,024	1.99	56.90	5.56	52.7	11,062,550	10,702,793	3.02	3.13	84.6	2.56

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

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

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

Table 4.2. Receipts, Average Cost, and Quality of Fossil Fuels: Electric Utilities, 2009 - November 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	8,351,036	435,964	2.11	40.35	1.18	91.6	84,050	13,896	14.39	87.09	0.37	75.3
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	689,121	36,230	2.08	39.57	1.11	75.5	16,449	2,762	14.38	85.73	0.43	61.0
February	637,294	33,294	2.10	40.18	1.17	97.3	8,657	1,413	12.58	77.10	0.46	126.0
March	696,264	36,224	2.09	40.20	1.18	111.4	5,472	906	13.38	80.86	0.36	82.4
April	600,033	31,096	2.12	40.93	1.23	101.8	5,321	875	13.78	83.81	0.36	74.7
May	654,477	33,757	2.09	40.57	1.24	95.3	6,739	1,108	14.37	87.44	0.29	82.5
June	689,040	35,857	2.10	40.33	1.21	84.0	6,566	1,085	14.63	88.49	0.28	78.5
July	738,864	38,675	2.10	40.13	1.15	79.8	5,620	920	14.34	87.60	0.27	75.5
August	802,045	41,889	2.11	40.43	1.19	87.2	5,016	826	15.26	92.68	0.34	63.6
Sept	695,648	36,530	2.12	40.31	1.15	90.3	5,665	940	15.53	93.63	0.35	66.8
October	713,410	37,228	2.10	40.20	1.21	104.3	6,170	1,011	15.78	96.34	0.39	73.6
November	691,145	36,346	2.10	39.90	1.17	95.3	5,383	896	15.89	95.50	0.41	69.8
December	743,694	38,838	2.17	41.48	1.17	93.2	6,991	1,155	13.83	83.69	0.44	94.7
Year 2019												
January	735,203	38,213	2.16	41.64	1.18	92.1	6,100	1,008	12.56	76.05	0.42	61.8
February	628,506	32,866	2.14	40.93	1.15	97.9	6,343	1,033	12.99	79.78	0.46	101.1
March	585,096	29,813	2.14	42.08	1.37	93.5	6,135	1,012	14.34	86.89	0.42	94.1
April	643,745	33,151	2.13	41.45	1.21	134.6	5,352	882	14.68	89.05	0.47	89.0
May	661,447	34,035	2.12	41.24	1.22	112.1	4,914	810	14.11	85.55	0.48	65.7
June	645,744	33,285	2.11	40.91	1.20	98.9	5,128	848	13.28	80.32	0.47	63.9
July	718,410	37,414	2.09	40.04	1.16	88.2	4,389	728	13.28	79.99	0.46	56.4
August	741,678	38,617	2.07	39.70	1.14	97.0	3,843	643	13.64	81.54	0.48	44.2
Sept	671,720	34,843	2.02	38.89	1.17	97.0	6,701	1,097	12.38	75.64	0.45	86.7
October	664,152	34,246	2.03	39.30	1.17	126.1	4,848	796	13.25	80.69	0.47	62.8
November	618,284	32,407	2.02	38.46	1.14	106.3	6,088	992	12.79	78.49	0.48	84.0
Year to Date												
2017	8,295,323	430,052	2.12	40.87	1.17	96.6	64,077	10,597	11.47	69.35	0.47	76.6
2018	7,607,341	397,126	2.10	40.24	1.18	91.5	77,059	12,741	14.45	87.40	0.36	74.0
2019	7,313,985	378,890	2.09	40.40	1.19	102.0	59,840	9,850	13.35	81.09	0.46	71.7
Rolling 12 Months Ending in November												
2018	8,323,647	434,669	2.10	40.24	1.18	91.3	83,404	13,784	14.33	86.72	0.37	72.5
2019	8,057,679	417,728	2.10	40.50	1.19	101.1	66,831	11,005	13.40	81.37	0.46	73.6

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

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Table 4.2. Receipts, Average Cost, and Quality of Fossil Fuels: Electric Utilities, 2009 - November 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	5,553,558	5,379,459	3.68	3.80	96.2	2.80
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	423,606	410,310	5.20	5.37	95.5	3.41
February	7,769	277	2.43	68.09	5.49	117.9	359,760	348,729	3.81	3.93	95.0	2.79
March	7,841	281	2.54	70.89	5.54	141.5	397,572	384,900	3.46	3.57	96.4	2.64
April	6,564	232	2.56	72.38	6.09	119.0	377,302	365,948	3.30	3.40	97.5	2.63
May	4,344	152	2.41	68.58	6.09	108.3	452,870	438,567	3.24	3.35	94.8	2.63
June	7,382	260	2.73	77.61	5.97	96.2	525,751	509,192	3.28	3.39	97.2	2.67
July	8,147	287	2.73	77.48	5.73	100.4	632,133	612,044	3.27	3.38	95.1	2.69
August	8,183	288	2.82	80.03	5.67	105.4	607,246	588,293	3.33	3.44	96.5	2.68
Sept	7,493	263	3.05	86.74	5.59	101.2	535,618	518,216	3.28	3.39	97.0	2.68
October	5,415	191	2.55	72.24	5.80	120.4	464,777	450,302	3.57	3.68	97.8	2.74
November	6,524	229	2.23	63.55	5.88	116.4	390,167	378,446	4.26	4.39	94.9	2.93
December	6,541	232	2.04	57.52	5.91	96.0	386,756	374,513	4.92	5.08	96.2	3.16
Year 2019												
January	5,447	192	2.08	59.13	5.93	73.8	406,718	394,290	4.19	4.32	90.4	2.93
February	4,486	155	2.27	65.75	5.78	69.4	379,182	364,891	3.79	3.94	89.0	2.82
March	3,725	130	2.43	69.63	6.15	66.9	386,643	374,985	3.66	3.77	89.5	2.81
April	3,159	111	2.71	76.93	5.65	101.5	359,064	348,045	3.09	3.18	87.9	2.54
May	4,631	162	2.24	63.78	5.41	73.8	422,966	410,771	2.94	3.03	90.7	2.49
June	3,740	130	2.18	62.61	5.15	85.7	492,404	477,327	2.76	2.84	88.2	2.44
July	5,723	199	2.01	57.76	5.22	86.8	592,859	573,479	2.65	2.74	84.6	2.38
August	6,693	235	1.72	48.82	5.15	115.7	604,226	584,158	2.55	2.64	84.4	2.31
Sept	3,034	105	1.68	48.71	5.58	56.6	519,620	503,066	2.77	2.86	85.9	2.40
October	1,738	60	1.51	43.76	5.45	92.3	456,258	441,488	2.71	2.80	86.1	2.35
November	6,654	232	1.46	41.78	5.38	227.7	392,163	379,687	3.17	3.28	89.1	2.52
Year to Date												
2017	82,393	2,937	2.15	60.25	5.53	117.0	4,391,629	4,250,839	3.61	3.73	96.9	2.67
2018	76,671	2,708	2.60	73.61	5.72	107.9	5,166,802	5,004,946	3.59	3.71	96.2	2.77
2019	49,030	1,713	2.00	57.28	5.50	88.1	5,012,103	4,852,186	3.05	3.15	87.4	2.53
Rolling 12 Months Ending in November												
2018	84,759	2,995	2.56	72.40	5.72	109.2	5,569,557	5,394,933	3.60	3.72	96.1	2.77
2019	55,571	1,945	2.01	57.31	5.55	88.9	5,398,859	5,226,699	3.19	3.29	88.0	2.59

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Notes:
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PETROLEUM COKE - includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
NATURAL GAS - includes natural gas only. Prior to 2011, includes Other Gases.

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Table 4.3. Receipts, Average Cost, and Quality of Fossil Fuels: Independent Power Producers, 2009 - November 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	2,849,062	152,015	1.89	35.41	1.70	94.2	47,699	8,022	14.52	86.39	0.44	81.7
Year 2017												
January	297,849	16,042	1.92	35.75	1.59	96.7	2,862	488	13.96	82.04	0.47	103.9
February	254,381	13,690	1.88	34.92	1.59	110.9	1,514	254	11.89	70.84	0.50	70.2
March	251,712	13,439	1.88	35.27	1.75	103.1	1,436	247	11.97	69.71	0.44	91.2
April	235,324	12,633	1.85	34.48	1.66	99.2	1,436	242	12.28	72.85	0.44	83.2
May	238,355	12,976	1.86	34.11	1.67	97.1	1,790	306	11.55	67.69	0.45	79.3
June	239,687	13,070	1.86	34.15	1.67	87.3	1,559	267	10.88	63.53	0.42	64.2
July	257,789	14,218	1.85	33.64	1.55	80.5	1,775	303	10.73	62.88	0.48	79.4
August	279,845	15,249	1.83	33.52	1.64	91.5	1,702	289	11.16	65.68	0.43	72.3
Sept	258,366	13,963	1.82	33.65	1.63	92.0	1,543	267	11.35	65.70	0.42	68.5
October	250,339	13,545	1.83	33.87	1.60	99.0	2,399	406	11.71	69.17	0.50	121.1
November	243,578	13,224	1.79	33.00	1.64	88.3	2,544	434	13.15	77.15	0.56	113.8
December	248,991	13,519	1.83	33.70	1.68	81.5	4,145	688	15.82	95.35	0.43	43.1
Year 2018												
January	250,209	13,549	1.99	36.82	1.60	79.9	19,101	3,180	13.71	82.73	0.46	63.7
February	200,760	10,859	1.93	35.69	1.58	93.0	3,249	550	13.53	79.99	0.43	195.1
March	229,355	11,974	1.84	35.33	1.83	99.4	2,273	388	14.17	82.79	0.43	107.3
April	202,887	10,815	1.88	35.20	1.61	107.5	1,427	242	14.45	84.93	0.44	61.3
May	223,521	11,725	1.87	35.68	1.78	98.4	2,731	459	14.46	86.28	0.46	95.4
June	227,121	12,009	1.84	34.83	1.84	89.2	2,614	444	15.89	93.43	0.40	92.9
July	235,760	12,666	1.87	34.83	1.73	82.1	1,775	301	16.08	94.43	0.45	64.8
August	260,087	13,942	1.86	34.73	1.68	88.4	1,864	315	15.92	93.84	0.42	59.8
Sept	235,579	12,761	1.82	33.63	1.56	94.5	2,082	351	15.17	89.90	0.39	82.5
October	274,139	14,529	1.89	35.60	1.72	113.8	3,039	517	15.83	92.93	0.41	127.4
November	248,768	13,265	1.92	35.95	1.73	97.0	3,328	566	15.95	93.64	0.42	119.9
December	260,878	13,920	1.94	36.42	1.68	99.1	4,215	709	14.20	84.15	0.46	132.8
Year 2019												
January	255,058	13,482	1.90	36.07	1.76	93.2	2,359	393	11.93	71.58	0.50	49.8
February	205,832	10,934	1.83	34.49	1.67	94.5	1,879	314	13.63	81.50	0.46	86.2
March	222,160	11,549	1.88	36.18	1.88	94.0	1,239	210	14.88	87.69	0.54	61.1
April	212,491	10,991	1.84	35.58	1.89	123.7	1,373	233	15.69	92.33	0.51	63.5
May	216,008	11,203	1.83	35.24	1.92	114.8	1,581	270	15.62	91.40	0.49	69.6
June	209,895	11,090	1.76	33.36	1.83	103.4	1,476	250	15.09	89.05	0.48	67.8
July	208,969	11,154	1.79	33.51	1.69	81.3	1,384	236	15.49	90.86	0.48	48.3
August	227,149	11,923	1.78	33.87	1.68	93.4	1,160	199	16.40	95.66	0.49	50.1
Sept	206,975	11,060	1.75	32.81	1.58	92.6	1,301	222	13.76	80.79	0.57	62.1
October	217,837	11,469	1.78	33.77	1.69	110.5	1,671	285	15.02	88.05	0.52	71.7
November	212,346	11,312	1.78	33.36	1.61	97.7	1,569	267	13.59	79.96	0.50	70.3
Year to Date												
2017	2,807,224	152,047	1.85	34.23	1.63	94.3	20,560	3,502	12.03	70.67	0.47	85.8
2018	2,588,185	138,095	1.88	35.31	1.70	93.8	43,484	7,313	14.56	86.62	0.44	78.8
2019	2,394,719	126,166	1.81	34.42	1.75	98.5	16,992	2,880	14.45	85.28	0.50	62.0
Rolling 12 Months Ending in November												
2018	2,837,176	151,614	1.88	35.16	1.70	92.5	47,629	8,001	14.62	87.12	0.44	73.5
2019	2,655,597	140,087	1.83	34.62	1.74	98.6	21,207	3,589	14.40	85.04	0.49	69.3

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NM = Not meaningful due to large relative standard error or excessive percentage change.
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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 4.3. Receipts, Average Cost, and Quality of Fossil Fuels: Independent Power Producers, 2009 - November 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	4,889,212	4,727,692	3.40	3.52	94.7	2.84
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	343,076	331,643	5.21	5.39	93.1	3.99
February	0	0	--	--	--	0.0	312,835	302,657	3.38	3.49	93.8	2.80
March	0	0	--	--	--	0.0	346,290	334,497	2.87	2.97	93.7	2.46
April	0	0	--	--	--	0.0	319,774	309,352	2.96	3.06	94.2	2.51
May	0	0	--	--	--	0.0	377,388	365,397	2.79	2.89	94.9	2.46
June	0	0	--	--	--	0.0	422,237	408,330	2.89	2.98	95.3	2.53
July	0	0	--	--	--	0.0	570,783	552,360	3.21	3.32	95.3	2.79
August	0	0	--	--	--	0.0	565,773	547,533	3.22	3.33	95.1	2.76
Sept	0	0	--	--	--	0.0	489,149	472,958	2.90	3.00	95.4	2.54
October	0	0	--	--	--	0.0	419,722	405,657	3.20	3.31	94.9	2.68
November	0	0	--	--	--	0.0	355,192	343,013	4.12	4.27	94.2	3.19
December	0	0	--	--	--	0.0	366,993	354,295	4.49	4.65	95.0	3.39
Year 2019												
January	0	0	--	--	--	0.0	381,402	368,347	3.83	3.97	91.0	3.01
February	0	0	--	--	--	0.0	342,971	331,583	3.47	3.60	90.5	2.83
March	0	0	--	--	--	0.0	352,850	341,038	3.25	3.37	90.0	2.70
April	0	0	--	--	--	0.0	312,139	302,155	2.63	2.72	88.9	2.31
May	0	0	--	--	--	0.0	351,823	340,587	2.51	2.60	90.0	2.26
June	0	0	--	--	--	0.0	416,432	403,183	2.33	2.41	89.2	2.15
July	0	0	--	--	--	0.0	540,331	522,062	2.37	2.46	87.7	2.21
August	0	0	--	--	--	0.0	545,846	526,699	2.23	2.31	88.4	2.10
Sept	0	0	--	--	--	0.0	468,552	452,716	2.36	2.44	89.0	2.17
October	0	0	--	--	--	0.0	410,406	396,499	2.20	2.28	88.6	2.07
November	0	0	--	--	--	0.0	369,799	356,689	2.74	2.85	90.3	2.38
Year to Date												
2017	0	0	--	--	--	0.0	3,979,439	3,847,220	3.03	3.13	94.0	2.51
2018	0	0	--	--	--	0.0	4,522,220	4,373,398	3.31	3.42	94.6	2.79
2019	0	0	--	--	--	0.0	4,492,551	4,341,559	2.68	2.77	89.3	2.37
Rolling 12 Months Ending in November												
2018	0	0	--	--	--	0.0	4,888,936	4,727,750	3.33	3.44	94.6	2.80
2019	0	0	--	--	--	0.0	4,859,544	4,695,854	2.81	2.91	89.7	2.45

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Notes:
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PETROLEUM COKE - includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.
NATURAL GAS - includes natural gas only. Prior to 2011, includes Other Gases.

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

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

Table 4.4. Receipts, Average Cost, and Quality of Fossil Fuels: Commercial Sector, 2009 - November 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	5.5	0	0	--	--	--	0.0
February	31	1	2.92	66.05	3.19	2.3	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	5.5	0	0	--	--	--	0.0
November	62	3	2.94	66.44	2.99	5.8	0	0	--	--	--	0.0
December	46	2	2.97	66.83	3.05	4.4	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	0.4	0	0	--	--	--	0.0
July	1	0	2.97	67.69	2.94	0.1	0	0	--	--	--	0.0
August	0	0	--	--	--	0.0	0	0	--	--	--	0.0
Sept	0	0	--	--	--	0.0	0	0	--	--	--	0.0
October	23	1	2.96	67.99	3.17	2.7	0	0	--	--	--	0.0
November	31	1	2.96	67.99	3.17	3.0	0	0	--	--	--	0.0
Year to Date												
2017	459	20	2.77	63.31	2.99	3.7	0	0	--	--	--	0.0
2018	244	11	2.93	66.46	3.04	2.0	0	0	--	--	--	0.0
2019	173	8	2.92	66.46	3.02	1.6	0	0	--	--	--	0.0
Rolling 12 Months Ending in November												
2018	333	15	2.89	65.62	3.03	2.5	0	0	--	--	--	0.0
2019	219	10	2.93	66.54	3.03	1.8	0	0	--	--	--	0.0

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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 4.4. Receipts, Average Cost, and Quality of Fossil Fuels: Commerical Sector, 2009 - November 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	6.6	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	7.1	3.56
February	0	0	--	--	--	0.0	709	688	3.72	3.84	6.5	3.69
March	0	0	--	--	--	0.0	768	746	3.59	3.69	6.8	3.58
April	0	0	--	--	--	0.0	732	713	3.49	3.58	7.3	3.49
May	0	0	--	--	--	0.0	776	758	3.47	3.55	7.4	3.47
June	0	0	--	--	--	0.0	670	650	3.57	3.67	5.8	3.57
July	0	0	--	--	--	0.0	790	760	3.39	3.52	5.8	3.39
August	0	0	--	--	--	0.0	786	764	3.42	3.52	5.8	3.42
Sept	0	0	--	--	--	0.0	744	723	3.38	3.48	6.3	3.38
October	0	0	--	--	--	0.0	792	770	3.36	3.45	7.2	3.33
November	0	0	--	--	--	0.0	723	701	3.41	3.52	6.6	3.37
December	0	0	--	--	--	0.0	756	732	3.41	3.52	6.6	3.39
Year 2019												
January	0	0	--	--	--	0.0	778	751	3.40	3.52	6.2	3.38
February	0	0	--	--	--	0.0	772	745	3.37	3.50	6.7	3.35
March	0	0	--	--	--	0.0	839	812	3.36	3.47	7.2	3.33
April	0	0	--	--	--	0.0	775	748	3.30	3.41	7.3	3.29
May	0	0	--	--	--	0.0	811	782	3.26	3.38	7.7	3.26
June	0	0	--	--	--	0.0	807	776	3.23	3.36	7.3	3.22
July	0	0	--	--	--	0.0	721	701	3.17	3.26	5.9	3.17
August	0	0	--	--	--	0.0	838	808	3.13	3.25	6.8	3.13
Sept	0	0	--	--	--	0.0	747	717	3.15	3.28	6.5	3.15
October	0	0	--	--	--	0.0	766	734	3.24	3.38	6.8	3.23
November	0	0	--	--	--	0.0	743	713	3.30	3.43	6.3	3.28
Year to Date												
2017	0	0	--	--	--	0.0	7,107	6,881	3.83	3.95	4.9	3.76
2018	0	0	--	--	--	0.0	8,334	8,091	3.49	3.60	6.6	3.48
2019	0	0	--	--	--	0.0	8,597	8,285	3.26	3.39	6.8	3.26
Rolling 12 Months Ending in November												
2018	0	0	--	--	--	0.0	9,068	8,803	3.51	3.62	6.4	3.49
2019	0	0	--	--	--	0.0	9,352	9,017	3.28	3.40	6.8	3.27

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Notes:
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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 - November 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	170,730	8,224	2.47	51.38	1.30	67.2	2,319	372	13.46	83.97	1.35	15.9
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	15,751	758	2.46	51.13	1.18	61.0	408	65	12.64	79.32	1.32	13.7
February	14,274	683	2.48	51.82	1.32	60.9	187	30	11.38	71.32	1.20	15.9
March	15,612	747	2.51	52.40	1.31	67.4	234	38	12.59	78.52	1.32	23.5
April	13,476	643	2.52	52.79	1.35	67.0	153	24	13.24	83.77	1.23	17.6
May	14,544	704	2.51	51.92	1.24	71.9	149	24	14.33	87.27	1.47	16.1
June	14,489	697	2.49	51.65	1.28	71.9	107	17	13.54	84.39	1.48	10.5
July	14,900	724	2.41	49.69	1.32	75.3	138	22	14.64	89.87	1.42	13.2
August	13,930	668	2.48	51.76	1.31	70.4	135	22	14.45	89.97	1.39	15.5
Sept	12,593	600	2.53	53.10	1.35	63.7	155	25	14.38	89.73	1.12	19.7
October	12,410	598	2.47	51.18	1.38	67.1	180	29	14.50	91.01	1.37	14.9
November	14,259	701	2.50	50.92	1.15	69.1	206	33	14.01	87.74	1.58	15.0
December	14,492	701	2.35	48.52	1.47	64.1	268	43	13.75	85.58	1.46	19.7
Year 2019												
January	12,678	629	2.49	50.14	1.13	57.5	154	25	12.98	80.23	1.24	8.0
February	12,842	617	2.61	54.43	1.16	61.6	199	33	13.77	82.99	1.45	19.3
March	13,424	629	2.68	57.20	1.49	66.7	126	21	13.43	82.27	1.63	13.2
April	12,978	629	2.63	54.29	1.15	68.6	223	36	12.89	79.74	1.54	21.8
May	12,720	623	2.51	51.21	0.97	68.2	92	15	14.12	86.68	1.48	9.4
June	11,705	567	2.49	51.38	1.22	64.4	131	21	13.04	79.96	1.55	14.7
July	11,385	551	2.45	50.57	1.32	63.6	80	13	11.99	74.33	1.41	11.8
August	10,876	530	2.39	49.14	1.23	60.0	112	18	12.56	77.49	1.66	12.4
Sept	11,131	539	2.48	51.28	1.24	63.9	154	25	13.15	80.17	1.58	18.0
October	13,181	634	3.43	71.36	1.18	71.4	136	22	13.01	79.34	1.42	17.6
November	13,255	645	2.59	53.19	1.05	66.5	137	22	13.67	83.44	1.46	9.2
Year to Date												
2017	176,229	8,394	2.50	52.49	1.30	70.9	1,587	255	11.18	69.64	1.36	15.5
2018	156,238	7,523	2.49	51.64	1.29	67.5	2,051	329	13.42	83.76	1.34	15.5
2019	136,175	6,592	2.62	54.20	1.19	64.6	1,543	252	13.18	80.76	1.49	13.4
Rolling 12 Months Ending in November												
2018	172,646	8,308	2.48	51.50	1.34	67.7	2,314	371	13.16	82.09	1.40	15.2
2019	150,666	7,293	2.60	53.66	1.22	64.6	1,811	295	13.26	81.46	1.49	14.1

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

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Table 4.5. Receipts, Average Cost, and Quality of Fossil Fuels: Industrial Sector, 2009 - November 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	7.1	792,297	769,790	3.39	3.49	58.6	3.25
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	69,164	67,045	3.59	3.70	58.1	3.42
February	0	0	--	--	--	0.0	60,810	58,990	3.41	3.52	58.6	3.26
March	0	0	--	--	--	0.0	61,164	59,423	2.85	2.94	56.5	2.81
April	0	0	--	--	--	0.0	61,184	59,457	2.92	3.01	58.4	2.87
May	0	0	--	--	--	0.0	63,410	61,557	2.99	3.08	58.8	2.92
June	0	0	--	--	--	0.0	65,879	64,032	3.14	3.23	59.8	3.03
July	160	6	1.70	45.10	5.83	6.8	68,296	66,523	3.03	3.11	57.4	2.93
August	260	10	1.78	46.99	5.55	12.2	69,386	67,341	3.12	3.21	58.1	3.03
Sept	664	25	1.78	47.54	6.02	31.0	67,825	66,022	3.12	3.20	60.1	3.04
October	477	17	1.76	48.96	5.45	20.6	66,419	64,687	3.75	3.85	59.0	3.56
November	172	6	1.69	46.62	5.85	8.4	71,469	69,556	3.97	4.08	61.6	3.75
December	178	6	1.70	47.00	5.53	7.3	67,289	65,157	4.70	4.85	56.6	4.31
Year 2019												
January	0	0	--	--	--	0.0	72,247	70,154	3.77	3.88	58.2	3.59
February	0	0	--	--	--	0.0	63,912	61,868	3.45	3.56	58.1	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	58.4	2.84
May	0	0	--	--	--	0.0	65,305	63,475	2.75	2.83	58.1	2.73
June	0	0	--	--	--	0.0	63,184	61,402	2.63	2.71	56.8	2.63
July	43	2	1.71	46.96	5.81	1.6	67,946	65,986	2.49	2.57	57.9	2.49
August	615	23	1.75	46.99	5.75	29.3	68,127	66,022	2.38	2.45	57.6	2.39
Sept	743	26	1.63	47.00	5.56	26.1	64,141	62,097	2.56	2.65	56.7	2.56
October	627	23	1.72	47.00	6.17	32.9	65,505	63,567	2.48	2.56	57.0	2.65
November	0	0	--	--	--	0.0	67,713	65,714	2.77	2.86	56.9	2.76
Year to Date												
2017	2,356	85	1.59	44.08	5.84	8.8	731,802	709,306	3.18	3.29	62.1	3.06
2018	1,733	64	1.76	47.52	5.76	7.1	725,008	704,632	3.27	3.37	58.8	3.15
2019	2,028	73	1.69	46.99	5.81	8.5	727,505	706,066	2.85	2.93	57.5	2.83
Rolling 12 Months Ending in November												
2018	1,733	64	1.76	47.52	5.76	6.5	796,641	774,067	3.26	3.35	58.9	3.14
2019	2,205	79	1.70	47.00	5.79	8.4	794,794	771,223	3.00	3.10	57.4	2.96

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

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	15	4	229.0%	8	0	6	4	0	0	0	0
Connecticut	0	0	--	0	0	0	0	0	0	0	0
Maine	6	4	42.0%	0	0	6	4	0	0	0	0
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	8	0	--	8	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	1,513	1,938	-22.0%	0	0	1,502	1,938	0	0	11	0
New Jersey	55	52	7.5%	0	0	55	52	0	0	0	0
New York	3	14	-81.0%	0	0	3	14	0	0	0	0
Pennsylvania	1,455	1,872	-22.0%	0	0	1,444	1,872	0	0	11	0
East North Central	9,216	11,624	-21.0%	5,609	6,691	3,424	4,741	0	0	183	191
Illinois	2,660	3,569	-25.0%	705	600	1,786	2,792	0	0	169	177
Indiana	2,258	2,385	-5.3%	2,060	2,208	198	177	0	0	0	0
Michigan	1,601	2,225	-28.0%	1,570	2,210	31	13	0	0	0	1
Ohio	1,637	1,930	-15.0%	228	171	1,409	1,759	0	0	0	0
Wisconsin	1,061	1,515	-30.0%	1,047	1,501	0	0	0	0	14	13
West North Central	9,266	9,908	-6.5%	9,005	9,613	0	0	1	3	260	292
Iowa	1,420	1,402	1.2%	1,230	1,242	0	0	0	0	190	161
Kansas	1,138	1,123	1.4%	1,138	1,123	0	0	0	0	0	0
Minnesota	806	1,293	-38.0%	806	1,234	0	0	0	0	0	59
Missouri	2,763	2,816	-1.9%	2,761	2,813	0	0	1	3	0	0
Nebraska	1,052	1,197	-12.0%	981	1,124	0	0	0	0	71	72
North Dakota	1,938	1,980	-2.1%	1,938	1,980	0	0	0	0	0	0
South Dakota	151	97	55.0%	151	97	0	0	0	0	0	0
South Atlantic	5,557	6,362	-13.0%	4,908	5,346	604	938	0	0	45	78
Delaware	0	12	-100.0%	0	0	0	12	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	754	943	-20.0%	754	936	0	0	0	0	0	8
Georgia	1,040	1,319	-21.0%	1,030	1,304	0	0	0	0	10	14
Maryland	269	463	-42.0%	0	0	269	443	0	0	0	20
North Carolina	1,034	583	77.0%	1,002	559	13	5	0	0	19	19
South Carolina	249	583	-57.0%	249	583	0	0	0	0	0	0
Virginia	137	356	-62.0%	121	302	0	37	0	0	15	17
West Virginia	2,074	2,103	-1.4%	1,752	1,663	322	440	0	0	0	0
East South Central	4,547	4,773	-4.7%	4,319	4,423	169	291	0	0	59	58
Alabama	1,413	958	48.0%	1,413	958	0	0	0	0	0	0
Kentucky	2,354	2,856	-18.0%	2,354	2,856	0	0	0	0	0	0
Mississippi	345	419	-18.0%	175	128	169	291	0	0	0	0
Tennessee	435	540	-19.0%	377	481	0	0	0	0	59	58
West South Central	7,131	8,033	-11.0%	2,970	3,741	4,138	4,255	0	0	22	37
Arkansas	1,002	1,364	-27.0%	781	1,127	215	230	0	0	6	7
Louisiana	439	665	-34.0%	308	452	131	213	0	0	0	0
Oklahoma	107	538	-80.0%	49	422	42	86	0	0	16	30
Texas	5,583	5,467	2.1%	1,833	1,740	3,751	3,727	0	0	0	0
Mountain	6,337	6,861	-7.6%	5,391	6,312	945	549	0	0	0	0
Arizona	803	1,212	-34.0%	803	1,212	0	0	0	0	0	0
Colorado	1,108	1,357	-18.0%	1,108	1,357	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	832	421	98.0%	25	24	807	397	0	0	0	0
Nevada	97	149	-35.0%	36	73	61	76	0	0	0	0
New Mexico	714	777	-8.1%	714	777	0	0	0	0	0	0
Utah	880	788	12.0%	843	749	38	39	0	0	0	0
Wyoming	1,902	2,157	-12.0%	1,862	2,120	40	37	0	0	0	0
Pacific Contiguous	681	708	-3.8%	161	177	455	488	0	0	65	44
California	65	44	50.0%	0	0	0	0	0	0	65	44
Oregon	161	177	-8.6%	161	177	0	0	0	0	0	0
Washington	455	488	-6.8%	0	0	455	488	0	0	0	0
Pacific Noncontiguous	102	103	-1.3%	34	43	68	60	0	0	0	0
Alaska	34	43	-21.0%	34	43	0	0	0	0	0	0
Hawaii	68	60	13.0%	0	0	68	60	0	0	0	0
U.S. Total	44,365	50,315	-12.0%	32,407	36,346	11,312	13,265	1	3	645	701

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

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

Table 4.6.B. Receipts of Coal Delivered for Electricity Generation by State, (Year-to-Date) November 2019 and 2018 (Thousand Tons)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	120	219	-45.0%	57	45	63	173	0	0	0	0
Connecticut	0	105	-100.0%	0	0	0	105	0	0	0	0
Maine	63	53	18.0%	0	0	63	53	0	0	0	0
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	57	45	26.0%	57	45	0	0	0	0	0	0
Rhode Island	0	15	-100.0%	0	0	0	15	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	16,523	19,899	-17.0%	0	0	16,457	19,813	0	0	65	85
New Jersey	496	527	-6.0%	0	0	496	527	0	0	0	0
New York	77	285	-73.0%	0	0	77	276	0	0	0	9
Pennsylvania	15,950	19,087	-16.0%	0	0	15,885	19,011	0	0	65	76
East North Central	111,819	123,594	-9.5%	65,331	72,529	44,761	49,038	0	0	1,727	2,027
Illinois	31,800	38,882	-18.0%	6,159	7,134	23,998	29,805	0	0	1,644	1,943
Indiana	25,981	27,232	-4.6%	24,055	25,373	1,926	1,859	0	0	0	0
Michigan	19,448	20,040	-3.0%	19,245	19,812	202	223	0	0	1	5
Ohio	20,960	20,715	1.2%	2,325	3,564	18,635	17,151	0	0	0	0
Wisconsin	13,629	16,726	-19.0%	13,547	16,646	0	0	0	0	82	80
West North Central	96,699	105,374	-8.2%	93,869	102,413	0	0	8	11	2,822	2,950
Iowa	14,673	13,876	5.7%	12,611	11,832	0	0	0	0	2,062	2,044
Kansas	10,252	11,501	-11.0%	10,252	11,501	0	0	0	0	0	0
Minnesota	10,669	11,707	-8.9%	10,601	11,528	0	0	0	0	68	178
Missouri	28,005	32,384	-14.0%	27,997	32,373	0	0	8	11	0	0
Nebraska	11,683	12,334	-5.3%	10,991	11,606	0	0	0	0	692	728
North Dakota	19,825	22,207	-11.0%	19,825	22,207	0	0	0	0	0	0
South Dakota	1,592	1,366	17.0%	1,592	1,366	0	0	0	0	0	0
South Atlantic	71,681	72,404	-1.0%	64,113	61,203	6,870	10,378	0	0	699	823
Delaware	71	35	100.0%	0	0	71	35	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	8,616	10,672	-19.0%	8,573	10,595	0	0	0	0	43	77
Georgia	14,323	13,546	5.7%	14,198	13,421	0	0	0	0	125	125
Maryland	2,613	4,205	-38.0%	0	0	2,521	4,035	0	0	92	170
North Carolina	11,764	10,205	15.0%	11,518	9,874	53	104	0	0	193	228
South Carolina	6,831	5,442	26.0%	6,816	5,432	0	0	0	0	15	11
Virginia	2,371	4,335	-45.0%	1,895	3,473	245	649	0	0	231	212
West Virginia	25,092	23,963	4.7%	21,113	18,408	3,979	5,554	0	0	0	0
East South Central	51,220	51,916	-1.3%	48,087	48,420	2,548	2,697	0	0	585	799
Alabama	13,737	13,499	1.8%	13,737	13,499	0	0	0	0	0	0
Kentucky	27,650	29,056	-4.8%	27,650	29,056	0	0	0	0	0	0
Mississippi	4,032	4,175	-3.4%	1,484	1,478	2,548	2,697	0	0	0	0
Tennessee	5,801	5,186	12.0%	5,216	4,386	0	0	0	0	585	799
West South Central	84,259	89,656	-6.0%	42,759	45,223	41,307	44,151	0	0	193	282
Arkansas	13,054	15,093	-14.0%	11,012	12,504	1,986	2,517	0	0	56	72
Louisiana	5,503	6,615	-17.0%	4,247	4,263	1,256	2,352	0	0	0	0
Oklahoma	4,594	8,042	-43.0%	4,045	6,841	411	991	0	0	138	211
Texas	61,109	59,906	2.0%	23,455	21,615	37,653	38,292	0	0	0	0
Mountain	72,215	74,770	-3.4%	62,971	66,487	9,245	8,283	0	0	0	0
Arizona	12,488	14,819	-16.0%	12,488	14,819	0	0	0	0	0	0
Colorado	12,744	13,237	-3.7%	12,744	13,237	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	8,075	7,157	13.0%	255	213	7,820	6,943	0	0	0	0
Nevada	1,559	1,040	50.0%	985	500	574	540	0	0	0	0
New Mexico	7,855	6,685	18.0%	7,855	6,685	0	0	0	0	0	0
Utah	10,340	9,963	3.8%	9,969	9,588	371	374	0	0	0	0
Wyoming	19,154	21,870	-12.0%	18,674	21,445	480	425	0	0	0	0
Pacific Contiguous	6,212	4,022	54.0%	1,409	573	4,301	2,892	0	0	501	556
California	501	556	-9.9%	0	0	0	0	0	0	501	556
Oregon	1,409	573	146.0%	1,409	573	0	0	0	0	0	0
Washington	4,301	2,892	49.0%	0	0	4,301	2,892	0	0	0	0
Pacific Noncontiguous	910	901	0.9%	295	233	615	669	0	0	0	0
Alaska	295	233	27.0%	295	233	0	0	0	0	0	0
Hawaii	615	669	-8.0%	0	0	615	669	0	0	0	0
U.S. Total	511,656	542,755	-5.7%	378,890	397,126	126,166	138,095	8	11	6,592	7,523

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

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

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

Census Division and State	All Sectors			Electric Power Sector							
				Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	13	139	-91.0%	1	52	12	87	0	0	0	0
Connecticut	0	7	-97.0%	0	0	0	7	0	0	0	0
Maine	4	3	58.0%	0	0	4	3	0	0	0	0
Massachusetts	7	12	-39.0%	0	1	7	11	0	0	0	0
New Hampshire	1	110	-99.0%	1	50	0	60	0	0	0	0
Rhode Island	0	7	-100.0%	0	0	0	7	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	193	150	29.0%	150	2	37	140	0	0	7	8
New Jersey	15	2	657.0%	0	0	15	2	0	0	0	0
New York	151	36	322.0%	150	2	0	32	0	0	1	2
Pennsylvania	27	113	-76.0%	0	0	22	106	0	0	6	7
East North Central	53	61	-14.0%	40	41	11	19	0	0	2	2
Illinois	4	10	-56.0%	1	2	4	9	0	0	0	0
Indiana	21	23	-11.0%	21	23	0	0	0	0	0	0
Michigan	10	12	-16.0%	9	10	0	0	0	0	1	2
Ohio	17	12	43.0%	10	2	7	10	0	0	1	0
Wisconsin	1	4	-87.0%	1	4	0	0	0	0	0	0
West North Central	42	55	-24.0%	42	55	0	0	0	0	0	0
Iowa	13	7	87.0%	13	7	0	0	0	0	0	0
Kansas	9	8	14.0%	9	8	0	0	0	0	0	0
Minnesota	3	3	7.2%	3	3	0	0	0	0	0	0
Missouri	14	20	-30.0%	14	20	0	0	0	0	0	0
Nebraska	0	0	-100.0%	0	0	0	0	0	0	0	0
North Dakota	3	11	-75.0%	3	11	0	0	0	0	0	0
South Dakota	0	6	-100.0%	0	6	0	0	0	0	0	0
South Atlantic	82	354	-77.0%	51	200	19	132	0	0	13	22
Delaware	0	16	-100.0%	0	0	0	16	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	9	47	-80.0%	4	46	0	0	0	0	6	1
Georgia	13	45	-72.0%	10	29	0	5	0	0	3	12
Maryland	17	29	-41.0%	0	0	17	29	0	0	0	0
North Carolina	16	56	-72.0%	12	49	0	3	0	0	4	4
South Carolina	12	23	-50.0%	12	20	0	0	0	0	0	4
Virginia	8	120	-94.0%	5	48	2	71	0	0	0	1
West Virginia	8	16	-51.0%	8	9	0	8	0	0	0	0
East South Central	26	33	-23.0%	19	31	6	1	0	0	1	1
Alabama	8	4	116.0%	2	3	6	1	0	0	0	0
Kentucky	11	12	-5.3%	11	12	0	0	0	0	0	0
Mississippi	2	3	-45.0%	2	3	0	0	0	0	0	0
Tennessee	5	15	-67.0%	4	14	0	0	0	0	1	1
West South Central	19	21	-10.0%	16	18	3	3	0	0	0	0
Arkansas	16	2	587.0%	13	0	3	2	0	0	0	0
Louisiana	1	2	-66.0%	1	2	0	0	0	0	0	0
Oklahoma	2	7	-76.0%	2	7	0	0	0	0	0	0
Texas	1	10	-92.0%	1	9	0	1	0	0	0	0
Mountain	20	35	-41.0%	20	33	1	2	0	0	0	0
Arizona	8	12	-35.0%	8	12	0	0	0	0	0	0
Colorado	0	3	-100.0%	0	3	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	0	2	-100.0%	0	0	0	2	0	0	0	0
Nevada	2	2	-21.0%	1	2	1	0	0	0	0	0
New Mexico	3	3	-3.3%	3	3	0	0	0	0	0	0
Utah	2	3	-28.0%	2	3	0	0	0	0	0	0
Wyoming	6	10	-42.0%	6	10	0	0	0	0	0	0
Pacific Contiguous	4	7	-47.0%	3	5	1	2	0	0	0	0
California	0	0	--	0	0	0	0	0	0	0	0
Oregon	3	0	--	3	0	0	0	0	0	0	0
Washington	1	7	-83.0%	0	5	1	2	0	0	0	0
Pacific Noncontiguous	830	639	30.0%	652	458	178	180	0	0	0	0
Alaska	2	1	268.0%	2	1	0	0	0	0	0	0
Hawaii	828	638	30.0%	650	458	178	180	0	0	0	0
U.S. Total	1,281	1,494	-14.0%	992	896	267	566	0	0	22	33

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Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Petroleum Liquids includes distillate and residual fuel oils.
See the Technical Notes for fuel conversion factors.

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

Table 4.7.B. Receipts of Petroleum Liquids Delivered for Electricity Generation by State, (Year-to-Date) November 2019 and 2018 (Thousand Barrels)

Census Division and State	All Sectors			Electric Power Sector							
				Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	221	1,623	-86.0%	10	186	211	1,437	0	0	0	0
Connecticut	6	389	-98.0%	0	0	6	389	0	0	0	0
Maine	146	263	-44.0%	0	0	146	263	0	0	0	0
Massachusetts	58	483	-88.0%	0	32	58	452	0	0	0	0
New Hampshire	10	315	-97.0%	10	155	0	160	0	0	0	0
Rhode Island	0	174	-100.0%	0	0	0	174	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	1,010	3,608	-72.0%	553	948	391	2,574	0	0	66	87
New Jersey	41	263	-84.0%	0	0	41	263	0	0	0	0
New York	642	2,270	-72.0%	553	948	88	1,304	0	0	1	18
Pennsylvania	327	1,074	-70.0%	0	0	262	1,006	0	0	65	68
East North Central	820	801	2.3%	502	456	288	317	0	0	30	27
Illinois	73	89	-18.0%	3	5	70	84	0	0	0	0
Indiana	200	195	2.5%	200	194	0	1	0	0	0	0
Michigan	138	138	0.3%	126	130	0	0	0	0	12	8
Ohio	376	297	27.0%	148	56	210	222	0	0	18	19
Wisconsin	32	83	-61.0%	24	72	8	11	0	0	0	0
West North Central	445	524	-15.0%	445	521	0	2	0	0	0	0
Iowa	107	109	-1.3%	107	109	0	0	0	0	0	0
Kansas	97	95	2.3%	97	95	0	0	0	0	0	0
Minnesota	38	42	-10.0%	38	40	0	2	0	0	0	0
Missouri	127	193	-34.0%	127	193	0	0	0	0	0	0
Nebraska	12	8	37.0%	12	8	0	0	0	0	0	0
North Dakota	62	65	-5.0%	62	65	0	0	0	0	0	0
South Dakota	2	11	-79.0%	2	11	0	0	0	0	0	0
South Atlantic	1,502	4,885	-69.0%	1,177	3,523	175	1,151	0	0	150	210
Delaware	6	302	-98.0%	0	0	6	302	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	419	472	-11.0%	384	433	0	0	0	0	35	40
Georgia	181	401	-55.0%	108	284	1	66	0	0	71	51
Maryland	154	475	-68.0%	0	0	154	475	0	0	0	0
North Carolina	219	1,078	-80.0%	193	981	0	45	0	0	27	51
South Carolina	93	557	-83.0%	87	513	0	0	0	0	6	43
Virginia	225	1,343	-83.0%	200	1,089	14	228	0	0	11	26
West Virginia	206	257	-20.0%	206	222	0	35	0	0	0	0
East South Central	263	456	-42.0%	243	392	14	59	0	0	6	5
Alabama	31	122	-74.0%	17	63	14	59	0	0	0	0
Kentucky	124	124	0.1%	124	124	0	0	0	0	0	0
Mississippi	21	33	-37.0%	21	33	0	0	0	0	0	0
Tennessee	87	177	-51.0%	81	172	0	0	0	0	6	5
West South Central	193	180	7.1%	148	145	45	35	0	0	0	0
Arkansas	69	48	44.0%	47	35	22	13	0	0	0	0
Louisiana	10	25	-59.0%	10	25	0	0	0	0	0	0
Oklahoma	35	30	14.0%	35	30	0	0	0	0	0	0
Texas	79	77	2.5%	56	55	23	22	0	0	0	0
Mountain	330	272	21.0%	305	241	25	32	0	0	0	0
Arizona	112	89	26.0%	112	89	0	0	0	0	0	0
Colorado	5	8	-45.0%	5	8	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	18	25	-25.0%	0	0	18	25	0	0	0	0
Nevada	24	19	24.0%	19	14	5	5	0	0	0	0
New Mexico	43	28	54.0%	43	28	0	0	0	0	0	0
Utah	66	52	26.0%	64	51	2	2	0	0	0	0
Wyoming	63	51	22.0%	63	51	0	0	0	0	0	0
Pacific Contiguous	24	18	31.0%	9	5	15	13	0	0	0	0
California	0	0	--	0	0	0	0	0	0	0	0
Oregon	3	0	--	3	0	0	0	0	0	0	0
Washington	21	18	17.0%	6	5	15	13	0	0	0	0
Pacific Noncontiguous	8,174	8,016	2.0%	6,459	6,323	1,715	1,692	0	0	0	0
Alaska	23	11	102.0%	23	11	0	0	0	0	0	0
Hawaii	8,151	8,004	1.8%	6,436	6,312	1,715	1,692	0	0	0	0
U.S. Total	12,982	20,383	-36.0%	9,850	12,741	2,880	7,313	0	0	252	329

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Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Petroleum Liquids includes distillate and residual fuel oils.
See the Technical Notes for fuel conversion factors.

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

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

Census Division and State	All Sectors			Electric Power Sector							
				Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 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	18	49	-64.0%	18	49	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	14	45	-70.0%	14	45	0	0	0	0	0	0
Ohio	0	0	--	0	0	0	0	0	0	0	0
Wisconsin	4	4	0.8%	4	4	0	0	0	0	0	0
West North Central	0	6	-100.0%	0	0	0	0	0	0	0	6
Iowa	0	6	-100.0%	0	0	0	0	0	0	0	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	76	51	49.0%	76	51	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	76	51	49.0%	76	51	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	139	128	8.4%	139	128	0	0	0	0	0	0
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	139	128	8.4%	139	128	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	232	235	-1.0%	232	229	0	0	0	0	0	6

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Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Petroleum Coke includes petroleum coke-derived synthesis gas.
See the Technical Notes for fuel conversion factors.

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

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

Census Division and State	All Sectors			Electric Power Sector							
				Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 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	284	526	-46.0%	284	526	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	244	471	-48.0%	244	471	0	0	0	0	0	0
Ohio	0	0	--	0	0	0	0	0	0	0	0
Wisconsin	40	55	-27.0%	40	55	0	0	0	0	0	0
West North Central	73	64	14.0%	0	0	0	0	0	0	73	64
Iowa	73	64	14.0%	0	0	0	0	0	0	73	64
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	429	746	-43.0%	429	746	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	429	746	-43.0%	429	746	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	1,000	1,436	-30.0%	1,000	1,436	0	0	0	0	0	0
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	1,000	1,436	-30.0%	1,000	1,436	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	1,786	2,772	-36.0%	1,713	2,708	0	0	0	0	73	64

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Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Petroleum Coke includes petroleum coke-derived synthesis gas.
See the Technical Notes for fuel conversion factors.

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

Table 4.9.A. Receipts of Natural Gas Delivered for Electricity Generation by State, November 2019 and 2018 (Million Cubic Feet)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
				Electric Utilities		Independent Power Producers					
	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	22,692	25,853	-12.0%	3	35	22,689	25,818	0	0	0	0
Connecticut	11,366	11,945	-4.8%	0	0	11,366	11,945	0	0	0	0
Maine	336	818	-59.0%	0	0	336	818	0	0	0	0
Massachusetts	6,733	7,605	-11.0%	0	29	6,733	7,576	0	0	0	0
New Hampshire	1,659	1,383	20.0%	3	6	1,656	1,377	0	0	0	0
Rhode Island	2,598	4,102	-37.0%	0	0	2,598	4,102	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	98,091	86,284	14.0%	6,538	6,706	90,663	78,780	0	0	890	798
New Jersey	22,438	19,216	17.0%	0	0	22,438	19,216	0	0	0	0
New York	25,814	27,778	-7.1%	6,538	6,706	18,749	20,481	0	0	528	591
Pennsylvania	49,838	39,291	27.0%	0	0	49,476	39,084	0	0	362	207
East North Central	75,353	74,648	0.9%	25,328	21,419	48,246	51,346	533	514	1,246	1,370
Illinois	5,086	8,950	-43.0%	852	502	4,234	8,441	0	0	0	7
Indiana	16,252	14,716	10.0%	5,985	5,695	10,267	9,021	0	0	0	0
Michigan	20,666	14,459	43.0%	6,043	2,747	13,522	10,647	533	514	569	551
Ohio	22,981	28,586	-20.0%	2,674	5,298	19,856	22,720	0	0	451	568
Wisconsin	10,367	7,937	31.0%	9,775	7,177	367	516	0	0	226	245
West North Central	9,951	13,758	-28.0%	9,235	11,141	25	2,079	180	187	510	351
Iowa	4,398	3,586	23.0%	3,888	3,241	0	0	0	0	510	346
Kansas	1,049	933	12.0%	1,049	933	0	0	0	0	0	0
Minnesota	2,552	2,914	-12.0%	2,525	2,385	25	523	2	1	0	5
Missouri	1,655	4,353	-62.0%	1,477	2,610	0	1,557	178	186	0	0
Nebraska	126	749	-83.0%	126	749	0	0	0	0	0	0
North Dakota	171	587	-71.0%	171	587	0	0	0	0	0	0
South Dakota	0	636	-100.0%	0	636	0	0	0	0	0	0
South Atlantic	185,018	196,332	-5.8%	149,481	163,540	32,328	29,461	0	0	3,209	3,330
Delaware	1,260	1,258	0.1%	0	0	1,260	1,258	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	84,578	92,379	-8.4%	82,722	89,423	1,480	2,512	0	0	375	445
Georgia	30,106	25,731	17.0%	23,904	19,042	5,389	5,881	0	0	813	808
Maryland	6,275	5,849	7.3%	678	2,471	5,596	3,156	0	0	0	223
North Carolina	22,789	27,247	-16.0%	17,906	22,229	4,603	4,769	0	0	280	249
South Carolina	12,766	15,833	-19.0%	11,855	14,470	825	1,285	0	0	87	77
Virginia	25,846	26,713	-3.2%	12,015	15,799	12,846	10,002	0	0	986	912
West Virginia	1,399	1,322	5.8%	401	106	330	599	0	0	668	617
East South Central	75,237	69,240	8.7%	51,449	43,787	21,536	23,032	0	0	2,252	2,421
Alabama	27,060	25,212	7.3%	7,678	6,239	19,381	18,973	0	0	0	0
Kentucky	9,121	8,896	2.5%	8,600	8,141	521	755	0	0	0	0
Mississippi	27,340	24,390	12.0%	25,706	21,086	1,634	3,305	0	0	0	0
Tennessee	11,717	10,742	9.1%	9,465	8,321	0	0	0	0	2,252	2,421
West South Central	207,111	204,542	1.3%	58,086	59,776	94,021	85,807	0	0	55,004	58,959
Arkansas	9,507	7,309	30.0%	9,210	5,799	0	1,167	0	0	296	343
Louisiana	36,420	33,922	7.4%	14,767	14,337	3,204	1,610	0	0	18,449	17,975
Oklahoma	19,420	21,640	-10.0%	13,730	16,221	5,224	5,094	0	0	466	324
Texas	141,765	141,672	0.1%	20,379	23,419	85,592	77,936	0	0	35,794	40,317
Mountain	60,953	56,557	7.8%	52,119	48,573	8,789	7,938	0	0	44	47
Arizona	25,049	21,230	18.0%	19,432	17,875	5,617	3,355	0	0	0	0
Colorado	10,055	9,094	11.0%	8,578	8,100	1,477	994	0	0	0	0
Idaho	1,302	2,538	-49.0%	1,302	1,496	0	1,042	0	0	0	0
Montana	230	231	-0.5%	230	226	0	5	0	0	0	0
Nevada	12,995	11,922	9.0%	12,995	11,922	0	0	0	0	0	0
New Mexico	5,956	6,447	-7.6%	4,261	3,909	1,695	2,538	0	0	0	0
Utah	5,098	4,878	4.5%	5,053	4,832	0	0	0	0	44	47
Wyoming	270	217	24.0%	269	213	1	4	0	0	0	0
Pacific Contiguous	68,215	63,218	7.9%	27,264	22,187	38,392	38,750	0	0	2,559	2,280
California	52,020	50,085	3.9%	19,511	15,781	29,951	32,024	0	0	2,559	2,280
Oregon	11,036	12,487	-12.0%	4,316	5,761	6,720	6,726	0	0	0	0
Washington	5,159	645	699.0%	3,437	645	1,721	0	0	0	0	0
Pacific Noncontiguous	183	1,282	-86.0%	183	1,282	0	0	0	0	0	0
Alaska	183	1,282	-86.0%	183	1,282	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	802,804	791,715	1.4%	379,687	378,446	356,689	343,013	713	701	65,714	69,556

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

Table 4.9.B. Receipts of Natural Gas Delivered for Electricity Generation by State, (Year-to-Date) November 2019 and 2018 (Million Cubic Feet)

Census Division and State	All Sectors			Electric Power Sector							
				Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	274,520	331,832	-17.0%	486	1,301	274,034	330,531	0	0	0	0
Connecticut	122,545	119,999	2.1%	0	0	122,545	119,999	0	0	0	0
Maine	6,342	13,141	-52.0%	0	0	6,342	13,141	0	0	0	0
Massachusetts	91,447	124,080	-26.0%	422	903	91,025	123,177	0	0	0	0
New Hampshire	23,532	21,092	12.0%	64	398	23,468	20,694	0	0	0	0
Rhode Island	30,654	53,520	-43.0%	0	0	30,654	53,520	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	1,151,834	1,086,802	6.0%	80,856	85,557	1,061,812	991,708	0	0	9,166	9,537
New Jersey	248,676	257,674	-3.5%	0	0	248,676	257,674	0	0	0	0
New York	312,964	355,060	-12.0%	80,856	85,557	225,519	262,589	0	0	6,589	6,914
Pennsylvania	590,194	474,068	24.0%	0	0	587,617	471,445	0	0	2,577	2,623
East North Central	906,225	902,559	0.4%	309,030	319,954	578,162	563,112	6,311	6,131	12,723	13,361
Illinois	79,100	122,690	-36.0%	9,259	9,452	69,819	113,201	0	0	22	37
Indiana	177,450	167,641	5.9%	74,820	81,656	102,630	85,986	0	0	0	0
Michigan	227,608	215,970	5.4%	65,829	64,755	150,101	139,366	6,311	6,131	5,367	5,718
Ohio	300,364	285,173	5.3%	50,638	65,749	244,755	214,244	0	0	4,971	5,180
Wisconsin	121,703	111,084	9.6%	108,484	98,342	10,857	10,315	0	0	2,362	2,427
West North Central	167,353	213,451	-22.0%	143,975	184,559	16,935	22,208	1,975	1,960	4,468	4,724
Iowa	59,263	60,441	-1.9%	54,873	55,793	0	0	0	0	4,390	4,648
Kansas	19,114	22,755	-16.0%	19,114	22,755	0	0	0	0	0	0
Minnesota	40,369	53,550	-25.0%	39,380	45,458	899	8,006	12	9	78	76
Missouri	43,807	51,835	-15.0%	25,808	35,683	16,036	14,201	1,963	1,951	0	0
Nebraska	2,940	8,714	-66.0%	2,940	8,714	0	0	0	0	0	0
North Dakota	1,859	9,297	-80.0%	1,859	9,297	0	0	0	0	0	0
South Dakota	0	6,858	-100.0%	0	6,858	0	0	0	0	0	0
South Atlantic	2,432,331	2,433,583	-0.1%	2,018,253	1,986,770	381,459	413,763	0	0	32,620	33,050
Delaware	22,945	32,224	-29.0%	0	0	22,945	32,224	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	1,175,121	1,146,985	2.5%	1,133,546	1,098,064	37,336	45,013	0	0	4,239	3,909
Georgia	336,591	351,732	-4.3%	255,887	263,013	73,065	80,657	0	0	7,640	8,061
Maryland	89,415	85,512	4.6%	22,429	20,361	65,835	62,560	0	0	1,151	2,590
North Carolina	271,321	306,489	-11.0%	218,745	259,896	50,055	44,090	0	0	2,521	2,503
South Carolina	163,172	158,881	2.7%	157,948	136,951	4,358	21,097	0	0	865	832
Virginia	353,841	335,228	5.6%	225,616	206,649	118,563	119,306	0	0	9,662	9,272
West Virginia	19,925	16,533	21.0%	4,083	1,836	9,301	8,815	0	0	6,541	5,883
East South Central	899,916	942,554	-4.5%	609,057	642,469	266,502	281,867	0	0	24,357	18,219
Alabama	360,609	369,433	-2.4%	125,780	126,142	234,829	243,291	0	0	0	0
Kentucky	94,499	106,350	-11.0%	90,438	98,841	4,061	7,508	0	0	0	0
Mississippi	322,290	350,104	-7.9%	294,677	319,037	27,612	31,067	0	0	0	0
Tennessee	122,518	116,667	5.0%	98,161	98,449	0	0	0	0	24,357	18,219
West South Central	2,701,639	2,804,045	-3.7%	824,963	925,771	1,280,185	1,279,133	0	0	596,491	599,141
Arkansas	119,880	144,672	-17.0%	106,577	130,075	10,868	12,230	0	0	2,435	2,367
Louisiana	493,469	466,009	5.9%	253,853	243,564	39,711	32,424	0	0	199,905	190,020
Oklahoma	282,449	298,879	-5.5%	177,147	192,170	100,233	102,526	0	0	5,068	4,183
Texas	1,805,841	1,894,485	-4.7%	287,386	359,961	1,129,373	1,131,952	0	0	389,082	402,572
Mountain	740,721	680,469	8.9%	627,442	572,953	112,988	106,956	0	0	292	560
Arizona	319,654	255,918	25.0%	243,119	203,274	76,536	52,644	0	0	0	0
Colorado	110,087	108,627	1.3%	95,570	91,206	14,517	17,421	0	0	0	0
Idaho	9,105	17,154	-47.0%	9,105	7,325	0	9,829	0	0	0	0
Montana	2,531	2,412	4.9%	2,531	2,400	0	11	0	0	0	0
Nevada	158,608	168,826	-6.1%	158,608	168,826	0	0	0	0	0	0
New Mexico	81,474	75,229	8.3%	59,553	48,193	21,922	27,036	0	0	0	0
Utah	56,876	50,674	12.0%	56,584	50,113	0	0	0	0	292	560
Wyoming	2,387	1,630	46.0%	2,373	1,615	14	15	0	0	0	0
Pacific Contiguous	632,696	680,546	-7.0%	237,264	270,386	369,482	384,120	0	0	25,950	26,040
California	473,644	509,715	-7.1%	164,481	174,102	283,213	309,573	0	0	25,950	26,040
Oregon	103,953	110,729	-6.1%	38,747	57,234	65,206	53,495	0	0	0	0
Washington	55,099	60,102	-8.3%	34,035	39,050	21,064	21,052	0	0	0	0
Pacific Noncontiguous	861	15,226	-94.0%	861	15,226	0	0	0	0	0	0
Alaska	861	15,226	-94.0%	861	15,226	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	9,908,096	10,091,067	-1.8%	4,852,186	5,004,946	4,341,559	4,373,398	8,285	8,091	706,066	704,632

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Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.

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

Table 4.10.A. Average Cost of Coal Delivered for Electricity Generation by State, November 2019 and 2018
(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018
New England	W	W	W	3.13	--	W	W
Connecticut	--	--	--	--	--	--	--
Maine	W	W	W	--	--	W	W
Massachusetts	--	--	--	--	--	--	--
New Hampshire	3.13	--	--	3.13	--	--	--
Rhode Island	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--
Middle Atlantic	1.94	2.16	-10.0%	--	--	1.94	2.16
New Jersey	W	W	W	--	--	W	W
New York	W	W	W	--	--	W	W
Pennsylvania	W	W	W	--	--	W	W
East North Central	1.95	2.02	-3.5%	2.08	2.14	1.76	1.85
Illinois	1.79	1.80	-0.6%	2.00	1.94	1.71	1.77
Indiana	W	W	W	2.07	2.13	W	W
Michigan	W	W	W	2.09	2.13	W	W
Ohio	W	W	W	1.80	1.70	W	W
Wisconsin	2.22	2.30	-3.5%	2.22	2.30	--	--
West North Central	1.66	1.71	-2.9%	1.66	1.71	--	--
Iowa	1.53	1.51	1.3%	1.53	1.51	--	--
Kansas	1.60	1.73	-7.5%	1.60	1.73	--	--
Minnesota	1.98	2.25	-12.0%	1.98	2.25	--	--
Missouri	1.65	1.73	-4.6%	1.65	1.73	--	--
Nebraska	1.22	1.28	-4.7%	1.22	1.28	--	--
North Dakota	1.92	1.71	12.0%	1.92	1.71	--	--
South Dakota	1.57	1.59	-1.3%	1.57	1.59	--	--
South Atlantic	2.47	2.62	-5.7%	2.48	2.68	2.42	2.32
Delaware	--	W	W	--	--	--	W
District of Columbia	--	--	--	--	--	--	--
Florida	2.73	2.88	-5.2%	2.73	2.88	--	--
Georgia	2.60	2.69	-3.3%	2.60	2.69	--	--
Maryland	2.68	2.49	7.6%	--	--	2.68	2.49
North Carolina	W	W	W	2.54	3.25	W	W
South Carolina	3.51	3.40	3.2%	3.51	3.40	--	--
Virginia	2.59	2.68	-3.4%	2.59	2.53	--	3.63
West Virginia	W	2.11	W	2.12	2.15	W	1.98
East South Central	W	W	W	2.06	2.02	W	W
Alabama	2.26	2.09	8.1%	2.26	2.09	--	--
Kentucky	1.88	1.96	-4.1%	1.88	1.96	--	--
Mississippi	W	W	W	2.57	2.57	W	W
Tennessee	2.28	2.14	6.5%	2.28	2.14	--	--
West South Central	1.77	1.91	-7.3%	2.07	2.19	1.56	1.66
Arkansas	W	W	W	1.98	2.05	W	W
Louisiana	W	W	W	3.48	3.70	W	W
Oklahoma	W	W	W	1.69	1.76	W	W
Texas	1.62	1.71	-5.3%	1.87	1.96	1.50	1.60
Mountain	W	W	W	1.87	1.98	W	W
Arizona	2.25	2.28	-1.3%	2.25	2.28	--	--
Colorado	1.58	1.57	0.6%	1.58	1.57	--	--
Idaho	--	--	--	--	--	--	--
Montana	W	W	W	2.06	1.92	W	W
Nevada	W	W	W	2.64	3.26	W	W
New Mexico	2.64	2.63	0.4%	2.64	2.63	--	--
Utah	1.97	2.00	-1.5%	1.97	2.00	--	--
Wyoming	W	W	W	1.49	1.75	W	W
Pacific Contiguous	W	W	W	2.30	2.21	W	W
California	--	--	--	--	--	--	--
Oregon	2.30	2.21	4.1%	2.30	2.21	--	--
Washington	W	W	W	--	--	W	W
Pacific Noncontiguous	W	W	W	3.67	3.13	W	W
Alaska	3.67	3.13	17.0%	3.67	3.13	--	--
Hawaii	W	W	W	--	--	W	W
U.S. Total	1.95	2.05	-4.9%	2.02	2.10	1.78	1.92

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

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

Table 4.10.B. Average Cost of Coal Delivered for Electricity Generation by State, (Year-to-Date) November 2019 and 2018
(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	W	4.35	W	3.47	3.61	W	4.56
Connecticut	--	W	W	--	--	--	W
Maine	W	W	W	--	--	W	W
Massachusetts	--	--	--	--	--	--	--
New Hampshire	3.47	3.61	-3.9%	3.47	3.61	--	--
Rhode Island	--	W	W	--	--	--	W
Vermont	--	--	--	--	--	--	--
Middle Atlantic	1.93	2.15	-10.0%	--	--	1.93	2.15
New Jersey	W	W	W	--	--	W	W
New York	W	W	W	--	--	W	W
Pennsylvania	1.86	2.09	-11.0%	--	--	1.86	2.09
East North Central	1.98	1.99	-0.5%	2.11	2.11	1.80	1.81
Illinois	W	1.76	W	1.97	1.88	W	1.73
Indiana	W	W	W	2.13	2.11	W	W
Michigan	W	W	W	2.08	2.13	W	W
Ohio	1.79	W	W	1.82	1.76	1.79	W
Wisconsin	2.23	2.28	-2.2%	2.23	2.28	--	--
West North Central	1.63	1.71	-4.7%	1.63	1.71	--	--
Iowa	1.54	1.64	-6.1%	1.54	1.64	--	--
Kansas	1.62	1.70	-4.7%	1.62	1.70	--	--
Minnesota	2.01	2.19	-8.2%	2.01	2.19	--	--
Missouri	1.67	1.80	-7.2%	1.67	1.80	--	--
Nebraska	1.22	1.27	-3.9%	1.22	1.27	--	--
North Dakota	1.63	1.54	5.8%	1.63	1.54	--	--
South Dakota	1.77	1.88	-5.9%	1.77	1.88	--	--
South Atlantic	2.58	2.63	-1.9%	2.60	2.69	2.36	2.30
Delaware	W	W	W	--	--	W	W
District of Columbia	--	--	--	--	--	--	--
Florida	2.85	2.86	-0.3%	2.85	2.86	--	--
Georgia	2.70	2.75	-1.8%	2.70	2.75	--	--
Maryland	2.66	2.53	5.1%	--	--	2.66	2.53
North Carolina	W	3.14	W	2.81	3.13	W	3.92
South Carolina	3.24	3.33	-2.7%	3.24	3.33	--	--
Virginia	W	W	W	2.78	2.67	W	W
West Virginia	W	2.09	W	2.13	2.14	W	1.91
East South Central	W	W	W	2.08	2.07	W	W
Alabama	2.32	2.27	2.2%	2.32	2.27	--	--
Kentucky	1.92	1.96	-2.0%	1.92	1.96	--	--
Mississippi	W	W	W	2.96	2.66	W	W
Tennessee	2.15	2.15	0.0%	2.15	2.15	--	--
West South Central	1.85	1.86	-0.5%	2.09	2.05	1.59	1.65
Arkansas	W	W	W	1.97	1.97	W	W
Louisiana	W	W	W	3.16	2.82	W	W
Oklahoma	W	W	W	1.71	1.77	W	W
Texas	1.72	1.75	-1.7%	2.02	2.03	1.54	1.59
Mountain	W	W	W	2.05	2.00	W	W
Arizona	2.58	2.43	6.2%	2.58	2.43	--	--
Colorado	1.75	1.64	6.7%	1.75	1.64	--	--
Idaho	--	--	--	--	--	--	--
Montana	W	W	W	1.95	2.02	W	W
Nevada	W	W	W	2.77	3.03	W	W
New Mexico	2.48	2.49	-0.4%	2.48	2.49	--	--
Utah	1.97	2.03	-3.0%	1.97	2.03	--	--
Wyoming	W	W	W	1.70	1.69	W	W
Pacific Contiguous	W	W	W	2.28	2.27	W	W
California	--	--	--	--	--	--	--
Oregon	2.28	2.27	0.4%	2.28	2.27	--	--
Washington	W	W	W	--	--	W	W
Pacific Noncontiguous	W	W	W	3.51	3.28	W	W
Alaska	3.51	3.28	7.0%	3.51	3.28	--	--
Hawaii	W	W	W	--	--	W	W
U.S. Total	2.02	2.05	-1.5%	2.09	2.10	1.81	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 4.11.A. Average Cost of Petroleum Liquids Delivered for Electricity Generation by State, November 2019 and 2018
(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018
New England	W	W	W	17.41	12.12	W	W
Connecticut	W	15.01	W	--	--	W	15.01
Maine	W	W	W	--	--	W	W
Massachusetts	W	15.92	W	--	17.89	W	15.46
New Hampshire	17.41	W	W	17.41	11.97	--	W
Rhode Island	--	W	W	--	--	--	W
Vermont	--	--	--	--	--	--	--
Middle Atlantic	12.15	15.85	-23.0%	11.58	15.46	14.70	15.85
New Jersey	W	W	W	--	--	W	W
New York	11.58	W	W	11.58	15.46	--	W
Pennsylvania	W	15.66	W	--	--	W	15.66
East North Central	15.25	16.68	-8.6%	15.04	16.51	16.07	17.06
Illinois	16.20	17.44	-7.1%	15.61	16.84	16.32	17.54
Indiana	14.76	16.61	-11.0%	14.76	16.61	--	--
Michigan	14.56	16.10	-9.6%	14.56	16.10	--	--
Ohio	16.01	16.59	-3.5%	16.07	16.32	15.93	16.65
Wisconsin	14.20	16.92	-16.0%	14.20	16.92	--	--
West North Central	14.79	16.06	-7.9%	14.79	16.06	--	--
Iowa	14.87	16.65	-11.0%	14.87	16.65	--	--
Kansas	15.11	16.95	-11.0%	15.11	16.95	--	--
Minnesota	14.20	16.69	-15.0%	14.20	16.69	--	--
Missouri	14.56	15.73	-7.4%	14.56	15.73	--	--
Nebraska	--	18.33	--	--	18.33	--	--
North Dakota	15.24	15.04	1.3%	15.24	15.04	--	--
South Dakota	--	16.87	--	--	16.87	--	--
South Atlantic	14.88	16.12	-7.7%	15.15	16.75	14.17	15.01
Delaware	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--
Florida	14.89	17.43	-15.0%	14.89	17.43	--	--
Georgia	15.04	W	W	15.04	15.72	--	W
Maryland	W	16.25	W	--	--	W	16.25
North Carolina	14.47	W	W	14.47	16.46	--	W
South Carolina	15.06	15.85	-5.0%	15.06	15.85	--	--
Virginia	W	W	W	15.51	17.24	W	W
West Virginia	16.28	W	W	16.28	17.44	--	W
East South Central	W	W	W	14.56	15.47	W	W
Alabama	W	W	W	15.05	15.63	W	W
Kentucky	14.69	15.81	-7.1%	14.69	15.81	--	--
Mississippi	14.10	15.28	-7.7%	14.10	15.28	--	--
Tennessee	14.13	15.18	-6.9%	14.13	15.18	--	--
West South Central	W	W	W	14.52	15.51	W	W
Arkansas	W	W	W	14.47	15.10	W	W
Louisiana	14.52	15.09	-3.8%	14.52	15.09	--	--
Oklahoma	15.13	16.43	-7.9%	15.13	16.43	--	--
Texas	14.08	W	W	14.08	14.85	--	W
Mountain	W	W	W	18.61	18.97	W	W
Arizona	18.26	19.30	-5.4%	18.26	19.30	--	--
Colorado	--	17.64	--	--	17.64	--	--
Idaho	--	--	--	--	--	--	--
Montana	--	W	W	--	--	--	W
Nevada	W	W	W	17.09	19.48	W	W
New Mexico	20.15	21.07	-4.4%	20.15	21.07	--	--
Utah	20.58	21.85	-5.8%	20.58	21.85	--	--
Wyoming	17.93	17.48	2.6%	17.93	17.48	--	--
Pacific Contiguous	W	W	W	12.45	17.24	W	W
California	--	--	--	--	--	--	--
Oregon	12.45	--	--	12.45	--	--	--
Washington	W	W	W	--	17.24	W	W
Pacific Noncontiguous	W	W	W	12.40	15.72	W	W
Alaska	16.34	18.18	-10.0%	16.34	18.18	--	--
Hawaii	W	W	W	12.39	15.72	W	W
U.S. Total	12.95	15.91	-19.0%	12.79	15.89	13.59	15.95

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

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

Table 4.11.B. Average Cost of Petroleum Liquids Delivered for Electricity Generation by State, (Year-to-Date) November 2019 and 2018 (Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	10.64	W	W	16.95	12.09	10.36	W
Connecticut	W	14.92	W	--	--	W	14.92
Maine	W	W	W	--	--	W	W
Massachusetts	W	12.57	W	--	15.96	W	12.30
New Hampshire	16.95	W	W	16.95	11.35	--	W
Rhode Island	--	15.28	--	--	--	--	15.28
Vermont	--	--	--	--	--	--	--
Middle Atlantic	W	14.05	W	11.59	12.29	W	14.84
New Jersey	13.39	15.71	-15.0%	--	--	13.39	15.71
New York	12.03	13.20	-8.9%	11.59	12.29	14.91	13.90
Pennsylvania	W	16.21	W	--	--	W	16.21
East North Central	W	16.62	W	14.82	16.54	W	16.74
Illinois	16.28	W	W	15.69	16.65	16.30	W
Indiana	14.82	W	W	14.82	16.54	--	W
Michigan	13.91	16.12	-14.0%	13.91	16.12	--	--
Ohio	W	16.56	W	15.58	16.47	W	16.58
Wisconsin	W	17.35	W	14.72	17.35	W	--
West North Central	14.64	16.47	-11.0%	14.64	16.47	--	--
Iowa	14.56	16.44	-11.0%	14.56	16.44	--	--
Kansas	14.86	16.74	-11.0%	14.86	16.74	--	--
Minnesota	15.19	16.86	-9.9%	15.19	16.86	--	--
Missouri	14.51	16.34	-11.0%	14.51	16.34	--	--
Nebraska	14.91	17.44	-15.0%	14.91	17.44	--	--
North Dakota	14.38	16.05	-10.0%	14.38	16.05	--	--
South Dakota	13.99	17.17	-19.0%	13.99	17.17	--	--
South Atlantic	14.45	15.04	-3.9%	14.51	15.20	14.07	14.44
Delaware	W	W	W	--	--	W	W
District of Columbia	--	--	--	--	--	--	--
Florida	15.33	16.49	-7.0%	15.33	16.49	--	--
Georgia	W	15.93	W	14.93	15.97	W	15.76
Maryland	W	14.62	W	--	--	W	14.62
North Carolina	14.66	W	W	14.66	17.24	--	W
South Carolina	15.08	17.44	-14.0%	15.08	17.44	--	--
Virginia	W	W	W	11.49	11.63	W	W
West Virginia	15.44	W	W	15.44	16.89	--	W
East South Central	W	W	W	14.52	16.21	W	W
Alabama	W	W	W	15.13	16.35	W	W
Kentucky	14.63	16.06	-8.9%	14.63	16.06	--	--
Mississippi	14.32	15.99	-10.0%	14.32	15.99	--	--
Tennessee	14.27	16.31	-13.0%	14.27	16.31	--	--
West South Central	W	16.09	W	14.56	16.09	W	16.12
Arkansas	W	W	W	14.79	16.48	W	W
Louisiana	14.48	15.45	-6.3%	14.48	15.45	--	--
Oklahoma	15.28	16.20	-5.7%	15.28	16.20	--	--
Texas	W	W	W	13.92	16.06	W	W
Mountain	16.82	W	W	16.89	18.29	15.98	W
Arizona	16.76	17.13	-2.2%	16.76	17.13	--	--
Colorado	17.73	17.50	1.3%	17.73	17.50	--	--
Idaho	--	--	--	--	--	--	--
Montana	W	W	W	--	--	W	W
Nevada	W	W	W	16.15	18.71	W	W
New Mexico	18.83	19.54	-3.6%	18.83	19.54	--	--
Utah	W	W	W	16.80	19.43	W	W
Wyoming	16.12	18.47	-13.0%	16.12	18.47	--	--
Pacific Contiguous	W	W	W	15.30	17.24	W	W
California	--	--	--	--	--	--	--
Oregon	12.45	--	--	12.45	--	--	--
Washington	W	W	W	16.52	17.24	W	W
Pacific Noncontiguous	W	W	W	12.88	13.88	W	W
Alaska	15.65	17.67	-11.0%	15.65	17.67	--	--
Hawaii	W	W	W	12.87	13.88	W	W
U.S. Total	13.59	14.48	-6.1%	13.35	14.45	14.45	14.56

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

Notes:
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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 4.12.A. Average Cost of Petroleum Coke Delivered for Electricity Generation by State, November 2019 and 2018
(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018
New England	--	--	--	--	--	--	--
Connecticut	--	--	--	--	--	--	--
Maine	--	--	--	--	--	--	--
Massachusetts	--	--	--	--	--	--	--
New Hampshire	--	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--
Middle Atlantic	--	--	--	--	--	--	--
New Jersey	--	--	--	--	--	--	--
New York	--	--	--	--	--	--	--
Pennsylvania	--	--	--	--	--	--	--
East North Central	1.61	1.50	7.3%	1.61	1.50	--	--
Illinois	--	--	--	--	--	--	--
Indiana	--	--	--	--	--	--	--
Michigan	1.54	1.47	4.8%	1.54	1.47	--	--
Ohio	--	--	--	--	--	--	--
Wisconsin	1.83	1.83	0.0%	1.83	1.83	--	--
West North Central	--	--	--	--	--	--	--
Iowa	--	--	--	--	--	--	--
Kansas	--	--	--	--	--	--	--
Minnesota	--	--	--	--	--	--	--
Missouri	--	--	--	--	--	--	--
Nebraska	--	--	--	--	--	--	--
North Dakota	--	--	--	--	--	--	--
South Dakota	--	--	--	--	--	--	--
South Atlantic	1.89	2.71	-30.0%	1.89	2.71	--	--
Delaware	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--
Florida	1.89	2.71	-30.0%	1.89	2.71	--	--
Georgia	--	--	--	--	--	--	--
Maryland	--	--	--	--	--	--	--
North Carolina	--	--	--	--	--	--	--
South Carolina	--	--	--	--	--	--	--
Virginia	--	--	--	--	--	--	--
West Virginia	--	--	--	--	--	--	--
East South Central	--	--	--	--	--	--	--
Alabama	--	--	--	--	--	--	--
Kentucky	--	--	--	--	--	--	--
Mississippi	--	--	--	--	--	--	--
Tennessee	--	--	--	--	--	--	--
West South Central	1.21	2.30	-47.0%	1.21	2.30	--	--
Arkansas	--	--	--	--	--	--	--
Louisiana	1.21	2.30	-47.0%	1.21	2.30	--	--
Oklahoma	--	--	--	--	--	--	--
Texas	--	--	--	--	--	--	--
Mountain	--	--	--	--	--	--	--
Arizona	--	--	--	--	--	--	--
Colorado	--	--	--	--	--	--	--
Idaho	--	--	--	--	--	--	--
Montana	--	--	--	--	--	--	--
Nevada	--	--	--	--	--	--	--
New Mexico	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--
Wyoming	--	--	--	--	--	--	--
Pacific Contiguous	--	--	--	--	--	--	--
California	--	--	--	--	--	--	--
Oregon	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--
Pacific Noncontiguous	--	--	--	--	--	--	--
Alaska	--	--	--	--	--	--	--
Hawaii	--	--	--	--	--	--	--
U.S. Total	1.46	2.23	-35.0%	1.46	2.23	--	--

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

Notes:
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See Technical Notes for a discussion of the sample design for the Form EIA-923.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.
Petroleum Coke includes petroleum coke-derived synthesis gas.
See the Technical Notes for fuel conversion factors.

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

Table 4.12.B. Average Cost of Petroleum Coke Delivered for Electricity Generation by State, (Year-to-Date) November 2019 and 2018 (Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	--	--	--	--	--	--	--
Connecticut	--	--	--	--	--	--	--
Maine	--	--	--	--	--	--	--
Massachusetts	--	--	--	--	--	--	--
New Hampshire	--	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--
Middle Atlantic	--	--	--	--	--	--	--
New Jersey	--	--	--	--	--	--	--
New York	--	--	--	--	--	--	--
Pennsylvania	--	--	--	--	--	--	--
East North Central	1.58	1.51	4.6%	1.58	1.51	--	--
Illinois	--	--	--	--	--	--	--
Indiana	--	--	--	--	--	--	--
Michigan	1.53	1.48	3.4%	1.53	1.48	--	--
Ohio	--	--	--	--	--	--	--
Wisconsin	1.86	1.78	4.5%	1.86	1.78	--	--
West North Central	--	--	--	--	--	--	--
Iowa	--	--	--	--	--	--	--
Kansas	--	--	--	--	--	--	--
Minnesota	--	--	--	--	--	--	--
Missouri	--	--	--	--	--	--	--
Nebraska	--	--	--	--	--	--	--
North Dakota	--	--	--	--	--	--	--
South Dakota	--	--	--	--	--	--	--
South Atlantic	2.52	3.17	-21.0%	2.52	3.17	--	--
Delaware	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--
Florida	2.52	3.17	-21.0%	2.52	3.17	--	--
Georgia	--	--	--	--	--	--	--
Maryland	--	--	--	--	--	--	--
North Carolina	--	--	--	--	--	--	--
South Carolina	--	--	--	--	--	--	--
Virginia	--	--	--	--	--	--	--
West Virginia	--	--	--	--	--	--	--
East South Central	--	--	--	--	--	--	--
Alabama	--	--	--	--	--	--	--
Kentucky	--	--	--	--	--	--	--
Mississippi	--	--	--	--	--	--	--
Tennessee	--	--	--	--	--	--	--
West South Central	1.90	2.69	-29.0%	1.90	2.69	--	--
Arkansas	--	--	--	--	--	--	--
Louisiana	1.90	2.69	-29.0%	1.90	2.69	--	--
Oklahoma	--	--	--	--	--	--	--
Texas	--	--	--	--	--	--	--
Mountain	--	--	--	--	--	--	--
Arizona	--	--	--	--	--	--	--
Colorado	--	--	--	--	--	--	--
Idaho	--	--	--	--	--	--	--
Montana	--	--	--	--	--	--	--
Nevada	--	--	--	--	--	--	--
New Mexico	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--
Wyoming	--	--	--	--	--	--	--
Pacific Contiguous	--	--	--	--	--	--	--
California	--	--	--	--	--	--	--
Oregon	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--
Pacific Noncontiguous	--	--	--	--	--	--	--
Alaska	--	--	--	--	--	--	--
Hawaii	--	--	--	--	--	--	--
U.S. Total	2.00	2.60	-23.0%	2.00	2.60	--	--

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

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

Table 4.13.A. Average Cost of Natural Gas Delivered for Electricity Generation by State, November 2019 and 2018
(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	November 2019	November 2018	Percentage Change	November 2019	November 2018	November 2019	November 2018
New England	W	W	W	16.00	7.21	W	W
Connecticut	3.49	5.22	-33.0%	--	--	3.49	5.22
Maine	--	10.06	--	--	--	--	10.06
Massachusetts	W	5.63	W	--	6.24	W	5.63
New Hampshire	W	W	W	16.00	11.56	W	W
Rhode Island	W	5.99	W	--	--	W	5.99
Vermont	--	--	--	--	--	--	--
Middle Atlantic	2.60	3.89	-33.0%	3.31	4.68	2.54	3.82
New Jersey	2.65	3.64	-27.0%	--	--	2.65	3.64
New York	2.99	4.33	-31.0%	3.31	4.68	2.87	4.19
Pennsylvania	2.38	3.74	-36.0%	--	--	2.38	3.74
East North Central	2.65	4.05	-35.0%	2.69	4.16	2.63	4.00
Illinois	W	4.09	W	2.74	4.79	W	4.05
Indiana	2.61	4.21	-38.0%	2.62	4.38	2.60	4.11
Michigan	2.72	4.13	-34.0%	2.87	4.45	2.65	4.04
Ohio	2.45	3.98	-38.0%	2.35	4.20	2.46	3.92
Wisconsin	W	3.80	W	2.72	3.80	W	--
West North Central	W	W	W	2.77	4.11	W	W
Iowa	2.46	3.42	-28.0%	2.46	3.42	--	--
Kansas	3.03	4.07	-26.0%	3.03	4.07	--	--
Minnesota	W	W	W	3.22	4.70	W	W
Missouri	2.52	W	W	2.52	4.56	--	W
Nebraska	3.65	4.45	-18.0%	3.65	4.45	--	--
North Dakota	3.13	4.04	-23.0%	3.13	4.04	--	--
South Dakota	--	3.55	--	--	3.55	--	--
South Atlantic	3.57	4.57	-22.0%	3.72	4.62	2.72	4.22
Delaware	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--
Florida	W	4.70	W	3.94	4.71	W	4.22
Georgia	W	4.85	W	2.98	5.02	W	4.27
Maryland	3.27	W	W	4.96	4.04	3.07	W
North Carolina	W	4.19	W	4.02	4.20	W	4.15
South Carolina	3.18	4.57	-30.0%	3.18	4.57	--	--
Virginia	3.13	4.33	-28.0%	3.71	4.41	2.39	4.18
West Virginia	2.40	W	W	2.38	4.39	2.42	W
East South Central	2.94	4.13	-29.0%	2.93	4.08	2.96	4.24
Alabama	W	W	W	3.06	4.23	W	W
Kentucky	W	W	W	3.15	4.24	W	W
Mississippi	W	W	W	2.87	4.05	W	W
Tennessee	2.77	3.88	-29.0%	2.77	3.88	--	--
West South Central	2.52	3.76	-33.0%	2.58	3.70	2.48	3.80
Arkansas	2.67	W	W	2.67	4.37	--	W
Louisiana	W	W	W	3.02	4.09	W	W
Oklahoma	W	W	W	2.34	3.56	W	W
Texas	2.47	3.70	-33.0%	2.39	3.41	2.49	3.80
Mountain	2.77	3.56	-22.0%	2.69	3.58	3.60	3.34
Arizona	W	W	W	2.38	2.96	W	W
Colorado	W	W	W	3.21	4.45	W	W
Idaho	3.20	4.80	-33.0%	3.20	4.80	--	--
Montana	2.02	W	W	2.02	1.50	--	W
Nevada	3.00	3.90	-23.0%	3.00	3.90	--	--
New Mexico	1.73	2.40	-28.0%	1.73	2.40	--	--
Utah	2.82	3.99	-29.0%	2.82	3.99	--	--
Wyoming	W	W	W	2.47	4.87	W	W
Pacific Contiguous	3.37	4.79	-30.0%	3.46	4.86	3.30	4.74
California	3.44	W	W	3.59	5.31	3.33	W
Oregon	W	W	W	2.68	3.55	W	W
Washington	W	W	W	3.85	6.72	W	W
Pacific Noncontiguous	7.87	6.52	21.0%	7.87	6.52	--	--
Alaska	7.87	6.52	21.0%	7.87	6.52	--	--
Hawaii	--	--	--	--	--	--	--
U.S. Total	2.98	4.20	-29.0%	3.17	4.26	2.74	4.12

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

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	November 2019 YTD	November 2018 YTD	Percentage Change	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	W	4.38	W	3.26	4.64	W	4.38
Connecticut	3.22	4.41	-27.0%	--	--	3.22	4.41
Maine	W	W	W	--	--	W	W
Massachusetts	4.43	4.51	-1.8%	2.72	4.07	4.44	4.51
New Hampshire	W	W	W	6.76	5.92	W	W
Rhode Island	W	3.86	W	--	--	W	3.86
Vermont	--	--	--	--	--	--	--
Middle Atlantic	2.60	3.20	-19.0%	3.17	3.95	2.55	3.13
New Jersey	2.84	3.01	-5.6%	--	--	2.84	3.01
New York	2.91	3.64	-20.0%	3.17	3.95	2.80	3.52
Pennsylvania	2.34	2.99	-22.0%	--	--	2.34	2.99
East North Central	2.57	3.15	-18.0%	2.70	3.25	2.50	3.10
Illinois	W	3.32	W	2.52	3.57	W	3.29
Indiana	2.61	3.22	-19.0%	2.73	3.35	2.52	3.10
Michigan	2.61	3.19	-18.0%	2.71	3.42	2.57	3.09
Ohio	2.43	3.02	-20.0%	2.54	3.09	2.41	3.00
Wisconsin	W	3.13	W	2.76	3.13	W	--
West North Central	W	W	W	2.61	3.11	W	W
Iowa	2.38	2.88	-17.0%	2.38	2.88	--	--
Kansas	2.72	3.13	-13.0%	2.72	3.13	--	--
Minnesota	W	W	W	2.98	3.36	W	W
Missouri	W	W	W	2.37	3.22	W	W
Nebraska	2.88	3.49	-17.0%	2.88	3.49	--	--
North Dakota	3.58	2.81	27.0%	3.58	2.81	--	--
South Dakota	--	2.74	--	--	2.74	--	--
South Atlantic	3.44	4.14	-17.0%	3.54	4.24	2.75	3.47
Delaware	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--
Florida	W	W	W	3.73	4.26	W	W
Georgia	W	3.83	W	2.94	3.94	W	3.47
Maryland	3.06	3.75	-18.0%	3.49	3.41	2.92	3.86
North Carolina	W	4.27	W	3.75	4.37	W	3.67
South Carolina	3.17	4.15	-24.0%	3.17	4.15	--	--
Virginia	3.13	4.08	-23.0%	3.37	4.47	2.49	3.08
West Virginia	W	W	W	2.19	3.21	W	W
East South Central	2.85	3.23	-12.0%	2.88	3.22	2.79	3.27
Alabama	W	W	W	2.90	3.27	W	W
Kentucky	W	W	W	3.24	3.51	W	W
Mississippi	W	W	W	2.76	3.15	W	W
Tennessee	2.87	3.08	-6.8%	2.87	3.08	--	--
West South Central	2.45	3.04	-19.0%	2.43	3.01	2.46	3.06
Arkansas	W	W	W	2.54	3.26	W	W
Louisiana	W	W	W	2.72	3.25	W	W
Oklahoma	W	W	W	2.36	2.69	W	W
Texas	2.40	3.04	-21.0%	2.19	2.94	2.47	3.07
Mountain	2.56	W	W	2.51	2.96	3.02	W
Arizona	W	2.85	W	2.06	2.83	W	2.96
Colorado	W	W	W	3.07	3.56	W	W
Idaho	4.31	3.20	35.0%	4.31	3.20	--	--
Montana	1.53	W	W	1.53	1.32	--	W
Nevada	2.97	2.95	0.7%	2.97	2.95	--	--
New Mexico	1.22	2.43	-50.0%	1.22	2.43	--	--
Utah	3.01	2.84	6.0%	3.01	2.84	--	--
Wyoming	W	W	W	2.46	3.70	W	W
Pacific Contiguous	3.55	3.76	-5.6%	3.69	3.48	3.42	4.04
California	3.74	4.34	-14.0%	4.09	4.25	3.48	4.40
Oregon	W	W	W	2.41	1.94	W	W
Washington	W	W	W	3.50	2.74	W	W
Pacific Noncontiguous	7.84	6.74	16.0%	7.84	6.74	--	--
Alaska	7.84	6.74	16.0%	7.84	6.74	--	--
Hawaii	--	--	--	--	--	--	--
U.S. Total	2.89	3.47	-17.0%	3.05	3.59	2.68	3.31

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

Notes:
See Glossary for definitions. Values for 2018 are final. Values for 2019 are preliminary.
See Technical Notes for a discussion of the sample design for the Form EIA-923.
Totals may not equal sum of components because of independent rounding. Percentage change is calculated before rounding.

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

Table 4.14. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Total (All Sectors) by State, November 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	15	1.97	7.5	0	--	--	0	--	--
Connecticut	0	--	--	0	--	--	0	--	--
Maine	6	0.77	5.7	0	--	--	0	--	--
Massachusetts	0	--	--	0	--	--	0	--	--
New Hampshire	8	2.86	8.8	0	--	--	0	--	--
Rhode Island	0	--	--	0	--	--	0	--	--
Vermont	0	--	--	0	--	--	0	--	--
Middle Atlantic	1,241	2.66	9.6	0	--	--	0	--	--
New Jersey	55	1.71	7.7	0	--	--	0	--	--
New York	3	2.43	7.9	0	--	--	0	--	--
Pennsylvania	1,183	2.71	9.7	0	--	--	0	--	--
East North Central	4,734	3.16	10.4	4,482	0.23	4.8	0	--	--
Illinois	784	2.91	18.8	1,876	0.21	4.6	0	--	--
Indiana	2,092	2.95	9.0	167	0.24	4.6	0	--	--
Michigan	109	1.97	7.7	1,492	0.26	4.9	0	--	--
Ohio	1,608	3.64	9.3	29	0.24	5.4	0	--	--
Wisconsin	143	2.55	7.9	918	0.23	4.9	0	--	--
West North Central	83	2.88	9.4	7,245	0.26	5.0	1,938	0.72	9.8
Iowa	21	2.85	9.4	1,398	0.25	4.8	0	--	--
Kansas	7	2.99	12.2	1,131	0.28	4.9	0	--	--
Minnesota	0	--	--	806	0.33	6.0	0	--	--
Missouri	55	2.87	9.0	2,708	0.23	4.9	0	--	--
Nebraska	0	--	--	1,052	0.24	4.8	0	--	--
North Dakota	0	--	--	0	--	--	1,938	0.72	9.8
South Dakota	0	--	--	151	0.32	5.1	0	--	--
South Atlantic	4,890	2.37	9.6	633	0.30	4.8	0	--	--
Delaware	0	--	--	0	--	--	0	--	--
District of Columbia	0	--	--	0	--	--	0	--	--
Florida	754	2.57	8.3	0	--	--	0	--	--
Georgia	407	2.60	8.5	633	0.30	4.8	0	--	--
Maryland	269	2.44	8.8	0	--	--	0	--	--
North Carolina	1,034	1.54	9.8	0	--	--	0	--	--
South Carolina	249	1.51	9.6	0	--	--	0	--	--
Virginia	137	1.14	17.8	0	--	--	0	--	--
West Virginia	2,040	2.85	9.8	0	--	--	0	--	--
East South Central	2,343	2.54	9.4	2,034	0.28	5.4	169	0.47	13.1
Alabama	388	0.91	9.3	1,025	0.31	5.4	0	--	--
Kentucky	1,622	3.04	9.6	732	0.23	5.3	0	--	--
Mississippi	0	--	--	175	0.32	5.5	169	0.47	13.1
Tennessee	333	1.94	8.7	103	0.22	5.1	0	--	--
West South Central	43	2.43	9.2	5,240	0.26	5.1	1,848	1.07	17.4
Arkansas	6	0.46	10.1	996	0.22	4.8	0	--	--
Louisiana	36	2.80	9.0	302	0.28	5.2	101	0.62	17.1
Oklahoma	0	--	--	107	0.21	5.0	0	--	--
Texas	0	--	--	3,836	0.27	5.2	1,747	1.10	17.4
Mountain	1,211	0.65	14.4	5,063	0.51	8.8	25	0.54	8.9
Arizona	0	--	--	803	0.65	9.7	0	--	--
Colorado	107	0.46	11.8	1,001	0.29	5.3	0	--	--
Idaho	0	--	--	0	--	--	0	--	--
Montana	0	--	--	807	0.63	10.4	25	0.54	8.9
Nevada	24	0.51	10.3	73	0.27	6.1	0	--	--
New Mexico	259	0.78	23.0	455	0.91	20.3	0	--	--
Utah	820	0.64	12.5	22	0.91	8.4	0	--	--
Wyoming	0	--	--	1,902	0.43	6.9	0	--	--
Pacific Contiguous	65	0.53	9.4	616	0.36	7.5	0	--	--
California	65	0.53	9.4	0	--	--	0	--	--
Oregon	0	--	--	161	0.24	5.2	0	--	--
Washington	0	--	--	455	0.41	8.4	0	--	--
Pacific Noncontiguous	4	0.56	11.2	63	0.16	3.7	25	0.14	6.9
Alaska	0	--	--	0	--	--	25	0.14	6.9
Hawaii	4	0.56	11.2	63	0.16	3.7	0	--	--
U.S. Total	14,629	2.54	10.2	25,376	0.31	5.8	4,006	0.87	13.4

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 2019 are preliminary. Values for 2018 are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.

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

Table 4.15. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Electric Utilties by State, November 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	8	2.86	8.8	0	--	--	0	--	--
Connecticut	0	--	--	0	--	--	0	--	--
Maine	0	--	--	0	--	--	0	--	--
Massachusetts	0	--	--	0	--	--	0	--	--
New Hampshire	8	2.86	8.8	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	2,508	2.89	8.9	3,102	0.24	4.8	0	--	--
Illinois	180	1.90	9.0	525	0.21	4.6	0	--	--
Indiana	1,894	2.93	9.0	167	0.24	4.6	0	--	--
Michigan	78	2.38	7.7	1,492	0.26	4.9	0	--	--
Ohio	228	3.57	9.0	0	--	--	0	--	--
Wisconsin	129	2.74	7.7	918	0.23	4.9	0	--	--
West North Central	60	2.88	9.4	7,006	0.26	5.0	1,938	0.72	9.8
Iowa	0	--	--	1,230	0.25	4.9	0	--	--
Kansas	7	2.99	12.2	1,131	0.28	4.9	0	--	--
Minnesota	0	--	--	806	0.33	6.0	0	--	--
Missouri	53	2.87	9.0	2,708	0.23	4.9	0	--	--
Nebraska	0	--	--	981	0.25	4.9	0	--	--
North Dakota	0	--	--	0	--	--	1,938	0.72	9.8
South Dakota	0	--	--	151	0.32	5.1	0	--	--
South Atlantic	4,275	2.37	9.7	633	0.30	4.8	0	--	--
Delaware	0	--	--	0	--	--	0	--	--
District of Columbia	0	--	--	0	--	--	0	--	--
Florida	754	2.57	8.3	0	--	--	0	--	--
Georgia	397	2.64	8.5	633	0.30	4.8	0	--	--
Maryland	0	--	--	0	--	--	0	--	--
North Carolina	1,002	1.56	9.9	0	--	--	0	--	--
South Carolina	249	1.51	9.6	0	--	--	0	--	--
Virginia	121	1.20	19.5	0	--	--	0	--	--
West Virginia	1,752	2.87	10.0	0	--	--	0	--	--
East South Central	2,284	2.59	9.4	2,034	0.28	5.4	0	--	--
Alabama	388	0.91	9.3	1,025	0.31	5.4	0	--	--
Kentucky	1,622	3.04	9.6	732	0.23	5.3	0	--	--
Mississippi	0	--	--	175	0.32	5.5	0	--	--
Tennessee	274	2.19	9.0	103	0.22	5.1	0	--	--
West South Central	36	2.80	9.0	2,453	0.25	4.9	481	1.52	22.1
Arkansas	0	--	--	781	0.22	4.6	0	--	--
Louisiana	36	2.80	9.0	171	0.25	5.1	101	0.62	17.1
Oklahoma	0	--	--	49	0.21	4.5	0	--	--
Texas	0	--	--	1,452	0.27	5.0	380	1.81	23.7
Mountain	1,211	0.65	14.4	4,155	0.49	8.6	25	0.54	8.9
Arizona	0	--	--	803	0.65	9.7	0	--	--
Colorado	107	0.46	11.8	1,001	0.29	5.3	0	--	--
Idaho	0	--	--	0	--	--	0	--	--
Montana	0	--	--	0	--	--	25	0.54	8.9
Nevada	24	0.51	10.3	12	0.48	10.8	0	--	--
New Mexico	259	0.78	23.0	455	0.91	20.3	0	--	--
Utah	820	0.64	12.5	22	0.91	8.4	0	--	--
Wyoming	0	--	--	1,862	0.43	7.0	0	--	--
Pacific Contiguous	0	--	--	161	0.24	5.2	0	--	--
California	0	--	--	0	--	--	0	--	--
Oregon	0	--	--	161	0.24	5.2	0	--	--
Washington	0	--	--	0	--	--	0	--	--
Pacific Noncontiguous	0	--	--	0	--	--	25	0.14	6.9
Alaska	0	--	--	0	--	--	25	0.14	6.9
Hawaii	0	--	--	0	--	--	0	--	--
U.S. Total	10,383	2.36	10.0	19,545	0.31	5.8	2,469	0.85	12.0

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 2019 are preliminary. Values for 2018 are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.

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

Table 4.16. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Independent Power Producers by State, November 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	6	0.77	5.7	0	--	--	0	--	--
Connecticut	0	--	--	0	--	--	0	--	--
Maine	6	0.77	5.7	0	--	--	0	--	--
Massachusetts	0	--	--	0	--	--	0	--	--
New Hampshire	0	--	--	0	--	--	0	--	--
Rhode Island	0	--	--	0	--	--	0	--	--
Vermont	0	--	--	0	--	--	0	--	--
Middle Atlantic	1,230	2.66	9.6	0	--	--	0	--	--
New Jersey	55	1.71	7.7	0	--	--	0	--	--
New York	3	2.43	7.9	0	--	--	0	--	--
Pennsylvania	1,172	2.71	9.7	0	--	--	0	--	--
East North Central	2,116	3.49	12.3	1,307	0.21	4.6	0	--	--
Illinois	507	3.23	25.8	1,278	0.21	4.5	0	--	--
Indiana	198	3.19	9.2	0	--	--	0	--	--
Michigan	31	0.75	7.8	0	--	--	0	--	--
Ohio	1,380	3.65	9.4	29	0.24	5.4	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	570	2.54	8.8	0	--	--	0	--	--
Delaware	0	--	--	0	--	--	0	--	--
District of Columbia	0	--	--	0	--	--	0	--	--
Florida	0	--	--	0	--	--	0	--	--
Georgia	0	--	--	0	--	--	0	--	--
Maryland	269	2.44	8.8	0	--	--	0	--	--
North Carolina	13	0.70	6.9	0	--	--	0	--	--
South Carolina	0	--	--	0	--	--	0	--	--
Virginia	0	--	--	0	--	--	0	--	--
West Virginia	288	2.72	8.9	0	--	--	0	--	--
East South Central	0	--	--	0	--	--	169	0.47	13.1
Alabama	0	--	--	0	--	--	0	--	--
Kentucky	0	--	--	0	--	--	0	--	--
Mississippi	0	--	--	0	--	--	169	0.47	13.1
Tennessee	0	--	--	0	--	--	0	--	--
West South Central	0	--	--	2,771	0.27	5.3	1,367	0.94	15.9
Arkansas	0	--	--	215	0.22	5.5	0	--	--
Louisiana	0	--	--	131	0.33	5.4	0	--	--
Oklahoma	0	--	--	42	0.21	5.7	0	--	--
Texas	0	--	--	2,383	0.28	5.2	1,367	0.94	15.9
Mountain	0	--	--	908	0.59	9.8	0	--	--
Arizona	0	--	--	0	--	--	0	--	--
Colorado	0	--	--	0	--	--	0	--	--
Idaho	0	--	--	0	--	--	0	--	--
Montana	0	--	--	807	0.63	10.4	0	--	--
Nevada	0	--	--	61	0.22	5.1	0	--	--
New Mexico	0	--	--	0	--	--	0	--	--
Utah	0	--	--	0	--	--	0	--	--
Wyoming	0	--	--	40	0.36	5.2	0	--	--
Pacific Contiguous	0	--	--	455	0.41	8.4	0	--	--
California	0	--	--	0	--	--	0	--	--
Oregon	0	--	--	0	--	--	0	--	--
Washington	0	--	--	455	0.41	8.4	0	--	--
Pacific Noncontiguous	4	0.56	11.2	63	0.16	3.7	0	--	--
Alaska	0	--	--	0	--	--	0	--	--
Hawaii	4	0.56	11.2	63	0.16	3.7	0	--	--
U.S. Total	3,927	3.06	10.9	5,504	0.32	6.1	1,537	0.89	15.7

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

Notes:
Bituminous coal includes anthracite coal and coal-derived synthesis gas.
See Glossary for definitions. Values for 2019 are preliminary. Values for 2018 are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.

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

Table 4.17. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Commercial Sector by State, November 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	1	3.17	8.1	0	--	--	0	--	--
Iowa	0	--	--	0	--	--	0	--	--
Kansas	0	--	--	0	--	--	0	--	--
Minnesota	0	--	--	0	--	--	0	--	--
Missouri	1	3.17	8.1	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	1	3.17	8.1	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 2019 are preliminary. Values for 2018 are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.

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

Table 4.18. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Industrial Sector by State, November 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	110	3.11	9.0	73	0.22	5.6	0	--	--
Illinois	96	3.50	8.8	73	0.22	5.6	0	--	--
Indiana	0	--	--	0	--	--	0	--	--
Michigan	0	--	--	0	--	--	0	--	--
Ohio	0	--	--	0	--	--	0	--	--
Wisconsin	14	0.50	10.2	0	--	--	0	--	--
West North Central	21	2.85	9.4	239	0.21	4.4	0	--	--
Iowa	21	2.85	9.4	168	0.20	4.5	0	--	--
Kansas	0	--	--	0	--	--	0	--	--
Minnesota	0	--	--	0	--	--	0	--	--
Missouri	0	--	--	0	--	--	0	--	--
Nebraska	0	--	--	71	0.21	4.4	0	--	--
North Dakota	0	--	--	0	--	--	0	--	--
South Dakota	0	--	--	0	--	--	0	--	--
South Atlantic	45	0.82	7.3	0	--	--	0	--	--
Delaware	0	--	--	0	--	--	0	--	--
District of Columbia	0	--	--	0	--	--	0	--	--
Florida	0	--	--	0	--	--	0	--	--
Georgia	10	1.04	10.1	0	--	--	0	--	--
Maryland	0	--	--	0	--	--	0	--	--
North Carolina	19	0.78	6.1	0	--	--	0	--	--
South Carolina	0	--	--	0	--	--	0	--	--
Virginia	15	0.74	7.1	0	--	--	0	--	--
West Virginia	0	--	--	0	--	--	0	--	--
East South Central	59	0.91	7.5	0	--	--	0	--	--
Alabama	0	--	--	0	--	--	0	--	--
Kentucky	0	--	--	0	--	--	0	--	--
Mississippi	0	--	--	0	--	--	0	--	--
Tennessee	59	0.91	7.5	0	--	--	0	--	--
West South Central	6	0.46	10.1	16	0.20	4.6	0	--	--
Arkansas	6	0.46	10.1	0	--	--	0	--	--
Louisiana	0	--	--	0	--	--	0	--	--
Oklahoma	0	--	--	16	0.20	4.6	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	65	0.53	9.4	0	--	--	0	--	--
California	65	0.53	9.4	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	317	1.69	8.5	328	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 2019 are preliminary. Values for 2018 are final. See Technical Notes for a discussion of the sample design for the Form EIA-923.

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

Chapter 5

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

Table 5.1. Sales of Electricity to Ultimate Customers: Total by End-Use Sector, 2009 - November 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	1,469,096	1,381,761	1,001,597	7,665	3,860,119
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	148,918	114,926	79,964	745	344,552
February	113,752	102,686	75,730	634	292,802
March	107,219	108,109	81,127	620	297,074
April	95,454	103,332	79,157	599	278,543
May	103,848	113,176	85,717	587	303,328
June	129,913	122,012	85,615	623	338,163
July	153,566	131,522	89,384	634	375,107
August	153,497	134,849	92,189	680	381,215
Sept	128,910	122,034	85,758	640	337,342
October	107,049	116,134	85,380	631	309,194
November	103,790	104,984	81,195	616	290,584
December	123,181	107,999	80,380	655	312,215
Year 2019					
January	133,010	111,645	78,179	671	323,506
February	116,248	101,740	72,375	704	291,068
March	112,139	107,086	76,985	689	296,899
April	89,863	102,076	76,383	614	268,936
May	99,809	110,759	80,549	608	291,725
June	119,518	115,243	80,378	614	315,753
July	153,139	130,253	86,270	645	370,306
August	149,660	130,136	86,457	658	366,910
Sept	131,038	121,379	81,940	682	335,038
October	107,571	114,643	80,063	546	302,822
November	102,063	102,218	75,801	618	280,698
Year to Date					
2017	1,256,643	1,243,582	904,056	6,859	3,411,140
2018	1,345,916	1,273,762	921,217	7,010	3,547,904
2019	1,314,057	1,247,177	875,380	7,049	3,443,662
Rolling 12 Months Ending in November					
2018	1,467,920	1,383,068	1,001,459	7,674	3,860,120
2019	1,437,238	1,355,175	955,760	7,704	3,755,877

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 2018 and prior years are final. Values for 2019 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 - November 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	189,033	147,426	69,296	744	406,498
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	18,193	12,053	5,550	70	35,866
February	14,364	10,936	5,133	62	30,496
March	13,905	11,365	5,379	58	30,707
April	12,290	10,806	5,200	57	28,353
May	13,625	11,890	5,825	55	31,395
June	16,922	13,223	6,143	64	36,351
July	20,156	14,466	6,547	64	41,233
August	20,351	14,874	6,680	65	41,970
Sept	16,775	13,085	6,045	64	35,969
October	13,751	12,506	5,870	62	32,189
November	13,389	11,069	5,563	60	30,081
December	15,311	11,155	5,359	64	31,889
Year 2019					
January	16,586	11,485	5,143	66	33,280
February	14,788	10,704	4,842	72	30,406
March	14,406	11,180	5,182	64	30,832
April	11,928	10,719	4,976	58	27,680
May	13,303	11,661	5,402	58	30,424
June	15,949	12,554	5,563	62	34,129
July	20,323	14,360	6,190	63	40,937
August	19,907	14,319	6,433	64	40,722
Sept	17,252	13,317	5,811	67	36,447
October	13,807	12,314	5,482	53	31,657
November	13,308	10,808	5,103	59	29,278
Year to Date					
2017	162,473	133,003	62,441	666	358,583
2018	173,722	136,271	63,937	680	374,610
2019	171,556	133,420	60,128	687	365,791
Rolling 12 Months Ending in November					
2018	188,911	147,510	69,186	742	406,349
2019	186,867	144,575	65,487	750	397,680

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 2018 and prior years are final. Values for 2019 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 - November 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	12.87	10.67	6.92	9.70	10.53
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	12.22	10.49	6.94	9.39	10.41
February	12.63	10.65	6.78	9.78	10.42
March	12.97	10.51	6.63	9.40	10.34
April	12.88	10.46	6.57	9.47	10.18
May	13.12	10.51	6.80	9.39	10.35
June	13.03	10.84	7.18	10.23	10.75
July	13.13	11.00	7.32	10.05	10.99
August	13.26	11.03	7.25	9.50	11.01
Sept	13.01	10.72	7.05	10.05	10.66
October	12.85	10.77	6.88	9.79	10.41
November	12.90	10.54	6.85	9.70	10.35
December	12.43	10.33	6.67	9.71	10.21
Year 2019					
January	12.47	10.29	6.58	9.86	10.29
February	12.72	10.52	6.69	10.28	10.45
March	12.85	10.44	6.73	9.28	10.38
April	13.27	10.50	6.51	9.46	10.29
May	13.33	10.53	6.71	9.50	10.43
June	13.34	10.89	6.92	10.04	10.81
July	13.27	11.02	7.18	9.85	11.05
August	13.30	11.00	7.44	9.71	11.10
Sept	13.17	10.97	7.09	9.83	10.88
October	12.84	10.74	6.85	9.76	10.45
November	13.04	10.57	6.73	9.56	10.43
Year to Date					
2017	12.93	10.70	6.91	9.72	10.51
2018	12.91	10.70	6.94	9.70	10.56
2019	13.06	10.70	6.87	9.74	10.62
Rolling 12 Months Ending in November					
2018	12.87	10.67	6.91	9.67	10.53
2019	13.00	10.67	6.85	9.74	10.59

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 2018 and prior years are final. Values for 2019 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.
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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, November 2019 and 2018 (Thousand Megawatthours)

	Residential		Commercial		Industrial		Transportation		All Sectors	
Census Division and State	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	3,314	3,640	4,040	4,099	1,207	1,413	44	43	8,605	9,195
Connecticut	849	992	1,019	945	245	264	14	11	2,127	2,211
Maine	334	383	271	340	152	281	0	0	758	1,003
Massachusetts	1,410	1,507	1,977	2,018	478	546	28	29	3,892	4,101
New Hampshire	338	353	332	348	156	151	0	0	826	853
Rhode Island	210	232	289	294	59	56	2	2	560	584
Vermont	173	173	152	154	117	116	0	0	442	444
Middle Atlantic	9,350	9,687	11,463	12,042	6,020	5,877	303	315	27,135	27,920
New Jersey	1,875	1,914	2,864	2,880	522	622	23	24	5,284	5,441
New York	3,527	3,718	5,718	5,860	1,411	1,498	229	236	10,885	11,311
Pennsylvania	3,948	4,055	2,881	3,302	4,087	3,757	51	55	10,966	11,169
East North Central	14,380	14,581	14,144	14,117	14,321	15,808	44	48	42,890	44,553
Illinois	3,436	3,427	3,879	3,881	3,394	3,605	39	43	10,747	10,956
Indiana	2,473	2,556	1,832	1,833	3,118	3,651	2	2	7,426	8,042
Michigan	2,670	2,644	2,948	2,944	2,288	2,507	0	1	7,906	8,096
Ohio	3,984	4,115	3,666	3,610	3,724	4,156	3	2	11,377	11,883
Wisconsin	1,818	1,838	1,819	1,848	1,798	1,889	0	0	5,435	5,575
West North Central	7,899	8,216	8,018	8,188	7,289	7,814	4	4	23,210	24,223
Iowa	1,010	1,068	1,017	1,012	2,025	2,082	0	0	4,052	4,161
Kansas	915	977	1,155	1,218	873	931	0	0	2,943	3,126
Minnesota	1,736	1,784	1,811	1,808	1,672	1,826	2	2	5,221	5,421
Missouri	2,619	2,744	2,284	2,388	859	1,116	2	2	5,763	6,251
Nebraska	758	764	760	770	841	874	0	0	2,358	2,408
North Dakota	463	478	596	600	788	748	0	0	1,848	1,825
South Dakota	399	403	395	392	230	236	0	0	1,024	1,030
South Atlantic	26,374	26,932	24,175	24,724	10,960	11,576	115	113	61,625	63,345
Delaware	335	340	335	339	157	200	0	0	827	878
District of Columbia	168	188	591	671	16	7	33	31	809	897
Florida	9,038	9,234	7,307	7,621	1,296	1,377	6	7	17,648	18,240
Georgia	4,048	4,108	3,501	3,580	2,489	2,645	12	12	10,051	10,345
Maryland	2,040	2,106	2,224	2,281	293	325	50	46	4,607	4,757
North Carolina	4,206	4,361	3,608	3,776	2,017	2,330	1	1	9,833	10,468
South Carolina	2,117	2,178	1,545	1,639	2,077	2,014	0	0	5,738	5,832
Virginia	3,487	3,500	4,446	4,230	1,346	1,491	12	15	9,291	9,237
West Virginia	935	917	617	587	1,270	1,187	0	0	2,822	2,692
East South Central	8,546	8,487	6,906	7,049	7,479	8,290	0	0	22,930	23,826
Alabama	2,302	2,335	1,649	1,740	2,537	2,692	0	0	6,488	6,766
Kentucky	1,988	2,005	1,509	1,519	2,168	2,457	0	0	5,664	5,981
Mississippi	1,304	1,245	1,015	1,059	1,328	1,354	0	0	3,647	3,657
Tennessee	2,952	2,902	2,732	2,732	1,447	1,787	0	0	7,131	7,421
West South Central	14,565	14,503	14,257	14,838	15,165	16,101	17	18	44,004	45,459
Arkansas	1,257	1,205	882	907	1,426	1,466	0	0	3,564	3,578
Louisiana	2,087	2,071	1,930	1,909	2,731	2,899	1	1	6,748	6,880
Oklahoma	1,637	1,550	1,464	1,660	1,674	1,631	0	0	4,775	4,842
Texas	9,585	9,676	9,981	10,362	9,334	10,105	16	16	28,916	30,159
Mountain	6,793	6,705	7,503	7,465	6,603	6,771	15	13	20,914	20,954
Arizona	1,939	1,888	2,148	2,094	1,019	1,151	1	1	5,107	5,134
Colorado	1,462	1,448	1,635	1,646	1,313	1,335	9	7	4,418	4,437
Idaho	763	749	524	530	488	502	0	0	1,775	1,782
Montana	457	428	401	394	400	428	0	0	1,258	1,251
Nevada	745	754	881	844	964	1,075	1	1	2,590	2,674
New Mexico	494	484	706	693	765	682	0	0	1,965	1,859
Utah	684	705	909	955	788	735	4	4	2,385	2,399
Wyoming	249	248	299	308	868	863	0	0	1,415	1,419
Pacific Contiguous	10,437	10,640	11,239	11,991	6,342	7,133	76	62	28,094	29,825
California	5,667	5,947	7,618	8,328	3,537	3,986	64	60	16,886	18,320
Oregon	1,728	1,637	1,346	1,312	928	1,097	2	2	4,004	4,048
Washington	3,042	3,055	2,275	2,351	1,878	2,050	9	1	7,204	7,456
Pacific Noncontiguous	404	400	474	470	413	412	0	0	1,291	1,282
Alaska	168	173	221	221	104	111	0	0	493	506
Hawaii	236	227	253	249	310	301	0	0	799	777
U.S. Total	102,063	103,790	102,218	104,984	75,801	81,195	618	616	280,698	290,584

See Technical notes for additional information on the Commercial, Industrial, and Transportation sectors.
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Notes: - See Glossary for definitions. - Values for 2018 are final. Values for 2019 are preliminary estimates based on a cutoff model sample.
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Utilities and energy service providers may classify commercial and industrial customers based on either NAICS codes or demands or usage falling within specified limits by rate schedule.
Changes from year to year in consumer counts, sales and revenues, particularly involving the commercial and industrial consumer sectors, may result from respondent implementation of changes in the definitions of consumers, and reclassifications.
Totals may not equal sum of components because of independent rounding.
Source: U.S. Energy Information Administration, Form EIA-861M (formerly EIA-826), Monthly Electric Power Industry Report.

Table 5.4.B. Sales of Electricity to Ultimate Customers by End-Use Sector, by State, Year-to-Date through November 2019 and 2018 (Thousand Megawatthours)

	Residential		Commercial		Industrial		Transportation		All Sectors	
Census Division and State	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	41,694	43,820	46,878	48,677	14,160	15,740	497	507	103,229	108,743
Connecticut	11,186	11,880	11,173	11,406	2,724	2,964	161	165	25,243	26,415
Maine	4,321	4,416	3,813	4,080	2,478	2,852	0	0	10,612	11,348
Massachusetts	17,517	18,525	22,845	23,877	5,306	6,154	311	317	45,979	48,873
New Hampshire	4,067	4,209	3,919	4,073	1,759	1,809	0	0	9,745	10,092
Rhode Island	2,728	2,873	3,341	3,400	639	676	25	25	6,733	6,973
Vermont	1,876	1,916	1,787	1,840	1,254	1,285	0	0	4,917	5,042
Middle Atlantic	121,516	125,878	140,258	145,943	67,322	68,133	3,494	3,638	332,590	343,591
New Jersey	26,367	27,263	34,611	35,674	6,090	6,744	278	284	67,346	69,965
New York	45,845	47,830	68,570	70,542	15,362	16,409	2,632	2,714	132,408	137,495
Pennsylvania	49,304	50,785	37,077	39,726	45,870	44,980	584	640	132,835	136,131
East North Central	169,428	177,056	166,944	170,398	167,203	180,181	584	559	504,158	528,194
Illinois	41,459	43,358	45,487	46,502	38,370	40,519	524	501	125,841	130,879
Indiana	29,811	31,494	21,979	22,411	37,584	41,670	19	19	89,392	95,594
Michigan	30,466	32,091	35,076	35,843	26,538	28,403	6	6	92,086	96,344
Ohio	47,664	49,670	42,866	43,521	42,910	47,100	34	32	133,474	140,323
Wisconsin	20,027	20,443	21,536	22,121	21,800	22,490	1	0	63,365	65,054
West North Central	95,756	99,976	94,022	95,963	81,072	86,460	44	45	270,895	282,443
Iowa	12,917	13,449	11,230	11,382	21,568	22,013	0	0	45,716	46,843
Kansas	12,538	13,077	14,424	14,952	10,045	10,760	0	0	37,007	38,790
Minnesota	19,823	20,739	20,680	21,441	18,805	20,606	23	23	59,330	62,809
Missouri	32,221	34,164	28,244	28,734	10,360	12,320	21	21	70,846	75,240
Nebraska	9,316	9,422	8,744	8,767	9,355	10,141	0	0	27,416	28,330
North Dakota	4,484	4,595	6,129	6,202	8,398	7,918	0	0	19,011	18,715
South Dakota	4,455	4,529	4,572	4,485	2,541	2,702	0	0	11,568	11,716
South Atlantic	338,742	343,085	292,709	292,992	126,623	132,175	1,259	1,213	759,333	769,465
Delaware	4,532	4,642	4,082	4,009	1,679	2,175	0	0	10,294	10,825
District of Columbia	2,352	2,378	7,307	7,600	164	171	324	307	10,147	10,455
Florida	116,908	116,537	88,941	89,051	14,979	15,770	79	76	220,907	221,434
Georgia	54,668	54,712	43,786	43,754	28,839	30,186	151	155	127,444	128,807
Maryland	24,960	25,576	26,516	27,181	3,344	3,549	522	480	55,342	56,786
North Carolina	54,455	56,251	45,526	45,511	24,394	25,317	17	11	124,391	127,090
South Carolina	28,744	29,175	20,225	20,564	24,633	25,605	0	0	73,601	75,344
Virginia	42,148	43,344	49,360	48,176	15,235	16,398	166	183	106,909	108,101
West Virginia	9,976	10,471	6,965	7,147	13,356	13,004	0	0	30,298	30,622
East South Central	111,096	113,893	85,341	87,755	87,072	92,554	0	0	283,509	294,201
Alabama	29,994	30,269	20,947	21,735	29,903	31,095	0	0	80,844	83,099
Kentucky	24,321	25,252	18,040	18,418	25,009	26,459	0	0	67,370	70,129
Mississippi	17,636	17,792	12,779	13,494	15,134	15,192	0	0	45,548	46,477
Tennessee	39,145	40,581	33,576	34,108	17,026	19,807	0	0	89,747	94,497
West South Central	210,364	215,429	181,227	186,822	173,701	182,265	184	185	565,476	584,701
Arkansas	17,195	17,658	11,031	11,399	15,880	16,672	0	0	44,107	45,730
Louisiana	29,072	29,654	22,918	22,900	31,765	34,390	11	12	83,766	86,956
Oklahoma	22,087	22,117	18,150	19,704	18,505	17,617	0	0	58,742	59,437
Texas	142,009	146,000	129,128	132,818	107,551	113,586	173	173	378,860	392,577
Mountain	91,928	92,121	90,437	91,277	77,341	77,009	169	147	259,875	260,554
Arizona	32,325	32,297	27,289	27,554	12,466	12,866	10	7	72,091	72,724
Colorado	17,664	17,622	18,955	19,291	14,788	14,760	104	84	51,511	51,758
Idaho	7,732	7,478	5,842	5,868	8,196	8,345	0	0	21,771	21,692
Montana	4,714	4,658	4,531	4,495	4,447	4,305	0	0	13,692	13,457
Nevada	11,909	12,530	11,267	11,207	11,381	11,171	7	8	34,564	34,915
New Mexico	6,307	6,209	8,487	8,349	8,124	7,497	0	0	22,917	22,055
Utah	8,717	8,880	10,736	11,089	8,586	8,612	47	47	28,086	28,628
Wyoming	2,560	2,448	3,331	3,425	9,352	9,453	0	0	15,243	15,325
Pacific Contiguous	129,267	130,388	144,171	148,726	76,439	82,161	819	717	350,695	361,992
California	79,752	82,039	102,683	106,783	43,286	46,160	703	686	226,424	235,669
Oregon	17,254	16,842	15,037	15,070	11,067	12,809	25	24	43,383	44,744
Washington	32,260	31,507	26,450	26,874	22,087	23,191	91	7	80,888	81,579
Pacific Noncontiguous	4,267	4,270	5,190	5,210	4,446	4,540	0	0	13,903	14,020
Alaska	1,746	1,776	2,436	2,419	1,125	1,238	0	0	5,308	5,433
Hawaii	2,520	2,494	2,754	2,791	3,321	3,302	0	0	8,595	8,586
U.S. Total	1,314,057	1,345,916	1,247,177	1,273,762	875,380	921,217	7,049	7,010	3,443,662	3,547,904

See Technical notes for additional information on the Commercial, Industrial, and Transportation sectors.
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Totals may not equal sum of components because of independent rounding.
Source: U.S. Energy Information Administration, Form EIA-861M (formerly EIA-826), Monthly Electric Power Industry Report.

Table 5.5.A. Revenue from Sales of Electricity to Ultimate Customers by End-Use Sector, by State, November 2019 and 2018 (Million Dollars)

Census Division and State	Residential		Commercial		Industrial		Transportation		All Sectors	
	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	699	747	632	671	158	184	4	4	1,493	1,607
Connecticut	184	210	158	161	32	36	2	2	376	410
Maine	60	64	34	42	15	25	0	0	109	132
Massachusetts	307	320	316	337	69	81	2	2	693	740
New Hampshire	69	71	52	55	20	20	0	0	141	147
Rhode Island	46	50	46	51	9	9	0	0	101	111
Vermont	34	32	25	24	13	12	0	0	72	68
Middle Atlantic	1,477	1,529	1,360	1,445	385	400	33	35	3,256	3,408
New Jersey	287	287	337	341	51	60	2	2	676	690
New York	635	676	768	807	76	86	28	28	1,507	1,597
Pennsylvania	555	566	255	297	258	254	4	4	1,073	1,121
East North Central	1,928	1,953	1,436	1,453	984	1,123	3	3	4,351	4,532
Illinois	458	461	350	359	220	249	3	3	1,031	1,072
Indiana	306	323	200	199	231	273	0	0	737	796
Michigan	422	396	337	328	168	172	0	0	928	897
Ohio	478	517	348	369	228	290	0	0	1,055	1,176
Wisconsin	263	255	201	198	137	138	0	0	600	592
West North Central	887	938	732	756	497	536	0	0	2,115	2,231
Iowa	124	125	97	91	115	117	0	0	337	333
Kansas	118	129	118	125	62	68	0	0	298	322
Minnesota	217	229	177	183	123	137	0	0	516	549
Missouri	256	284	185	201	52	76	0	0	493	560
Nebraska	81	80	67	67	60	61	0	0	207	208
North Dakota	46	47	52	54	67	60	0	0	164	160
South Dakota	45	45	37	36	17	18	0	0	99	99
South Atlantic	3,176	3,142	2,300	2,319	686	776	9	9	6,170	6,247
Delaware	44	44	33	35	11	16	0	0	89	95
District of Columbia	23	26	74	84	1	1	3	3	102	114
Florida	1,116	1,085	724	713	102	107	1	1	1,943	1,905
Georgia	438	448	341	362	138	170	1	1	918	980
Maryland	261	276	217	235	22	26	4	4	504	541
North Carolina	487	485	318	314	118	137	0	0	923	936
South Carolina	276	270	167	168	123	143	0	0	566	581
Virginia	422	406	365	352	92	103	1	1	881	862
West Virginia	108	102	59	56	77	75	0	0	245	233
East South Central	980	966	753	759	436	494	0	0	2,169	2,220
Alabama	289	282	196	199	154	163	0	0	640	644
Kentucky	217	219	156	153	121	144	0	0	495	515
Mississippi	150	143	111	114	81	84	0	0	343	341
Tennessee	323	323	289	294	79	103	0	0	692	720
West South Central	1,649	1,588	1,175	1,215	821	858	1	1	3,647	3,662
Arkansas	121	116	76	67	82	79	0	0	279	263
Louisiana	198	194	172	167	138	158	0	0	508	520
Oklahoma	160	155	110	123	76	85	0	0	345	362
Texas	1,170	1,123	818	857	525	536	1	1	2,514	2,517
Mountain	781	780	682	687	388	403	1	1	1,852	1,870
Arizona	235	237	202	206	60	69	0	0	498	512
Colorado	171	176	158	166	89	98	1	1	419	441
Idaho	73	71	39	40	25	27	0	0	137	139
Montana	52	46	43	40	20	24	0	0	116	110
Nevada	93	91	69	63	49	52	0	0	210	206
New Mexico	60	59	70	68	41	39	0	0	171	166
Utah	70	70	72	75	44	38	0	0	186	184
Wyoming	27	27	29	30	59	56	0	0	115	113
Pacific Contiguous	1,621	1,631	1,621	1,644	653	689	7	5	3,903	3,969
California	1,141	1,160	1,302	1,319	505	520	6	5	2,955	3,004
Oregon	190	180	120	120	57	67	0	0	366	367
Washington	290	291	199	205	91	102	1	0	582	598
Pacific Noncontiguous	112	114	118	121	95	99	0	0	324	334
Alaska	39	38	45	42	18	16	0	0	101	96
Hawaii	73	77	73	79	77	83	0	0	223	238
U.S. Total	13,308	13,389	10,808	11,069	5,103	5,563	59	60	29,278	30,081

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

Table 5.5.B. Revenue from Sales of Electricity to Ultimate Customers by End-Use Sector, by State, Year-to-Date through November 2019 and 2018 (Million Dollars)

	Residential		Commercial		Industrial		Transportation		All Sectors	
Census Division and State	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	8,837	9,032	7,605	8,001	1,832	2,071	46	46	18,320	19,149
Connecticut	2,468	2,523	1,883	1,903	372	408	22	21	4,745	4,855
Maine	773	745	489	510	233	265	0	0	1,495	1,520
Massachusetts	3,856	4,006	3,771	4,103	763	916	19	20	8,409	9,045
New Hampshire	818	828	626	644	230	242	0	0	1,673	1,714
Rhode Island	593	586	550	561	100	103	5	4	1,247	1,254
Vermont	329	345	286	280	135	137	0	0	750	762
Middle Atlantic	19,239	20,181	17,177	18,226	4,413	4,753	394	405	41,223	43,564
New Jersey	4,199	4,201	4,272	4,361	626	680	24	26	9,121	9,268
New York	8,253	8,909	9,672	10,314	857	994	327	329	19,110	20,548
Pennsylvania	6,787	7,070	3,233	3,551	2,929	3,078	42	49	12,992	13,749
East North Central	22,600	23,516	16,974	17,413	11,567	12,776	41	39	51,182	53,745
Illinois	5,331	5,544	4,087	4,258	2,514	2,752	36	34	11,968	12,587
Indiana	3,682	3,870	2,373	2,379	2,759	3,046	2	2	8,816	9,298
Michigan	4,825	4,972	4,004	4,001	1,935	2,018	1	1	10,765	10,991
Ohio	5,824	6,256	4,130	4,407	2,672	3,305	2	2	12,629	13,971
Wisconsin	2,938	2,874	2,379	2,369	1,686	1,655	0	0	7,003	6,899
West North Central	11,465	12,112	9,140	9,455	6,006	6,333	4	4	26,616	27,904
Iowa	1,687	1,669	1,162	1,115	1,470	1,444	0	0	4,319	4,228
Kansas	1,596	1,759	1,481	1,601	732	818	0	0	3,808	4,179
Minnesota	2,646	2,737	2,183	2,237	1,473	1,555	2	2	6,304	6,531
Missouri	3,527	3,926	2,537	2,727	697	895	2	2	6,762	7,550
Nebraska	1,020	1,018	788	777	724	776	0	0	2,532	2,571
North Dakota	472	475	555	567	713	633	0	0	1,740	1,675
South Dakota	519	528	434	432	198	211	0	0	1,150	1,170
South Atlantic	40,675	40,329	27,475	27,268	8,093	8,645	100	96	76,343	76,338
Delaware	576	583	396	386	126	173	0	0	1,099	1,142
District of Columbia	306	305	883	905	13	14	31	29	1,234	1,253
Florida	13,985	13,445	8,469	8,171	1,155	1,209	7	6	23,616	22,832
Georgia	6,353	6,381	4,261	4,319	1,711	1,827	9	9	12,335	12,537
Maryland	3,282	3,406	2,647	2,827	259	292	39	36	6,227	6,560
North Carolina	6,328	6,264	4,039	3,907	1,518	1,606	1	1	11,886	11,778
South Carolina	3,646	3,647	2,094	2,080	1,471	1,561	0	0	7,212	7,288
Virginia	5,079	5,118	4,054	4,009	1,042	1,126	14	15	10,189	10,268
West Virginia	1,118	1,180	631	664	797	836	0	0	2,546	2,680
East South Central	12,643	12,702	9,116	9,220	5,042	5,408	0	0	26,801	27,330
Alabama	3,819	3,703	2,430	2,444	1,815	1,875	0	0	8,065	8,022
Kentucky	2,594	2,678	1,797	1,792	1,350	1,502	0	0	5,741	5,971
Mississippi	1,999	1,979	1,344	1,405	900	909	0	0	4,242	4,293
Tennessee	4,231	4,342	3,545	3,579	977	1,122	0	0	8,753	9,043
West South Central	23,552	23,267	14,795	15,393	9,559	9,893	12	15	47,917	48,569
Arkansas	1,694	1,744	958	887	950	945	0	0	3,602	3,575
Louisiana	2,781	2,850	2,012	2,025	1,656	1,839	1	1	6,450	6,716
Oklahoma	2,256	2,302	1,421	1,596	910	944	0	0	4,588	4,842
Texas	16,820	16,371	10,403	10,886	6,043	6,166	11	14	33,277	33,436
Mountain	11,000	11,038	8,695	8,779	4,898	5,002	16	14	24,609	24,833
Arizona	4,076	4,137	2,849	2,955	795	849	1	1	7,721	7,942
Colorado	2,174	2,143	1,941	1,940	1,073	1,105	9	8	5,197	5,197
Idaho	767	762	451	468	505	545	0	0	1,723	1,775
Montana	537	512	475	454	239	221	0	0	1,250	1,187
Nevada	1,434	1,486	902	870	703	695	1	1	3,040	3,052
New Mexico	800	791	845	839	441	440	0	0	2,087	2,071
Utah	923	929	908	922	515	511	5	5	2,351	2,367
Wyoming	289	278	325	329	627	636	0	0	1,240	1,243
Pacific Contiguous	20,335	20,349	21,138	21,240	7,667	7,989	74	62	49,214	49,640
California	15,329	15,409	17,485	17,553	5,901	6,142	63	59	38,778	39,163
Oregon	1,898	1,856	1,337	1,343	691	752	2	2	3,928	3,953
Washington	3,108	3,085	2,316	2,344	1,075	1,094	9	1	6,507	6,524
Pacific Noncontiguous	1,211	1,195	1,305	1,276	1,050	1,067	0	0	3,566	3,538
Alaska	400	389	489	447	193	213	0	0	1,082	1,049
Hawaii	811	806	816	829	858	855	0	0	2,484	2,489
U.S. Total	171,556	173,722	133,420	136,271	60,128	63,937	687	680	365,791	374,610

See Technical notes for additional information on the Commercial, Industrial, and Transportation sectors.
Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
Notes: - See Glossary for definitions. - Values for 2018 are final. Values for 2019 are preliminary estimates based on a cutoff model sample.
See Technical Notes for a discussion of the sample design for the Form EIA-826.
Utilities and energy service providers may classify commercial and industrial customers based on either NAICS codes or demands or usage falling within specified limits by rate schedule.
Changes from year to year in consumer counts, sales and revenues, particularly involving the commercial and industrial consumer sectors, may result from respondent implementation of changes in the definitions of consumers, and reclassifications.
Totals may not equal sum of components because of independent rounding.
Source: U.S. Energy Information Administration, Form EIA-861M (formerly EIA-826), Monthly Electric Power Industry Report.

Table 5.6.A. Average Price of Electricity to Ultimate Customers by End-Use Sector, by State, November 2019 and 2018 (Cents per Kilowatthour)

Census Division and State	Residential		Commercial		Industrial		Transportation		All Sectors	
	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	21.08	20.53	15.65	16.36	13.12	13.05	8.03	9.70	17.35	17.47
Connecticut	21.64	21.17	15.53	17.08	13.20	13.82	11.17	16.57	17.67	18.52
Maine	17.82	16.73	12.69	12.38	10.12	9.06	--	--	14.44	13.11
Massachusetts	21.74	21.25	15.99	16.71	14.40	14.82	5.63	6.51	17.81	18.05
New Hampshire	20.24	20.12	15.81	15.89	12.89	13.48	--	--	17.07	17.21
Rhode Island	21.94	21.75	15.87	17.38	15.06	15.87	18.51	16.68	18.07	18.97
Vermont	19.76	18.27	16.47	15.32	10.93	10.63	--	--	16.29	15.24
Middle Atlantic	15.79	15.78	11.87	12.00	6.40	6.81	11.05	11.00	12.00	12.21
New Jersey	15.28	14.99	11.78	11.84	9.69	9.71	8.41	9.00	12.80	12.69
New York	18.00	18.17	13.43	13.77	5.42	5.75	12.12	11.98	13.84	14.12
Pennsylvania	14.07	13.96	8.86	9.00	6.32	6.75	7.38	7.70	9.78	10.04
East North Central	13.40	13.40	10.15	10.29	6.87	7.10	7.64	7.24	10.14	10.17
Illinois	13.32	13.46	9.01	9.24	6.49	6.91	7.57	7.03	9.59	9.78
Indiana	12.39	12.65	10.92	10.88	7.39	7.47	10.10	10.93	9.93	9.90
Michigan	15.82	14.99	11.44	11.13	7.36	6.88	11.44	10.48	11.74	11.08
Ohio	12.00	12.57	9.50	10.21	6.12	6.97	6.30	7.45	9.27	9.90
Wisconsin	14.46	13.86	11.03	10.73	7.60	7.33	13.95	13.48	11.04	10.61
West North Central	11.22	11.42	9.12	9.24	6.81	6.86	7.83	8.16	9.11	9.21
Iowa	12.27	11.67	9.57	8.96	5.70	5.63	--	--	8.31	7.99
Kansas	12.87	13.20	10.22	10.24	7.11	7.31	--	--	10.12	10.29
Minnesota	12.48	12.83	9.75	10.13	7.33	7.49	8.96	9.19	9.88	10.13
Missouri	9.79	10.33	8.09	8.41	6.06	6.78	6.61	6.99	8.56	8.96
Nebraska	10.69	10.49	8.76	8.65	7.12	6.95	--	--	8.80	8.62
North Dakota	9.85	9.82	8.65	8.97	8.53	7.98	--	--	8.90	8.79
South Dakota	11.30	11.24	9.25	9.23	7.55	7.58	--	--	9.67	9.64
South Atlantic	12.04	11.67	9.51	9.38	6.26	6.70	7.75	8.14	10.01	9.86
Delaware	13.27	13.01	9.93	10.22	6.98	8.06	--	--	10.72	10.81
District of Columbia	13.78	13.84	12.59	12.51	8.24	7.88	8.78	9.94	12.59	12.66
Florida	12.35	11.75	9.91	9.35	7.89	7.77	8.86	8.54	11.01	10.44
Georgia	10.82	10.90	9.74	10.12	5.55	6.41	4.73	5.10	9.13	9.48
Maryland	12.78	13.10	9.78	10.32	7.65	8.05	7.50	7.62	10.95	11.37
North Carolina	11.57	11.13	8.82	8.31	5.86	5.86	8.44	8.17	9.39	8.94
South Carolina	13.04	12.40	10.81	10.25	5.90	7.08	--	--	9.86	9.96
Virginia	12.11	11.60	8.20	8.32	6.87	6.89	8.22	8.29	9.48	9.33
West Virginia	11.60	11.13	9.63	9.56	6.09	6.31	--	--	8.69	8.66
East South Central	11.47	11.38	10.90	10.77	5.83	5.96	--	--	9.46	9.32
Alabama	12.56	12.07	11.90	11.44	6.08	6.07	--	--	9.86	9.52
Kentucky	10.94	10.90	10.34	10.05	5.60	5.86	--	--	8.74	8.61
Mississippi	11.53	11.46	10.94	10.78	6.13	6.23	--	--	9.40	9.33
Tennessee	10.95	11.13	10.59	10.75	5.48	5.75	--	--	9.70	9.70
West South Central	11.32	10.95	8.24	8.19	5.42	5.33	6.48	7.97	8.29	8.06
Arkansas	9.65	9.67	8.59	7.42	5.73	5.41	9.28	10.27	7.82	7.36
Louisiana	9.47	9.36	8.93	8.77	5.07	5.46	8.62	8.04	7.53	7.55
Oklahoma	9.76	9.99	7.48	7.39	4.54	5.19	--	--	7.23	7.48
Texas	12.21	11.60	8.19	8.27	5.63	5.30	6.39	7.96	8.70	8.35
Mountain	11.50	11.63	9.09	9.20	5.87	5.95	8.80	9.50	8.86	8.93
Arizona	12.12	12.58	9.42	9.82	5.92	5.95	8.05	8.77	9.74	9.96
Colorado	11.68	12.18	9.68	10.10	6.81	7.35	8.02	9.18	9.48	9.95
Idaho	9.51	9.53	7.42	7.63	5.15	5.44	--	--	7.69	7.81
Montana	11.40	10.85	10.78	10.05	5.08	5.61	--	--	9.19	8.80
Nevada	12.43	12.11	7.82	7.45	5.04	4.81	8.11	7.15	8.11	7.70
New Mexico	12.18	12.27	9.89	9.79	5.37	5.70	--	--	8.70	8.94
Utah	10.31	9.95	7.86	7.82	5.58	5.24	10.68	10.49	7.82	7.66
Wyoming	10.98	10.98	9.74	9.58	6.81	6.46	--	--	8.16	7.93
Pacific Contiguous	15.53	15.33	14.42	13.71	10.30	9.67	9.34	8.44	13.89	13.31
California	20.14	19.51	17.10	15.83	14.28	13.05	9.35	8.41	17.50	16.40
Oregon	10.97	10.97	8.91	9.15	6.13	6.12	9.15	9.12	9.15	9.06
Washington	9.54	9.52	8.75	8.72	4.87	4.98	9.34	9.67	8.07	8.02
Pacific Noncontiguous	27.64	28.55	24.82	25.65	22.88	24.02	--	--	25.08	26.03
Alaska	22.96	21.66	20.23	18.99	17.09	14.42	--	--	20.50	18.90
Hawaii	30.99	33.83	28.83	31.57	24.82	27.57	--	--	27.91	30.68
U.S. Total	13.04	12.90	10.57	10.54	6.73	6.85	9.56	9.70	10.43	10.35

See Technical notes for additional information on the Commercial, Industrial, and Transportation sectors.
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See Technical Notes for a discussion of the sample design for the Form EIA-826.
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Changes from year to year in consumer counts, sales and revenues, particularly involving the commercial and industrial consumer sectors, may result from respondent implementation of changes in the definitions of consumers, and reclassifications.
Totals may not equal sum of components because of independent rounding.
Source: U.S. Energy Information Administration, Form EIA-861M (formerly EIA-826), Monthly Electric Power Industry Report.

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

	Residential		Commercial		Industrial		Transportation		All Sectors	
Census Division and State	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD	November 2019 YTD	November 2018 YTD
New England	21.19	20.61	16.22	16.44	12.94	13.16	9.26	8.99	17.75	17.61
Connecticut	22.06	21.24	16.86	16.68	13.65	13.75	13.88	12.83	18.80	18.38
Maine	17.90	16.86	12.82	12.51	9.39	9.29	--	--	14.09	13.39
Massachusetts	22.01	21.62	16.51	17.18	14.37	14.89	6.13	6.36	18.29	18.51
New Hampshire	20.11	19.67	15.96	15.80	13.06	13.39	--	--	17.17	16.98
Rhode Island	21.74	20.38	16.46	16.50	15.59	15.24	18.56	17.03	18.53	17.98
Vermont	17.51	18.01	16.01	15.22	10.80	10.64	--	--	15.25	15.11
Middle Atlantic	15.83	16.03	12.25	12.49	6.55	6.98	11.27	11.13	12.39	12.68
New Jersey	15.92	15.41	12.34	12.22	10.28	10.08	8.65	9.09	13.54	13.25
New York	18.00	18.63	14.11	14.62	5.58	6.06	12.43	12.14	14.43	14.94
Pennsylvania	13.77	13.92	8.72	8.94	6.39	6.84	7.27	7.72	9.78	10.10
East North Central	13.34	13.28	10.17	10.22	6.92	7.09	7.09	6.93	10.15	10.18
Illinois	12.86	12.79	8.98	9.16	6.55	6.79	6.91	6.72	9.51	9.62
Indiana	12.35	12.29	10.80	10.62	7.34	7.31	10.81	10.47	9.86	9.73
Michigan	15.84	15.49	11.42	11.16	7.29	7.10	10.54	10.80	11.69	11.41
Ohio	12.22	12.60	9.64	10.13	6.23	7.02	7.06	7.35	9.46	9.96
Wisconsin	14.67	14.06	11.05	10.71	7.74	7.36	13.91	13.86	11.05	10.60
West North Central	11.97	12.11	9.72	9.85	7.41	7.32	8.84	9.19	9.83	9.88
Iowa	13.06	12.41	10.35	9.79	6.82	6.56	--	--	9.45	9.02
Kansas	12.73	13.45	10.27	10.71	7.29	7.61	--	--	10.29	10.77
Minnesota	13.35	13.20	10.56	10.43	7.83	7.55	9.57	9.63	10.62	10.40
Missouri	10.95	11.49	8.98	9.49	6.73	7.27	8.05	8.71	9.54	10.03
Nebraska	10.95	10.81	9.02	8.86	7.74	7.65	--	--	9.24	9.08
North Dakota	10.52	10.34	9.06	9.14	8.49	8.00	--	--	9.15	8.95
South Dakota	11.64	11.65	9.49	9.63	7.80	7.80	--	--	9.95	9.99
South Atlantic	12.01	11.75	9.39	9.31	6.39	6.54	7.97	7.89	10.05	9.92
Delaware	12.71	12.56	9.71	9.63	7.52	7.94	--	--	10.67	10.55
District of Columbia	13.03	12.81	12.08	11.91	8.22	8.26	9.61	9.48	12.16	11.98
Florida	11.96	11.54	9.52	9.18	7.71	7.67	8.29	8.27	10.69	10.31
Georgia	11.62	11.66	9.73	9.87	5.93	6.05	5.87	5.59	9.68	9.73
Maryland	13.15	13.32	9.98	10.40	7.76	8.22	7.38	7.42	11.25	11.55
North Carolina	11.62	11.14	8.87	8.59	6.22	6.34	8.20	8.03	9.56	9.27
South Carolina	12.69	12.50	10.36	10.12	5.97	6.10	--	--	9.80	9.67
Virginia	12.05	11.81	8.21	8.32	6.84	6.87	8.32	8.27	9.53	9.50
West Virginia	11.21	11.27	9.06	9.29	5.96	6.43	--	--	8.40	8.75
East South Central	11.38	11.15	10.68	10.51	5.79	5.84	--	--	9.45	9.29
Alabama	12.73	12.23	11.60	11.25	6.07	6.03	--	--	9.98	9.65
Kentucky	10.67	10.60	9.96	9.73	5.40	5.68	--	--	8.52	8.51
Mississippi	11.33	11.13	10.52	10.41	5.94	5.98	--	--	9.31	9.24
Tennessee	10.81	10.70	10.56	10.49	5.74	5.66	--	--	9.75	9.57
West South Central	11.20	10.80	8.16	8.24	5.50	5.43	6.59	8.30	8.47	8.31
Arkansas	9.85	9.88	8.68	7.78	5.98	5.67	11.90	11.38	8.17	7.82
Louisiana	9.57	9.61	8.78	8.84	5.21	5.35	9.10	9.29	7.70	7.72
Oklahoma	10.22	10.41	7.83	8.10	4.92	5.36	--	--	7.81	8.15
Texas	11.84	11.21	8.06	8.20	5.62	5.43	6.42	8.23	8.78	8.52
Mountain	11.97	11.98	9.61	9.62	6.33	6.50	9.34	9.54	9.47	9.53
Arizona	12.61	12.81	10.44	10.72	6.38	6.60	9.81	10.13	10.71	10.92
Colorado	12.31	12.16	10.24	10.06	7.26	7.49	8.77	9.00	10.09	10.04
Idaho	9.93	10.19	7.71	7.98	6.16	6.53	--	--	7.91	8.18
Montana	11.39	10.99	10.48	10.11	5.37	5.14	--	--	9.13	8.82
Nevada	12.04	11.86	8.00	7.76	6.18	6.22	8.54	8.40	8.79	8.74
New Mexico	12.69	12.75	9.96	10.05	5.43	5.86	--	--	9.11	9.39
Utah	10.59	10.46	8.46	8.32	6.00	5.93	10.62	10.59	8.37	8.27
Wyoming	11.27	11.35	9.76	9.62	6.70	6.73	--	--	8.14	8.11
Pacific Contiguous	15.73	15.61	14.66	14.28	10.03	9.72	8.99	8.62	14.03	13.71
California	19.22	18.78	17.03	16.44	13.63	13.31	8.93	8.60	17.13	16.62
Oregon	11.00	11.02	8.89	8.91	6.24	5.87	9.14	9.17	9.05	8.84
Washington	9.63	9.79	8.76	8.72	4.87	4.72	9.43	9.34	8.04	8.00
Pacific Noncontiguous	28.37	27.98	25.15	24.49	23.62	23.51	--	--	25.65	25.24
Alaska	22.90	21.91	20.07	18.49	17.14	17.17	--	--	20.38	19.31
Hawaii	32.16	32.31	29.63	29.69	25.82	25.89	--	--	28.90	28.99
U.S. Total	13.06	12.91	10.70	10.70	6.87	6.94	9.74	9.70	10.62	10.56

See Technical notes for additional information on the Commercial, Industrial, and Transportation sectors.
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Notes: - See Glossary for definitions. - Values for 2018 are final. Values for 2019 are preliminary estimates based on a cutoff model sample.
See Technical Notes for a discussion of the sample design for the Form EIA-826.
Utilities and energy service providers may classify commercial and industrial customers based on either NAICS codes or demands or usage falling within specified limits by rate schedule.
Changes from year to year in consumer counts, sales and revenues, particularly involving the commercial and industrial consumer sectors, may result from respondent implementation of changes in the definitions of consumers, and reclassifications.
Totals may not equal sum of components because of independent rounding.
Source: U.S. Energy Information Administration, Form EIA-861M (formerly EIA-826), Monthly Electric Power Industry Report.

Table 5.7. Number of Ultimate Customers Served by Sector: 2009 - November 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	133,893,727	18,605,494	841,217	83	153,340,521
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	133,302,851	18,552,103	839,688	82	152,694,724
February	132,923,916	18,440,773	812,793	82	152,177,564
March	133,853,008	18,575,048	823,134	82	153,251,272
April	133,418,177	18,526,643	824,972	82	152,769,874
May	134,122,207	18,613,539	851,941	82	153,587,769
June	133,935,717	18,615,455	859,690	83	153,410,945
July	133,883,566	18,624,056	861,839	83	153,369,544
August	134,434,222	18,686,200	867,791	83	153,988,296
Sept	133,791,468	18,594,124	845,094	83	153,230,769
October	134,378,003	18,717,582	845,719	83	153,941,387
November	134,155,859	18,636,312	824,731	83	153,616,985
December	134,524,515	18,682,971	836,593	83	154,044,162
Year 2019					
January	134,971,924	18,598,495	896,988	82	154,467,489
February	133,461,435	18,495,762	878,804	82	152,836,083
March	135,217,598	18,592,872	884,084	82	154,694,636
April	134,970,942	18,596,511	893,159	82	154,460,694
May	135,484,712	18,667,363	914,115	81	155,066,271
June	135,132,927	18,591,701	919,732	81	154,644,441
July	135,510,803	18,690,105	949,264	81	155,150,253
August	135,591,206	18,677,879	944,662	81	155,213,828
Sept	135,224,385	18,645,517	936,680	81	154,806,663
October	136,171,257	18,774,393	938,406	81	155,884,137
November	135,199,686	18,649,958	911,478	82	154,761,204
Rolling 12 Months Ending in November					
2018	133,793,381	18,583,784	840,866	83	153,218,114
2019	135,121,783	18,638,627	908,664	82	154,669,155

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 2018 and prior years are final. Values for 2019 are preliminary estimates based on a cutoff model sample. See Technical Notes for a discussion of the sample design for the Form EIA-826. Utilities and energy service providers may classify commercial and industrial customers based on either NAICS codes or demands or usage falling within specified limits by rate schedule. Changes from year to year in consumer counts, sales and revenues, particularly involving the commercial and industrial consumer sectors, may result from respondent implementation of changes in the definitions of consumers, and reclassifications. Sales and net generation may not correspond exactly for a particular month for a variety of reasons (i.e., sales data may include purchases of electricity from nonutilities or imported electricity). Net generation is for the calendar month while sales and associated revenue accumulate from bills collected for periods of time (28 to 35 days) that vary dependent upon customer class and consumption occurring in and outside the calendar month.
Sources: U.S. Energy Information Administration, Form EIA-861M (formerly EIA-826), Monthly Electric Industry Power Report.Form EIA-826, Monthly Electric Sales and Revenue Report with State Distributions Report;
Form EIA-861, Annual Electric Power Industry Report; and Form EIA-861S, Annual Electric Power Industry Report (Short Form).

Table 5.8. Number of Ultimate Customers Served by Sector by State: November 2019 and 2018

Census Division and State	Residential		Commercial		Industrial		Transportation		All Sectors	
	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	6,398,002	6,372,435	900,412	893,109	19,414	22,891	6	7	7,317,834	7,288,442
Connecticut	1,514,538	1,505,852	154,434	153,974	4,140	4,276	3	4	1,673,115	1,664,106
Maine	672,796	692,709	94,357	94,191	2,531	2,937	0	0	769,684	789,837
Massachusetts	2,817,952	2,787,564	423,344	419,187	7,714	10,518	2	2	3,249,012	3,217,271
New Hampshire	628,233	622,692	108,684	107,923	3,134	3,174	0	0	740,051	733,789
Rhode Island	447,113	447,934	61,161	60,863	1,754	1,780	1	1	510,029	510,578
Vermont	317,370	315,684	58,432	56,971	141	206	0	0	375,943	372,861
Middle Atlantic	16,307,539	16,191,615	2,375,620	2,347,878	33,022	30,362	19	20	18,716,200	18,569,875
New Jersey	3,618,040	3,579,880	526,854	523,072	11,726	11,898	6	6	4,156,626	4,114,856
New York	7,254,414	7,210,578	1,128,511	1,106,240	6,504	6,815	8	8	8,389,437	8,323,641
Pennsylvania	5,435,085	5,401,157	720,255	718,566	14,792	11,649	5	6	6,170,137	6,131,378
East North Central	20,432,372	20,236,514	2,528,852	2,496,976	47,471	53,592	10	9	23,008,705	22,787,091
Illinois	5,343,872	5,297,102	623,620	616,694	4,002	5,660	3	3	5,971,497	5,919,459
Indiana	2,895,928	2,874,372	359,896	355,567	16,080	17,754	1	1	3,271,905	3,247,694
Michigan	4,430,063	4,379,063	551,864	544,330	NM	5,840	2	2	4,987,463	4,929,235
Ohio	5,015,797	4,973,739	632,715	624,048	16,977	18,639	2	2	5,665,491	5,616,428
Wisconsin	2,746,712	2,712,238	360,757	356,337	NM	5,699	2	1	3,112,349	3,074,275
West North Central	9,660,742	9,526,074	1,481,933	1,458,510	111,965	119,358	3	3	11,254,643	11,103,945
Iowa	1,413,781	1,389,975	248,364	239,459	NM	7,635	0	0	1,668,905	1,637,069
Kansas	1,289,177	1,269,408	237,247	234,864	24,961	23,877	0	0	1,551,385	1,528,149
Minnesota	2,446,656	2,428,362	295,526	296,671	NM	9,046	1	1	2,750,380	2,734,080
Missouri	2,842,402	2,799,370	387,721	385,701	6,547	8,018	2	2	3,236,672	3,193,091
Nebraska	872,043	853,708	162,087	153,988	53,536	57,892	0	0	1,087,666	1,065,588
North Dakota	387,509	383,408	75,441	75,386	8,908	9,006	0	0	471,858	467,800
South Dakota	409,174	401,843	75,547	72,441	NM	3,884	0	0	487,777	478,168
South Atlantic	28,607,134	28,148,707	3,860,614	3,807,949	78,127	83,514	13	13	32,545,888	32,040,183
Delaware	437,934	434,653	55,341	55,078	568	831	0	0	493,843	490,562
District of Columbia	285,099	277,376	26,487	26,445	1	1	3	3	311,590	303,825
Florida	9,671,655	9,532,854	1,265,498	1,237,034	20,292	21,314	2	2	10,957,447	10,791,204
Georgia	4,480,196	4,377,131	591,516	581,440	19,341	22,792	1	1	5,091,054	4,981,364
Maryland	2,361,650	2,339,731	256,124	254,750	8,797	8,812	5	5	2,626,576	2,603,298
North Carolina	4,670,411	4,576,032	710,785	697,126	9,724	9,981	1	1	5,390,921	5,283,140
South Carolina	2,352,567	2,307,864	375,099	379,312	4,171	4,596	0	0	2,731,837	2,691,772
Virginia	3,490,228	3,444,237	434,377	432,022	3,809	3,717	1	1	3,928,415	3,879,977
West Virginia	857,394	858,829	145,387	144,742	11,424	11,470	0	0	1,014,205	1,015,041
East South Central	8,582,856	8,405,985	1,421,347	1,408,149	22,064	25,832	0	0	10,026,267	9,839,966
Alabama	2,287,151	2,235,429	372,711	371,580	8,160	7,305	0	0	2,668,022	2,614,314
Kentucky	2,023,944	1,988,580	309,562	306,948	5,437	6,536	0	0	2,338,943	2,302,064
Mississippi	1,333,724	1,292,934	240,599	237,249	7,604	10,982	0	0	1,581,927	1,541,165
Tennessee	2,938,037	2,889,042	498,475	492,372	863	1,009	0	0	3,437,375	3,382,423
West South Central	16,231,738	16,389,731	2,246,297	2,378,770	315,069	197,968	6	6	18,793,110	18,966,475
Arkansas	1,412,537	1,392,112	194,436	197,438	35,570	36,517	2	2	1,642,545	1,626,069
Louisiana	2,123,174	2,089,114	294,929	293,009	18,372	19,387	1	1	2,436,476	2,401,511
Oklahoma	1,811,350	1,771,012	288,676	283,969	19,427	18,640	0	0	2,119,453	2,073,621
Texas	10,884,677	11,137,493	1,468,256	1,604,354	241,700	123,424	3	3	12,594,636	12,865,274
Mountain	10,045,588	9,901,721	1,420,249	1,419,025	88,632	93,285	5	5	11,554,474	11,414,036
Arizona	2,868,172	2,830,801	330,899	323,038	NM	7,575	2	2	3,205,347	3,161,416
Colorado	2,379,948	2,341,402	369,061	376,484	NM	15,625	1	1	2,763,590	2,733,512
Idaho	768,284	750,497	112,913	111,447	28,666	28,224	0	0	909,863	890,168
Montana	521,787	512,083	112,814	109,116	NM	8,794	0	0	641,428	629,993
Nevada	1,208,973	1,199,698	167,429	165,412	NM	3,288	1	1	1,379,616	1,368,399
New Mexico	913,654	893,632	141,105	144,372	NM	9,297	0	0	1,063,442	1,047,301
Utah	1,107,175	1,100,158	126,605	130,691	10,509	9,639	1	1	1,244,290	1,240,489
Wyoming	277,595	273,450	59,423	58,465	9,880	10,843	0	0	346,898	342,758
Pacific Contiguous	18,203,535	18,258,399	2,299,691	2,312,225	193,495	195,748	20	20	20,696,741	20,766,392
California	13,296,653	13,413,353	1,655,615	1,690,494	138,700	144,165	13	12	15,090,981	15,248,024
Oregon	1,789,336	1,753,992	242,430	236,127	26,286	25,274	2	2	2,058,054	2,015,395
Washington	3,117,546	3,091,054	401,646	385,604	28,509	26,309	5	6	3,547,706	3,502,973
Pacific Noncontiguous	730,180	724,678	114,943	113,721	NM	NM	0	0	847,342	840,580
Alaska	291,477	288,047	55,020	54,135	NM	NM	0	0	347,897	343,534
Hawaii	438,703	436,631	59,923	59,586	819	829	0	0	499,445	497,046
U.S. Total	135,199,686	134,155,859	18,649,958	18,636,312	911,478	824,731	82	83	154,761,204	153,616,985

See Technical notes for additional information on the Commercial, Industrial, and Transportation sectors.
Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells.
Notes: - See Glossary for definitions. - Values for 2018 are final. Values for 2019 are preliminary estimates based on a cutoff model sample.
NM = Not Meaningful due to large relative standard error or excessive percentage change.
See Technical Notes for a discussion of the sample design for the Form EIA-826.
Utilities and energy service providers may classify commercial and industrial customers based on either NAICS codes or demands or usage falling within specified limits by rate schedule.
Changes from year to year in consumer counts, sales and revenues, particularly involving the commercial and industrial consumer sectors, may result from respondent implementation of changes in the definitions of consumers, and reclassifications.
Totals may not equal sum of components because of independent rounding.
Source: U.S. Energy Information Administration, Form EIA-861M (formerly EIA-826), Monthly Electric Power Industry Report.

Chapter 6

Capacity

Table 6.1. Electric Generating Summer Capacity Changes (MW), October 2019 to November 2019

		As of End of October 2019	Activity During November 2019 as Reported to EIA		As of End of November 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*	*100,036.4*	*838.1*	*75.0*	*100,799.5*	*763.1*	*6,411.1*	*10,294.7*	*4,379.4*	*15,197.0*	*0.0*	*10.0*	*4,379.4*	*15,187.0*	*105,178.9*	*115,986.5*
..... *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	100,065.7	838.1	75.0	100,828.8	763.1	6,411.1	10,294.7	4,379.4	15,197.0	0.0	10.0	4,379.4	15,187.0	105,208.2	116,015.8
..... *Solar Photovoltaic*	*Utility Scale Facilities*	*32,885.0*	*748.4*	*1.4*	*33,632.0*	*747.0*	*3,511.5*	*4,941.8*	*2,496.1*	*9,935.2*	*0.0*	*0.0*	*2,496.1*	*9,935.2*	*36,128.1*	*43,567.2*
..... *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	34,642.9	748.4	1.4	35,389.9	747.0	3,511.5	4,941.8	2,496.1	9,935.2	0.0	0.0	2,496.1	9,935.2	37,886.0	45,325.1
..... Conventional Hydroelectric	Utility Scale Facilities	79,774.1	0.0	0.0	79,774.1	0.0	-97.7	-101.4	4.8	256.5	0.0	6.8	4.8	249.7	79,778.9	80,023.8
..... *Wood/Wood Waste Biomass*	*Utility Scale Facilities*	*8,422.3*	*0.0*	*0.0*	*8,422.3*	*0.0*	*-272.3*	*-272.3*	*122.0*	*130.5*	*19.0*	*19.0*	*103.0*	*111.5*	*8,525.3*	*8,533.8*
..... *Landfill Gas*	*Utility Scale Facilities*	*2,030.8*	*5.4*	*0.2*	*2,036.0*	*5.2*	*-16.2*	*-16.2*	*0.0*	*2.8*	*0.0*	*64.9*	*0.0*	*-62.1*	*2,036.0*	*1,973.9*
..... *Municipal Solid Waste*	*Utility Scale Facilities*	*2,189.3*	*0.0*	*0.0*	*2,189.3*	*0.0*	*-44.8*	*-44.8*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*2,189.3*	*2,189.3*
..... *Other Waste Biomass*	*Utility Scale Facilities*	*739.4*	*0.1*	*1.0*	*738.5*	*-0.9*	*-13.8*	*-14.2*	*0.0*	*48.2*	*4.5*	*6.5*	*-4.5*	*41.7*	*734.0*	*780.2*
..... Biomass Sources Subtotal	Utility Scale Facilities	13,381.8	5.5	1.2	13,386.1	4.3	-347.1	-347.5	122.0	181.5	23.5	90.4	98.5	91.1	13,484.6	13,477.2
..... Geothermal	Utility Scale Facilities	2,454.9	0.0	0.0	2,454.9	0.0	10.6	62.7	0.0	0.0	0.0	0.0	0.0	0.0	2,454.9	2,454.9
... Renewable Sources Subtotal	***Utility Scale Facilities***	***230,319.4***	***1,592.0***	***77.6***	***231,833.8***	***1,514.4***	***9,488.4***	***14,850.3***	***7,002.3***	***25,570.2***	***23.5***	***107.2***	***6,978.8***	***25,463.0***	***238,812.6***	***257,296.8***
..... *Natural Gas Fired Combined Cycle*	*Utility Scale Facilities*	*269,001.7*	*52.6*	*60.6*	*268,993.7*	*-8.0*	*5,131.1*	*7,229.6*	*2,482.3*	*7,513.3*	*0.0*	*703.0*	*2,482.3*	*6,810.3*	*271,476.0*	*275,804.0*
..... *Natural Gas Fired Combustion Turbine*	*Utility Scale Facilities*	*128,797.2*	*83.9*	*35.3*	*128,845.8*	*48.6*	*1,210.0*	*1,723.5*	*172.4*	*2,403.2*	*131.5*	*407.0*	*40.9*	*1,996.2*	*128,886.7*	*130,842.0*
..... *Natural Gas Steam Turbine*	*Utility Scale Facilities*	*73,193.3*	*0.0*	*0.0*	*73,193.3*	*0.0*	*-648.3*	*-1,565.3*	*0.0*	*2.4*	*1,355.9*	*1,379.2*	*-1,355.9*	*-1,376.8*	*71,837.4*	*71,816.5*
..... *Natural Gas Internal Combustion Engine*	*Utility Scale Facilities*	*4,907.9*	*19.6*	*4.1*	*4,923.4*	*15.5*	*307.8*	*309.8*	*0.0*	*192.7*	*11.2*	*40.5*	*-11.2*	*152.2*	*4,912.2*	*5,075.6*
..... *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*	*3.7*	*4.7*	*2.8*	*59.7*	*0.0*	*0.0*	*2.8*	*59.7*	*177.8*	*234.7*
..... Natural Gas Subtotal	Utility Scale Facilities	476,185.1	156.1	100.0	476,241.2	56.1	6,004.3	7,702.3	2,657.5	10,171.3	1,498.6	2,529.7	1,158.9	7,641.6	477,400.1	483,882.8
..... *Conventional Steam Coal*	*Utility Scale Facilities*	*232,919.1*	*19.9*	*3,922.3*	*229,016.7*	*-3,902.4*	*-13,012.9*	*-14,653.8*	*0.0*	*58.0*	*810.0*	*5,233.9*	*-810.0*	*-5,175.9*	*228,206.7*	*223,840.8*
..... *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	233,675.1	19.9	3,922.3	229,772.7	-3,902.4	-13,012.9	-14,653.8	0.0	58.0	810.0	5,233.9	-810.0	-5,175.9	228,962.7	224,596.8
..... Petroleum Coke	Utility Scale Facilities	1,465.2	0.0	0.0	1,465.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,465.2	1,465.2
..... Petroleum Liquids	Utility Scale Facilities	30,656.4	16.2	1.5	30,671.1	14.7	-81.9	-1,740.4	0.0	5.9	23.4	50.1	-23.4	-44.2	30,647.7	30,626.9
..... Other Gases	Utility Scale Facilities	2,548.9	0.0	0.0	2,548.9	0.0	5.0	5.0	0.0	5.0	0.0	0.0	0.0	5.0	2,548.9	2,553.9
... Fossil Fuels Subtotal	***Utility Scale Facilities***	***744,530.7***	***192.2***	***4,023.8***	***740,699.1***	***-3,831.6***	***-7,085.5***	***-8,686.9***	***2,657.5***	***10,240.2***	***2,332.0***	***7,813.7***	***325.5***	***2,426.5***	***741,024.6***	***743,125.6***
..... Hydroelectric Pumped Storage	Utility Scale Facilities	22,909.2	0.0	0.0	22,909.2	0.0	79.0	79.0	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	1,006.3	6.3	0.0	1,012.6	6.3	160.5	241.9	23.6	139.7	0.0	0.0	23.6	139.7	1,036.2	1,152.3
... Energy Storage Subtotal	***Utility Scale Facilities***	***23,962.5***	***6.3***	***0.0***	***23,968.8***	***6.3***	***239.5***	***320.9***	***23.6***	***331.3***	***0.0***	***0.0***	***23.6***	***331.3***	***23,992.4***	***24,300.1***
... Nuclear	***Utility Scale Facilities***	***98,106.1***	***0.1***	***36.0***	***98,070.2***	***-35.9***	***-1,362.7***	***-1,362.7***	***0.0***	***20.0***	***0.0***	***1,016.1***	***0.0***	***-996.1***	***98,070.2***	***97,074.1***
... All Other	***Utility Scale Facilities***	***1,495.5***	***0.0***	***0.0***	***1,495.5***	***0.0***	***47.9***	***46.9***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***1,495.5***	***1,495.5***
TOTAL	**UTILITY SCALE FACILITIES**	**1,098,414.2**	**1,790.6**	**4,137.4**	**1,096,067.4**	**-2,346.8**	**1,327.6**	**5,168.5**	**9,683.4**	**36,161.7**	**2,355.5**	**8,937.0**	**7,327.9**	**27,224.7**	**1,103,395.3**	**1,123,292.1**
..... *Estimated Small Scale Solar Photovoltaic*	*Small Scale Facilities*	*22,467.8*			*22,704.6*	*236.8*	*3,157.5*	*3,384.6*								
..... Estimated Total Solar Photovoltaic	All Facilities	55,352.8			56,336.6	983.8	6,669.0	8,326.4								
... Estimated Total Solar	***All Facilities***	***57,110.7***			***58,094.5***	***983.8***	***6,669.0***	***8,326.4***								

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

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

Table 6.1.A. Estimated Net Summer Solar Photovoltaic Capacity From Utility and Small Scale Facilities (Megawatts)
2008 - November 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	30,120.5	19,547.1	49,667.6
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	25,968.4	16,647.9	42,616.3
February	26,067.6	16,888.9	42,956.5
March	26,592.1	17,172.4	43,764.5
April	26,859.7	17,431.2	44,290.9
May	27,291.3	17,714.7	45,006.0
June	27,451.7	17,988.5	45,440.2
July	27,590.1	18,239.9	45,830.0
August	27,674.0	18,519.6	46,193.6
Sept	27,989.5	18,780.9	46,770.4
October	28,158.3	19,059.8	47,218.1
November	28,690.2	19,320.0	48,010.2
December	30,120.5	19,547.1	49,667.6
Year 2019			
January	30,815.5	19,773.0	50,588.5
February	31,016.3	20,010.3	51,026.6
March	31,234.4	20,327.0	51,561.4
April	31,323.5	20,605.7	51,929.2
May	31,385.7	20,915.1	52,300.8
June	31,698.8	21,181.3	52,880.1
July	31,929.4	21,534.6	53,464.0
August	32,157.0	21,836.7	53,993.7
Sept	32,377.6	22,148.2	54,525.8
October	32,885.0	22,467.8	55,352.8
November	33,632.0	22,704.6	56,336.6

Values for 2018 are final. Values for 2019 are preliminary.
Sources: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report' and Form EIA-860M, 'Monthly Update to the Annual Electric Generator Report.'
Estimated small scale solar photovoltaic capacity is based on data from Form EIA-861M, Form EIA-861, and from estimation methods described in the technical notes.

Table 6.1.B. Estimated Net Summer Solar Photovoltaic Capacity From Small Scale Facilities by Sector (Megawatts):
2014 - November 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	11,720.4	6,271.4	1,555.4	19,547.1
Year 2017				
January	7,754.9	4,071.5	1,143.7	12,970.1
February	7,946.3	4,110.9	1,214.8	13,272.0
March	8,115.3	4,203.6	1,240.0	13,558.9
April	8,269.3	4,293.6	1,252.2	13,815.1
May	8,453.2	4,381.8	1,280.4	14,115.3
June	8,618.2	4,481.8	1,301.9	14,401.8
July	8,778.3	4,565.3	1,327.2	14,670.8
August	8,961.3	4,711.5	1,346.0	15,018.7
Sept	9,113.0	4,738.4	1,364.9	15,216.3
October	9,265.2	4,826.7	1,364.7	15,456.6
November	9,429.8	4,924.9	1,365.1	15,719.9
December	9,626.8	5,155.8	1,365.1	16,147.8
Year 2018				
January	9,817.0	5,460.2	1,370.7	16,647.9
February	9,977.5	5,530.9	1,380.4	16,888.9
March	10,144.5	5,629.9	1,398.0	17,172.4
April	10,301.4	5,712.2	1,417.5	17,431.2
May	10,476.8	5,801.6	1,436.2	17,714.7
June	10,643.5	5,891.0	1,454.0	17,988.5
July	10,810.7	5,967.0	1,462.2	18,239.9
August	10,991.8	6,055.4	1,472.4	18,519.6
Sept	11,157.7	6,132.3	1,491.0	18,780.9
October	11,354.3	6,204.2	1,501.4	19,059.8
November	11,529.1	6,261.2	1,529.7	19,320.0
December	11,720.4	6,271.4	1,555.4	19,547.1
Year 2019				
January	11,898.3	6,295.4	1,579.3	19,773.0
February	12,069.7	6,350.1	1,590.5	20,010.3
March	12,270.7	6,445.7	1,610.7	20,327.0
April	12,454.0	6,511.1	1,640.5	20,605.7
May	12,650.2	6,596.9	1,668.0	20,915.1
June	12,840.4	6,651.6	1,689.3	21,181.3
July	13,096.0	6,739.8	1,698.9	21,534.6
August	13,308.1	6,814.3	1,714.3	21,836.7
Sept	13,525.8	6,885.2	1,737.2	22,148.2
October	13,760.9	6,957.2	1,749.7	22,467.8
November	13,983.8	6,957.5	1,763.4	22,704.6

Values for 2018 are final. Values for 2019 are preliminary.
Improved renewable data reporting has resulted in realignment of the commercial and industrial sectors.
Estimated small scale solar photovoltaic capacity is based on data from Form EIA-861M, Form EIA-861, and from estimation methods described in the technical notes.

Table 6.2.A. Net Summer Capacity of Utility Scale Units by Technology and by State, November 2019 and 2018 (Megawatts)

Census Division and State	Renewable Sources		Fossil Fuels		Hydroelectric Pumped Storage		Other Energy Storage		Nuclear		All Other Sources		All Sources	
	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	5,946.7	5,794.8	24,232.0	23,058.6	1,797.4	1,797.4	55.5	28.7	3,323.5	4,003.5	48.0	48.0	35,403.1	34,731.0
Connecticut	420.8	392.6	7,870.6	7,290.6	29.4	29.4	1.6	1.6	2,073.1	2,073.1	26.0	26.0	10,421.5	9,813.3
Maine	2,292.2	2,346.5	2,478.8	2,478.8	0.0	0.0	16.2	16.2	0.0	0.0	22.0	22.0	4,809.2	4,863.5
Massachusetts	1,455.1	1,363.3	9,615.1	9,069.3	1,768.0	1,768.0	26.8	7.9	0.0	679.0	0.0	0.0	12,865.0	12,887.5
New Hampshire	928.1	928.1	2,289.9	2,289.9	0.0	0.0	0.0	0.0	1,250.4	1,251.4	0.0	0.0	4,468.4	4,469.4
Rhode Island	168.0	120.2	1,832.1	1,832.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,000.1	1,952.3
Vermont	682.5	644.1	145.5	97.9	0.0	0.0	10.9	3.0	0.0	0.0	0.0	0.0	838.9	745.0
Middle Atlantic	11,388.3	11,088.2	72,165.2	72,253.0	3,411.6	3,411.6	143.5	76.9	17,895.1	18,700.2	11.2	11.2	105,014.9	105,541.1
New Jersey	1,076.5	996.7	12,160.5	12,437.7	420.0	420.0	42.1	2.5	3,500.2	3,500.2	11.2	11.2	17,210.5	17,368.3
New York	7,451.7	7,238.6	26,961.7	26,951.1	1,408.6	1,408.6	53.0	26.0	5,400.7	5,403.0	0.0	0.0	41,275.7	41,027.3
Pennsylvania	2,860.1	2,852.9	33,043.0	32,864.2	1,583.0	1,583.0	48.4	48.4	8,994.2	9,797.0	0.0	0.0	46,528.7	47,145.5
East North Central	13,146.0	12,331.8	109,857.3	112,580.4	2,231.0	2,152.0	194.7	168.7	19,001.8	19,034.4	187.1	188.1	144,617.9	146,455.4
Illinois	5,179.2	4,570.3	27,477.3	29,055.3	0.0	0.0	132.7	112.7	11,582.4	11,582.4	78.0	78.0	44,449.6	45,398.7
Indiana	2,665.3	2,641.7	23,932.6	23,928.4	0.0	0.0	28.0	22.0	0.0	0.0	88.0	89.0	26,713.9	26,681.1
Michigan	2,993.1	2,830.6	20,195.8	20,614.2	2,231.0	2,152.0	1.0	1.0	4,089.6	4,122.2	0.0	0.0	29,510.5	29,720.0
Ohio	1,070.9	1,051.8	25,190.8	25,920.9	0.0	0.0	33.0	33.0	2,134.0	2,134.0	0.0	0.0	28,428.7	29,139.7
Wisconsin	1,237.5	1,237.4	13,060.8	13,061.6	0.0	0.0	0.0	0.0	1,195.8	1,195.8	21.1	21.1	15,515.2	15,515.9
West North Central	30,940.1	27,171.5	59,321.1	60,037.6	657.0	657.0	20.1	4.0	5,443.4	5,443.4	22.8	22.8	96,404.5	93,336.3
Iowa	8,973.1	7,486.9	9,808.4	9,811.9	0.0	0.0	1.1	0.0	601.4	601.4	0.0	0.0	19,384.0	17,900.2
Kansas	6,159.6	5,135.9	9,033.7	9,025.4	0.0	0.0	0.0	0.0	1,225.0	1,225.0	0.8	0.8	16,419.1	15,387.1
Minnesota	5,319.8	5,044.5	10,290.2	10,282.2	0.0	0.0	16.0	1.0	1,657.0	1,657.0	16.7	16.7	17,299.7	17,001.4
Missouri	1,579.0	1,579.0	17,661.9	18,391.2	657.0	657.0	2.2	2.2	1,190.0	1,190.0	0.0	0.0	21,090.1	21,819.4
Nebraska	2,490.2	1,806.8	6,202.0	6,202.0	0.0	0.0	0.0	0.0	770.0	770.0	0.0	0.0	9,462.2	8,778.8
North Dakota	3,741.6	3,641.6	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	8,280.5
South Dakota	2,676.8	2,476.8	1,691.3	1,691.3	0.0	0.0	0.8	0.8	0.0	0.0	0.0	0.0	4,368.9	4,168.9
South Atlantic	21,181.0	19,615.6	161,101.9	163,376.0	7,905.2	7,905.2	76.5	72.5	24,706.6	24,706.6	408.7	408.7	215,379.9	216,084.6
Delaware	48.0	47.5	3,330.4	3,330.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,378.4	3,377.9
District of Columbia	18.9	23.0	16.5	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.4	32.0
Florida	3,212.8	2,555.0	53,002.3	53,990.1	0.0	0.0	14.0	14.0	3,626.0	3,626.0	348.7	348.7	60,203.8	60,533.8
Georgia	4,138.7	4,010.5	26,068.1	27,050.6	1,862.2	1,862.2	1.0	1.0	4,061.0	4,061.0	0.0	0.0	36,131.0	36,985.3
Maryland	1,218.7	1,187.4	11,680.8	11,847.1	0.0	0.0	7.0	7.0	1,725.8	1,725.8	6.0	6.0	14,638.3	14,773.3
North Carolina	7,016.7	6,472.4	22,011.5	22,120.5	86.0	86.0	1.0	1.0	5,149.6	5,149.6	54.0	54.0	34,318.8	33,883.5
South Carolina	2,411.0	2,141.8	12,184.1	12,164.3	2,716.0	2,716.0	4.0	0.0	6,576.2	6,576.2	0.0	0.0	23,891.3	23,598.3
Virginia	2,085.9	2,150.9	19,020.3	19,089.9	3,241.0	3,241.0	0.0	0.0	3,568.0	3,568.0	0.0	0.0	27,915.2	28,049.8
West Virginia	1,030.3	1,027.1	13,787.9	13,774.1	0.0	0.0	49.5	49.5	0.0	0.0	0.0	0.0	14,867.7	14,850.7
East South Central	8,829.0	8,727.4	62,690.3	64,592.7	1,616.3	1,616.3	1.0	1.0	11,449.1	11,294.1	1.4	1.4	84,587.1	86,232.9
Alabama	4,090.8	4,071.7	19,550.0	20,660.4	0.0	0.0	1.0	1.0	5,525.4	5,370.4	0.0	0.0	29,167.2	30,103.5
Kentucky	1,247.8	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	19,538.1	20,119.7
Mississippi	468.0	463.0	12,659.7	12,867.7	0.0	0.0	0.0	0.0	1,401.0	1,401.0	1.4	1.4	14,530.1	14,733.1
Tennessee	3,022.4	2,947.3	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	21,351.7	21,276.6
West South Central	42,023.1	37,166.6	139,803.8	139,108.5	286.0	286.0	131.7	99.8	8,910.7	8,910.7	560.4	512.5	191,715.7	186,084.1
Arkansas	1,707.1	1,697.1	11,219.7	11,219.7	28.0	28.0	12.0	0.0	1,817.8	1,817.8	0.0	0.0	14,784.6	14,762.6
Louisiana	615.5	683.2	21,028.4	20,056.9	0.0	0.0	0.5	0.5	2,132.9	2,132.9	336.4	288.5	24,113.7	23,162.0
Oklahoma	9,041.0	8,663.7	18,111.5	18,102.0	258.0	258.0	0.0	0.0	0.0	0.0	0.0	0.0	27,410.5	27,023.7
Texas	30,659.5	26,122.6	89,444.2	89,729.9	0.0	0.0	119.2	99.3	4,960.0	4,960.0	224.0	224.0	125,406.9	121,135.8
Mountain	28,213.2	26,502.8	60,225.2	62,239.7	778.8	778.8	56.1	36.6	3,937.0	3,937.0	123.0	123.0	93,333.3	93,617.9
Arizona	5,132.0	5,091.1	17,477.8	19,395.3	216.3	216.3	42.0	32.0	3,937.0	3,937.0	0.0	0.0	26,805.1	28,671.7
Colorado	5,073.4	4,290.1	10,963.0	11,063.0	562.5	562.5	10.5	1.0	0.0	0.0	9.1	9.1	16,618.5	15,925.7
Idaho	4,071.9	4,068.5	1,127.1	1,127.1	0.0	0.0	0.0	0.0	0.0	0.0	14.8	14.8	5,213.8	5,210.4
Montana	3,576.1	3,571.2	2,744.9	2,744.9	0.0	0.0	0.0	0.0	0.0	0.0	40.0	40.0	6,361.0	6,356.1
Nevada	3,985.4	3,620.3	7,821.6	7,821.6	0.0	0.0	0.0	0.0	0.0	0.0	6.5	6.5	11,813.5	11,448.4
New Mexico	2,734.2	2,466.7	5,956.3	5,953.3	0.0	0.0	3.6	3.6	0.0	0.0	0.0	0.0	8,694.1	8,423.6
Utah	1,660.1	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	9,060.5	9,000.9
Wyoming	1,980.1	1,794.4	6,774.3	6,774.3	0.0	0.0	0.0	0.0	0.0	0.0	12.4	12.4	8,766.8	8,581.1
Pacific Contiguous	68,826.6	67,401.1	47,077.4	47,921.1	4,225.9	4,225.9	272.3	242.3	3,403.0	3,403.0	106.3	106.3	123,911.5	123,299.7
California	31,705.3	30,397.1	38,009.5	38,853.2	3,911.9	3,911.9	261.1	231.1	2,240.0	2,240.0	106.3	106.3	76,234.1	75,739.6
Oregon	12,457.3	12,245.7	4,326.1	4,326.1	0.0	0.0	5.0	5.0	0.0	0.0	0.0	0.0	16,788.4	16,576.8
Washington	24,664.0	24,758.3	4,741.8	4,741.8	314.0	314.0	6.2	6.2	1,163.0	1,163.0	0.0	0.0	30,889.0	30,983.3
Pacific Noncontiguous	1,339.8	1,183.7	4,224.9	4,218.4	0.0	0.0	108.2	87.2	0.0	0.0	26.6	26.6	5,699.5	5,515.9
Alaska	538.2	538.2	2,166.6	2,160.1	0.0	0.0	47.2	46.2	0.0	0.0	0.0	0.0	2,752.0	2,744.5
Hawaii	801.6	645.5	2,058.3	2,058.3	0.0	0.0	61.0	41.0	0.0	0.0	26.6	26.6	2,947.5	2,771.4
U.S. Total	231,833.8	216,983.5	740,699.1	749,386.0	22,909.2	22,830.2	1,059.6	817.7	98,070.2	99,432.9	1,495.5	1,448.6	1,096,067.4	1,090,898.9

NM = Not meaningful due to large relative standard error.
Values for 2018 are final. Values for 2019 are preliminary.

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

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

Table 6.2.B. Net Summer Capacity Using Primarily Renewable Energy Sources and by State, November 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	
	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	1,429.4	1,403.8	1,075.1	893.8	0.0	0.0	1,961.6	1,959.5	1,480.6	1,537.7	0.0	0.0	5,946.7	5,794.8	2,494.8	2,282.3	3,569.9	3,176.1	3,569.9	3,176.1
Connecticut	1.0	1.0	95.0	66.8	0.0	0.0	122.2	122.2	202.6	202.6	0.0	0.0	420.8	392.6	496.3	420.6	591.3	487.4	591.3	487.4
Maine	921.6	921.6	5.6	5.6	0.0	0.0	735.2	732.4	629.8	686.9	0.0	0.0	2,292.2	2,346.5	57.7	41.9	63.3	47.5	63.3	47.5
Massachusetts	100.7	96.1	802.8	714.9	0.0	0.0	266.3	267.0	285.3	285.3	0.0	0.0	1,455.1	1,363.3	1,588.4	1,553.5	2,391.2	2,268.4	2,391.2	2,268.4
New Hampshire	183.1	183.1	0.0	0.0	0.0	0.0	504.0	504.0	241.0	241.0	0.0	0.0	928.1	928.1	98.5	83.9	98.5	83.9	98.5	83.9
Rhode Island	72.8	51.8	52.4	25.6	0.0	0.0	2.7	2.7	40.1	40.1	0.0	0.0	168.0	120.2	136.5	81.1	188.9	106.7	188.9	106.7
Vermont	150.2	150.2	119.3	80.9	0.0	0.0	331.2	331.2	81.8	81.8	0.0	0.0	682.5	644.1	117.4	101.3	236.7	182.2	236.7	182.2
Middle Atlantic	3,363.3	3,283.4	1,297.1	1,053.2	0.0	0.0	5,473.2	5,473.2	1,254.7	1,278.4	0.0	0.0	11,388.3	11,088.2	3,451.7	2,973.7	4,748.8	4,026.9	4,748.8	4,026.9
New Jersey	7.6	7.6	845.9	749.5	0.0	0.0	12.3	12.3	210.7	227.3	0.0	0.0	1,076.5	996.7	1,633.8	1,445.2	2,479.7	2,194.7	2,479.7	2,194.7
New York	1,985.7	1,905.8	383.8	247.4	0.0	0.0	4,561.3	4,561.3	520.9	524.1	0.0	0.0	7,451.7	7,238.6	1,448.7	1,205.6	1,832.5	1,453.0	1,832.5	1,453.0
Pennsylvania	1,370.0	1,370.0	67.4	56.3	0.0	0.0	899.6	899.6	523.1	527.0	0.0	0.0	2,860.1	2,852.9	369.1	322.8	436.5	379.1	436.5	379.1
East North Central	10,544.1	9,773.9	506.3	445.1	0.0	0.0	859.9	859.9	1,235.7	1,252.9	0.0	0.0	13,146.0	12,331.8	610.1	389.3	1,116.4	834.4	1,116.4	834.4
Illinois	5,015.7	4,406.8	40.6	40.6	0.0	0.0	34.1	34.1	88.8	88.8	0.0	0.0	5,179.2	4,570.3	185.5	74.3	226.1	114.9	226.1	114.9
Indiana	2,309.8	2,309.8	224.3	200.7	0.0	0.0	60.4	60.4	70.8	70.8	0.0	0.0	2,665.3	2,641.7	94.0	73.5	318.3	274.2	318.3	274.2
Michigan	2,061.8	1,900.5	100.2	98.2	0.0	0.0	269.9	269.9	561.2	562.0	0.0	0.0	2,993.1	2,830.6	91.8	64.6	192.0	162.8	192.0	162.8
Ohio	718.4	718.4	100.8	81.7	0.0	0.0	101.9	101.9	149.8	149.8	0.0	0.0	1,070.9	1,051.8	158.0	116.2	258.8	197.9	258.8	197.9
Wisconsin	438.4	438.4	40.4	23.9	0.0	0.0	393.6	393.6	365.1	381.5	0.0	0.0	1,237.5	1,237.4	80.8	60.8	121.2	84.7	121.2	84.7
West North Central	26,207.9	22,578.9	974.1	799.7	0.0	0.0	3,293.7	3,293.7	464.4	499.2	0.0	0.0	30,940.1	27,171.5	428.3	325.2	1,402.4	1,124.9	1,402.4	1,124.9
Iowa	8,791.8	7,310.2	13.5	8.9	0.0	0.0	146.4	146.4	21.4	21.4	0.0	0.0	8,973.1	7,486.9	114.3	90.7	127.8	99.6	127.8	99.6
Kansas	6,133.4	5,115.7	10.2	4.2	0.0	0.0	7.0	7.0	9.0	9.0	0.0	0.0	6,159.6	5,135.9	24.7	18.3	34.9	22.5	34.9	22.5
Minnesota	3,850.5	3,703.9	869.0	705.5	0.0	0.0	205.9	205.9	394.4	429.2	0.0	0.0	5,319.8	5,044.5	77.9	58.8	946.9	764.3	946.9	764.3
Missouri	954.3	954.3	62.1	62.1	0.0	0.0	548.5	548.5	14.1	14.1	0.0	0.0	1,579.0	1,579.0	200.3	149.2	262.4	211.3	262.4	211.3
Nebraska	2,178.3	1,495.2	18.3	18.0	0.0	0.0	277.9	277.9	15.7	15.7	0.0	0.0	2,490.2	1,806.8	9.8	7.3	28.1	25.3	28.1	25.3
North Dakota	3,221.8	3,121.8	0.0	0.0	0.0	0.0	510.0	510.0	9.8	9.8	0.0	0.0	3,741.6	3,641.6	0.5	0.3	0.5	0.3	0.5	0.3
South Dakota	1,077.8	877.8	1.0	1.0	0.0	0.0	1,598.0	1,598.0	0.0	0.0	0.0	0.0	2,676.8	2,476.8	0.8	0.6	1.8	1.6	1.8	1.6
South Atlantic	1,086.3	1,086.3	8,672.7	6,969.8	0.0	0.0	7,226.4	7,229.2	4,195.6	4,330.3	0.0	0.0	21,181.0	19,615.6	2,064.9	1,671.9	10,737.6	8,641.7	10,737.6	8,641.7
Delaware	2.0	2.0	33.8	33.3	0.0	0.0	0.0	0.0	12.2	12.2	0.0	0.0	48.0	47.5	85.3	78.1	119.1	111.4	119.1	111.4
District of Columbia	0.0	0.0	6.9	0.0	0.0	0.0	0.0	0.0	12.0	23.0	0.0	0.0	18.9	23.0	59.6	49.9	66.5	49.9	66.5	49.9
Florida	0.0	0.0	1,975.9	1,272.6	0.0	0.0	54.5	54.5	1,182.4	1,227.9	0.0	0.0	3,212.8	2,555.0	454.7	276.4	2,430.6	1,549.0	2,430.6	1,549.0
Georgia	0.0	0.0	1,142.1	1,013.9	0.0	0.0	2,047.2	2,047.2	949.4	949.4	0.0	0.0	4,138.7	4,010.5	NM	163.9	NM	1,177.8	NM	1,177.8
Maryland	190.0	190.0	297.8	267.4	0.0	0.0	590.0	590.0	140.9	140.0	0.0	0.0	1,218.7	1,187.4	773.6	706.5	1,071.4	973.9	1,071.4	973.9
North Carolina	208.0	208.0	4,241.9	3,703.5	0.0	0.0	2,004.0	2,002.0	562.8	558.9	0.0	0.0	7,016.7	6,472.4	178.6	138.0	4,420.5	3,841.5	4,420.5	3,841.5
South Carolina	0.0	0.0	560.6	286.6	0.0	0.0	1,323.9	1,328.7	526.5	526.5	0.0	0.0	2,411.0	2,141.8	228.3	193.8	788.9	480.4	788.9	480.4
Virginia	0.0	0.0	413.7	392.5	0.0	0.0	866.0	866.0	806.2	892.4	0.0	0.0	2,085.9	2,150.9	96.1	58.4	509.8	450.9	509.8	450.9
West Virginia	686.3	686.3	0.0	0.0	0.0	0.0	340.8	340.8	3.2	0.0	0.0	0.0	1,030.3	1,027.1	7.6	6.8	7.6	6.8	7.6	6.8
East South Central	29.1	29.1	566.5	471.7	0.0	0.0	7,055.3	7,055.5	1,178.1	1,171.1	0.0	0.0	8,829.0	8,727.4	104.2	93.2	670.7	564.9	670.7	564.9
Alabama	0.0	0.0	194.1	179.4	0.0	0.0	3,291.8	3,292.0	604.9	600.3	0.0	0.0	4,090.8	4,071.7	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	74.6	72.2	0.0	0.0	1,247.8	1,245.4	28.0	22.8	54.3	49.1	54.3	49.1
Mississippi	0.0	0.0	165.6	160.6	0.0	0.0	0.0	0.0	302.4	302.4	0.0	0.0	468.0	463.0	8.8	6.8	174.4	167.4	174.4	167.4
Tennessee	29.1	29.1	180.5	105.4	0.0	0.0	2,616.6	2,616.6	196.2	196.2	0.0	0.0	3,022.4	2,947.3	58.7	56.6	239.2	162.0	239.2	162.0
West South Central	35,413.6	31,001.2	2,384.5	1,863.4	0.0	0.0	2,991.4	2,991.4	1,233.6	1,310.6	0.0	0.0	42,023.1	37,166.6	833.9	623.5	3,218.4	2,486.9	3,218.4	2,486.9
Arkansas	0.0	0.0	110.0	100.0	0.0	0.0	1,265.8	1,265.8	331.3	331.3	0.0	0.0	1,707.1	1,697.1	24.5	15.1	134.5	115.1	134.5	115.1
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	146.4	138.5	147.5	139.6	147.5	139.6
Oklahoma	8,070.7	7,693.4	30.5	30.5	0.0	0.0	863.6	863.6	76.2	76.2	0.0	0.0	9,041.0	8,663.7	12.3	7.2	42.8	37.7	42.8	37.7
Texas	27,342.9	23,307.8	2,242.9	1,731.8	0.0	0.0	670.0	670.0	403.7	413.0	0.0	0.0	30,659.5	26,122.6	650.7	462.7	2,893.6	2,194.5	2,893.6	2,194.5
Mountain	9,939.4	8,965.8	6,321.0	5,645.3	473.9	473.9	10,654.9	10,650.0	175.7	174.3	648.3	593.5	28,213.2	26,502.8	2,698.0	2,321.4	9,019.0	7,966.7	9,492.9	8,440.6
Arizona	267.3	267.3	1,817.7	1,776.8	295.4	295.4	2,720.9	2,720.9	30.7	30.7	0.0	0.0	5,132.0	5,091.1	1,412.3	1,265.3	3,230.0	3,042.1	3,525.4	3,337.5
Colorado	3,763.1	3,103.7	595.2	471.3	0.0	0.0	686.4	686.4	28.7	28.7	0.0	0.0	5,073.4	4,290.1	383.2	352.2	978.4	823.5	978.4	823.5
Idaho	970.4	970.4	242.0	240.0	0.0	0.0	2,764.2	2,764.2	85.3	83.9	10.0	10.0	4,071.9	4,068.5	41.8	25.1	283.8	265.1	283.8	265.1
Montana	783.5	783.5	17.0	17.0	0.0	0.0	2,772.6	2,767.7	3.0	3.0	0.0	0.0	3,576.1	3,571.2	17.3	13.7	34.3	30.7	34.3	30.7
Nevada	150.0	150.0	2,039.0	1,721.7	178.5	178.5	1,051.4	1,051.4	9.8	9.8	556.7	508.9	3,985.4	3,620.3	402.6	294.2	2,441.6	2,015.9	2,620.1	2,194.4
New Mexico	2,035.9	1,815.4	601.4	561.4	0.0	0.0	82.9	82.9	5.4	5.4	8.6	1.6	2,734.2	2,466.7	165.9	133.5	767.3	694.9	767.3	694.9
Utah	388.2	388.2	916.7	857.1	0.0	0.0	269.4	269.4	12.8	12.8	73.0	73.0	1,660.1	1,600.5	268.8	233.3	1,185.5	1,090.4	1,185.5	1,090.4
Wyoming	1,581.0	1,487.3	92.0	0.0	0.0	0.0	307.1	307.1	0.0	0.0	0.0	0.0	1,980.1	1,794.4	6.2	4.2	98.2	4.2	98.2	4.2
Pacific Contiguous	12,549.5	12,145.5	11,581.0	10,444.1	1,284.0	1,284.0	39,754.7	39,866.6	1,893.8	1,905.2	1,763.6	1,755.7	68,826.6	67,401.1	9,350.2	8,029.4	20,931.2	18,473.5	22,215.2	19,757.5
California	6,057.5	5,862.2	11,232.2	10,124.3	1,284.0	1,284.0	10,185.9	10,184.3	1,201.6	1,206.1	1,744.1	1,736.2	31,705.3	30,397.1	9,010.1	7,748.3	20,242.3	17,872.6	21,526.3	19,156.6
Oregon	3,418.9	3,210.2	329.1	300.1	0.0	0.0	8,375.0	8,401.2	314.8	314.7	19.5	19.5	12,457.3	12,245.7	169.2	153.1	498.3	453.2	498.3	453.2
Washington	3,073.1	3,073.1	19.7	19.7	0.0	0.0	21,193.8	21,281.1	377.4	384.4	0.0	0.0	24,664.0	24,758.3	171.0	128.0	190.7	147.7	190.7	147.7
Pacific Noncontiguous	266.2	266.2	253.7	104.1	0.0	0.0	503.0	496.5	273.9	273.9	43.0	43.0	1,339.8	1,183.7	668.4	610.0	922.1	714.1	922.1	714.1
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	5.4	3.2	5.4	3.2	5.4	3.2
Hawaii	205.6	205.6	253.7	104.1	0.0	0.0	32.4	25.9	266.9	266.9	43.0	43.0	801.6	645.5	663.0	606.9	916.7	711.0	916.7	711.0
U.S. Total	100,828.8	90,534.1	33,632.0	28,690.2	1,757.9	1,757.9	79,774.1	79,875.5	13,386.1	13,733.6	2,454.9	2,392.2	231,833.8	216,983.5	22,704.6	19,320.0	56,336.6	48,010.2	58,094.5	49,768.1

NM = Not meaningful due to large relative standard error.
Values for 2018 are final. Values for 2019 are preliminary.

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

Table 6.2.C. Net Summer Capacity of Utility Scale Units Using Primarily Fossil Fuels and by State, November 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	
	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018	November 2019	November 2018
New England	14,298.0	13,709.5	1,581.4	1,056.6	1,116.3	1,112.6	917.3	917.3	0.0	0.0	6,319.0	6,262.6	0.0	0.0	24,232.0	23,058.6
Connecticut	4,019.0	3,442.7	563.0	563.0	878.7	875.0	383.4	383.4	0.0	0.0	2,026.5	2,026.5	0.0	0.0	7,870.6	7,290.6
Maine	1,284.3	1,284.3	144.3	144.3	12.5	12.5	0.0	0.0	0.0	0.0	1,037.7	1,037.7	0.0	0.0	2,478.8	2,478.8
Massachusetts	5,949.5	5,937.3	857.9	333.1	199.7	199.7	0.0	0.0	0.0	0.0	2,608.0	2,599.2	0.0	0.0	9,615.1	9,069.3
New Hampshire	1,258.0	1,258.0	3.8	3.8	0.0	0.0	533.9	533.9	0.0	0.0	494.2	494.2	0.0	0.0	2,289.9	2,289.9
Rhode Island	1,787.2	1,787.2	12.4	12.4	25.4	25.4	0.0	0.0	0.0	0.0	7.1	7.1	0.0	0.0	1,832.1	1,832.1
Vermont	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	145.5	97.9	0.0	0.0	145.5	97.9
Middle Atlantic	33,205.4	30,422.4	7,860.3	7,909.1	14,474.3	14,503.4	11,129.7	13,776.7	11.6	11.6	5,353.2	5,499.1	130.7	130.7	72,165.2	72,253.0
New Jersey	8,544.7	8,529.9	2,826.3	2,826.3	46.9	46.9	463.0	609.0	11.6	11.6	239.0	385.0	29.0	29.0	12,160.5	12,437.7
New York	8,920.3	8,922.6	3,173.0	3,173.0	9,678.0	9,665.2	1,631.5	1,631.5	0.0	0.0	3,558.9	3,558.8	0.0	0.0	26,961.7	26,951.1
Pennsylvania	15,740.4	12,969.9	1,861.0	1,909.8	4,749.4	4,791.3	9,035.2	11,536.2	0.0	0.0	1,555.3	1,555.3	101.7	101.7	33,043.0	32,864.2
East North Central	21,673.0	21,661.3	26,661.7	26,654.4	5,742.8	5,563.6	51,983.9	54,908.0	247.6	247.6	2,455.4	2,452.6	1,092.9	1,092.9	109,857.3	112,580.4
Illinois	3,580.2	3,580.2	10,519.8	10,504.8	1,629.8	1,633.6	11,034.0	12,626.0	0.0	0.0	677.0	674.2	36.5	36.5	27,477.3	29,055.3
Indiana	3,849.0	3,836.0	3,344.6	3,353.4	730.0	730.0	15,291.4	15,291.4	0.0	0.0	98.3	98.3	619.3	619.3	23,932.6	23,928.4
Michigan	4,394.3	4,413.6	3,874.0	3,874.0	2,558.5	2,375.5	8,608.3	9,190.4	47.2	47.2	463.5	463.5	250.0	250.0	20,195.8	20,614.2
Ohio	7,038.4	7,020.4	5,561.1	5,559.2	185.1	185.1	11,496.0	12,246.0	142.0	142.0	581.1	581.1	187.1	187.1	25,190.8	25,920.9
Wisconsin	2,811.1	2,811.1	3,362.2	3,363.0	639.4	639.4	5,554.2	5,554.2	58.4	58.4	635.5	635.5	0.0	0.0	13,060.8	13,061.6
West North Central	6,814.9	6,640.9	11,685.3	11,737.3	3,822.7	3,807.2	33,063.7	33,929.0	39.5	39.5	3,886.6	3,875.3	8.4	8.4	59,321.1	60,037.6
Iowa	1,779.8	1,779.8	1,260.4	1,260.4	540.5	540.5	5,371.7	5,371.7	39.5	39.5	816.5	820.0	0.0	0.0	9,808.4	9,811.9
Kansas	266.0	266.0	2,156.8	2,156.8	1,363.8	1,367.9	4,679.8	4,670.2	0.0	0.0	567.3	564.5	0.0	0.0	9,033.7	9,025.4
Minnesota	2,346.0	2,172.0	2,615.9	2,667.9	401.2	381.6	4,157.9	4,292.6	0.0	0.0	769.2	768.1	0.0	0.0	10,290.2	10,282.2
Missouri	1,794.9	1,794.9	3,400.6	3,400.6	871.1	871.1	10,470.9	11,211.1	0.0	0.0	1,124.4	1,113.5	0.0	0.0	17,661.9	18,391.2
Nebraska	338.2	338.2	1,149.0	1,149.0	525.8	525.8	3,867.0	3,867.0	0.0	0.0	322.0	322.0	0.0	0.0	6,202.0	6,202.0
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	61,163.3	58,480.2	31,940.9	31,914.2	6,824.2	7,334.2	51,947.6	54,760.3	142.8	142.8	8,948.1	10,609.3	135.0	135.0	161,101.9	163,376.0
Delaware	1,511.0	1,511.0	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	3,330.4
District of Columbia	0.0	0.0	16.5	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.5	9.0
Florida	31,594.8	30,229.7	7,752.7	7,759.2	2,493.2	2,419.2	7,804.0	8,570.0	59.0	59.0	3,298.6	4,953.0	0.0	0.0	53,002.3	53,990.1
Georgia	7,989.0	7,989.0	7,791.0	7,791.0	842.9	842.9	8,416.0	9,398.5	83.8	83.8	945.4	945.4	0.0	0.0	26,068.1	27,050.6
Maryland	2,849.1	2,849.1	1,899.9	1,899.9	1,397.2	1,494.2	4,267.0	4,327.0	0.0	0.0	1,267.6	1,276.9	0.0	0.0	11,680.8	11,847.1
North Carolina	5,068.0	5,068.0	6,050.7	6,045.1	1.0	0.0	10,389.2	10,504.8	0.0	0.0	502.6	502.6	0.0	0.0	22,011.5	22,120.5
South Carolina	3,185.0	3,185.0	2,774.2	2,757.9	546.0	546.0	5,212.0	5,212.0	0.0	0.0	466.9	463.4	0.0	0.0	12,184.1	12,164.3
Virginia	8,966.4	7,648.4	4,245.3	4,245.3	585.3	1,073.3	2,881.4	3,780.0	0.0	0.0	2,341.9	2,342.9	0.0	0.0	19,020.3	19,089.9
West Virginia	0.0	0.0	1,093.4	1,089.6	115.5	115.5	12,568.0	12,558.0	0.0	0.0	11.0	11.0	0.0	0.0	13,787.9	13,774.1
East South Central	21,746.2	21,746.2	12,669.7	12,626.1	4,305.8	4,592.8	23,842.1	25,490.8	0.0	0.0	106.7	117.0	19.8	19.8	62,690.3	64,592.7
Alabama	9,699.0	9,699.0	2,575.8	2,532.2	1,938.8	2,028.1	5,274.0	6,338.7	0.0	0.0	42.6	42.6	19.8	19.8	19,550.0	20,660.4
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	7,829.1	1,336.8	1,336.8	2,040.8	2,238.5	1,444.0	1,444.0	0.0	0.0	9.0	19.3	0.0	0.0	12,659.7	12,867.7
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	61,221.1	60,239.5	14,616.7	14,419.5	31,846.8	30,929.3	30,158.1	31,564.1	954.7	954.7	175.6	175.6	830.8	825.8	139,803.8	139,108.5
Arkansas	4,603.4	4,603.4	702.8	702.8	796.0	796.0	5,105.3	5,105.3	0.0	0.0	12.2	12.2	0.0	0.0	11,219.7	11,219.7
Louisiana	8,430.6	7,474.6	2,365.1	2,349.6	6,057.6	6,057.6	2,833.7	2,833.7	890.9	890.9	43.1	43.1	407.4	407.4	21,028.4	20,056.9
Oklahoma	7,263.6	7,263.6	1,686.9	1,686.9	5,764.1	4,773.6	3,322.5	4,303.5	0.0	0.0	74.4	74.4	0.0	0.0	18,111.5	18,102.0
Texas	40,923.5	40,897.9	9,861.9	9,680.2	19,229.1	19,302.1	18,896.6	19,321.6	63.8	63.8	45.9	45.9	423.4	418.4	89,444.2	89,729.9
Mountain	22,539.8	22,510.8	9,149.1	8,625.6	3,615.4	3,832.4	24,415.5	26,765.5	52.0	52.0	349.9	349.9	103.5	103.5	60,225.2	62,239.7
Arizona	9,908.6	9,879.6	2,891.1	2,367.6	1,258.6	1,478.6	3,329.0	5,579.0	0.0	0.0	90.5	90.5	0.0	0.0	17,477.8	19,395.3
Colorado	3,249.5	3,249.5	2,568.1	2,568.1	639.0	639.0	4,340.0	4,440.0	0.0	0.0	166.4	166.4	0.0	0.0	10,963.0	11,063.0
Idaho	547.7	547.7	552.0	552.0	13.5	13.5	8.5	8.5	0.0	0.0	5.4	5.4	0.0	0.0	1,127.1	1,127.1
Montana	0.0	0.0	321.6	321.6	72.2	72.2	2,297.6	2,297.6	52.0	52.0	0.0	0.0	1.5	1.5	2,744.9	2,744.9
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	956.9	846.4	843.4	2,640.0	2,640.0	0.0	0.0	48.0	48.0	0.0	0.0	5,956.3	5,953.3
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	102.0	6,774.3	6,774.3
Pacific Contiguous	25,852.8	25,874.1	12,054.4	11,553.2	6,478.4	7,802.0	1,982.0	1,982.0	17.0	17.0	471.4	471.4	221.4	221.4	47,077.4	47,921.1
California	19,834.3	19,855.6	11,201.2	10,700.0	6,222.4	7,546.0	57.0	57.0	17.0	17.0	456.2	456.2	221.4	221.4	38,009.5	38,853.2
Oregon	3,382.9	3,382.9	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	4,326.1
Washington	2,635.6	2,635.6	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	4,741.8
Pacific Noncontiguous	479.2	479.2	626.3	626.3	175.0	175.0	332.8	332.8	0.0	0.0	2,605.2	2,598.7	6.4	6.4	4,224.9	4,218.4
Alaska	479.2	479.2	626.3	626.3	175.0	175.0	152.8	152.8	0.0	0.0	733.3	726.8	0.0	0.0	2,166.6	2,160.1
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	268,993.7	261,764.1	128,845.8	127,122.3	78,401.7	79,652.5	229,772.7	244,426.5	1,465.2	1,465.2	30,671.1	32,411.5	2,548.9	2,543.9	740,699.1	749,386.0

NM = Not meaningful due to large relative standard error.
Values for 2018 are final. Values for 2019 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	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	62817	DG Georgia Solar II, LLC	IPP	Kimberly-Clark Solar	GA	62960	KC	2.3	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	62762	GSPP Boxborough Littleton, LLC	IPP	GSPP Boxborough Littleton (MA)	MA	62890	BOXBR	4.0	Solar Photovoltaic	SUN	PV
2019	1	7019	Gay & Robinson Inc	Industrial	Gay Robinson	HI	50333	HYD3	6.5	Conventional Hydroelectric	WAT	HY
2019	1	62719	Green Street Power Partners	IPP	GSPP Devens, LLC	MA	62824	DEVEN	2.2	Solar Photovoltaic	SUN	PV
2019	1	60025	Greenbacker Renewable Energy Corporation	IPP	Oak Leaf Solar XXII LLC (CSG)	CO	62252	53965	1.5	Solar Photovoltaic	SUN	PV
2019	1	60025	Greenbacker Renewable Energy Corporation	IPP	Oak Leaf Solar XXIII LLC (CSG)	CO	62256	53966	1.5	Solar Photovoltaic	SUN	PV
2019	1	60025	Greenbacker Renewable Energy Corporation	IPP	Oak Leaf Solar XXIV LLC (CSG)	CO	62253	53967	1.5	Solar Photovoltaic	SUN	PV
2019	1	60025	Greenbacker Renewable Energy Corporation	IPP	Oak Leaf Solar XXVI LLC	CO	62254	53970	1.5	Solar Photovoltaic	SUN	PV
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	61487	Montevideo Solar LLC	IPP	Montevideo Solar LLC, CSG	MN	61870	MONTE	5.0	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	62072	Newfield Solar LLC	IPP	Newfield Community Solar LLC	NY	62582	5216	6.0	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		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	18454	Tampa Electric Co	Electric Utility	Grange Hall Solar	FL	61656	PV1	61.0	Solar Photovoltaic	SUN	PV
2019	1	18454	Tampa Electric Co	Electric Utility	Lithia Solar	FL	61663	GEN1	74.5	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	62715	Westbound Solar LLC	IPP	Muscogee Public Works	GA	62881	MUSPW	1.5	Solar Photovoltaic	SUN	PV
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	62105	Achilles Farm, LLC	IPP	Achilles Solar	NC	62621	ACHIL	4.1	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	62104	Arborgate Farm, LLC	IPP	Arborgate Solar	NC	62623	ARBOR	4.5	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

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	3037	City of Carlyle - (IL)	Electric Utility	Carlyle	IL	936	11	2.8	Petroleum Liquids	DFO	IC
2019	2	62098	Cookstown Solar Farm, LLC	IPP	Cookstown	NC	62600	COOKS	4.5	Solar Photovoltaic	SUN	PV
2019	2	61060	Cypress Creek Renewables	IPP	SCE&G Curie CSG	SC	61432	SCCU1	2.0	Solar Photovoltaic	SUN	PV
2019	2	62710	DG LF Solar, LLC	IPP	Kings Park Solar I	NY	59880	KIPS1	2.0	Solar Photovoltaic	SUN	PV
2019	2	62710	DG LF Solar, LLC	IPP	Kings Park Solar II	NY	59881	KIPS2	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	62004	Flowers Solar LLC	IPP	Flowers Solar LLC	NC	62487	FLOW	4.3	Solar Photovoltaic	SUN	PV
2019	2	62719	Green Street Power Partners	IPP	GSPP Raynham TMLP, LLC CSG	MA	62826	RAYN	2.3	Solar Photovoltaic	SUN	PV
2019	2	62719	Green Street Power Partners	IPP	GSPP Terrawatt Westfield LLC CSG	MA	62825	WESTF	3.6	Solar Photovoltaic	SUN	PV
2019	2	62147	Lafayette Horizon Solar CSG LLC	IPP	Lafayette Horizon Solar CSG LLC	CO	62667	LFHSL	1.6	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	62651	Montauk Energy Storage Center, LLC	IPP	Montauk Energy Storage Center	NY	62734	BME	5.0	Batteries	MWH	BA
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
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	2	61557	Vincent Solar, LLC	IPP	Vincent Solar	SC	61950	14	2.0	Solar Photovoltaic	SUN	PV
2019	2	62114	Wadesboro Farm 4, LLC	IPP	Wadesboro 4	NC	62627	WADE4	1.9	Solar Photovoltaic	SUN	PV
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	61549	Goldenrod Solar, LLC	IPP	Goldenrod Solar	SC	61943	9	2.0	Solar Photovoltaic	SUN	PV
2019	3	60025	Greenbacker Renewable Energy Corporation	IPP	Oak Leaf Solar XXXII (CSG)	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	62784	Kenyon Energy KS Solar 1 LLC	IPP	City of Pratt Solar	KS	62931	PRATT	6.0	Solar Photovoltaic	SUN	PV
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		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

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	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	3	62715	Westbound Solar LLC	IPP	Bibb Jones	GA	62880	BIBBJ	1.0	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
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	61610	Delaware River Solar, LLC	IPP	Pool Brook Rd Community Solar Farm	NY	62156	15	2.0	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	62673	Hopkinton MA 1, LLC	IPP	Hopkinton CSG	MA	62760	WT	2.0	Solar Photovoltaic	SUN	PV
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	4	18454	Tampa Electric Co	Electric Utility	Lake Hancock Solar	FL	61657	PV1	49.6	Solar Photovoltaic	SUN	PV
2019	4	62715	Westbound Solar LLC	IPP	Richmond Hayes Solar	GA	62884	RICHA	2.3	Solar Photovoltaic	SUN	PV
2019	4	62715	Westbound Solar LLC	IPP	Troup RC50	GA	62885	TROUP	2.3	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	62670	Carver MA 2, LLC	IPP	Carver CSG	MA	62763	CR	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

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	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	62719	Green Street Power Partners	IPP	GSPP Imholte CSG	MN	62830	IMHOL	1.0	Solar Photovoltaic	SUN	PV
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	62715	Westbound Solar LLC	IPP	Freeman Avenue	GA	62887	FREAV	1.4	Solar Photovoltaic	SUN	PV
2019	5	62715	Westbound Solar LLC	IPP	Oil Dri 2 Solar	GA	62882	OLDRY	1.4	Solar Photovoltaic	SUN	PV
2019	5	62715	Westbound Solar LLC	IPP	Wilkinson DeFore	GA	62886	WILKD	2.3	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 Hybrid	SC	61956	BAKUP	2.5	Petroleum Liquids	DFO	IC
2019	6	60146	Ameresco Federal Solutions	IPP	MCRD Parris Island PV Hybrid	SC	61956	BLKST	1.0	Petroleum Liquids	DFO	IC
2019	6	60146	Ameresco Federal Solutions	IPP	MCRD Parris Island PV Hybrid	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
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

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	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	62715	Westbound Solar LLC	Commercial	Amazon Maryland DCA1	MD	62876	DCA1	1.3	Solar Photovoltaic	SUN	PV
2019	6	62715	Westbound Solar LLC	IPP	McCleskey Cotton	GA	62878	MCCOT	1.9	Solar Photovoltaic	SUN	PV
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
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
2019	8	61344	Advanced Microgrid Solutions	IPP	HEBT WLA 1	CA	61721	WLA09	4.5	Batteries	MWH	BA
2019	8	221	Alaska Village Elec Coop, Inc	Electric Utility	Quinhagak	AK	57057	3A	0.5	Petroleum Liquids	DFO	IC
2019	8	62627	Alchemy Renewable Energy	IPP	TPE Pennsylvania Solar 1, LLC	PA	62686	PABOE	3.6	Solar Photovoltaic	SUN	PV
2019	8	57449	Borrego Solar Systems Inc	Industrial	Acushnet Ball Plant 2	MA	62835	ESS-1	1.0	Batteries	MWH	BA
2019	8	57449	Borrego Solar Systems Inc	Industrial	Acushnet Ball Plant 2	MA	62835	ESS-2	0.5	Batteries	MWH	BA
2019	8	58871	Citizens Enterprises Corporation	IPP	Citizens Imperial Solar	CA	62052	CIS1	30.0	Solar Photovoltaic	SUN	PV
2019	8	3913	City of Colby - (KS)	Electric Utility	Colby City of	KS	1272	9	3.0	Petroleum Liquids	DFO	IC
2019	8	3265	Cleco Power LLC	Electric Utility	St. Mary Clean Energy Center	LA	60610	1	47.9	All Other	WH	OT
2019	8	40215	Cordova Electric Coop, Inc	Electric Utility	Eyak Service Center BESS	AK	62714	BESS1	1.0	Batteries	MWH	BA
2019	8	61060	Cypress Creek Renewables	IPP	Mars Solar	TX	63027	20	10.0	Solar Photovoltaic	SUN	PV
2019	8	61060	Cypress Creek Renewables	IPP	Trinity Solar	NC	60291	PV1	4.9	Solar Photovoltaic	SUN	PV
2019	8	62648	DG 1 Acquisition Co., LLC	IPP	Solar Star Palo Alto I, LLC	CA	62732	SSPAI	1.3	Solar Photovoltaic	SUN	PV
2019	8	60025	Greenbacker Renewable Energy Corporation	IPP	Camden Dam Solar, LLC	NC	62330	CMDND	5.0	Solar Photovoltaic	SUN	PV
2019	8	60025	Greenbacker Renewable Energy Corporation	IPP	Mill Pond Solar, LLC	NC	62328	MLLPD	5.0	Solar Photovoltaic	SUN	PV
2019	8	62674	Greenville NY 1, LLC	IPP	Greenville CSG	NY	62759	GV	2.0	Solar Photovoltaic	SUN	PV
2019	8	61886	Lockett Windfarm, LLC	IPP	Lockett Windfarm	TX	62356	LOC	183.8	Onshore Wind Turbine	WND	WT
2019	8	62037	MSC-Chisago02 LLC	IPP	MSC-Chisago02 LLC	MN	62538	52740	1.0	Solar Photovoltaic	SUN	PV
2019	8	62660	MSC-Empire01, LLC	IPP	MSC-Empire01, LLC	MN	62740	52784	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	8	62035	MSC-Scott01 LLC	IPP	MSC-Scott01 LLC	MN	62535	52737	1.0	Solar Photovoltaic	SUN	PV
2019	8	61396	Midway Wind, LLC	IPP	Midway Wind, LLC	TX	61776	MIDWY	162.9	Onshore Wind Turbine	WND	WT
2019	8	60879	NGI-Kayenta Solar Lessor I, LLC	IPP	Kayenta Solar Project	AZ	61268	PV2	28.0	Solar Photovoltaic	SUN	PV
2019	8	13206	Nantucket Electric Co	Electric Utility	Nantucket	MA	1615	18	13.5	Petroleum Liquids	DFO	GT
2019	8	13206	Nantucket Electric Co	Electric Utility	Nantucket	MA	1615	19	1.0	Petroleum Liquids	DFO	IC
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
2019	8	62691	Novel Martin Solar One LLC	IPP	Novel Martin Solar One LLC (McLeod) CSG	MN	62779	MART	1.0	Solar Photovoltaic	SUN	PV
2019	8	56545	Pattern Operators LP	IPP	Grady Wind Energy Center, LLC	NM	60317	1	220.5	Onshore Wind Turbine	WND	WT
2019	8	61614	Rollingstone Holdco LLC	IPP	Rollingstone Holdco CSG	MN	62037	ROLLI	5.0	Solar Photovoltaic	SUN	PV
2019	8	61588	San Pablo Raceway, LLC	IPP	San Pablo Raceway	CA	62004	SPRWY	100.0	Solar Photovoltaic	SUN	PV
2019	8	60947	Tesla Inc.	IPP	Pima Community College	AZ	62075	PV1	1.1	Solar Photovoltaic	SUN	PV
2019	8	61204	Today's Power, Inc.	Commercial	Noland Wastewater Treatment Plant Hybrid	AR	62682	FAYE1	5.0	Solar Photovoltaic	SUN	PV
2019	8	61204	Today's Power, Inc.	Commercial	Noland Wastewater Treatment Plant Hybrid	AR	62682	FAYEB	6.0	Batteries	MWH	BA
2019	8	61204	Today's Power, Inc.	Commercial	Westside Wastewater Treatment Plant Hybrid	AR	62683	FAYW1	5.0	Solar Photovoltaic	SUN	PV
2019	8	61204	Today's Power, Inc.	Commercial	Westside Wastewater Treatment Plant Hybrid	AR	62683	FAYWB	6.0	Batteries	MWH	BA
2019	8	61885	USS East Hauer Watt Solar CSG	IPP	USS East Hauer Watt CSG	MN	62362	USEHW	1.0	Solar Photovoltaic	SUN	PV
2019	8	61881	USS King 2 CSG	IPP	USS King 2 CSG	MN	62358	USK12	1.0	Solar Photovoltaic	SUN	PV
2019	8	61841	USS Lake Patterson Solar	IPP	USS Lake Patterson Solar CSG	MN	62337	USLP	1.0	Solar Photovoltaic	SUN	PV
2019	9	61012	AES Distributed Energy	IPP	Palmer	MA	62135	PAL01	3.5	Solar Photovoltaic	SUN	PV
2019	9	60877	Antelope DSR 3 LLC	IPP	Antelope DSR 3	CA	61265	ADSR3	20.0	Solar Photovoltaic	SUN	PV
2019	9	62662	Butter Solar, LLC	IPP	Arcadia Solar	WI	62744	A1	5.0	Solar Photovoltaic	SUN	PV
2019	9	62662	Butter Solar, LLC	IPP	Cashton Solar	WI	62858	CAS3	2.0	Solar Photovoltaic	SUN	PV
2019	9	62662	Butter Solar, LLC	IPP	Cumberland Solar	WI	62849	CUM4	2.5	Solar Photovoltaic	SUN	PV
2019	9	62662	Butter Solar, LLC	IPP	Elroy Solar	WI	62868	ELR5	1.5	Solar Photovoltaic	SUN	PV
2019	9	62662	Butter Solar, LLC	IPP	Fennimore Solar	WI	62847	FEN6	3.0	Solar Photovoltaic	SUN	PV
2019	9	62662	Butter Solar, LLC	IPP	Forest City Solar	IA	62861	FOR7	3.0	Solar Photovoltaic	SUN	PV
2019	9	62662	Butter Solar, LLC	IPP	New Lisbon Solar	WI	62848	NEW9	2.5	Solar Photovoltaic	SUN	PV
2019	9	62662	Butter Solar, LLC	IPP	St. Charles Solar	MN	62869	STC10	2.0	Solar Photovoltaic	SUN	PV
2019	9	62749	Carolina Poultry Power	Electric CHP	Carolina Poultry Power Farmville	NC	62873	7474	0.8	Other Waste Biomass	AB	ST
2019	9	62749	Carolina Poultry Power	Electric CHP	Carolina Poultry Power Farmville	NC	62873	7475	0.8	Other Waste Biomass	AB	ST
2019	9	62749	Carolina Poultry Power	Electric CHP	Carolina Poultry Power Farmville	NC	62873	7476	0.1	Other Waste Biomass	AB	ST
2019	9	8245	City of Hastings - (NE)	Electric Utility	Hastings Community Solar Farm	NE	62833	PV	0.3	Solar Photovoltaic	SUN	PV
2019	9	61054	Fluvanna Wind Energy 2 LLC	IPP	Gopher Creek Wind Farm	TX	61417	GCWF	158.0	Onshore Wind Turbine	WND	WT
2019	9	61037	Foard City Wind, LLC	IPP	Foard City Wind	TX	61402	FOARD	352.8	Onshore Wind Turbine	WND	WT
2019	9	62856	Forefront Power, LLC	IPP	Dover CSG	NY	63106	21	2.0	Solar Photovoltaic	SUN	PV
2019	9	62856	Forefront Power, LLC	IPP	Ellsworth I CSG	NY	63112	22	2.0	Solar Photovoltaic	SUN	PV
2019	9	58959	Freeport LNG Development L.P	Industrial	Freeport LP Pretreatment Facility	TX	59145	65GTG	77.5	Natural Gas Fired Combustion Turbine	NG	GT
2019	9	7601	Green Mountain Power Corp	Electric Utility	GMP Solar/Storage-Essex Hybrid	VT	62383	GMPBE	2.0	Batteries	MWH	BA
2019	9	7601	Green Mountain Power Corp	Electric Utility	GMP Solar/Storage-Essex Hybrid	VT	62383	GMPSE	4.5	Solar Photovoltaic	SUN	PV
2019	9	7601	Green Mountain Power Corp	Electric Utility	GMP Solar/Storage-Ferrisburgh Hybrid	VT	62382	GMPBF	2.0	Batteries	MWH	BA
2019	9	7601	Green Mountain Power Corp	Electric Utility	GMP Solar/Storage-Ferrisburgh Hybrid	VT	62382	GMPSF	5.0	Solar Photovoltaic	SUN	PV
2019	9	7601	Green Mountain Power Corp	Electric Utility	GMP Solar/Storage-Milton Hybrid	VT	62381	GMPBM	2.0	Batteries	MWH	BA
2019	9	7601	Green Mountain Power Corp	Electric Utility	GMP Solar/Storage-Milton Hybrid	VT	62381	GMPSM	5.0	Solar Photovoltaic	SUN	PV
2019	9	61456	Hope Farm Solar, LLC	IPP	Hope Farm Solar, LLC	RI	61840	HOPE	10.0	Solar Photovoltaic	SUN	PV
2019	9	62666	KDC Solar CSCP LLC	IPP	KDC Solar CSCP LLC	NJ	62746	CSCP	3.4	Solar Photovoltaic	SUN	PV
2019	9	60987	Lanikuhana Solar LLC	IPP	Lanikuhana Solar LLC	HI	58281	1	14.7	Solar Photovoltaic	SUN	PV
2019	9	56990	NJR Clean Energy Ventures Corporation	IPP	Garfield Solar	NJ	62680	GARMS	1.6	Solar Photovoltaic	SUN	PV
2019	9	56990	NJR Clean Energy Ventures Corporation	IPP	Milford Solar Farm (NJ) LLC	NJ	62637	MILFD	7.5	Solar Photovoltaic	SUN	PV
2019	9	62706	NY Baldwin I, LLC	IPP	Breesport Road Community Solar Farm	NY	62157	235	2.0	Solar Photovoltaic	SUN	PV
2019	9	62630	NY Mooers I, LLC	IPP	Boas Rd #1 Community Solar Farm	NY	62530	496	2.0	Solar Photovoltaic	SUN	PV
2019	9	62631	NY Mooers II, LLC	IPP	Boas Rd #2 Community Solar Farm	NY	62531	1010	2.0	Solar Photovoltaic	SUN	PV
2019	9	62632	NY Mooers III, LLC	IPP	Boas Rd #3 Community Solar Farm	NY	62532	1011	2.0	Solar Photovoltaic	SUN	PV
2019	9	59300	PNM Resources	Electric Utility	San Miguel I Solar Energy Center	NM	63081	SMI	10.0	Solar Photovoltaic	SUN	PV
2019	9	61661	Panda Solar NC 8, LLC	IPP	Panda Solar NC 8, LLC	NC	62126	20052	2.0	Solar Photovoltaic	SUN	PV
2019	9	62162	RP Napa Solar 1, LLC	IPP	American Canyon Solar	CA	62687	RPNPA	1.0	Solar Photovoltaic	SUN	PV
2019	9	62162	RP Napa Solar 1, LLC	IPP	American Canyon Solar	CA	62687	RPNPB	1.0	Solar Photovoltaic	SUN	PV
2019	9	62162	RP Napa Solar 1, LLC	IPP	American Canyon Solar	CA	62687	RPNPC	1.0	Solar Photovoltaic	SUN	PV
2019	9	61677	Sol Systems	IPP	Wendell Solar Farm LLC	NC	62595	10424	5.0	Solar Photovoltaic	SUN	PV
2019	9	62766	Somerville Solar, LLC	IPP	Somerville Solar	TN	62900	PV	2.3	Solar Photovoltaic	SUN	PV
2019	9	61916	Spencer-Tioga Solar, LLC	IPP	Pasto Solar	NY	62389	PASTO	16.0	Solar Photovoltaic	SUN	PV
2019	9	60531	Standard Solar	IPP	Sugarhill Road - Solitude Solar CSG	NY	62788	X0040	5.0	Solar Photovoltaic	SUN	PV
2019	9	61883	USS DVL Solar CSG	IPP	USS DVL Solar CSG	MN	62360	USDVL	1.0	Solar Photovoltaic	SUN	PV
2019	9	61522	Viridity Energy Solutions, Inc.	IPP	VEC Energy Storage	VT	62907	VEC	1.9	Batteries	MWH	BA
2019	9	62711	Wabasha Solar LLC	IPP	Wabasha Solar	MN	62800	WAB	1.0	Solar Photovoltaic	SUN	PV
2019	9	59764	Waipio PV, LLC	IPP	Waipio Solar	HI	60024	WPO	45.9	Solar Photovoltaic	SUN	PV
2019	9	62712	Winona Solar I LLC	IPP	Winona Solar	MN	62799	WIN	1.0	Solar Photovoltaic	SUN	PV
2019	10	60571	AEP Onsite Partners	IPP	Lady Slipper Solar Array CSG	MN	62414	PV1	4.4	Solar Photovoltaic	SUN	PV

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2019	10	61012	AES Distributed Energy	IPP	Founders Homestead Farms Solar	RI	62302	RFH01	4.5	Solar Photovoltaic	SUN	PV
2019	10	15399	Avangrid Renewables LLC	IPP	Montague Wind Power Facility LLC	OR	58099	1	200.0	Onshore Wind Turbine	WND	WT
2019	10	61934	CI III VK I TE Partnership LLC	IPP	Sage Solar I-III	UT	62399	77778	57.6	Solar Photovoltaic	SUN	PV
2019	10	58508	Carolina Solar Energy LLC	IPP	McGrigor Farm Solar	NC	60440	PV1	5.0	Solar Photovoltaic	SUN	PV
2019	10	58508	Carolina Solar Energy LLC	IPP	Tides Lane Farm	NC	60429	PV1	3.7	Solar Photovoltaic	SUN	PV
2019	10	62990	Case Creek Solar LLC	IPP	Case Creek Solar	OR	63207	CCPV1	2.2	Solar Photovoltaic	SUN	PV
2019	10	62084	DG Florham Park Solar LLC	IPP	DG Florham Park Solar LLC	NJ	62586	BASF	2.0	Solar Photovoltaic	SUN	PV
2019	10	5248	Dominion Energy Inc	Electric Utility	Gutenberg Solar	NC	63076	GUTN	79.9	Solar Photovoltaic	SUN	PV
2019	10	62856	Forefront Power, LLC	IPP	SCCCD - Fresno Community College	CA	63068	231	2.2	Solar Photovoltaic	SUN	PV
2019	10	62991	Kale Patch Solar LLC	IPP	Kale Patch Solar	OR	63208	KPPV1	2.2	Solar Photovoltaic	SUN	PV
2019	10	11806	Massachusetts Mun Wholes Electric Co	Electric Utility	Berkshire Wind Power Project	MA	57721	HN-8	2.3	Onshore Wind Turbine	WND	WT
2019	10	11806	Massachusetts Mun Wholes Electric Co	Electric Utility	Berkshire Wind Power Project	MA	57721	HN-9	2.3	Onshore Wind Turbine	WND	WT
2019	10	56990	NJR Clean Energy Ventures Corporation	IPP	Garfield Solar	NJ	62680	GARFS	1.4	Solar Photovoltaic	SUN	PV
2019	10	54913	NSTAR Electric Company	Electric Utility	East Longmeadow Solar PV	MA	62059	LG400	5.0	Solar Photovoltaic	SUN	PV
2019	10	56622	NextEra Energy Resources	IPP	Shaw Creek Solar, LLC	SC	61790	SHAWC	74.9	Solar Photovoltaic	SUN	PV
2019	10	59170	North American Biofuels, LLC	IPP	Morehead Generating Facility	KY	62641	M3516	1.4	Landfill Gas	LFG	IC
2019	10	62829	Novel Brooten Solar LLC CSG	IPP	Novel Brooten Solar CSG	MN	62961	BROOT	1.0	Solar Photovoltaic	SUN	PV
2019	10	60685	Novel Energy Solutions	IPP	Novel Solar Two LLC	MN	62913	SCHNE	5.0	Solar Photovoltaic	SUN	PV
2019	10	62999	Old Court Rd Solar, LLC	IPP	Old Court Rd Solar	MD	63237	OLDCT	2.0	Solar Photovoltaic	SUN	PV
2019	10	62739	Otter River Road Solar LLC	IPP	Gardner - Otter River Road	MA	62870	79711	2.5	Solar Photovoltaic	SUN	PV
2019	10	62989	Rafael Solar LLC	IPP	Rafael Solar	OR	63206	RSPV1	2.2	Solar Photovoltaic	SUN	PV
2019	10	61771	Ranchero Wind Farm LLC	IPP	Ranchero Wind Farm LLC	TX	62259	RAN	300.0	Onshore Wind Turbine	WND	WT
2019	10	61699	SR Meridian II	IPP	Meridian II	MS	62164	MRDII	5.0	Solar Photovoltaic	SUN	PV
2019	10	62123	SunRaise Investments, LLC	IPP	Happy Hollow CSG Hybrid	MA	62652	HHESS	3.3	Batteries	MWH	BA
2019	10	62123	SunRaise Investments, LLC	IPP	Happy Hollow CSG Hybrid	MA	62652	HHPV	5.0	Solar Photovoltaic	SUN	PV
2019	10	61533	Techren Solar II LLC	IPP	Techren Solar II LLC	NV	61930	TECH2	200.0	Solar Photovoltaic	SUN	PV
2019	10	61884	USS Brude Solar CSG	IPP	USS Brude Solar CSG	MN	62361	USBRU	1.0	Solar Photovoltaic	SUN	PV
2019	10	61840	USS Rapidan Solar	IPP	USS Rapidan Solar CSG	MN	62338	USRAP	1.0	Solar Photovoltaic	SUN	PV
2019	11	62139	1025 Traveller Solar, LLC	IPP	1025 Traveller Solar, LLC	NC	62660	1025	5.0	Solar Photovoltaic	SUN	PV
2019	11	62140	1047 Little Mountain Solar, LLC	IPP	1047 Little Mountain Solar, LLC	NC	62661	1047	3.0	Solar Photovoltaic	SUN	PV
2019	11	15399	Avangrid Renewables LLC	IPP	Karankawa Wind LLC	TX	61343	WT1	200.0	Onshore Wind Turbine	WND	WT
2019	11	61973	Black Hills Electric Generation LLC	IPP	Busch Ranch II Wind Farm	CO	62445	WT	59.4	Onshore Wind Turbine	WND	WT
2019	11	61745	Burgaw Solar, LLC	IPP	Burgaw Solar, LLC	NC	62240	1072	5.0	Solar Photovoltaic	SUN	PV
2019	11	62885	CalCity Solar 1 , LLC	IPP	CalCity Solar 1	CA	63054	CALTR	3.0	Solar Photovoltaic	SUN	PV
2019	11	60290	Crocker Wind Farm, LLC	IPP	Crocker Wind Farm	SD	60505	CRCKR	200.0	Onshore Wind Turbine	WND	WT
2019	11	61060	Cypress Creek Renewables	IPP	Griffin Solar	TX	62953	1080	5.0	Solar Photovoltaic	SUN	PV
2019	11	61060	Cypress Creek Renewables	IPP	Lampwick	TX	61872	GEN1	7.5	Solar Photovoltaic	SUN	PV
2019	11	5416	Duke Energy Carolinas, LLC	Electric Utility	Duke Energy CHP at Clemson University	SC	63063	GT01	12.8	Natural Gas Fired Combustion Turbine	NG	GT
2019	11	15470	Duke Energy Indiana, LLC	Electric Utility	Camp Atterbury Microgrid	IN	63324	ES1	5.0	Batteries	MWH	BA
2019	11	15470	Duke Energy Indiana, LLC	Electric Utility	Camp Atterbury Microgrid	IN	63324	PV1	2.0	Solar Photovoltaic	SUN	PV
2019	11	57170	EDF Renewable Asset Holdings, Inc.	IPP	Valentine Solar, LLC	CA	62288	VAL01	111.2	Solar Photovoltaic	SUN	PV
2019	11	62141	Ennis Solar, LLC	IPP	Ennis Solar, LLC	NC	62662	22503	5.0	Solar Photovoltaic	SUN	PV
2019	11	61912	Grazing Yak Solar, LLC	IPP	Grazing Yak Solar	CO	62376	PV1	35.0	Solar Photovoltaic	SUN	PV
2019	11	60259	Green River Wind Farm, LLC	IPP	Green River Wind Farm	IL	60471	GRNRV	212.0	Onshore Wind Turbine	WND	WT
2019	11	60025	Greenbacker Renewable Energy Corporation	IPP	Jamesville Road Solar, LLC	NC	62329	JMVLR	5.0	Solar Photovoltaic	SUN	PV
2019	11	19547	Hawaiian Electric Co Inc	Electric Utility	West Loch Solar One	HI	61987	WLS1	20.0	Solar Photovoltaic	SUN	PV
2019	11	62902	Highline Services, LLC	Electric Utility	Riverview Solar	CO	63092	RIVER	1.5	Solar Photovoltaic	SUN	PV
2019	11	9130	Hutchinson Utilities Comm	Electric Utility	Hutchinson Plant #1	MN	1980	11	9.8	Natural Gas Internal Combustion Engine	NG	IC
2019	11	9130	Hutchinson Utilities Comm	Electric Utility	Hutchinson Plant #1	MN	1980	12	9.8	Natural Gas Internal Combustion Engine	NG	IC
2019	11	59898	Kawailoa Solar, LLC	IPP	Kawailoa Solar	HI	60125	KAWS	49.0	Solar Photovoltaic	SUN	PV
2019	11	59458	Landfill Energy Systems Florida	IPP	Sarasota County LFGTE Facility	FL	59686	LESF4	1.6	Landfill Gas	LFG	IC
2019	11	62961	Mountain Parks Services, Inc.	IPP	Tom Sifers Solar	CO	63163	SIFRS	1.0	Solar Photovoltaic	SUN	PV
2019	11	62961	Mountain Parks Services, Inc.	IPP	Whiskey Hill Solar	CO	63164	WHSKY	1.0	Solar Photovoltaic	SUN	PV
2019	11	54913	NSTAR Electric Company	Electric Utility	Hampden Solar PV	MA	62073	LG390	3.5	Solar Photovoltaic	SUN	PV
2019	11	22091	New-Indy Ontario LLC	Industrial	New-Indy Ontario Mill	CA	10427	GEN2	14.7	Natural Gas Fired Combustion Turbine	NG	GT
2019	11	22091	New-Indy Ontario LLC	Industrial	New-Indy Ontario Mill	CA	10427	GEN3	14.7	Natural Gas Fired Combustion Turbine	NG	GT
2019	11	62831	Novel Historical Society Solar LLC CSG	IPP	Novel Historical Society Solar CSG	MN	62963	HIST	1.0	Solar Photovoltaic	SUN	PV
2019	11	62830	Novel Reber Solar LLC CSG	IPP	Novel Reber Solar CSG	MN	62962	REBER	1.0	Solar Photovoltaic	SUN	PV
2019	11	62992	O'Neill Creek Solar LLC	IPP	O'Neill Creek Solar	OR	63235	OCPV1	2.2	Solar Photovoltaic	SUN	PV
2019	11	62138	Pecan Grove Solar, LLC	IPP	Pecan Grove Solar, LLC	NC	62659	1081	5.0	Solar Photovoltaic	SUN	PV
2019	11	61515	Phoebe Energy Project, LLC	IPP	Phoebe Solar	TX	61906	PHOEB	250.0	Solar Photovoltaic	SUN	PV
2019	11	61899	SR Arlington II, LLC	IPP	SR Arlington II	GA	62367	ARLII	102.5	Solar Photovoltaic	SUN	PV
2019	11	61502	Sholes Wind Energy Center, LLC	IPP	Sholes Wind Energy Center	NE	61889	WSN1	160.0	Onshore Wind Turbine	WND	WT
2019	11	61677	Sol Systems	IPP	Sabattus Solar LLC	NC	62596	11999	5.0	Solar Photovoltaic	SUN	PV
2019	11	62853	Turquoise Liberty Co LLC	IPP	Turquoise Liberty Solar	NV	62980	PV	10.0	Solar Photovoltaic	SUN	PV
2019	11	61847	USS Centerfield Solar LLC	IPP	USS Centerfield Solar CSG	MN	62335	USCEN	1.0	Solar Photovoltaic	SUN	PV
2019	11	62917	USS Haven Solar LLC	IPP	USS Haven Solar LLC CSG	MN	63138	USHAV	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	11	61846	USS Hockey Pad Solar LLC	IPP	USS Hockey Pad Solar CSG	MN	62334	USHP	1.0	Solar Photovoltaic	SUN	PV
2019	11	62924	USS White Cloud Solar LLC	IPP	USS White Cloud LLC CSG	MN	63139	USSWC	1.0	Solar Photovoltaic	SUN	PV
2019	11	62715	Westbound Solar LLC	Commercial	Amazon Denver DEN3	CO	62877	ADEN3	4.6	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	803	Arizona Public Service Co	Electric Utility	Ocotillo	AZ	116	1	110.0	Natural Gas Steam Turbine	NG	ST
2019	1	803	Arizona Public Service Co	Electric Utility	Ocotillo	AZ	116	2	110.0	Natural Gas Steam Turbine	NG	ST
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	56677	Cyrq Energy Corp	IPP	Soda Lake Geothermal No I II	NV	52174	OE11	0.8	Geothermal	GEO	ST
2019	1	56677	Cyrq Energy Corp	IPP	Soda Lake Geothermal No I II	NV	52174	OE12	0.9	Geothermal	GEO	ST
2019	1	56677	Cyrq Energy Corp	IPP	Soda Lake Geothermal No I II	NV	52174	OE13	0.9	Geothermal	GEO	ST
2019	1	56677	Cyrq Energy Corp	IPP	Soda Lake Geothermal No I II	NV	52174	OE21	1.1	Geothermal	GEO	ST
2019	1	19145	DTE Tuscola, LLC	Industrial	Tuscola Station	IL	55245	TG1	3.8	Natural Gas Steam Turbine	NG	ST
2019	1	11241	Entergy Louisiana LLC	Electric Utility	Sterlington	LA	1404	7B	44.0	Natural Gas Fired Combined Cycle	NG	CT
2019	1	58945	EthosEnergy Power Plant Services	Electric CHP	Quantum Pasco Power LP	FL	54424	GT1	48.5	Natural Gas Fired Combined Cycle	NG	CT
2019	1	58945	EthosEnergy Power Plant Services	Electric CHP	Quantum Pasco Power LP	FL	54424	GT2	48.5	Natural Gas Fired Combined Cycle	NG	CT
2019	1	58945	EthosEnergy Power Plant Services	Electric CHP	Quantum Pasco Power LP	FL	54424	ST1	24.0	Natural Gas Fired Combined Cycle	NG	CA
2019	1	20541	Wheelabrator Environmental Systems	IPP	Wheelabrator Ridge Energy	FL	54529	0001	47.1	Wood/Wood Waste Biomass	WDS	ST
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	5109	DTE Electric Company	Electric Utility	St Clair	MI	1743	1	151.0	Conventional Steam Coal	RC	ST
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	11701	City of Marquette - (MI)	Electric Utility	Shiras	MI	1843	1	11.6	Conventional Steam Coal	BIT	ST
2019	4	11701	City of Marquette - (MI)	Electric Utility	Shiras	MI	1843	2	19.5	Conventional Steam Coal	BIT	ST
2019	4	11701	City of Marquette - (MI)	Electric Utility	Shiras	MI	1843	3	41.0	Conventional Steam Coal	SUB	ST
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

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	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	62639	Rosendale Renewable Energy, LLC	IPP	Oshkosh Foundation Rosedale Biodigester LLC	WI	58555	95100	1.4	Other Waste Biomass	OBG	IC
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
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
2019	8	221	Alaska Village Elec Coop, Inc	Electric Utility	Quinhagak	AK	57057	UNIT3	0.4	Petroleum Liquids	DFO	IC
2019	8	55795	Bethlehem Renewable Energy LLC	IPP	Bethlehem Renewable Energy LLC	PA	56572	1	3.7	Landfill Gas	LFG	GT
2019	8	228	City of Albany - (MO)	Electric Utility	Albany	MO	2113	1	2.1	Petroleum Liquids	DFO	IC
2019	8	228	City of Albany - (MO)	Electric Utility	Albany	MO	2113	2	1.0	Petroleum Liquids	DFO	IC
2019	8	228	City of Albany - (MO)	Electric Utility	Albany	MO	2113	3	0.6	Petroleum Liquids	DFO	IC
2019	8	228	City of Albany - (MO)	Electric Utility	Albany	MO	2113	IC5	1.2	Petroleum Liquids	DFO	IC
2019	8	228	City of Albany - (MO)	Electric Utility	Albany	MO	2113	IC6	1.2	Petroleum Liquids	DFO	IC
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	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	56888	Brea Generation LLC	IPP	Olinda Landfill Gas Recovery Plant	CA	10648	GEN1	1.7	Landfill Gas	LFG	IC
2019	9	56888	Brea Generation LLC	IPP	Olinda Landfill Gas Recovery Plant	CA	10648	GEN2	1.7	Landfill Gas	LFG	IC
2019	9	56888	Brea Generation LLC	IPP	Olinda Landfill Gas Recovery Plant	CA	10648	GEN3	1.7	Landfill Gas	LFG	IC
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	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	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

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	9	30151	Tri-State G & T Assn, Inc	Electric Utility	Nucla	CO	527	1	12.0	Conventional Steam Coal	BIT	ST
2019	9	30151	Tri-State G & T Assn, Inc	Electric Utility	Nucla	CO	527	2	12.0	Conventional Steam Coal	BIT	ST
2019	9	30151	Tri-State G & T Assn, Inc	Electric Utility	Nucla	CO	527	3	12.0	Conventional Steam Coal	BIT	ST
2019	9	30151	Tri-State G & T Assn, Inc	Electric Utility	Nucla	CO	527	ST4	64.0	Conventional Steam Coal	BIT	ST
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	25835	Portland City of	IPP	Ground Water Pumping Station	OR	50105	GPS1	0.9	Conventional Hydroelectric	WAT	HY
2019	10	25835	Portland City of	IPP	Ground Water Pumping Station	OR	50105	GPS2	0.9	Conventional Hydroelectric	WAT	HY
2019	10	25835	Portland City of	IPP	Ground Water Pumping Station	OR	50105	GPS3	0.9	Conventional Hydroelectric	WAT	HY
2019	10	25835	Portland City of	IPP	Ground Water Pumping Station	OR	50105	GPS4	0.9	Conventional Hydroelectric	WAT	HY
2019	10	25835	Portland City of	IPP	Ground Water Pumping Station	OR	50105	GPS5	0.9	Conventional Hydroelectric	WAT	HY
2019	10	25835	Portland City of	IPP	Ground Water Pumping Station	OR	50105	GPS6	0.9	Conventional Hydroelectric	WAT	HY
2019	10	16572	Salt River Project	Electric Utility	Navajo	AZ	4941	NAV3	750.0	Conventional Steam Coal	BIT	ST
2019	10	18715	Texas Municipal Power Agency	Electric Utility	Gibbons Creek	TX	6136	1	470.0	Conventional Steam Coal	SUB	ST
2019	11	5517	Dynegy Midwest Generation Inc	IPP	Havana	IL	891	6	411.0	Conventional Steam Coal	RC	ST
2019	11	5517	Dynegy Midwest Generation Inc	IPP	Hennepin Power Station	IL	892	1	68.0	Conventional Steam Coal	RC	ST
2019	11	5517	Dynegy Midwest Generation Inc	IPP	Hennepin Power Station	IL	892	2	218.0	Conventional Steam Coal	RC	ST
2019	11	6526	FirstEnergy Generation Corp	IPP	FirstEnergy Bruce Mansfield	PA	6094	3	830.0	Conventional Steam Coal	RC	ST
2019	11	520	Illinois Power Generating Co	IPP	Coffeen	IL	861	1	330.0	Conventional Steam Coal	RC	ST
2019	11	520	Illinois Power Generating Co	IPP	Coffeen	IL	861	2	565.0	Conventional Steam Coal	RC	ST
2019	11	22091	New-Indy Ontario LLC	Industrial	New-Indy Ontario Mill	CA	10427	GEN1	34.0	Natural Gas Fired Combustion Turbine	NG	GT
2019	11	16572	Salt River Project	Electric Utility	Navajo	AZ	4941	NAV1	750.0	Conventional Steam Coal	BIT	ST
2019	11	16572	Salt River Project	Electric Utility	Navajo	AZ	4941	NAV2	750.0	Conventional Steam Coal	BIT	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	12	61012	AES Distributed Energy	IPP	25 Ashdown Road Solar, LLC	NY	62998	ASHDO	4.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	4.0
2019	12	61012	AES Distributed Energy	IPP	AES Kekaha Solar, LLC	HI	63280	KEKAH	14.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	14.0
2019	12	61012	AES Distributed Energy	IPP	AES Tonawanda Solar LLC	NY	63161	TNWDA	2.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	2.0
2019	12	61012	AES Distributed Energy	IPP	Johnstown Solar 1, LLC	NY	63013	STATE	4.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	4.0
2019	12	61012	AES Distributed Energy	IPP	Partridge Hill Solar	MA	63264	PART3	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2019	12	61012	AES Distributed Energy	IPP	RT 52 Walden Solar 1, LLC	NY	63000	WALDN	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2019	12	61012	AES Distributed Energy	IPP	Ransomville Solar 1, LLC	NY	63012	SWANN	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2019	12	63019	AGA TAG Solar III LLC	IPP	AGA TAG Solar III LLC	SC	63243	SCAG	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2019	12	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	12	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	12	62051	Airport Solar LLC	IPP	Airport Solar	OR	62560	APS	47.3	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	47.3
2019	12	59496	Allete Clean Energy	IPP	Glen Ullin Energy Center	ND	62938	39001	106.7	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	106.7
2019	12	61617	Alpha Value Solar, LLC	IPP	Alpha Value Solar	NC	62054	AVS01	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2019	12	60281	Altus Power America Management, LLC	IPP	FastSun 13 CSG	MN	63035	FS13	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2019	12	60281	Altus Power America Management, LLC	IPP	FastSun 14 CSG	MN	63036	FS14	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2019	12	60281	Altus Power America Management, LLC	IPP	FastSun 18 CSG	MN	63034	FS18	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2019	12	60146	Ameresco Federal Solutions	IPP	NASA Wallops Flight Facility Solar	VA	62948	CRPT5	0.1	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	0.1
2019	12	60146	Ameresco Federal Solutions	IPP	NASA Wallops Flight Facility Solar	VA	62948	CRPT6	0.1	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	0.1
2019	12	60146	Ameresco Federal Solutions	IPP	NASA Wallops Flight Facility Solar	VA	62948	CRPT7	0.1	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	0.1
2019	12	60146	Ameresco Federal Solutions	IPP	NASA Wallops Flight Facility Solar	VA	62948	TRCK1	4.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	4.0
2019	12	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	12	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	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	(V) Under construction, more than 50 percent complete	90.0
2019	12	62063	Blue Summit III Wind, LLC	IPP	Blue Summit III Wind	TX	62566	BS3	200.2	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	200.2
2019	12	63080	Bluefin Origination 1, LLC	IPP	Bluefin Origination 1	MD	63323	SIMBA	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2019	12	60350	CPV Fairview, LLC	IPP	CPV Fairview Energy Center	PA	60589	GEN1	342.0	Natural Gas Fired Combined Cycle	NG	CT	(TS) Construction complete, but not yet in commercial operation	372.0
2019	12	60350	CPV Fairview, LLC	IPP	CPV Fairview Energy Center	PA	60589	GEN2	342.0	Natural Gas Fired Combined Cycle	NG	CT	(TS) Construction complete, but not yet in commercial operation	372.0
2019	12	60350	CPV Fairview, LLC	IPP	CPV Fairview Energy Center	PA	60589	GEN3	416.0	Natural Gas Fired Combined Cycle	NG	CA	(TS) Construction complete, but not yet in commercial operation	453.0
2019	12	63049	Cannon Garden LLC	IPP	Cannon Garden Solar	MN	63252	CGS	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
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	(TS) Construction complete, but not yet in commercial operation	2.8
2019	12	60656	Chestnut Solar LLC	IPP	Chestnut Solar	NC	61011	PV1	74.9	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	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	16604	City of San Antonio - (TX)	Electric Utility	Commerce Solar	TX	62610	PV1	5.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	5.0
2019	12	62855	Clear Creek Wind, LLC	IPP	Clear Creek Wind	MO	63025	V110	22.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	22.0
2019	12	62855	Clear Creek Wind, LLC	IPP	Clear Creek Wind	MO	63025	V120	220.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	220.0
2019	12	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	12	4254	Consumers Energy Co	Electric Utility	Cross Winds Energy Park	MI	58830	CWEP3	75.9	Onshore Wind Turbine	WND	WT	(TS) Construction complete, but not yet in commercial operation	75.9
2019	12	61416	Crowned Ridge Wind, LLC	IPP	Crowned Ridge Wind Energy Center	SD	60503	CTTL1	200.1	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	200.1
2019	12	59464	Current Energy Group	IPP	Hickory	NC	59829	5515	5.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	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	60370	DG AMP Solar, LLC	IPP	DG AMP 1048 Wadsworth	OH	62942	A1048	6.3	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	6.3
2019	12	60370	DG AMP Solar, LLC	IPP	DG AMP Rittman Rd	OH	62941	AMPRR	2.6	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.6
2019	12	63058	DG Northeast 1, LLC	IPP	Becton Canaan	CT	63262	PH2RF	0.5	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	0.5
2019	12	62132	DWW Solar II LLC	IPP	DWW Solar II	CT	62657	DWWS	36.9	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	36.9
2019	12	61610	Delaware River Solar, LLC	IPP	Dryden Rd #2 Community Solar Farm	NY	62477	372	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2019	12	61610	Delaware River Solar, LLC	IPP	Gaskill Rd Community Solar Farm	NY	62474	928	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2019	12	61610	Delaware River Solar, LLC	IPP	Hospital Rd Community Solar Farm	NY	62155	9	1.4	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.4
2019	12	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	12	61610	Delaware River Solar, LLC	IPP	Villa Roma Rd #3	NY	62527	390	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2019	12	61610	Delaware River Solar, LLC	IPP	Villa Roma Rd #4	NY	62528	391	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2019	12	61610	Delaware River Solar, LLC	IPP	Woodoak Drive Community Solar Farm	NY	62479	175	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2019	12	5248	Dominion Energy Inc	IPP	Seabrook Solar	SC	61701	GEN1	70.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	72.5
2019	12	58468	Dominion Renewable Energy	Electric Utility	Colonial Trail West	VA	61985	CTWS	142.4	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 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	(V) Under construction, more than 50 percent complete	45.0
2019	12	6455	Duke Energy Florida, LLC	Electric Utility	Trenton Solar Power Plant	FL	62543	PV1	74.9	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	74.9
2019	12	15470	Duke Energy Indiana, LLC	Electric Utility	Tippecanoe Solar Power Plant	IN	63137	PV1	1.6	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.6
2019	12	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	12	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	12	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	102.8
2019	12	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	102.8
2019	12	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	12	61785	EDP Renewables North America LLC	IPP	Windhub Solar A LLC	CA	59878	GEN01	20.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	20.0
2019	12	61420	ENGIE Storage Services NA LLC	Commercial	Pacific Union College BESS	CA	61795	12649	1.0	Batteries	MWH	BA	(TS) Construction complete, but not yet in commercial operation	1.0
2019	12	62845	ESA Four Oaks 2 NC LLC	IPP	ESA Four Oaks 2 NC LLC	NC	62996	PGR08	2.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.0
2019	12	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	12	58970	Ecoplexus, Inc	IPP	Everett PV1	NC	60997	EVRT1	10.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	10.0
2019	12	58970	Ecoplexus, Inc	IPP	Grandy PV 1	NC	59518	GRAND	20.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	20.0
2019	12	58135	Ecos Energy LLC	IPP	Plainfield Solar 2	CT	63263	PLFD2	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2019	12	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	12	61915	Emmons-Logan Wind, LLC	IPP	Emmons-Logan Wind, LLC	ND	62380	ELLLC	200.0	Onshore Wind Turbine	WND	WT	(TS) Construction complete, but not yet in commercial operation	200.0
2019	12	60496	Enerparc Inc.	IPP	Baker City Solar	OR	61854	BAKER	15.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	15.0
2019	12	60496	Enerparc Inc.	IPP	Brush Solar Center	OR	61844	BRUSH	2.8	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.8
2019	12	60496	Enerparc Inc.	IPP	Morgan Solar Center	OR	61855	MORGN	3.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	3.0
2019	12	60496	Enerparc Inc.	IPP	Ontario Solar Center	OR	61860	ONTRO	3.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	3.0
2019	12	60496	Enerparc Inc.	IPP	Vale Solar Center	OR	61856	VALE	3.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	3.0
2019	12	12685	Entergy Mississippi LLC	Electric Utility	Hinds Energy Facility	MS	55218	H04BS	36.4	Natural Gas Fired Combustion Turbine	NG	GT	(TS) Construction complete, but not yet in commercial operation	49.1
2019	12	62951	FL Solar 4, LLC	IPP	FL Solar 4, LLC	FL	63187	FL4	42.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	42.0
2019	12	61857	Five Forks Solar	IPP	Five Forks Solar	NC	59951	5FRK	20.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	20.0
2019	12	62856	Forefront Power, LLC	IPP	Gibbons CSG	MD	63089	15122	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2019	12	62856	Forefront Power, LLC	IPP	Howell CSG	NY	63107	1725	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2019	12	62856	Forefront Power, LLC	IPP	Upper Marlboro 1 CSG	MD	63075	20	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2019	12	62856	Forefront Power, LLC	IPP	White CSG	MD	63085	15124	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2019	12	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	12	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	12	62061	GD West Greenwich Victory I, LLC	IPP	GD West Greenwich Victory I, LLC	RI	62568	GDVIC	1.8	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.8
2019	12	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	12	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	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

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	61194	Generate Capital	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	12	61194	Generate Capital	IPP	Burritt Rd Community Solar Farm	NY	62480	635	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2019	12	61194	Generate Capital	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	12	61194	Generate Capital	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	12	61194	Generate Capital	IPP	Villa Roma Rd #1	NY	62525	40	2.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.0
2019	12	61194	Generate Capital	IPP	Villa Roma Rd #2	NY	62526	41	2.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.0
2019	12	7140	Georgia Power Co	Electric Utility	Fort Valley State University Solar	GA	63062	1	10.8	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	10.8
2019	12	7140	Georgia Power Co	Electric Utility	Georgia College & State University Solar	GA	63282	1	3.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	3.5
2019	12	61611	Glaciers Edge Wind Project LLC	IPP	Glaciers Edge Wind Project	IA	62035	GEW	200.0	Onshore Wind Turbine	WND	WT	(TS) Construction complete, but not yet in commercial operation	211.7
2019	12	61728	GlidePath Power Operations LLC	IPP	Prospect Storage	TX	62753	BESS	9.9	Batteries	MWH	BA	(TS) Construction complete, but not yet in commercial operation	9.9
2019	12	62106	Hidalgo Wind Farm II LLC	IPP	Hidalgo Wind Farm II	TX	62618	WT	50.4	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	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	(V) Under construction, more than 50 percent complete	449.5
2019	12	54769	INEOS USA LLC	Industrial	Power Island	TX	10154	GEN2	50.0	Natural Gas Fired Combustion Turbine	NG	GT	(V) Under construction, more than 50 percent complete	50.0
2019	12	62894	Imeson Solar Farm LLC	IPP	Imeson Solar	FL	63186	IMESO	5.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	5.0
2019	12	60986	Imperial Valley Solar 2, LLC	IPP	Mount Signal Solar 2	CA	61353	IVS2	153.5	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	153.5
2019	12	9234	Indiana Municipal Power Agency	Electric Utility	Crawfordsville 2 Solar Park	IN	62484	SCRA2	7.9	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	7.9
2019	12	9234	Indiana Municipal Power Agency	Electric Utility	Crawfordsville 3 Solar Park	IN	62485	SCRA3	4.8	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	4.8
2019	12	49893	Invenergy Services LLC	IPP	Camilla Solar Energy Project	GA	61785	CAMSR	171.4	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	171.4
2019	12	49893	Invenergy Services LLC	IPP	Wilkinson Solar LLC	NC	62544	GEN1	80.6	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	80.6
2019	12	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	12	61960	Lapetus Energy Project LLC	IPP	Lapetus	TX	62448	LAP	100.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	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	(V) Under construction, more than 50 percent complete	200.0
2019	12	62842	Lightsource Renewable Energy Asset Management, LLC	IPP	Bluewater CDEC 1	NM	62994	NMBW1	2.4	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.4
2019	12	62842	Lightsource Renewable Energy Asset Management, LLC	IPP	Grants CDEC 2	NM	62995	NMGR1	4.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	4.5
2019	12	62842	Lightsource Renewable Energy Asset Management, LLC	IPP	Whitetail Solar 1	PA	62989	PAWT1	13.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	13.5
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	63001	MN CSG 2, LLC	IPP	Woodbury Solar	MN	63231	PV	3.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	3.0
2019	12	62915	Madison Energy Holdings LLC	IPP	Dakota Community Solar One LLC	MN	63116	52838	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2019	12	62915	Madison Energy Holdings LLC	IPP	Douglas Todd Community Solar One LLC	MN	63117	52834	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2019	12	62915	Madison Energy Holdings LLC	IPP	McLeod Community Solar One LLC	MN	63119	52832	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2019	12	62915	Madison Energy Holdings LLC	IPP	Meeker Community Solar One LLC	MN	63118	52824	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2019	12	62915	Madison Energy Holdings LLC	IPP	Stearns Community Solar One LLC	MN	63121	52825	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
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	(V) Under construction, more than 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	(V) Under construction, more than 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	(V) Under construction, more than 50 percent complete	398.8
2019	12	12341	MidAmerican Energy Co	Electric Utility	Palo Alto Wind Farm	IA	63053	PAWF	250.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	250.0
2019	12	61401	North 301 Solar	IPP	North 301 Solar	NC	61778	N301	26.9	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	26.9
2019	12	62644	OEE XXVIII LLC	Industrial	LafargeHolcim - Paulding Wind Project	OH	62752	L1	1.5	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	1.5
2019	12	62644	OEE XXVIII LLC	Industrial	LafargeHolcim - Paulding Wind Project	OH	62752	L2	1.5	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	1.5
2019	12	62644	OEE XXVIII LLC	Industrial	LafargeHolcim - Paulding Wind Project	OH	62752	L3	1.5	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	1.5
2019	12	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	12	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	12	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	12	59300	PNM Resources	Electric Utility	Rio Rancho Solar Energy Center	NM	63184	RIRA	10.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	10.0
2019	12	62009	Palmer Solar LLC	IPP	Palmer Solar	CO	62495	20181	60.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	60.0
2019	12	62796	Paulding Wind Farm IV LLC	IPP	Timber Road IV	OH	62944	TRIV	125.1	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	125.1
2019	12	56215	RWE Renewables Americas LLC	IPP	Canadian Breaks, LLC	TX	63030	CBRKS	210.1	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	210.1
2019	12	56215	RWE Renewables Americas 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	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	(U) Under construction, less than or equal to 50 percent complete	10.0
2019	12	62047	Roadrunner Solar, LLC	IPP	Roadrunner, LLC	TX	62561	RODR1	200.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	200.0
2019	12	61929	Runway Solar Farm	Electric Utility	Runway Solar Farm	SC	62397	1	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2019	12	62129	SFDK Solar, LLC	IPP	SFDK Solar	CA	62649	SFDK	6.3	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	6.3
2019	12	61635	SR Hazlehurst III, LLC	IPP	Hazlehurst III	GA	62057	HZIII	40.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	40.0
2019	12	60975	SR Innovation, LLC	IPP	SR Innovation - NIKE PV	TN	61332	NIKE2	1.7	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.7
2019	12	61701	SR Meridian III	IPP	Meridian III	MS	62163	MRDII	52.5	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	52.5
2019	12	61677	Sol Systems	IPP	Grove Solar, LLC	NC	62807	12083	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 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	(TS) Construction complete, but not yet in commercial operation	2.0
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	(TS) Construction complete, but not yet in commercial operation	2.2
2019	12	61492	StraightUp Solar	IPP	John A Logan College Solar	IL	61878	JALC	1.6	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.9
2019	12	62822	Syncarpha Blandford, LLC	IPP	Syncarpha Blandford Hybrid	MA	62975	SYBLS	4.9	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	4.9
2019	12	62904	Syncarpha El Rito I, LLC	IPP	Syncarpha El Rito	NM	63124	SYNEL	1.6	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.6
2019	12	62906	Syncarpha Questa I, LLC	IPP	Syncarpha Questa	NM	63125	SYNQU	1.6	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.6
2019	12	60193	Tamworth Holdings, LLC	IPP	Tamworth Holdings	NC	60394	PV1	5.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	5.0
2019	12	60410	Tanager Holdings, LLC	IPP	Tanager Holdings	NC	60691	PV1	5.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	5.0
2019	12	2770	Terra-Gen Operating Co-Wind	IPP	Voyager Wind I	CA	60594	VYGR1	131.1	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	131.1
2019	12	62701	Vista Solar, Inc.	IPP	Shelter Creek Condominiums Solar	CA	62806	SCC01	2.4	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.5
2019	12	62103	Whitney Hill Wind Power LLC	IPP	Whitney Hill Wind Power LLC	IL	62606	WTHWP	65.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	65.0
2019	12	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	12	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	12	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	257.4
2019	12	59260	Wright Solar Park LLC	IPP	Wright Solar Park	CA	59525	FRWSP	200.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	200.0
2019	12	60059	ZGlobal Inc	IPP	Eagle Creek	CA	63078	EGCRK	3.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	3.0
2020	1	63115	AZ Solar 1, LLC	IPP	OE_AZ1	AZ	63349	AZ1	32.5	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	32.5
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	62627	Alchemy Renewable Energy	IPP	Duus Solar, LLC	OR	63330	ORDUS	10.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	10.0
2020	1	62627	Alchemy Renewable Energy	IPP	Firwood Solar, LLC	OR	63331	ORFWD	10.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	10.0
2020	1	59496	Allete Clean Energy	IPP	South Peak Wind	MT	62939	41001	80.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	80.0
2020	1	60281	Altus Power America Management, LLC	IPP	FastSun 11 CSG	MN	63037	FS11	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2020	1	60281	Altus Power America Management, LLC	IPP	FastSun 2 CSG	MN	62696	FS2	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2020	1	62772	CA ODEVI LLC	IPP	Windsor Floating Solar	CA	62902	WUS15	1.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.5
2020	1	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
2020	1	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

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

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code	Status	Nameplate Capacity (MW)
2020	1	56769	Consolidated Edison Development Inc.	IPP	CED Northampton Solar LLC	MA	62695	NSMA	4.3	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	4.3
2020	1	63120	Cubera Solar, LLC	IPP	Cubera Solar, LLC	NC	63346	PGR06	2.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	2.0
2020	1	62801	DG Linden New Jersey LLC	IPP	DG Infineum	NJ	62958	INFNM	2.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	2.0
2020	1	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
2020	1	61785	EDP Renewables North America LLC	IPP	Sun Streams, LLC	AZ	60827	GEN01	160.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	160.0
2020	1	61785	EDP Renewables North America LLC	IPP	Sunshine Valley Solar	NV	59826	GEN01	103.4	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	103.4
2020	1	13478	Entergy New Orleans, LLC	Electric Utility	New Orleans Power	LA	60928	1	250.0	Natural Gas Fired Combustion Turbine	NG	GT	(V) Under construction, more than 50 percent complete	250.0
2020	1	6452	Florida Power & Light Co	Electric Utility	Babcock Preserve	FL	62634	1	74.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 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	(V) Under construction, more than 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	(V) Under construction, more than 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	(V) Under construction, more than 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	(V) Under construction, more than 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	(V) Under construction, more than 50 percent complete	74.5
2020	1	63114	GA Solar 3, LLC	IPP	OE_GA3	GA	63350	GA3	57.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	57.5
2020	1	7140	Georgia Power Co	Electric Utility	Kings Bay Solar Facility	GA	59864	BESS	1.5	Batteries	MWH	BA	(U) Under construction, less than or equal to 50 percent complete	1.5
2020	1	60025	Greenbacker Renewable Energy Corporation	IPP	Blue Star	MD	62332	BLUES	7.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	7.5
2020	1	60025	Greenbacker Renewable Energy Corporation	IPP	Sol Phoenix	MD	62331	SOLPH	2.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.5
2020	1	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
2020	1	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
2020	1	9234	Indiana Municipal Power Agency	Electric Utility	Richmond Solar Park 3	IN	62770	SRIC3	6.7	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	6.7
2020	1	9417	Interstate Power and Light Co	Electric Utility	Whispering Willow North	IA	62079	1	199.9	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	199.9
2020	1	62838	LSE Dorado, LLC	IPP	Goose Pond Solar	MA	62992	GPNOR	2.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	2.0
2020	1	62838	LSE Dorado, LLC	IPP	Goose Pond Solar	MA	62992	GPSOU	2.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	2.0
2020	1	62915	Madison Energy Holdings LLC	IPP	Nicollet Community Solar One LLC	MN	63120	52828	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2020	1	62915	Madison Energy Holdings LLC	IPP	Sherburne Community Solar One LLC	MN	63122	52814	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
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	61925	Middlesex-Yates Solar, LLC	IPP	Daum Solar	NY	62412	DAUM	4.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	4.0
2020	1	56990	NJR Clean Energy Ventures Corporation	IPP	Franklin Solar	NJ	63149	FRANK	8.8	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	8.8
2020	1	56990	NJR Clean Energy Ventures Corporation	IPP	Pohatcong Solar Farm	NJ	63150	POHAT	8.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	8.0
2020	1	13206	Nantucket Electric Co	Electric Utility	Nantucket	MA	1615	20	6.0	Batteries	MWH	BA	(TS) Construction complete, but not yet in commercial operation	6.0
2020	1	13484	New York Methodist Hospital	IPP	New York Methodist Hospital	NY	52091	CCHEG	1.5	Petroleum Liquids	DFO	IC	(TS) Construction complete, but not yet in commercial operation	1.5
2020	1	62849	Novel Byron Solar LLC CSG	IPP	Novel Byron Solar CSG	MN	62985	BYRN	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2020	1	62832	Novel Herber Solar LLC CSG	IPP	Novel Herber Solar CSG	MN	62966	HERB	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2020	1	62964	Prawer Community Solar LLC	IPP	Prawer Project CSG	MN	63176	TC3	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
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	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
2020	1	62971	South Energy Investments LLC	IPP	South Windsor Fuel Cell	CT	63302	SWFC5	5.0	Other Natural Gas	NG	FC	(V) Under construction, more than 50 percent complete	5.0
2020	1	60531	Standard Solar	IPP	NY 26 Carthage	NY	63224	X0140	5.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	5.0
2020	1	60531	Standard Solar	IPP	Town of Burrillville Solar	RI	62898	X0042	4.2	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	4.2
2020	1	18454	Tampa Electric Co	Electric Utility	Little Manatee River Solar	FL	62750	GEN1	74.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	74.5
2020	1	18454	Tampa Electric Co	Electric Utility	Wimauma Solar	FL	61667	1	74.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	74.5
2020	1	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	1	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	1	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	1	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	1	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	1	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
2020	1	20323	Wellhead Energy, LLC	IPP	Stanton Energy Reliability Center	CA	60698	GT1	45.9	Natural Gas Fired Combustion Turbine	NG	GT	(V) Under construction, more than 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	(V) Under construction, more than 50 percent complete	60.5
2020	2	61012	AES Distributed Energy	IPP	Finchville Solar, LLC	NY	62999	FINCH	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2020	2	15399	Avangrid Renewables LLC	IPP	Otter Creek Wind Farm LLC	IL	61344	WT1	150.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	150.0
2020	2	60289	Blazing Star Wind Farm, LLC	IPP	Blazing Star Wind Farm 1	MN	60504	BLZG1	200.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	200.0
2020	2	7626	City of Greenfield - (IA)	Electric Utility	Greenfield	IA	1144	1	2.2	Petroleum Liquids	DFO	IC	(V) Under construction, more than 50 percent complete	2.2
2020	2	7626	City of Greenfield - (IA)	Electric Utility	Greenfield	IA	1144	2	2.2	Petroleum Liquids	DFO	IC	(V) Under construction, more than 50 percent complete	2.2
2020	2	62800	DG Edison New Jersey LLC	IPP	DG Iron Mountain	NJ	62957	IRNMT	5.4	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.4
2020	2	60853	ET CAP OR HOLDINGS LLC	IPP	OR Solar 2, LLC	OR	61200	ORSR2	10.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	10.0
2020	2	58970	Ecoplexus, Inc	IPP	Underwood PV2	NC	60998	UNWD2	16.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	16.0
2020	2	56201	Engie North America	IPP	Jumbo Hill Wind Project	TX	62630	WTGS1	160.7	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	160.7
2020	2	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
2020	2	60659	Hickory Run Energy, LLC	IPP	Hickory Run Energy Station	PA	61028	CTG1	283.0	Natural Gas Fired Combined Cycle	NG	CT	(TS) Construction complete, but not yet in commercial operation	311.0
2020	2	60659	Hickory Run Energy, LLC	IPP	Hickory Run Energy Station	PA	61028	CTG2	283.0	Natural Gas Fired Combined Cycle	NG	CT	(TS) Construction complete, but not yet in commercial operation	311.0
2020	2	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	2	54769	INEOS USA LLC	Industrial	Power Island	TX	10154	GEN3	50.0	Natural Gas Fired Combustion Turbine	NG	GT	(V) Under construction, more than 50 percent complete	50.0
2020	2	56215	RWE Renewables Americas LLC	IPP	Peyton Creek Wind Farm LLC	TX	62417	WT1	220.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	220.0
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	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
2020	2	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
2020	2	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
2020	2	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
2020	2	63131	Strandness Garden LLC	IPP	Strandness Garden	MN	63367	CGS	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2020	2	62905	Syncarpha Taos I, LLC	IPP	Syncarpha Taos	NM	63123	SYNTA	3.1	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	3.1
2020	2	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	2	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	2	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	2	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	2	24211	Tucson Electric Power Co	Electric Utility	H Wilson Sundt Generating Station	AZ	126	RIC5	18.2	Natural Gas Internal Combustion Engine	NG	IC	(U) Under construction, less than or equal to 50 percent complete	23.5
2020	2	62701	Vista Solar, Inc.	IPP	Guittard Chocolates	CA	63190	GCHOC	1.5	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	1.5
2020	3	61012	AES Distributed Energy	IPP	Cronin Road Solar 1, LLC	MA	63011	CRONI	1.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.5
2020	3	61012	AES Distributed Energy	IPP	Lane Ave Solar LLC	MA	63041	HANRA	1.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.5
2020	3	61012	AES Distributed Energy	IPP	Ryan Road Solar LLC	MA	63044	ORCHA	4.3	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	4.3
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	(U) Under construction, less than or equal to 50 percent complete	2.0
2020	3	60281	Altus Power America Management, LLC	IPP	FastSun 1 CSG	MN	63046	FS1	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2020	3	60281	Altus Power America Management, LLC	IPP	FastSun 10 CSG	MN	63038	FS10	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2020	3	60281	Altus Power America Management, LLC	IPP	FastSun 19 CSG	MN	63033	FS19	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2020	3	60281	Altus Power America Management, LLC	IPP	FastSun 3 CSG	MN	63042	FS3	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2020	3	60281	Altus Power America Management, LLC	IPP	FastSun 5 CSG	MN	63045	FS5	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0

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	60281	Altus Power America Management, LLC	IPP	FastSun 7 CSG	MN	63043	FS7	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2020	3	60281	Altus Power America Management, LLC	IPP	FastSun 8 CSG	MN	63039	FS8	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2020	3	60281	Altus Power America Management, LLC	IPP	FastSun 9 CSG	MN	63040	FS9	1.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	1.0
2020	3	59365	Capital Power Corporation	IPP	Cardinal Point LLC	IL	59902	GEN	150.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	150.0
2020	3	18488	City of Taunton	Electric Utility	Cleary Flood Hybrid	MA	1682	BS1	2.9	Batteries	MWH	BA	(T) Regulatory approvals received. Not under construction	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	U001	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	U002	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	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	(TS) Construction complete, but not yet in commercial operation	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	(TS) Construction complete, but not yet in commercial operation	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	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
2020	3	5109	DTE Electric Company	Electric Utility	Polaris Wind Park	MI	62290	1	168.6	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 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	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	(U) Under construction, less than or equal to 50 percent complete	74.9
2020	3	6455	Duke Energy Florida, LLC	Electric Utility	Debary Solar Power Plant	FL	62542	PV1	74.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	74.5
2020	3	15470	Duke Energy Indiana, LLC	Electric Utility	Nabb Battery Energy Storage System	IN	62862	ES1	5.0	Batteries	MWH	BA	(U) Under construction, less than or equal to 50 percent complete	5.0
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	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	63081	Exus North America Management Partners LLC	IPP	Bearkat II Wind Energy LLC	TX	63342	BKII	162.1	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	162.1
2020	3	62856	Forefront Power, LLC	IPP	Harmony Road Solar	IL	63069	1823	1.9	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.9
2020	3	62856	Forefront Power, LLC	IPP	Reed Road Solar	IL	63071	1822	1.3	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.3
2020	3	62856	Forefront Power, LLC	IPP	Square Barn Solar	IL	63070	1820	1.5	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.5
2020	3	62856	Forefront Power, LLC	IPP	UC Santa Cruz Solar	CA	63091	246	1.8	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.8
2020	3	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
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	61194	Generate Capital	IPP	Washington St Community Solar Farm #1	NY	62472	617	2.2	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.2
2020	3	61194	Generate Capital	IPP	Washington St Community Solar Farm #3	NY	62473	1035	2.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.5
2020	3	61194	Generate Capital	IPP	Washington St Community Solar Farm #4	NY	62471	1034	2.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.5
2020	3	7140	Georgia Power Co	Electric Utility	Moody Air Force Base Solar	GA	62377	1	49.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	49.5
2020	3	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
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	(V) Under construction, more than 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	62842	Lightsource Renewable Energy Asset Management, LLC	IPP	Johnson Corner Solar 1	KS	62993	KSJC1	20.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	20.0
2020	3	62837	Novel DeCook Solar LLC CSG	IPP	Novel DeCook Solar CSG	MN	62979	DECO	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2020	3	62864	Novel Haley Solar LLC CSG	IPP	Novel Haley Solar CSG	MN	63005	HALY	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	3	62833	Novel Herickhoff Solar LLC CSG	IPP	Novel Herickhoff Solar CSG	MN	62967	HERIC	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2020	3	62848	Novel Jewison Solar LLC CSG	IPP	Novel Jewison Solar CSG	MN	62984	JEWI	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2020	3	62846	Novel Schmoll Farms Solar LLC CSG	IPP	Novel Schmoll Farms Solar CSG	MN	62982	SCHM	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2020	3	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
2020	3	61758	Prevailing Wind Park, LLC	IPP	Prevailing Wind Park	SD	62247	PWPSD	220.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	220.0
2020	3	56215	RWE Renewables Americas LLC	IPP	Bearkat	TX	59972	BRKA2	103.4	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	103.4
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	17650	Southern Power Co	Electric Utility	Skookumchuck Wind Facility	WA	63205	1	136.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	136.0
2020	3	60970	SunShare Management	IPP	Linden 01 CSG	MN	63179	KANE1	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2020	3	60970	SunShare Management	IPP	Linden 02 CSG	MN	63182	LIND2	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2020	3	60970	SunShare Management	IPP	Linden 03 CSG	MN	63183	LIND3	1.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	1.0
2020	3	62822	Syncarpha Blandford, LLC	IPP	Syncarpha Blandford Hybrid	MA	62975	SYBLB	3.5	Batteries	MWH	BA	(V) Under construction, more than 50 percent complete	3.5
2020	3	62825	Syncarpha Northbridge II, LLC	IPP	Syncarpha Northbridge II Hybrid	MA	62978	SYN2S	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2020	3	62930	USS Cheyenne Solar LLC	IPP	USS Cheyenne Solar LLC CSG	MN	63145	CHYNE	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	3	62938	USS Christoffer Solar LLC	IPP	USS Christoffer Solar LLC CSG	MN	63152	CHRST	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	3	62928	USS Greenhouse Solar LLC	IPP	USS Greenhouse Solar LLC CSG	MN	63143	GRHSE	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	3	62929	USS Mayhew Solar LLC	IPP	USS Mayhew Solar LLC CSG	MN	63144	MAYHW	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	3	62931	USS Midtown Solar LLC	IPP	USS Midtown Solar LLC CSG	MN	63146	MDTWN	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	3	62927	USS Milkweed Solar LLC	IPP	USS Milkweed Solar LLC CSG	MN	63142	MLKWD	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	3	62932	USS Monarch Solar LLC	IPP	USS Monarch Solar LLC CSG	MN	63147	MNRCH	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	3	62937	USS Solar Sources LLC	IPP	USS Solar Sources LLC CSG	MN	63151	SOURC	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	3	62926	USS Sunrise Solar LLC	IPP	USS Sunrise Solar LLC CSG	MN	63141	SNRSE	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	3	62933	USS Turkey Solar LLC	IPP	USS Turkey Solar LLC CSG	MN	63148	TURKY	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	3	62925	USS Westeros Solar LLC	IPP	USS Westeros Solar LLC CSG	MN	63140	USSWS	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	3	62641	Warsaw Solar LLC	IPP	Warsaw Solar CSG	MN	62709	SC	2.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	2.0
2020	3	62748	Wildcat I Energy Storage LLC	IPP	Wildcat I Energy Storage LLC	CA	62875	WILD1	3.0	Batteries	MWH	BA	(U) Under construction, less than or equal to 50 percent complete	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	61012	AES Distributed Energy	IPP	Allis Medina Solar LLC	NY	63129	ALLIS	5.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	5.0
2020	4	61012	AES Distributed Energy	IPP	Beals Medina Solar LLC	NY	63130	BEALS	3.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	3.5
2020	4	61012	AES Distributed Energy	IPP	West Street Solar 1 LLC	MA	63131	GRDNR	5.0	Solar Photovoltaic	SUN	PV	(TS) Construction complete, but not yet in commercial operation	5.0
2020	4	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
2020	4	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
2020	4	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
2020	4	2265	Bristol-Myers Squibb Co	IPP	Bristol Myers Squibb Lawrenceville	NJ	58947	TG102	5.0	Natural Gas Fired Combustion Turbine	NG	GT	(V) Under construction, more than 50 percent complete	5.4
2020	4	62835	Caden Energix Hickory LLC	IPP	Caden Energix Hickory LLC	VA	63084	ENX02	20.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	20.0
2020	4	62835	Caden Energix Hickory LLC	IPP	Caden Energix Hickory LLC	VA	63084	ENX03	12.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	12.0
2020	4	62834	Caden Energix Pamplin LLC	IPP	Caden Energix Pamplin LLC	VA	63083	ENX04	15.7	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	15.7
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	(V) Under construction, more than 50 percent complete	135.0
2020	4	61060	Cypress Creek Renewables	IPP	Huntley	SC	63271	1295	75.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	75.0
2020	4	61610	Delaware River Solar, LLC	IPP	County Route 11 Community Solar Farm	NY	62507	1419	4.1	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	4.1
2020	4	61610	Delaware River Solar, LLC	IPP	Route 22 Community Solar Farm	NY	62524	1444	3.7	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	3.7
2020	4	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	4	56201	Engie North America	IPP	East Fork Wind Project, LLC	KS	62220	WTGS	195.8	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 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	(V) Under construction, more than 50 percent complete	74.5

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

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code	Status	Nameplate Capacity (MW)
2020	4	6452	Florida Power & Light Co	Electric Utility	Hibiscus Solar Energy Center	FL	62206	1	74.5	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 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	(V) Under construction, more than 50 percent complete	74.5
2020	4	62856	Forefront Power, LLC	IPP	Mooseheart School Solar	IL	63073	1817	2.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	2.0
2020	4	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
2020	4	60025	Greenbacker Renewable Energy Corporation	IPP	Renew Solar ABC Sacramento LLC	CA	62545	SACRA	1.7	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.7
2020	4	62638	Helen Solar LLC	IPP	Helen Solar CSG	MN	62706	SC	4.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	4.0
2020	4	9234	Indiana Municipal Power Agency	Electric Utility	Gas City Solar Park	IN	62767	SGASC	2.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.5
2020	4	62640	Northfield Solar LLC	IPP	Northfield Solar CSG	MN	62708	SC	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2020	4	62863	Novel Bartel Solar LLC CSG	IPP	Novel Bartel Solar CSG	MN	63004	BART	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	4	62850	Novel Kanewischer Solar LLC CSG	IPP	Novel Kanewischer Solar CSG	MN	62986	KANE	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2020	4	62847	Novel Pederson Solar LLC CSG	IPP	Novel Pederson Solar CSG	MN	62983	PED	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	4	62788	Oberon Solar IA	IPP	Oberon IA	TX	62933	OBR1A	150.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	150.0
2020	4	62789	Oberon Solar IB	IPP	Oberon IB	TX	62932	OBR1B	30.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	30.0
2020	4	56215	RWE Renewables Americas LLC	IPP	Cranell Wind Farm LLC	TX	62416	WT1	220.0	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	220.0
2020	4	62113	Sage Draw Wind, LLC	IPP	Sage Draw Wind	TX	62620	SD	338.4	Onshore Wind Turbine	WND	WT	(V) Under construction, more than 50 percent complete	338.4
2020	4	63119	Scotch Bonnet Solar, LLC	IPP	Scotch Bonnet Solar, LLC	NC	63345	PGR07	4.5	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	4.5
2020	4	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
2020	4	62821	Syncarpha Northampton, LLC	IPP	Syncarpha Northampton Hybrid	MA	62976	SYNOS	3.6	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	3.6
2020	4	62825	Syncarpha Northbridge II, LLC	IPP	Syncarpha Northbridge II Hybrid	MA	62978	SYN2B	3.0	Batteries	MWH	BA	(U) Under construction, less than or equal to 50 percent complete	3.0
2020	4	62828	TWE Bowman Solar Project, LLC	IPP	TWE Bowman Solar Project	SC	62828	BOW	73.1	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	75.0
2020	4	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
2020	4	62701	Vista Solar, Inc.	IPP	Watsonville Produce	CA	63192	WATPR	1.4	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	1.4
2020	4	62637	Walcott Solar LLC	IPP	Walcott Solar CSG	MN	62707	SC	4.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	4.0
2020	5	61012	AES Distributed Energy	IPP	W. Orange Rd Solar LLC	MA	63047	HEYES	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2020	5	61012	AES Distributed Energy	IPP	Wilbur Woods Solar LLC	MA	63048	DESMO	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2020	5	61610	Delaware River Solar, LLC	IPP	Frey Rd #1 Community Solar Farm	NY	62504	1159	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
2020	5	61610	Delaware River Solar, LLC	IPP	Frey Rd #2 Community Solar Farm	NY	62521	1442	1.4	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.4
2020	5	61610	Delaware River Solar, LLC	IPP	Furnace Rd Community Solar Farm	NY	62508	1420	3.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. 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	(T) Regulatory approvals received. 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	(T) Regulatory approvals received. 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	(T) Regulatory approvals received. 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	(T) Regulatory approvals received. Not under construction	2.0
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	(U) Under construction, less than or equal to 50 percent complete	3.2
2020	5	61251	LA3 West Baton Rouge, L.L.C.	IPP	LA3 West Baton Rouge Solar Facility	LA	61646	LA3WB	50.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	50.0
2020	5	56990	NJR Clean Energy Ventures Corporation	IPP	Campus Drive Solar	NJ	63334	CAMPS	3.7	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	3.7
2020	5	62865	Novel Holmquist Solar LLC CSG	IPP	Novel Holmquist Solar CSG	MN	63006	HOLM	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2020	5	62866	Novel MNDot Solar LLC CSG	IPP	Novel MNDot Solar CSG	MN	63007	MNDT	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2020	5	62867	Novel Winegar Partnership Solar CSG	IPP	Novel Winegar Partnership Solar CSG	MN	63008	WINE	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
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
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	58658	Sunlight Partners	IPP	Cash Solar	NC	60178	PV1	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2020	5	58658	Sunlight Partners	IPP	Robin Solar	NC	60165	PV1	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2020	5	62814	Syncarpha Leicester, LLC	IPP	Syncarpha Leicester Hybrid	MA	62972	SYLES	2.6	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.6
2020	5	62919	TPE King Solar Holdings1 LLC	IPP	King CSG	RI	63135	KING1	7.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	7.0
2020	5	62919	TPE King Solar Holdings1 LLC	IPP	King CSG	RI	63135	KING2	7.8	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	7.8
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	(T) Regulatory approvals received. Not under construction	5.0
2020	6	61524	226HC 8me LLC	IPP	Holstein 1 Solar Farm	TX	61962	HSF01	200.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 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	62981	Aero Haven Solar LLC	IPP	Aero Haven Solar	NJ	63195	ACP3	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2020	6	59496	Allete Clean Energy	IPP	Diamond Spring, LLC	OK	63327	46001	303.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	303.0
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	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	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
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	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	1752	Biola University	Commercial	Biola University Hybrid	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	6	1752	Biola University	Commercial	Biola University Hybrid	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	6	59844	Blythe Solar III, LLC	IPP	Blythe Solar III, LLC	CA	60094	BLCK1	31.2	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	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	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	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
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	62803	Cove Mountain Solar 2 LLC	IPP	Cove Mountain Solar 2	UT	62470	GEN01	122.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	122.0
2020	6	61060	Cypress Creek Renewables	IPP	Tate Solar	NC	60160	PV1	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2020	6	61060	Cypress Creek Renewables	IPP	Wagyu	TX	63273	1215	120.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	120.0
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	61610	Delaware River Solar, LLC	IPP	State Route 64N Community Solar Farm	NY	62520	1089	1.2	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.2
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	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	6	3046	Duke Energy Progress - (NC)	Electric Utility	Asheville-Rock Hill Battery	NC	63064	ES1	8.8	Batteries	MWH	BA	(U) Under construction, less than or equal to 50 percent complete	8.8
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	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
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	(U) Under construction, less than or equal to 50 percent complete	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	61001	Hu Honua Bioenergy, LLC	IPP	Hu Honua Bioenergy Facility	HI	61364	HHB	32.0	Other Waste Biomass	OBS	ST	(V) Under construction, more than 50 percent complete	36.0
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	(U) Under construction, less than or equal to 50 percent complete	2.3

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	62842	Lightsource Renewable Energy Asset Management, LLC	IPP	Whitetail Solar 2	PA	62990	PAWT2	20.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	20.0
2020	6	62842	Lightsource Renewable Energy Asset Management, LLC	IPP	Whitetail Solar 3	PA	62991	PAWT3	20.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	20.0
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	62869	Novel Benedix Solar LLC CSG	IPP	Novel Benedix Solar CSG	MN	63010	BNDX	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
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	62985	Pettinos Solar LLC	IPP	Pettinos Solar	NJ	63197	ACP4	1.2	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.2
2020	6	62913	Roundhouse Renewable Energy, LLC	Industrial	Roundhouse Wind Energy Project	WY	63133	82059	124.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	124.0
2020	6	62913	Roundhouse Renewable Energy, LLC	Industrial	Roundhouse Wind Energy Project	WY	63133	82060	79.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	79.0
2020	6	62913	Roundhouse Renewable Energy, LLC	Industrial	Roundhouse Wind Energy Project	WY	63133	82061	23.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	23.0
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	63074	Scout Clean Energy LLC	IPP	Heart of Texas Wind Project	TX	61032	HTX	160.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	160.0
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	62819	Syncarpha Halifax, LLC	IPP	Syncarpha Halifax Hybrid	MA	62973	SYHAS	1.7	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.7
2020	6	62814	Syncarpha Leicester, LLC	IPP	Syncarpha Leicester Hybrid	MA	62972	SYLEB	1.9	Batteries	MWH	BA	(T) Regulatory approvals received. Not under construction	1.9
2020	6	62821	Syncarpha Northampton, LLC	IPP	Syncarpha Northampton Hybrid	MA	62976	SYNOB	2.0	Batteries	MWH	BA	(U) Under construction, less than or equal to 50 percent complete	2.0
2020	6	62824	Syncarpha Northbridge I, LLC	IPP	Syncarpha Northbridge I Hybrid	MA	62977	SYN1S	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2020	6	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	7	62627	Alchemy Renewable Energy	IPP	Twittys Creek Solar, LLC	VA	63077	VATC	13.8	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	13.8
2020	7	62900	Caden Energix Rives Road LLC	IPP	Caden Energix Rives Road LLC	VA	63087	ENX01	19.7	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	19.7
2020	7	63073	Chicot Solar, LLC	IPP	Chicot Solar	AR	63295	CHICO	100.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	100.0
2020	7	60025	Greenbacker Renewable Energy Corporation	IPP	Solar Hagerstown	MD	62912	137	7.5	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	10.0
2020	7	59685	JPMorgan Chase Bank	Commercial	South Campus Solar	DE	59922	G1789	1.8	Solar Photovoltaic	SUN	PV	(OT) Other	1.8
2020	7	61219	Longroad Energy Services LLC	IPP	El Campo Wind	TX	62765	CAMPO	242.8	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	242.8
2020	7	61219	Longroad Energy Services LLC	IPP	Prospero Solar	TX	62755	PROSP	300.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	300.0
2020	7	11479	Madison Gas & Electric Co	Electric Utility	Middleton Airport Solar	WI	62731	1	5.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	5.0
2020	7	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	7	62868	Novel Peter Solar LLC CSG	IPP	Novel Peter Solar CSG	MN	63009	PETR	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2020	7	14624	PUD No 2 of Grant County	Electric Utility	Wanapum	WA	3888	4A	122.0	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	122.0
2020	7	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	62875	Shakespeare Solar, LLC	IPP	Shakespeare Solar	NC	63014	PGR12	5.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	5.0
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	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	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	7	62826	Syncarpha Puddon I, LLC	IPP	Syncarpha Puddon I Hybrid	MA	62969	SYP1S	5.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	5.0
2020	7	62827	Syncarpha Puddon II, LLC	IPP	Syncarpha Puddon II Hybrid	MA	62970	SYP2B	4.0	Batteries	MWH	BA	(U) Under construction, less than or equal to 50 percent complete	4.0
2020	7	62827	Syncarpha Puddon II, LLC	IPP	Syncarpha Puddon II Hybrid	MA	62970	SYP2S	5.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	5.0
2020	8	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	8	62993	Aviator Wind, LLC	IPP	Aviator Wind	TX	63209	AVTOR	525.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	525.0
2020	8	59844	Blythe Solar III, LLC	IPP	Blythe Solar III, LLC	CA	60094	BLCK2	31.2	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	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	63072	Cerro Gordo Wind Farm	IPP	Cerro Gordo Wind Farm	IA	63287	CGWF	42.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	42.0
2020	8	62881	Chambers Road Solar LLC	IPP	Chambers Road Solar	NY	62860	263	4.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	4.0
2020	8	61060	Cypress Creek Renewables	IPP	Eagle Solar	NC	60161	PV1	4.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	4.0
2020	8	61060	Cypress Creek Renewables	IPP	Willard Solar	NC	60287	PV1	4.9	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. 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	56201	Engie North America	IPP	Prairie Hill Wind Project	TX	63100	WTG	300.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	300.0
2020	8	62759	Geronimo Energy	IPP	Honeysuckle Solar, LLC	MN	63309	HONEY	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2020	8	62759	Geronimo Energy	IPP	Iris Solar, LLC (MN)	MN	63319	IRIS	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2020	8	62879	Hickory Grove #1 LLC	IPP	Hickory Grove #1	NY	62831	25	2.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	2.0
2020	8	62880	Hickory Grove #2	IPP	Hickory Grove #2	NY	62832	309	1.7	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.7
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	49893	Invenergy Services LLC	IPP	Millican Solar Energy LLC	OR	63050	GEN1	71.4	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	71.4
2020	8	49893	Invenergy Services LLC	IPP	Prineville Solar Energy LLC	OR	63049	GEN1	46.2	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	46.2
2020	8	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
2020	8	15296	New York Power Authority	Electric Utility	Willis Battery Storage	NY	63238	WB1	20.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	20.0
2020	8	63014	Novel Debra Solar LLC	IPP	Novel Debra Solar LLC CSG	MN	63247	DEBRA	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2020	8	63015	Novel Loren Solar LLC	IPP	Novel Loren Solar LLC CSG	MN	63248	LOREN	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2020	8	63017	Novel Wayne Solar LLC	IPP	Novel Wayne Solar LLC CSG	MN	63249	WAYNE	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2020	8	61592	Pleinmont Solar 1 LLC	IPP	Pleinmont Solar 1	VA	62012	PLNM1	75.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	75.0
2020	8	62819	Syncarpha Halifax, LLC	IPP	Syncarpha Halifax Hybrid	MA	62973	SYHAB	2.0	Batteries	MWH	BA	(T) Regulatory approvals received. Not under construction	2.0
2020	8	62824	Syncarpha Northbridge I, LLC	IPP	Syncarpha Northbridge I Hybrid	MA	62977	SYN1B	4.0	Batteries	MWH	BA	(U) Under construction, less than or equal to 50 percent complete	4.0
2020	8	62946	USS All In Solar LLC	IPP	USS All In Solar LLC CSG	MN	63160	ALLIN	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	8	62944	USS Cougar Solar LLC	IPP	USS Cougar Solar LLC CSG	MN	63158	COUGR	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	8	62945	USS Flower Solar LLC	IPP	USS Flower Solar LLC CSG	MN	63159	FLOWR	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	8	62940	USS Horne North Solar LLC	IPP	USS Horne North Solar LLC CSG	MN	63154	HORNN	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	8	62941	USS Horne South Solar LLC	IPP	USS Horne South Solar LLC CSG	MN	63155	HORNS	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	8	62942	USS JJ Clay Solar LLC	IPP	USS JJ Clay Solar LLC CSG	MN	63156	JJCLY	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	8	62943	USS Verde Solar LLC	IPP	USS Verde Solar LLC CSG	MN	63157	VERDE	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	8	62701	Vista Solar, Inc.	IPP	Hopkinton Phase 2	RI	63191	HTP2	2.5	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	2.5
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	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	9	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	9	62805	Bluestone Farm Solar, LLC	IPP	Bluestone Solar	VA	62950	BLUE1	49.9	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	49.9
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	62759	Geronimo Energy	IPP	Aster Community Solar Garden, LLC	MN	63305	ASTER	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2020	9	62759	Geronimo Energy	IPP	Geranium Solar, LLC	MN	63317	GERNM	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2020	9	62759	Geronimo Energy	IPP	Gladiolus Solar, LLC	MN	63316	GLADI	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2020	9	62759	Geronimo Energy	IPP	Kerria Solar, LLC	MN	63315	KERIA	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2020	9	62759	Geronimo Energy	IPP	Westport Community Solar, LLC	MN	63307	WESTP	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
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

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	9	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	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	(U) Under construction, less than or equal to 50 percent complete	130.1
2020	9	62897	MSB Investors, LLC	Electric CHP	ReSource Center	CA	63094	SBAD1	1.1	Other Waste Biomass	OBG	IC	(U) Under construction, less than or equal to 50 percent complete	1.1
2020	9	62897	MSB Investors, LLC	Electric CHP	ReSource Center	CA	63094	SBAD2	1.1	Other Waste Biomass	OBG	IC	(U) Under construction, less than or equal to 50 percent complete	1.1
2020	9	62726	Mountain Breeze Wind, LLC	IPP	Mountain Breeze Wind, LLC	CO	62840	MTBRZ	170.0	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	170.0
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	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	58798	Shell Chemical Appalachia LLC	Industrial	Shell Chemical Appalachia LLC	PA	58933	GTG1	37.1	Natural Gas Fired Combined Cycle	NG	CT	(V) Under construction, more than 50 percent complete	41.5
2020	9	58798	Shell Chemical Appalachia LLC	Industrial	Shell Chemical Appalachia LLC	PA	58933	GTG2	37.1	Natural Gas Fired Combined Cycle	NG	CT	(V) Under construction, more than 50 percent complete	41.5
2020	9	62844	Spring Hope Solar 3, LLC	IPP	Spring Hope Solar 3, LLC	NC	62997	PGR09	4.9	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	4.9
2020	9	62826	Syncarpha Puddon I, LLC	IPP	Syncarpha Puddon I Hybrid	MA	62969	SYP1B	4.0	Batteries	MWH	BA	(U) Under construction, less than or equal to 50 percent complete	4.0
2020	9	62813	Syncarpha Westminster, LLC	IPP	Syncarpha Westminster Hybrid	MA	62971	SYWES	4.7	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	4.7
2020	9	62044	TG High Prairie Wind, LLC	IPP	High Prairie Wind Farm	MO	62563	HPWF	400.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	400.0
2020	9	61534	Techren Solar III LLC	IPP	Techren Solar III LLC	NV	61931	TECH3	25.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	25.0
2020	9	61535	Techren Solar IV LLC	IPP	Techren Solar IV LLC	NV	61932	TECH4	25.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	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	(U) Under construction, less than or equal to 50 percent complete	250.0
2020	9	62701	Vista Solar, Inc.	IPP	Altman Plants	CA	63188	ALTPL	1.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	1.0
2020	9	62701	Vista Solar, Inc.	IPP	Bio-Rad	CA	63189	BIORD	2.4	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	2.5
2020	9	20856	Wisconsin Power & Light Co	Electric Utility	Kossuth	IA	62103	1	150.5	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	150.5
2020	10	59844	Blythe Solar III, LLC	IPP	Blythe Solar III, LLC	CA	60094	BLCK3	31.2	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	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	58468	Dominion Renewable Energy	Electric Utility	Spring Grove I	VA	61986	SGIS	97.9	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	97.9
2020	10	5580	East Kentucky Power Coop, Inc	Electric Utility	Green Valley LFGTE	KY	56278	4	0.8	Landfill Gas	LFG	IC	(P) Planned for installation, but regulatory approvals not initiated	0.8
2020	10	56201	Engie North America	IPP	Las Lomas Wind Project	TX	63101	WTG	201.6	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	201.6
2020	10	62759	Geronimo Energy	IPP	Allium Community Solar Garden, LLC	MN	63304	ALIUM	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2020	10	62759	Geronimo Energy	IPP	Bellflower Solar, LLC	MN	63318	BELLF	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2020	10	62759	Geronimo Energy	IPP	Coral Bells Solar, LLC	MN	63313	CORAL	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2020	10	62759	Geronimo Energy	IPP	Hyacinth Solar, LLC	MN	63312	HYCIN	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2020	10	62759	Geronimo Energy	IPP	Lantana Solar, LLC	MN	63311	LANTA	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2020	10	62759	Geronimo Energy	IPP	Marigold Community Solar Garden, LLC	MN	63308	MGOLD	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2020	10	62759	Geronimo Energy	IPP	Primrose Solar, LLC	MN	63314	PROSE	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2020	10	62759	Geronimo Energy	IPP	Snowdrop Solar, LLC	MN	63310	SNOWD	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
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	(L) Regulatory approvals pending. Not under construction	200.0
2020	10	61853	Innogy Renewables US LLC	IPP	Scioto Ridge Wind Farm	OH	58780	1	249.8	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	249.8
2020	10	49893	Invenergy Services LLC	IPP	Harry Allen Solar Energy LLC	NV	63080	GEN1	118.8	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	118.8
2020	10	62842	Lightsource Renewable Energy Asset Management, LLC	IPP	Wildflower Solar 1	CA	62988	CAWF1	13.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	13.0
2020	10	61219	Longroad Energy Services LLC	IPP	Weaver Wind	ME	63132	WEAVR	72.6	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	72.6
2020	10	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	10	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	10	12320	Merck & Co Inc	Industrial	Elkton	VA	52148	GEN6	1.2	Natural Gas Steam Turbine	NG	ST	(U) Under construction, less than or equal to 50 percent complete	1.2
2020	10	12320	Merck & Co Inc	Industrial	Elkton	VA	52148	GEN7	1.2	Natural Gas Steam Turbine	NG	ST	(U) Under construction, less than or equal to 50 percent complete	1.2
2020	10	62758	Orchard Windfarm, LLC	IPP	Orchard Windfarm, LLC	OR	62935	OCHW	40.0	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	40.0
2020	10	56215	RWE Renewables Americas 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	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	10	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
2020	10	58798	Shell Chemical Appalachia LLC	Industrial	Shell Chemical Appalachia LLC	PA	58933	GTG3	37.1	Natural Gas Fired Combined Cycle	NG	CT	(V) Under construction, more than 50 percent complete	41.5
2020	10	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	10	60568	Sugar Creek Wind One LLC	IPP	Sugar Creek Wind One LLC	IL	58924	SUG1	202.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	202.0
2020	10	62812	Syncarpha Tewksbury, LLC	IPP	Syncarpha Tewksbury Hybrid	MA	62968	SYTKS	2.8	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.8
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	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	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
2020	11	62984	AC Power 2 LLC	IPP	AC Power 2	NJ	63196	ACP2	3.8	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	3.8
2020	11	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	11	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	11	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	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
2020	11	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	11	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	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
2020	11	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
2020	11	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	11	56201	Engie North America	IPP	Dakota Range III Wind Project	SD	63102	WTG	151.2	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	151.2
2020	11	56201	Engie North America	IPP	King Plains Wind Project	OK	63104	WTG	250.2	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	250.2
2020	11	56201	Engie North America	IPP	Triple H Wind Project	SD	63103	WTG	250.2	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	250.2
2020	11	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	11	60222	Haida Energy, Inc.	Electric Utility	Hiilangaay Hydro	AK	59037	GEN 1	5.0	Conventional Hydroelectric	WAT	HY	(P) Planned for installation, but regulatory approvals not initiated	5.0
2020	11	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	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	(U) Under construction, less than or equal to 50 percent complete	99.0
2020	11	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	11	56990	NJR Clean Energy Ventures Corporation	IPP	ACCP NJ 1	NJ	63198	ACCP1	1.2	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	1.2
2020	11	14232	Otter Tail Power Co	Electric Utility	Merricourt Wind Project	ND	57048	1	150.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	150.0
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	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	11	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	11	58798	Shell Chemical Appalachia LLC	Industrial	Shell Chemical Appalachia LLC	PA	58933	STG1	72.7	Natural Gas Fired Combined Cycle	NG	CA	(V) Under construction, more than 50 percent complete	75.0

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	11	58798	Shell Chemical Appalachia LLC	Industrial	Shell Chemical Appalachia LLC	PA	58933	STG2	72.7	Natural Gas Fired Combined Cycle	NG	CA	(V) Under construction, more than 50 percent complete	75.0
2020	11	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	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	62820	Syncarpha Millbury, LLC	IPP	Syncarpha Millbury Hybrid	MA	62974	SYMIB	3.8	Batteries	MWH	BA	(U) Under construction, less than or equal to 50 percent complete	3.8
2020	11	62820	Syncarpha Millbury, LLC	IPP	Syncarpha Millbury Hybrid	MA	62974	SYMIS	5.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	5.0
2020	11	62813	Syncarpha Westminster, LLC	IPP	Syncarpha Westminster Hybrid	MA	62971	SYWEB	2.9	Batteries	MWH	BA	(U) Under construction, less than or equal to 50 percent complete	2.9
2020	11	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	11	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	11	62974	USS B&B Solar LLC	IPP	USS B&B Solar LLC CSG	MN	63216	BB	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	11	62954	USS Bush Solar LLC	IPP	USS Bush Solar LLC CSG	MN	63166	BUSH	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	11	62959	USS Chariot Solar LLC	IPP	USS Chariot Solar LLC	MN	63171	CHROT	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	11	62973	USS Dot Com Solar LLC	IPP	USS Dot Com Solar LLC CSG	MN	63215	DOTCM	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2020	11	62955	USS Hancock Solar	IPP	USS Hancock Solar LLC CSG	MN	63167	HNCCK	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	11	62957	USS KVPV Solar LLC	IPP	USS KVPV Solar LLC	MN	63169	KVPV	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	11	62958	USS Kass Solar LLC	IPP	USS Kass Solar LLC	MN	63170	KASS	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	11	62956	USS Pheasant Solar LLC	IPP	USS Pheasant Solar LLC	MN	63168	PHSNT	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	11	62953	USS Reindeer Solar LLC	IPP	USS Reindeer Solar LLC CSG	MN	63165	RENDR	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	11	62979	USS Steamboat Solar LLC	IPP	USS Steamboat Solar LLC CSG	MN	63221	STMBT	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	11	62978	USS Water City Solar LLC	IPP	USS Water City Solar LLC CSG	MN	63220	WTRCY	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	11	62977	USS Water Fowl Solar LLC	IPP	USS Water Fowl Solar LLC CSG	MN	63219	WTRFL	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	11	62976	USS Water Town Solar LLC	IPP	USS Water Town Solar LLC CSG	MN	63218	WTRTN	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	11	62975	USS Zanzibar Solar LLC	IPP	USS Zanzibar Solar LLC CSG	MN	63217	ZNZBR	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	11	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	11	62635	Wildcat Creek Wind Farm LLC	IPP	Wildcat Creek Wind Farm LLC	TX	62715	WCCWF	180.1	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	180.1
2020	11	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	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	59050	Algonquin Power Co	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	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	59495	Ameren Missouri	Electric Utility	Green City Renewable Energy Center	MO	63065	GBESS	2.5	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	2.5
2020	12	59495	Ameren Missouri	Electric Utility	Green City Renewable Energy Center	MO	63065	GCREC	10.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	10.0
2020	12	59495	Ameren Missouri	Electric Utility	Richwoods Renewable Energy Center	MO	63066	RBESS	4.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	4.0
2020	12	59495	Ameren Missouri	Electric Utility	Richwoods Renewable Energy Center	MO	63066	RREC	10.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	10.0
2020	12	59495	Ameren Missouri	Electric Utility	Utica Renewable Energy Center	MO	63067	UBESS	2.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	2.0
2020	12	59495	Ameren Missouri	Electric Utility	Utica Renewable Energy Center	MO	63067	UREC	10.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	10.0
2020	12	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	12	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	12	61949	Assembly Solar, LLC	IPP	Assembly Solar Project	MI	62422	ASP01	50.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	50.0
2020	12	63021	Aurora Wind Project, LLC	IPP	Aurora Wind Project	ND	63258	AURWP	298.8	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	298.8
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	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
2020	12	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	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	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	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	63116	Bluebell Solar II, LLC	IPP	Bluebell Solar II	TX	63351	BBS2	115.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	115.0
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	62995	Broad Mountain Power LLC	IPP	Broad Mountain Wind Project	PA	63210	BROAD	80.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	80.0
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	62872	Carolina Lily Solar, LLC	IPP	Carolina Lily Solar	NC	63016	1096	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
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	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	12	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	12	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	12	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	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	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
2020	12	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	12	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	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	62802	Cove Mountain Solar LLC	IPP	Cove Mountain Solar	UT	62469	GEN01	58.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	58.0
2020	12	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	12	63064	Crowned Ridge Wind II LLC	IPP	Crowned Ridge Wind II Energy Center	SD	63269	CRW2	200.6	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	200.6
2020	12	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	12	61060	Cypress Creek Renewables	IPP	Grove Solar	NC	60181	PV1	5.0	Solar Photovoltaic	SUN	PV	(V) Under construction, more than 50 percent complete	5.0
2020	12	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	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	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

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	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	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	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	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
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	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	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	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	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	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	12	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	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
2020	12	62759	Geronimo Energy	IPP	Bingham Solar, LLC	MI	63321	BINGH	20.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	20.0
2020	12	62759	Geronimo Energy	IPP	Temperance Solar, LLC	MI	63322	TEMPR	20.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	20.0
2020	12	63108	Granby Solar, LLC	IPP	Granby Solar, LLC	MA	63338	4787	1.3	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.3
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 2	550.0	Natural Gas Fired Combined Cycle	NG	CS	(P) Planned for installation, but regulatory approvals not initiated	660.0
2020	12	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	12	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	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	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	12	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	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	49893	Invenergy Services LLC	IPP	Badger Hollow Solar Farm LLC	WI	62955	GEN1	300.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	300.0
2020	12	49893	Invenergy Services LLC	IPP	Deuel Harvest Wind Energy LLC	SD	62943	GEN1	300.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	300.0
2020	12	49893	Invenergy Services LLC	IPP	Hardin Solar Energy LLC	OH	63029	GEN1	150.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	150.0
2020	12	49893	Invenergy Services LLC	IPP	Thunderhead Wind Energy LLC	NE	62956	GEN1	300.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	300.0
2020	12	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	12	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	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	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	12	62883	Kruger Energy Hertford, LLC	IPP	Kruger Energy Hertford, LLC	NC	63024	KEH	10.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	10.0
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	50123	Leeward Asset Management, LLC	IPP	Lone Tree Wind, LLC	IL	63251	LTW	79.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	79.0
2020	12	62842	Lightsource Renewable Energy Asset Management, LLC	IPP	Impact Solar 1	TX	63222	TXIM1	198.5	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	198.5
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	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	12	55983	Luminant Generation Company LLC	IPP	Brightside	TX	63223	UNIT1	50.7	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	50.7
2020	12	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	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	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	12	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	12	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	12	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	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	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	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	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	61791	Melsam Solar	IPP	Melsam Solar	SC	62280	58	60.5	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	60.5

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

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code	Status	Nameplate Capacity (MW)
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	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	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	62916	Mohave County Wind Farm	IPP	Mohave County Wind Farm	AZ	63114	MCWF	350.0	Onshore Wind Turbine	WND	WT	(T) Regulatory approvals received. Not under construction	350.0
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	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	12	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	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	62873	Plott Hound Solar, LLC	IPP	Plott Hound Solar	NC	63015	1088	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
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	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	12	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	12	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	12	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	12	15466	Public Service Co of Colorado	Electric Utility	Cheyenne Ridge Wind Farm	CO	62952	CRW01	488.0	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	498.4
2020	12	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	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	56215	RWE Renewables Americas 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	RWE Renewables Americas 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	RWE Renewables Americas 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	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	62871	Ray Wilson Solar, LLC	IPP	Ray Wilson Solar	NC	63017	1090	5.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	5.0
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	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	12	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	12	62896	Rooney Ranch, LLC	IPP	Rooney Ranch	CA	63088	ROONR	21.0	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	21.0
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	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	12	62743	RoxWind LLC	IPP	RoxWind	ME	62857	WIND1	15.3	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	15.3
2020	12	61810	Rutledge Solar	IPP	Rutledge Solar	SC	62297	69	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
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	62907	Sand Hill A, LLC	IPP	Sand Hill A	CA	63126	SNDHA	13.5	Onshore Wind Turbine	WND	WT	(P) Planned for installation, but regulatory approvals not initiated	13.5
2020	12	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	12	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	12	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
2020	12	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	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	62023	Skeleton Creek Energy Center	IPP	Skeleton Creek Energy Center Hybrid	OK	62494	SKC	250.0	Onshore Wind Turbine	WND	WT	(OT) Other	250.0
2020	12	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	12	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	12	17609	Southern California Edison Co	Electric Utility	Cadillac Battery Energy Storage Facility	CA	63326	CAD1	3.5	Batteries	MWH	BA	(T) Regulatory approvals received. Not under construction	3.5
2020	12	17609	Southern California Edison Co	Electric Utility	Yorktown Battery Energy Storage Facility	CA	63325	YORK1	3.0	Batteries	MWH	BA	(T) Regulatory approvals received. Not under construction	3.0
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	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	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	63106	Sutton Solar 2, LLC	IPP	Sutton Solar 2, LLC	MA	63336	6004	1.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	1.0
2020	12	62812	Syncarpha Tewksbury, LLC	IPP	Syncarpha Tewksbury Hybrid	MA	62968	SYTKB	2.0	Batteries	MWH	BA	(T) Regulatory approvals received. Not under construction	2.0
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	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	12	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	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	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	12	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	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	62939	USS Buckaroo Solar LLC	IPP	USS Buckaroo Solar LLC CSG	MN	63153	BUCKR	1.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	1.0
2020	12	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	12	19876	Virginia Electric & Power Co	IPP	Desper Solar	VA	62730	1	88.2	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	88.2
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	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	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	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	12	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	12	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	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 Hybrid	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	62808	Whitehorn Solar, LLC	IPP	Whitehorn Solar	VA	62959	WHIT1	50.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	50.0
2020	12	59316	Whitetail Solar LLC	IPP	Whitetail Solar	SC	59569	PV1	10.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	10.0
2020	12	20860	Wisconsin Public Service Corp	Electric Utility	Two Creeks Solar	WI	63105	1	150.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	150.0
2020	12	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	12	61871	York Solar	IPP	York Solar	SC	62354	94	2.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	2.0
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	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

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	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	63082	ProEnergy Services	IPP	HO Clarke Generating	TX	63335	CTG-1	45.5	Natural Gas Fired Combustion Turbine	NG	GT	(T) Regulatory approvals received. Not under construction	60.5
2021	1	63082	ProEnergy Services	IPP	HO Clarke Generating	TX	63335	CTG-2	45.5	Natural Gas Fired Combustion Turbine	NG	GT	(T) Regulatory approvals received. Not under construction	60.5
2021	1	63082	ProEnergy Services	IPP	HO Clarke Generating	TX	63335	CTG-3	45.5	Natural Gas Fired Combustion Turbine	NG	GT	(T) Regulatory approvals received. Not under construction	60.5
2021	1	63082	ProEnergy Services	IPP	HO Clarke Generating	TX	63335	CTG-4	45.5	Natural Gas Fired Combustion Turbine	NG	GT	(T) Regulatory approvals received. Not under construction	60.5
2021	1	63082	ProEnergy Services	IPP	HO Clarke Generating	TX	63335	CTG-5	45.5	Natural Gas Fired Combustion Turbine	NG	GT	(T) Regulatory approvals received. Not under construction	60.5
2021	1	63082	ProEnergy Services	IPP	HO Clarke Generating	TX	63335	CTG-6	45.5	Natural Gas Fired Combustion Turbine	NG	GT	(T) Regulatory approvals received. Not under construction	60.5
2021	1	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
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	2	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
2021	3	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
2021	3	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
2021	3	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
2021	3	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
2021	3	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
2021	3	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
2021	3	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
2021	3	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
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	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
2021	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
2021	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
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	62912	Iris Solar LLC	IPP	Iris Solar LLC	LA	63128	ISLLC	50.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	50.0
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	3	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
2021	3	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
2021	3	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
2021	4	63004	Abundant Solar Power Inc.	IPP	Deiter-STEU	NY	63226	2078	2.2	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	2.2
2021	4	63004	Abundant Solar Power Inc.	IPP	Gibson-STEU	NY	63227	8675	11.5	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	11.5
2021	4	63004	Abundant Solar Power Inc.	IPP	Wheaton-STEU	NY	63228	11410	5.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	5.0
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	Discovery Solar Center	FL	63109	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	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	6452	Florida Power & Light Co	Electric Utility	Sabal Palm Solar Center	FL	63110	1	74.5	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	74.5
2021	4	55983	Luminant Generation Company LLC	IPP	Emerald Grove	TX	63233	UNIT1	108.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	108.0
2021	4	55983	Luminant Generation Company LLC	IPP	Hallmark	TX	63234	UNIT1	42.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	42.0
2021	4	59434	Mattawoman Energy, LLC	IPP	Mattawoman Energy Center	MD	59662	CGT11	286.0	Natural Gas Fired Combined Cycle	NG	CC	(P) Planned for installation, but regulatory approvals not initiated	286.0
2021	4	59434	Mattawoman Energy, LLC	IPP	Mattawoman Energy Center	MD	59662	CGT12	286.0	Natural Gas Fired Combined Cycle	NG	CC	(P) Planned for installation, but regulatory approvals not initiated	286.0
2021	4	59434	Mattawoman Energy, LLC	IPP	Mattawoman Energy Center	MD	59662	STG11	436.0	Natural Gas Fired Combined Cycle	NG	CC	(P) Planned for installation, but regulatory approvals not initiated	436.0
2021	4	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
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	63012	2W Permian Solar, LLC	IPP	2W Permian Solar Project	TX	63255	2WPBA	40.0	Batteries	MWH	BA	(T) Regulatory approvals received. Not under construction	40.0
2021	5	63012	2W Permian Solar, LLC	IPP	2W Permian Solar Project	TX	63255	2WPSO	420.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	420.0
2021	5	62794	AP Solar 2, LLC	IPP	Fighting Jays Solar Project	TX	62945	FJSOL	350.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	350.0
2021	5	62049	Aquamarine Westside LLC	IPP	Aquamarine	CA	62547	AQUAM	250.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	250.0
2021	5	14605	City of Peabody - (MA)	Electric Utility	Waters River	MA	1678	3	55.0	Natural Gas Fired Combustion Turbine	NG	GT	(P) Planned for installation, but regulatory approvals not initiated	60.0
2021	5	62898	Dflex Power, LLC	IPP	John Paul Jones	TX	63095	JPJDX	18.7	Natural Gas Internal Combustion Engine	NG	IC	(P) Planned for installation, but regulatory approvals not initiated	18.7
2021	5	62807	Hawtree Creek Farm Solar, LLC	IPP	Hawtree Solar	NC	62951	HAWT1	65.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	65.0
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	55983	Luminant Generation Company LLC	IPP	Alira	TX	63193	UNIT1	222.8	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	222.8
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	63118	224WB 8me LLC	IPP	Galloway 2 Solar Farm	TX	63343	GS2SF	110.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	110.0
2021	6	61523	225DD 8me LLC	IPP	Galloway 1 Solar Farm	TX	61920	GSM01	250.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	250.0
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

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	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	62797	Canisteo Wind Farm	IPP	Canisteo Wind Farm	NY	62947	GEN1	290.7	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	290.7
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	63092	IP Titan, LLC	IPP	Titan Solar Project	TX	63320	IPTTN	260.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	260.0
2021	6	56155	Lansing Board of Water and Light	Electric Utility	Delta Energy Park	MI	63259	DEPC2	48.3	Natural Gas Fired Combined Cycle	NG	CT	(U) Under construction, less than or equal to 50 percent complete	58.0
2021	6	56155	Lansing Board of Water and Light	Electric Utility	Delta Energy Park	MI	63259	DEPC3	48.3	Natural Gas Fired Combined Cycle	NG	CT	(U) Under construction, less than or equal to 50 percent complete	58.0
2021	6	56155	Lansing Board of Water and Light	Electric Utility	Delta Energy Park	MI	63259	DEPS1	46.3	Natural Gas Fired Combustion Turbine	NG	GT	(U) Under construction, less than or equal to 50 percent complete	58.0
2021	6	56155	Lansing Board of Water and Light	Electric Utility	Delta Energy Park	MI	63259	DEPST	81.0	Natural Gas Fired Combined Cycle	NG	CA	(U) Under construction, less than or equal to 50 percent complete	89.2
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	61946	Prairie State Solar, 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
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
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	62918	TPE Hopkins Solar Holdings1 LLC	IPP	Hopkins Hill CSG	RI	63136	HH1	4.8	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	4.8
2021	6	62918	TPE Hopkins Solar Holdings1 LLC	IPP	Hopkins Hill CSG	RI	63136	HH2	4.7	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	4.7
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	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	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
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	8	63100	IP Juno, LLC	IPP	Juno Solar Project	TX	63328	IPJNO	300.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	300.0
2021	8	62936	TREX US Red Holly LLC	IPP	TREX US Red Holly	TX	63202	701-S	50.0	Batteries	MWH	BA	(L) Regulatory approvals pending. Not under construction	50.0
2021	9	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	9	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	9	63109	Hales Mills Solar, LLC	IPP	Hales Mills Solar, LLC	NY	63339	6609	3.6	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2021	9	63101	IP Aragorn, LLC	IPP	Aragorn Solar Project	TX	63329	IPAGN	180.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	180.0
2021	9	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	9	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	9	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	9	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	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
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	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
2021	10	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
2021	10	62886	Clover Creek Solar, LLC	IPP	Clover Creek Solar	UT	63061	CLVR	80.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	80.0
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	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
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

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	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 Hybrid	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	Desert Star Hybrid	AZ	62965	DS10M	10.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	10.0
2021	12	803	Arizona Public Service Co	Electric Utility	El Sol BESS	AZ	62964	EL50M	50.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	50.0
2021	12	803	Arizona Public Service Co	Electric Utility	Foothills Solar Plant Hybrid	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 Hybrid	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 Hybrid	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	15399	Avangrid Renewables LLC	IPP	Midland Wind	IL	63003	1	101.1	Onshore Wind Turbine	WND	WT	(L) Regulatory approvals pending. Not under construction	101.1
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	62911	Drew Solar LLC	IPP	Drew Solar LLC	CA	63127	DS	100.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	100.0
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	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	62130	Foundation CA Fund X Manager LLC	IPP	Foundation Dole Fresh Vegetables	CA	62654	WTG1	2.8	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	2.8
2021	12	62130	Foundation CA Fund X Manager LLC	IPP	Foundation Dole Fresh Vegetables	CA	62654	WTG2	2.8	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	2.8
2021	12	62759	Geronimo Energy	IPP	Elk Creek Solar	MN	63250	ELKCR	80.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	80.0
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	62983	IP Athos, LLC	IPP	Athos Solar Project	CA	63300	IPAT1	250.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	250.0
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	49893	Invenergy Services LLC	IPP	Alle-Catt Wind Energy LLC	NY	62954	GEN1	340.0	Onshore Wind Turbine	WND	WT	(U) Under construction, less than or equal to 50 percent complete	340.0
2021	12	49893	Invenergy Services LLC	IPP	Horseshoe Solar Energy	NY	63096	GEN1	180.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	180.0
2021	12	49893	Invenergy Services LLC	IPP	Yum Yum Solar LLC	TN	63026	GEN1	147.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	147.0
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	63107	Lansing Renewables, LLC	IPP	Lansing Renewables, LLC	NY	63337	6004	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
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	63110	Owlville Creek Solar 2, LLC	IPP	Owlville Creek Solar 2, LLC	NY	63340	6609	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
2021	12	63111	Owlville Creek Solar, LLC	IPP	Owlville Creek Solar, LLC	NY	63341	6608	5.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	5.0
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	56215	RWE Renewables Americas 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	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 Hybrid	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 Hybrid	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 Hybrid	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 Hybrid	OR	62745	SOLAR	50.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	50.0
2021	12	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
2021	12	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	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
2021	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
2021	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
2021	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
2021	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
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
2022	1	62895	Vineyard Wind LLC	IPP	Vineyard Wind 1	MA	63093	VW01	800.0	Offshore Wind Turbine	WND	WS	(L) Regulatory approvals pending. Not under construction	800.0
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	62983	IP Athos, LLC	IPP	Athos Solar Project	CA	63300	IPAT2	200.0	Solar Photovoltaic	SUN	PV	(T) Regulatory approvals received. Not under construction	200.0
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	4	62935	TREX US Green Holly LLC	IPP	TREX US Green Holly	TX	63201	705	400.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	400.0
2022	4	62935	TREX US Green Holly LLC	IPP	TREX US Green Holly	TX	63201	705-S	5.0	Batteries	MWH	BA	(L) Regulatory approvals pending. Not under construction	5.0
2022	6	62921	Arroyo Solar LLC	IPP	Arroyo Solar Energy Storage Hybrid	NM	63172	ARESS	40.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	40.0
2022	6	62921	Arroyo Solar LLC	IPP	Arroyo Solar Energy Storage Hybrid	NM	63172	ARSOL	300.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	300.0

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	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	62920	Cabin Point Solar Center LLC	IPP	Cabin Point Solar Center	VA	63134	CBNPT	75.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	75.0
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 Hybrid	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 Hybrid	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 Hybrid	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 Hybrid	HI	62534	PHSOL	15.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	15.0
2022	6	15473	Public Service Co of NM	Electric Utility	Pinon Energy Center	NM	63281	GT1	42.3	Natural Gas Fired Combustion Turbine	NG	GT	(L) Regulatory approvals pending. Not under construction	41.8
2022	6	15473	Public Service Co of NM	Electric Utility	Pinon Energy Center	NM	63281	GT2	42.3	Natural Gas Fired Combustion Turbine	NG	GT	(L) Regulatory approvals pending. Not under construction	41.8
2022	6	15473	Public Service Co of NM	Electric Utility	Pinon Energy Center	NM	63281	GT3	42.3	Natural Gas Fired Combustion Turbine	NG	GT	(L) Regulatory approvals pending. Not under construction	41.8
2022	6	15473	Public Service Co of NM	Electric Utility	Pinon Energy Center	NM	63281	GT4	42.3	Natural Gas Fired Combustion Turbine	NG	GT	(L) Regulatory approvals pending. Not under construction	41.8
2022	6	15473	Public Service Co of NM	Electric Utility	Pinon Energy Center	NM	63281	GT5	42.3	Natural Gas Fired Combustion Turbine	NG	GT	(L) Regulatory approvals pending. Not under construction	41.8
2022	6	15473	Public Service Co of NM	Electric Utility	Pinon Energy Center	NM	63281	GT6	42.3	Natural Gas Fired Combustion Turbine	NG	GT	(L) Regulatory approvals pending. Not under construction	41.8
2022	6	15473	Public Service Co of NM	Electric Utility	Pinon Energy Center	NM	63281	GT7	42.3	Natural Gas Fired Combustion Turbine	NG	GT	(L) Regulatory approvals pending. Not under construction	41.8
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	62980	Delilah Solar Energy LLC	IPP	Delilah Solar Energy LLC	TX	63194	GEN1	250.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	250.0
2022	7	62936	TREX US Red Holly LLC	IPP	TREX US Red Holly	TX	63202	701	250.0	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	250.0
2022	8	62806	Guernsey Power Station LLC	IPP	Guernsey Power Station	OH	62949	GPS1	612.0	Natural Gas Fired Combined Cycle	NG	CS	(L) Regulatory approvals pending. Not under construction	685.0
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	9	62806	Guernsey Power Station LLC	IPP	Guernsey Power Station	OH	62949	GPS2	612.0	Natural Gas Fired Combined Cycle	NG	CS	(L) Regulatory approvals pending. Not under construction	685.0
2022	10	62806	Guernsey Power Station LLC	IPP	Guernsey Power Station	OH	62949	GPS3	612.0	Natural Gas Fired Combined Cycle	NG	CS	(L) Regulatory approvals pending. Not under construction	685.0
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 Solar & Storage Center, Phase 1 Hybrid	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 Solar & Storage Center, Phase 1 Hybrid	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 Hybrid	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 Hybrid	NV	62248	2	75.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	75.0
2022	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
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	62760	EDPR CA Solar Park VI LLC	IPP	EDPR CA Solar Park VI LLC (CA) Hybrid	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) Hybrid	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

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	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	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
2022	12	49893	Invenergy Services LLC	IPP	Tip Top Solar Energy Center LLC	NM	63028	GEN1	220.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	220.0
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
2022	12	56215	RWE Renewables Americas LLC	IPP	Pinckard Solar	AL	62787	PCKND	79.7	Solar Photovoltaic	SUN	PV	(L) Regulatory approvals pending. Not under construction	85.1
2022	12	62996	Samson Solar Energy LLC	IPP	Samson Solar Energy	TX	63211	GEN1	250.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	250.0
2022	12	21554	Seminole Electric Cooperative Inc	Electric Utility	Seminole (FL)	FL	136	CT1	349.8	Natural Gas Fired Combined Cycle	NG	CT	(L) Regulatory approvals pending. Not under construction	384.2
2022	12	21554	Seminole Electric Cooperative Inc	Electric Utility	Seminole (FL)	FL	136	CT2	349.8	Natural Gas Fired Combined Cycle	NG	CT	(L) Regulatory approvals pending. Not under construction	384.2
2022	12	21554	Seminole Electric Cooperative Inc	Electric Utility	Seminole (FL)	FL	136	ST	396.6	Natural Gas Fired Combined Cycle	NG	CA	(L) Regulatory approvals pending. Not under construction	414.8
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 Solar & Storage Center, Phase 2 Hybrid	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 Solar & Storage Center, Phase 2 Hybrid	CA	61169	69SV8	200.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	200.0
2023	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
2023	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
2023	9	62910	300MS 8me LLC	IPP	Southern Bighorn Solar Hybrid	NV	63113	BESS	135.0	Batteries	MWH	BA	(P) Planned for installation, but regulatory approvals not initiated	135.0
2023	9	62910	300MS 8me LLC	IPP	Southern Bighorn Solar Hybrid	NV	63113	SBS	300.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	300.0
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	11	63117	Gemini Solar	IPP	Gemini Solar	NV	63352	ARBE1	690.0	Solar Photovoltaic	SUN	PV	(U) Under construction, less than or equal to 50 percent complete	690.0
2023	11	63117	Gemini Solar	IPP	Gemini Solar	NV	63352	ARPV1	280.0	Batteries	MWH	BA	(U) Under construction, less than or equal to 50 percent complete	380.0
2023	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
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 Hybrid	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 Hybrid	OK	62494	SCSOL	250.0	Solar Photovoltaic	SUN	PV	(P) Planned for installation, but regulatory approvals not initiated	250.0
2023	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
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	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	590	City of Anaheim - (CA)	Electric Utility	Anaheim GT	CA	7693	1	44.5	Natural Gas Fired Combustion Turbine	NG	GT
2019	12	4045	City of Columbia - (MO)	Electric Utility	Columbia (MO)	MO	2123	7	22.0	Conventional Steam Coal	BIT	ST
2019	12	10152	City of Kennett - (MO)	Electric Utility	Kennett	MO	2139	1	0.4	Petroleum Liquids	DFO	IC
2019	12	10152	City of Kennett - (MO)	Electric Utility	Kennett	MO	2139	2	0.4	Petroleum Liquids	DFO	IC
2019	12	10152	City of Kennett - (MO)	Electric Utility	Kennett	MO	2139	3	0.8	Petroleum Liquids	DFO	IC
2019	12	10152	City of Kennett - (MO)	Electric Utility	Kennett	MO	2139	4	2.2	Natural Gas Internal Combustion Engine	NG	IC
2019	12	10152	City of Kennett - (MO)	Electric Utility	Kennett	MO	2139	5	1.3	Petroleum Liquids	DFO	IC
2019	12	10152	City of Kennett - (MO)	Electric Utility	Kennett	MO	2139	6	1.8	Natural Gas Internal Combustion Engine	NG	IC
2019	12	10152	City of Kennett - (MO)	Electric Utility	Kennett	MO	2139	7	2.2	Natural Gas Internal Combustion Engine	NG	IC
2019	12	10152	City of Kennett - (MO)	Electric Utility	Kennett	MO	2139	8	2.8	Natural Gas Internal Combustion Engine	NG	IC
2019	12	19062	City of Traer - (IA)	Electric Utility	Traer Main	IA	1192	5	0.5	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	6455	Duke Energy Florida, LLC	Electric Utility	Higgins	FL	630	P2	25.0	Natural Gas Fired Combustion Turbine	NG	GT
2019	12	6455	Duke Energy Florida, LLC	Electric Utility	Higgins	FL	630	P3	31.0	Natural Gas Fired Combustion Turbine	NG	GT
2019	12	6455	Duke Energy Florida, LLC	Electric Utility	Higgins	FL	630	P4	31.0	Natural Gas Fired Combustion Turbine	NG	GT
2019	12	3046	Duke Energy Progress - (NC)	Electric Utility	Asheville	NC	2706	1	189.0	Conventional Steam Coal	BIT	ST
2019	12	3046	Duke Energy Progress - (NC)	Electric Utility	Asheville	NC	2706	2	189.0	Conventional Steam Coal	BIT	ST
2019	12	56211	Evergy Missouri West	Electric Utility	Lake Road (MO)	MO	2098	4	97.1	Natural Gas Steam Turbine	NG	ST
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	49756	Illinois Power Resources Generating LLC	IPP	Duck Creek	IL	6016	1	410.0	Conventional Steam Coal	RC	ST
2019	12	57431	ReEnergy Biomass LLC	Electric CHP	ReEnergy Lyonsdale Biomass	NY	54526	STG	19.0	Wood/Wood Waste Biomass	WDS	ST
2019	12	17698	Southwestern Electric Power Co	Electric Utility	Lieberman	LA	1417	2	26.0	Natural Gas Steam Turbine	NG	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	1752	Biola University	Commercial	Biola University Hybrid	CA	54296	EG1	0.6	Natural Gas Internal Combustion Engine	NG	IC
2020	1	1752	Biola University	Commercial	Biola University Hybrid	CA	54296	EG2	0.6	Natural Gas Internal Combustion Engine	NG	IC
2020	1	11713	City of Marshall - (MI)	Electric Utility	Marshall (MI)	MI	1844	IC2	0.9	Natural Gas Internal Combustion Engine	NG	IC
2020	1	11713	City of Marshall - (MI)	Electric Utility	Marshall (MI)	MI	1844	IC4	0.7	Petroleum Liquids	DFO	IC
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	15298	Talen Montana LLC	IPP	Colstrip	MT	6076	1	307.0	Conventional Steam Coal	SUB	ST
2020	1	15298	Talen Montana LLC	IPP	Colstrip	MT	6076	2	307.0	Conventional Steam Coal	SUB	ST
2020	1	18642	Tennessee Valley Authority	Electric Utility	Paradise	KY	1378	3	971.0	Conventional Steam Coal	BIT	ST
2020	1	20854	Winnebago County	Electric CHP	Winnebago County Landfill Gas	WI	50936	EG2	0.9	Landfill Gas	LFG	IC
2020	2	57463	Kimberly-Clark Worldwide Inc	Industrial	Fullerton Mill CHP	CA	58083	GTG1	12.0	Natural Gas Fired Combined Cycle	NG	CT
2020	2	57463	Kimberly-Clark Worldwide Inc	Industrial	Fullerton Mill CHP	CA	58083	STG1	1.0	Natural Gas Fired Combined Cycle	NG	CA
2020	3	5860	Empire District Electric Co	Electric Utility	Asbury	MO	2076	1	198.0	Conventional Steam Coal	SUB	ST
2020	3	56046	High Plains Wind Power LLC	IPP	High Plains	TX	56834	1	10.0	Onshore Wind Turbine	WND	WT
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	1,016.1	Nuclear	NUC	ST
2020	4	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	4	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	4	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	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	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

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	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	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	7	20737	Willmar Municipal Utilities	Electric Utility	Willmar	MN	2022	3	16.8	Natural Gas Steam Turbine	NG	ST
2020	7	20737	Willmar Municipal Utilities	Electric Utility	Willmar	MN	2022	ST2	6.5	Natural Gas Steam Turbine	NG	ST
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	6455	Duke Energy Florida, LLC	Electric Utility	Avon Park	FL	624	P1	24.0	Natural Gas Fired Combustion Turbine	NG	GT
2020	9	6455	Duke Energy Florida, LLC	Electric Utility	Avon Park	FL	624	P2	24.0	Petroleum Liquids	DFO	GT
2020	10	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	10	14173	Oroville Cogeneration LP	Industrial	Oroville Cogeneration LP	CA	54477	GEN1	1.1	Natural Gas Internal Combustion Engine	NG	IC
2020	10	14173	Oroville Cogeneration LP	Industrial	Oroville Cogeneration LP	CA	54477	GEN2	1.1	Natural Gas Internal Combustion Engine	NG	IC
2020	10	14173	Oroville Cogeneration LP	Industrial	Oroville Cogeneration LP	CA	54477	GEN3	1.1	Natural Gas Internal Combustion Engine	NG	IC
2020	10	14173	Oroville Cogeneration LP	Industrial	Oroville Cogeneration LP	CA	54477	GEN4	1.1	Natural Gas Internal Combustion Engine	NG	IC
2020	10	14173	Oroville Cogeneration LP	Industrial	Oroville Cogeneration LP	CA	54477	GEN5	1.1	Natural Gas Internal Combustion Engine	NG	IC
2020	10	14173	Oroville Cogeneration LP	Industrial	Oroville Cogeneration LP	CA	54477	GEN6	1.1	Natural Gas Internal Combustion Engine	NG	IC
2020	10	14173	Oroville Cogeneration LP	Industrial	Oroville Cogeneration LP	CA	54477	GEN7	1.1	Natural Gas Internal Combustion Engine	NG	IC
2020	10	189	PowerSouth Energy Cooperative	Electric Utility	Charles R Lowman	AL	56	1	78.0	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	60538	Vitro Architectural Glass	Industrial	Works 4	TX	54364	L2G	2.0	Petroleum Liquids	DFO	IC
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

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	1	15248	Portland General Electric Co	Electric Utility	Boardman	OR	6106	1	585.0	Conventional Steam Coal	SUB	ST
2021	1	61854	Veolia Energy Operating Service	Electric CHP	Spruance Genco LLC	VA	54081	GEN1	52.5	Conventional Steam Coal	BIT	ST
2021	1	61854	Veolia Energy Operating Service	Electric CHP	Spruance Genco LLC	VA	54081	GEN2	52.5	Conventional Steam Coal	BIT	ST
2021	3	60538	Vitro Architectural Glass	Industrial	Works 4	TX	54364	L1G	2.0	Petroleum Liquids	DFO	IC
2021	4	6028	Entergy Nuclear Indian Point 3	IPP	Indian Point 3	NY	8907	3	1,037.9	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
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	771.6	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	Cunningham	NM	2454	1	71.0	Natural Gas Steam Turbine	NG	ST
2022	12	17718	Southwestern Public Service Co	Electric Utility	Nichols	TX	3484	1	107.0	Natural Gas Steam Turbine	NG	ST
2022	12	17718	Southwestern Public Service Co	Electric Utility	Plant X	TX	3485	1	38.0	Natural Gas Steam Turbine	NG	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

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
2023	3	13399	Nevada Cogeneration Assoc # 1	Electric CHP	Nevada Cogen Assoc#1 GarnetVly	NV	54350	GTA	20.5	Natural Gas Fired Combined Cycle	NG	CT
2023	3	13399	Nevada Cogeneration Assoc # 1	Electric CHP	Nevada Cogen Assoc#1 GarnetVly	NV	54350	GTB	20.5	Natural Gas Fired Combined Cycle	NG	CT
2023	3	13399	Nevada Cogeneration Assoc # 1	Electric CHP	Nevada Cogen Assoc#1 GarnetVly	NV	54350	GTC	20.5	Natural Gas Fired Combined Cycle	NG	CT
2023	3	13399	Nevada Cogeneration Assoc # 1	Electric CHP	Nevada Cogen Assoc#1 GarnetVly	NV	54350	STM	24.0	Natural Gas Fired Combined Cycle	NG	CA
2023	3	13365	Nevada Cogeneration Assoc # 2	Electric CHP	Nevada Cogen Associates 2 Black Mountain	NV	54349	GTA	21.7	Natural Gas Fired Combined Cycle	NG	CT
2023	3	13365	Nevada Cogeneration Assoc # 2	Electric CHP	Nevada Cogen Associates 2 Black Mountain	NV	54349	GTB	21.7	Natural Gas Fired Combined Cycle	NG	CT
2023	3	13365	Nevada Cogeneration Assoc # 2	Electric CHP	Nevada Cogen Associates 2 Black Mountain	NV	54349	GTC	21.7	Natural Gas Fired Combined Cycle	NG	CT
2023	3	13365	Nevada Cogeneration Assoc # 2	Electric CHP	Nevada Cogen Associates 2 Black Mountain	NV	54349	STM	28.0	Natural Gas Fired Combined Cycle	NG	CA
2023	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 Hybrid	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	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

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	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
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

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	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
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	3	56778	Bloom Energy 2009 PPA	IPP	Caltech Central	CA	57460	CL00	0.1	Other Waste Biomass	OBG	FC
2031	3	56778	Bloom Energy 2009 PPA	IPP	Caltech Central	CA	57460	CL01	0.1	Other Waste Biomass	OBG	FC
2031	3	56778	Bloom Energy 2009 PPA	IPP	Caltech Central	CA	57460	CL02	0.1	Other Waste Biomass	OBG	FC
2031	3	56778	Bloom Energy 2009 PPA	IPP	Caltech Central	CA	57460	CL03	0.1	Other Waste Biomass	OBG	FC
2031	3	56778	Bloom Energy 2009 PPA	IPP	Caltech Central	CA	57460	CL04	0.1	Other Waste Biomass	OBG	FC
2031	3	56778	Bloom Energy 2009 PPA	IPP	Caltech Central	CA	57460	CL05	0.1	Other Waste Biomass	OBG	FC
2031	3	56778	Bloom Energy 2009 PPA	IPP	Caltech Central	CA	57460	CL06	0.1	Other Waste Biomass	OBG	FC
2031	3	56778	Bloom Energy 2009 PPA	IPP	Caltech Central	CA	57460	CL07	0.1	Other Waste Biomass	OBG	FC
2031	3	56778	Bloom Energy 2009 PPA	IPP	Caltech Central	CA	57460	CL08	0.1	Other Waste Biomass	OBG	FC
2031	3	56778	Bloom Energy 2009 PPA	IPP	Caltech Central	CA	57460	CL09	0.1	Other Waste Biomass	OBG	FC
2031	3	56778	Bloom Energy 2009 PPA	IPP	Caltech Central	CA	57460	CL10	0.1	Other Waste Biomass	OBG	FC
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 6.07.A. Capacity Factors for Utility Scale Generators Primarily Using Fossil Fuels

Year/Month	Coal		Natural Gas								Petroleum					
			Combined Cycle		Gas Turbine		Steam Turbine		Internal Combustion		Steam Turbine		Gas Turbine		Internal Combustion	
	Time Adjusted Capacity	Capacity Factor	Time Adjusted Capacity	Capacity Factor	Time Adjusted Capacity	Capacity Factor	Time Adjusted Capacity	Capacity Factor	Time Adjusted Capacity	Capacity Factor	Time Adjusted Capacity	Capacity Factor	Time Adjusted Capacity	Capacity Factor	Time Adjusted Capacity	Capacity Factor
Annual Data																
2009	312,091.2	64.2%	200,546.1	43.9%	117,120.3	6.8%	80,357.5	10.9%	2,360.1	6.6%	32,621.3	15.0%	19,812.2	1.7%	5,002.0	2.4%
2010	313,393.9	67.1%	202,404.4	44.3%	116,426.0	7.8%	80,233.7	11.1%	2,543.0	6.5%	29,871.2	13.6%	19,565.5	2.0%	5,016.0	2.1%
2011	314,056.1	62.8%	210,518.7	44.3%	119,144.1	7.9%	78,898.6	11.7%	2,822.5	8.4%	26,683.0	12.6%	18,397.7	1.3%	4,986.0	2.2%
2012	304,974.9	56.2%	217,938.2	52.2%	119,319.4	8.9%	74,200.2	13.3%	2,988.8	7.3%	22,483.7	13.7%	17,773.5	1.3%	4,942.5	2.0%
2013	302,604.4	59.4%	219,902.9	48.8%	123,025.6	8.3%	75,810.5	11.2%	2,996.2	8.8%	20,022.9	12.6%	17,224.1	0.9%	4,999.4	2.1%
2014	299,064.7	60.5%	224,183.2	48.6%	124,736.9	8.3%	75,049.1	10.3%	3,026.7	10.8%	18,057.0	13.0%	16,791.5	1.2%	5,011.3	2.1%
2015	286,082.7	54.3%	231,467.5	55.8%	123,444.3	9.8%	80,348.0	11.3%	3,507.8	11.9%	14,965.4	14.0%	16,122.8	1.3%	5,075.2	2.1%
2016	269,477.1	52.8%	236,442.8	55.4%	125,148.4	11.0%	81,225.1	12.3%	3,684.3	11.5%	13,993.7	12.2%	15,114.0	1.3%	5,082.8	2.3%
2017	259,930.2	53.1%	242,839.1	51.2%	125,806.6	9.6%	79,149.4	10.7%	4,225.5	11.6%	13,290.9	13.7%	14,275.3	1.0%	5,153.3	2.1%
2018	246,866.8	53.6%	254,403.3	55.0%	126,763.4	11.9%	76,177.8	12.6%	4,446.6	13.0%	13,300.1	14.2%	14,234.9	1.3%	5,289.7	1.9%
Year 2017																
January	262,832.9	59.2%	238,604.9	47.1%	125,758.5	8.1%	79,997.2	5.0%	3,984.2	10.7%	13,545.9	11.5%	14,360.0	1.0%	5,165.1	2.7%
February	262,623.9	49.4%	238,711.5	44.7%	125,637.1	8.2%	79,997.2	4.6%	4,151.9	9.5%	13,545.9	10.9%	14,360.0	1.0%	5,162.5	2.2%
March	262,179.7	45.8%	239,783.7	44.8%	125,636.3	9.3%	79,980.6	7.6%	4,198.4	9.5%	13,545.9	13.7%	14,336.4	1.0%	5,153.8	2.4%
April	260,949.7	43.3%	239,783.7	42.6%	125,704.3	8.3%	79,618.6	9.0%	4,218.8	9.7%	13,545.9	10.5%	14,336.4	0.7%	5,159.8	1.7%
May	260,949.7	47.9%	242,325.8	45.6%	125,668.3	8.9%	79,584.1	9.4%	4,239.0	10.0%	13,545.9	16.0%	14,336.4	0.9%	5,158.8	1.8%
June	259,190.0	57.8%	242,355.4	55.5%	125,748.3	10.4%	78,791.5	14.1%	4,240.1	12.4%	13,110.9	16.4%	14,286.4	1.0%	5,149.4	1.8%
July	259,190.0	66.3%	244,634.3	66.3%	125,748.3	12.3%	78,791.5	20.4%	4,240.6	15.1%	13,110.9	17.1%	14,238.4	1.1%	5,149.0	1.9%
August	259,190.0	62.2%	245,481.9	64.9%	125,797.8	11.3%	78,697.5	16.0%	4,246.9	14.3%	13,110.9	15.5%	14,238.4	1.1%	5,137.2	2.1%
Sept	259,006.0	53.2%	245,481.9	55.4%	125,887.8	10.6%	78,645.7	13.2%	4,297.0	12.7%	13,110.9	14.6%	14,238.4	1.2%	5,144.8	2.1%
October	258,429.0	47.2%	245,521.9	48.1%	125,894.8	9.5%	78,643.7	12.5%	4,297.0	11.8%	13,110.9	12.0%	14,238.4	1.1%	5,148.9	1.9%
November	258,278.0	49.0%	245,521.9	45.8%	126,098.8	8.6%	78,551.6	7.6%	4,297.0	11.5%	13,110.9	12.8%	14,191.8	0.9%	5,144.3	1.9%
December	256,530.0	55.8%	245,520.9	52.3%	126,089.8	9.4%	78,543.2	9.0%	4,293.0	11.9%	13,110.9	13.5%	14,149.8	1.6%	5,165.9	2.3%
Year 2018																
January	251,730.8	64.0%	247,709.0	51.4%	126,362.3	11.7%	78,615.1	10.9%	4,280.9	11.8%	13,440.4	19.9%	14,336.6	3.5%	5,330.8	2.5%
February	250,522.8	49.1%	247,709.0	51.6%	126,189.1	9.3%	78,185.1	5.8%	4,292.9	12.0%	13,440.4	12.1%	14,336.6	0.8%	5,333.5	1.8%
March	249,781.8	43.8%	247,709.0	49.1%	126,170.5	10.3%	77,411.2	7.5%	4,288.5	11.9%	13,440.4	10.9%	14,336.6	0.9%	5,326.9	1.8%
April	248,603.8	41.5%	248,199.0	45.6%	126,338.5	10.5%	77,369.9	8.5%	4,372.4	10.9%	13,440.4	12.9%	14,336.6	1.0%	5,317.8	2.0%
May	248,603.8	46.7%	252,604.7	49.8%	126,690.5	11.3%	76,359.3	15.3%	4,372.4	12.0%	13,440.4	10.0%	14,336.6	1.1%	5,319.2	1.8%
June	245,407.8	58.0%	255,100.3	58.7%	126,881.1	12.4%	75,658.1	16.3%	4,362.4	13.1%	13,440.4	15.0%	14,166.6	1.4%	5,275.1	1.8%
July	245,407.8	63.8%	256,721.3	69.8%	126,878.6	16.3%	75,658.1	23.3%	4,369.0	18.3%	13,440.4	16.6%	14,166.6	1.5%	5,276.5	1.8%
August	245,407.8	63.6%	257,487.3	69.3%	127,267.4	15.0%	75,658.1	20.3%	4,594.6	16.9%	13,440.4	15.6%	14,166.6	1.3%	5,277.8	2.1%
Sept	245,113.4	55.3%	258,463.3	63.2%	127,146.3	13.8%	75,650.6	15.6%	4,594.3	13.8%	13,440.4	16.9%	14,166.6	1.3%	5,274.0	2.0%
October	244,837.5	48.5%	258,836.7	52.9%	127,104.0	11.6%	75,120.6	12.6%	4,595.0	12.4%	13,440.4	13.7%	14,166.6	1.1%	5,269.0	2.0%
November	244,426.5	53.2%	260,948.0	48.8%	126,977.7	10.5%	74,758.6	8.7%	4,613.6	11.7%	13,440.4	13.4%	14,154.6	1.1%	5,240.4	1.8%
December	242,785.6	55.9%	260,868.5	48.9%	127,108.3	9.1%	73,841.6	6.3%	4,613.6	11.0%	11,788.4	12.6%	14,154.6	1.0%	5,237.9	1.7%
Year 2019																
January	242,483.1	56.5%	263,721.2	54.0%	127,635.0	8.0%	73,620.8	8.7%	4,616.7	10.0%	11,788.4	12.8%	14,154.6	0.7%	5,237.9	2.0%
February	239,549.6	50.5%	263,721.2	55.3%	127,635.0	8.5%	74,611.3	8.0%	4,689.2	12.3%	11,788.4	12.8%	14,154.6	0.7%	5,239.9	1.7%
March	238,318.6	45.0%	263,404.2	50.0%	127,622.1	8.0%	74,002.3	9.0%	4,689.2	10.9%	11,855.4	12.2%	14,135.6	0.5%	5,237.1	1.6%
April	236,952.8	35.9%	266,149.0	45.0%	127,735.3	9.6%	73,998.0	11.0%	4,872.2	10.0%	11,709.4	11.1%	14,135.6	0.8%	5,234.7	1.8%
May	236,202.8	41.7%	266,366.4	48.6%	128,182.4	10.4%	73,998.0	13.8%	4,872.2	10.7%	11,709.4	15.8%	14,135.6	1.0%	5,243.5	2.1%
June	236,095.2	47.0%	268,090.8	59.7%	128,299.5	11.4%	73,703.3	16.4%	4,873.1	12.7%	11,709.4	15.0%	14,125.3	1.1%	5,243.5	2.3%
July	235,112.7	58.4%	268,908.8	69.8%	128,644.2	19.3%	73,673.3	24.7%	4,895.1	21.2%	11,709.4	16.7%	14,125.3	2.3%	5,247.0	3.0%
August	235,112.7	54.6%	268,908.8	70.9%	128,759.7	18.8%	73,673.3	25.3%	4,895.1	22.1%	11,709.4	16.4%	14,119.6	2.4%	5,236.9	3.2%
Sept	235,012.7	51.6%	268,908.8	63.9%	128,719.7	14.8%	73,673.3	19.9%	4,895.1	17.6%	11,642.4	15.1%	14,133.1	1.6%	5,261.2	2.7%
October	233,675.1	39.3%	268,446.7	54.8%	128,797.2	13.6%	73,193.3	15.9%	4,907.9	14.5%	11,642.4	8.9%	14,180.7	1.5%	5,261.2	2.4%
November	229,772.7	46.0%	268,993.7	52.4%	128,803.6	10.7%	73,193.3	9.2%	4,903.8	13.6%	11,642.4	7.5%	14,194.2	0.6%	5,262.4	2.1%

Values for 2018 and prior years are final. Values for 2019 are preliminary.
Time adjusted capacity for month rows is the summer capacity of generators in operation for the entire month; units that began operation during the month or that retired during the month are excluded. Time adjusted capacity for year rows is a time weighted average of the month rows.
Capacity factors are a comparison of net generation with available capacity. See the technical note for an explanation of how capacity factors are calculated.
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 6.07.B. Capacity Factors for Utility Scale Generators Primarily Using Non-Fossil Fuels

Year/Month	Geothermal		Hydroelectric		Nuclear		Other Biomass		Other Gas		Solar				Wind		Wood	
											Photovoltaic		Thermal					
	Time Adjusted Capacity	Capacity Factor	Time Adjusted Capacity	Capacity Factor	Time Adjusted Capacity	Capacity Factor	Time Adjusted Capacity	Capacity Factor	Time Adjusted Capacity	Capacity Factor	Time Adjusted Capacity	Capacity Factor	Time Adjusted Capacity	Capacity Factor	Time Adjusted Capacity	Capacity Factor	Time Adjusted Capacity	Capacity Factor
Annual Data																		
2009	2,278.0	73.0%	78,500.4	39.6%	101,003.7	90.3%	4,183.9	65.0%	1,752.2	43.4%	81.9	20.0%	468.2	23.6%	28,996.9	28.1%	6,936.4	61.7%
2010	2,392.1	71.6%	78,810.3	37.5%	101,167.4	91.1%	4,298.7	64.2%	1,929.0	50.5%	206.8	20.2%	473.0	24.5%	35,702.6	29.7%	6,991.5	61.5%
2011	2,407.9	71.5%	78,564.7	45.8%	101,265.1	89.1%	4,469.8	64.2%	1,902.7	54.1%	537.0	19.0%	485.3	23.9%	42,019.2	32.1%	7,000.3	59.6%
2012	2,531.8	68.3%	78,296.6	39.6%	101,166.0	86.6%	4,639.7	63.3%	1,802.8	59.6%	1,527.1	20.4%	476.0	23.6%	49,458.0	31.8%	7,089.1	61.3%
2013	2,509.5	71.8%	78,873.5	38.8%	99,006.8	90.8%	4,949.7	62.3%	2,171.6	55.9%	3,525.2	24.5%	552.1	17.4%	59,175.6	32.4%	7,887.9	59.0%
2014	2,513.3	72.0%	79,582.8	37.2%	98,569.3	91.7%	5,114.6	62.7%	1,994.0	54.0%	6,555.6	25.6%	1,445.3	18.3%	60,587.8	34.0%	8,319.7	60.0%
2015	2,523.0	71.9%	79,650.8	35.7%	98,614.6	92.3%	5,104.5	62.6%	2,527.7	60.8%	9,521.6	25.5%	1,697.3	21.7%	67,106.2	32.2%	9,024.5	59.3%
2016	2,516.6	71.6%	79,806.0	38.2%	99,364.8	92.3%	5,099.5	62.7%	2,458.8	64.8%	14,161.4	25.0%	1,757.9	22.1%	74,162.7	34.5%	8,979.8	58.3%
2017	2,460.4	73.2%	79,698.8	43.0%	99,619.5	92.3%	5,125.6	61.8%	2,375.8	62.8%	21,940.9	25.6%	1,757.9	21.8%	83,355.6	34.6%	8,807.5	60.2%
2018	2,391.5	76.0%	79,771.9	41.9%	99,605.2	92.5%	5,059.0	61.8%	2,543.9	65.4%	27,143.3	25.1%	1,757.9	23.6%	89,228.5	34.6%	8,760.2	60.6%
Year 2017																		
January	2,511.1	73.6%	79,657.2	45.2%	99,609.9	98.7%	5,095.1	65.5%	2,375.8	63.8%	20,249.8	12.6%	1,757.9	7.3%	81,337.2	32.6%	8,748.6	61.4%
February	2,511.1	73.0%	79,657.2	44.2%	99,609.9	95.0%	5,097.3	63.0%	2,375.8	65.3%	20,603.7	17.2%	1,757.9	11.6%	81,713.0	38.6%	8,748.6	61.6%
March	2,451.1	73.6%	79,657.2	49.4%	99,609.9	87.8%	5,097.3	61.2%	2,375.8	64.9%	20,792.6	25.0%	1,757.9	22.9%	81,962.1	40.6%	8,741.6	60.0%
April	2,451.1	75.4%	79,660.1	51.2%	99,609.9	79.2%	5,105.7	60.4%	2,375.8	61.8%	21,177.9	28.2%	1,757.9	24.8%	83,041.4	41.1%	8,789.1	56.4%
May	2,451.1	70.0%	79,660.1	54.6%	99,609.9	82.8%	5,122.7	62.8%	2,375.8	58.1%	21,700.6	32.4%	1,757.9	30.9%	83,182.1	36.2%	8,796.6	55.0%
June	2,451.1	68.4%	79,660.1	52.7%	99,609.9	93.5%	5,126.7	62.9%	2,375.8	59.1%	22,006.1	35.8%	1,757.9	37.9%	83,313.5	32.9%	8,802.9	60.6%
July	2,451.1	73.9%	79,667.4	44.6%	99,628.9	96.2%	5,145.2	61.4%	2,375.8	58.9%	22,242.6	32.6%	1,757.9	25.3%	83,498.6	25.6%	8,802.9	62.1%
August	2,451.1	73.4%	79,614.2	36.8%	99,628.9	97.7%	5,147.3	61.6%	2,375.8	65.0%	22,356.4	30.3%	1,757.9	27.5%	83,980.6	21.8%	8,856.4	63.3%
Sept	2,451.1	73.1%	79,761.5	33.2%	99,628.9	95.0%	5,147.2	59.2%	2,375.8	61.8%	22,547.7	29.0%	1,757.9	29.1%	83,980.6	29.5%	8,856.4	58.6%
October	2,451.1	67.0%	79,797.5	30.8%	99,628.9	89.0%	5,147.2	57.9%	2,375.8	62.1%	22,762.8	26.2%	1,757.9	24.1%	84,229.8	40.2%	8,856.4	57.4%
November	2,451.1	72.7%	79,797.1	35.8%	99,628.9	92.9%	5,143.9	62.0%	2,375.8	65.1%	23,095.3	19.3%	1,757.9	10.3%	84,483.3	39.0%	8,856.4	61.2%
December	2,446.3	84.6%	79,794.4	37.7%	99,628.9	99.4%	5,129.5	63.4%	2,375.8	67.4%	23,660.0	17.6%	1,757.9	9.0%	85,431.2	38.0%	8,830.9	65.3%
Year 2018																		
January	2,387.5	75.3%	79,771.8	42.2%	99,730.6	100.6%	5,108.5	62.2%	2,543.9	66.2%	25,311.1	16.3%	1,757.9	10.0%	87,552.6	38.7%	8,813.0	65.3%
February	2,403.5	78.9%	79,771.8	46.4%	99,730.6	96.7%	5,083.1	64.6%	2,543.9	66.6%	25,968.4	20.9%	1,757.9	16.1%	88,563.2	38.8%	8,813.0	62.5%
March	2,382.2	76.8%	79,785.3	43.6%	99,730.6	90.3%	5,086.1	62.0%	2,543.9	63.3%	26,067.6	24.3%	1,757.9	19.2%	88,787.7	40.0%	8,780.5	61.7%
April	2,392.2	69.0%	79,792.3	48.9%	99,730.6	82.4%	5,086.1	60.9%	2,543.9	61.6%	26,591.3	29.7%	1,757.9	24.4%	88,789.2	41.3%	8,780.5	55.6%
May	2,392.2	77.7%	79,753.3	51.3%	99,730.6	90.7%	5,083.5	59.4%	2,543.9	63.2%	26,859.7	31.8%	1,757.9	32.9%	89,086.2	36.0%	8,761.5	58.0%
June	2,392.2	75.5%	79,753.8	48.1%	99,730.6	97.1%	5,006.9	63.0%	2,543.9	64.1%	27,291.3	34.9%	1,757.9	41.7%	89,078.2	38.4%	8,775.5	61.7%
July	2,392.2	77.0%	79,751.6	42.3%	99,730.6	97.7%	5,050.2	62.3%	2,543.9	65.8%	27,451.7	31.1%	1,757.9	30.1%	89,227.2	24.7%	8,767.2	63.7%
August	2,392.2	76.8%	79,751.6	37.1%	99,730.6	97.4%	5,042.5	62.6%	2,543.9	68.7%	27,590.1	30.5%	1,757.9	32.5%	89,387.5	29.8%	8,748.7	62.2%
Sept	2,392.2	77.1%	79,751.6	33.4%	99,277.9	90.3%	5,042.5	58.3%	2,543.9	67.2%	27,674.0	27.7%	1,757.9	34.8%	89,469.5	28.6%	8,748.7	58.5%
October	2,392.2	71.5%	79,753.6	32.9%	99,277.9	80.4%	5,041.4	61.0%	2,543.9	64.3%	27,989.5	22.4%	1,757.9	20.7%	89,941.8	31.5%	8,748.7	56.5%
November	2,392.2	77.3%	79,753.6	38.1%	99,432.9	89.3%	5,039.0	62.3%	2,543.9	67.4%	28,158.3	17.3%	1,757.9	13.3%	90,282.8	33.8%	8,694.6	60.4%
December	2,387.9	79.4%	79,870.8	38.4%	99,432.9	96.9%	5,038.6	63.2%	2,543.9	67.0%	28,690.2	13.7%	1,757.9	7.0%	90,534.1	34.8%	8,694.6	61.4%
Year 2019																		
January	2,447.0	77.9%	79,867.1	40.8%	99,431.1	99.6%	5,027.6	59.8%	2,543.9	67.4%	30,151.8	15.5%	1,757.9	8.4%	94,417.7	35.5%	8,647.5	62.7%
February	2,447.0	79.5%	79,880.6	40.7%	99,431.1	96.9%	5,027.6	59.3%	2,543.9	68.9%	30,815.5	17.7%	1,757.9	10.9%	95,314.6	35.9%	8,647.5	62.6%
March	2,447.0	78.8%	79,896.6	43.0%	99,431.1	88.0%	4,993.7	58.1%	2,543.9	64.8%	31,016.3	24.2%	1,757.9	19.8%	95,806.4	36.4%	8,496.8	58.5%
April	2,454.9	70.0%	79,896.6	44.3%	99,586.1	84.5%	4,993.7	56.4%	2,548.9	63.2%	31,234.4	28.7%	1,757.9	25.5%	96,636.4	42.7%	8,573.7	56.3%
May	2,454.9	73.7%	79,876.7	50.6%	98,908.9	90.8%	4,988.1	58.8%	2,548.9	65.6%	31,323.5	29.2%	1,757.9	25.7%	96,638.2	36.0%	8,558.7	59.1%
June	2,454.9	77.0%	79,880.6	46.0%	98,908.9	96.6%	4,970.4	61.0%	2,548.9	66.2%	31,385.7	33.1%	1,757.9	35.5%	96,867.7	32.6%	8,489.2	61.8%
July	2,454.9	77.2%	79,882.1	39.9%	98,908.9	98.1%	4,972.0	60.3%	2,548.9	70.2%	31,698.8	32.6%	1,757.9	31.4%	98,111.8	30.0%	8,518.6	63.7%
August	2,454.9	77.1%	79,778.3	35.0%	98,908.9	97.7%	4,968.1	60.9%	2,548.9	67.1%	31,940.8	31.1%	1,757.9	32.0%	98,387.4	26.9%	8,518.6	66.1%
Sept	2,454.9	78.2%	79,778.1	28.5%	98,106.1	92.8%	4,956.4	59.5%	2,548.9	69.0%	32,176.4	27.4%	1,757.9	24.3%	99,011.3	33.9%	8,429.3	60.7%
October	2,454.9	69.9%	79,774.2	27.5%	98,106.1	85.0%	4,958.1	59.0%	2,548.9	61.5%	32,415.3	23.5%	1,757.9	23.0%	99,561.1	37.9%	8,422.3	57.2%
November	2,454.9	62.9%	79,774.2	35.8%	98,070.2	90.8%	4,962.2	58.4%	2,548.9	72.6%	32,984.0	17.5%	1,757.9	11.3%	99,997.4	35.5%	8,422.3	59.4%

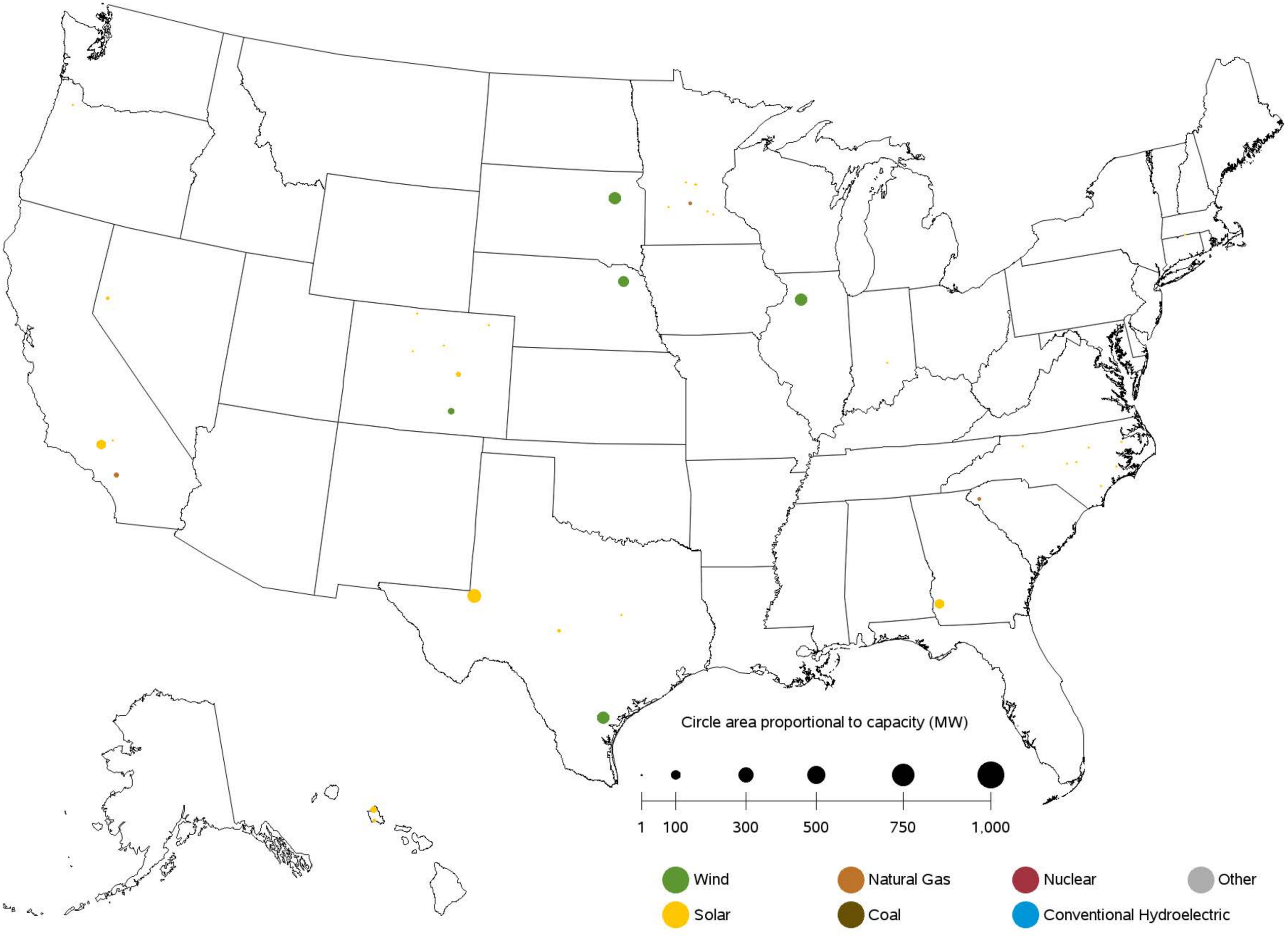
Values for 2018 and prior years are final. Values for 2019 are preliminary.
Time adjusted capacity for month rows is the summer capacity of generators in operation for the entire month; units that began operation during the month or that retired during the month are excluded. Time adjusted capacity for year rows is a time weighted average of the month rows.
Capacity factors are a comparison of net generation with available capacity. See the technical note for an explanation of how capacity factors are calculated.
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 6.07.C. Usage Factors for Utility Scale Storage Generators

	Battery		Pumped Storage	
Year/Month	Time Adjusted Capacity	Usage Factor	Time Adjusted Capacity	Usage Factor
Annual Data				
2013	126.7	0.7%	22,389.3	9.8%
2014	155.1	1.7%	22,477.9	10.2%
2015	206.8	3.6%	22,568.9	10.2%
2016	423.0	3.8%	22,752.7	11.2%
2017	632.8	6.8%	22,791.7	11.4%
2018	713.6	5.2%	22,815.4	10.8%
Year 2017				
January	562.8	6.9%	22,753.4	10.2%
February	573.8	7.4%	22,753.4	8.0%
March	581.8	8.3%	22,753.4	8.5%
April	611.8	7.6%	22,753.4	9.5%
May	627.7	6.8%	22,810.4	11.7%
June	641.2	6.8%	22,810.4	14.2%
July	643.2	6.2%	22,810.4	16.9%
August	645.4	6.8%	22,810.4	16.2%
Sept	678.2	6.1%	22,810.4	12.9%
October	679.4	6.6%	22,810.4	10.2%
November	681.4	6.8%	22,810.4	9.0%
December	663.4	6.2%	22,810.4	9.1%
Year 2018				
January	643.7	5.2%	22,785.2	9.8%
February	663.5	5.1%	22,785.2	9.6%
March	667.1	5.2%	22,785.2	7.9%
April	681.1	5.0%	22,785.2	8.2%
May	690.6	5.2%	22,830.2	11.0%
June	696.1	4.9%	22,830.2	13.2%
July	742.1	5.6%	22,830.2	15.5%
August	740.1	5.6%	22,830.2	16.1%
Sept	746.4	5.6%	22,830.2	12.2%
October	748.9	5.0%	22,830.2	9.4%
November	768.9	5.3%	22,830.2	8.2%
December	770.7	5.1%	22,830.2	7.7%
Year 2019				
January	858.3	3.9%	22,830.2	9.3%
February	869.3	4.2%	22,830.2	9.1%
March	894.1	5.2%	22,830.2	8.3%
April	923.2	4.6%	22,852.2	10.1%
May	939.2	4.6%	22,852.2	11.8%
June	944.2	3.7%	22,909.2	11.6%
July	964.6	3.7%	22,909.2	15.0%
August	971.6	3.5%	22,909.2	13.6%
Sept	995.1	4.5%	22,909.2	12.3%
October	1,003.0	3.4%	22,909.2	8.2%
November	1,007.6	3.7%	22,909.2	7.1%

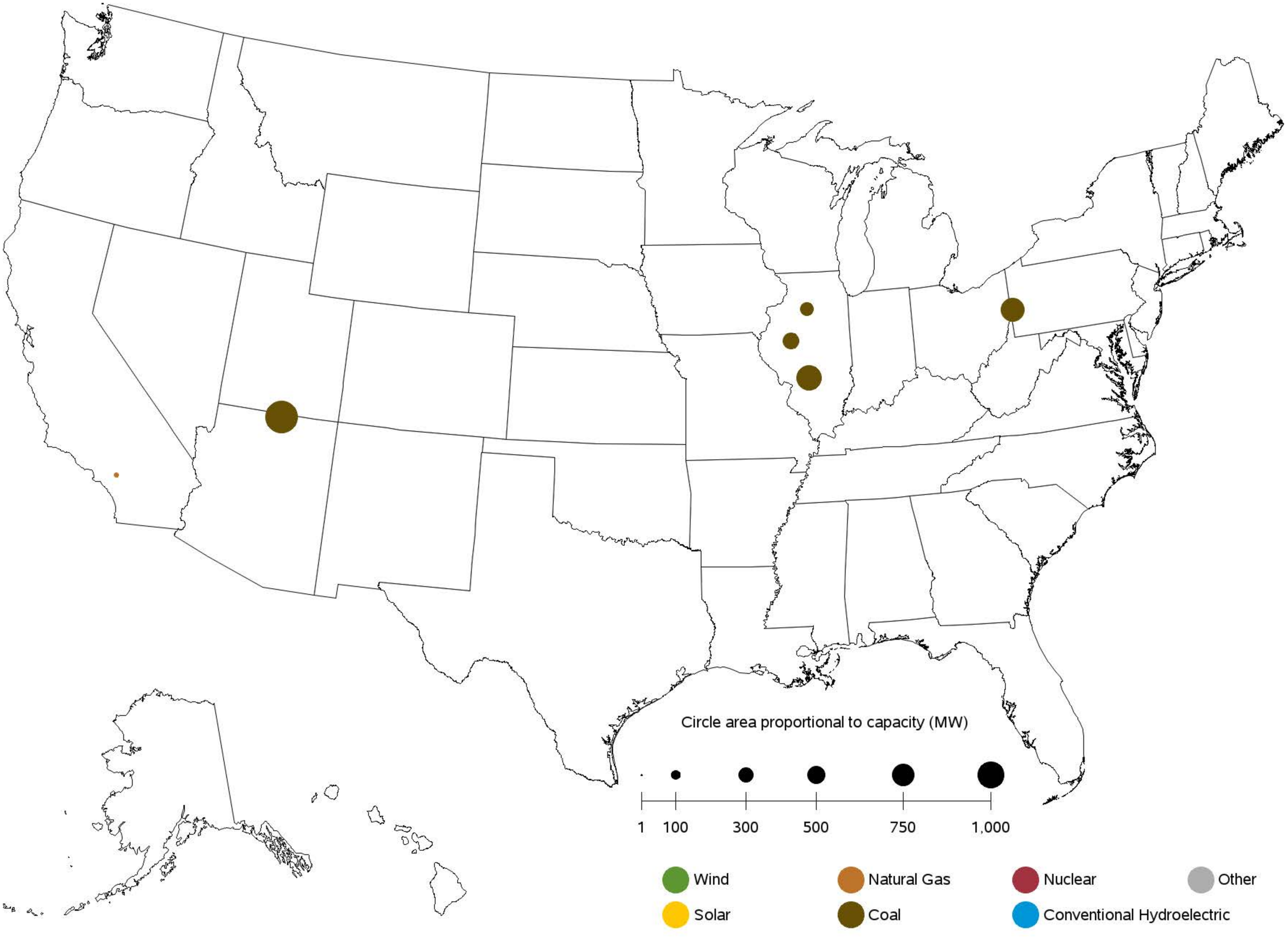
Values for 2018 and prior years are final. Values for 2019 are preliminary.
Time adjusted capacity for month rows is the summer capacity of generators in operation for the entire month; units that began operation during the month or that retired during the month are excluded. Time adjusted capacity for year rows is a time weighted average of the month rows.
Usage factors are a comparison of gross generation with available capacity. See the technical note for an explanation of how usage factors are calculated.
Sources: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report; U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report' and Form EIA-860M, 'Monthly Update to the Annual Electric Generator Report.'

Figure 6.1.A. Utility-Scale Generating Units Added in November 2019



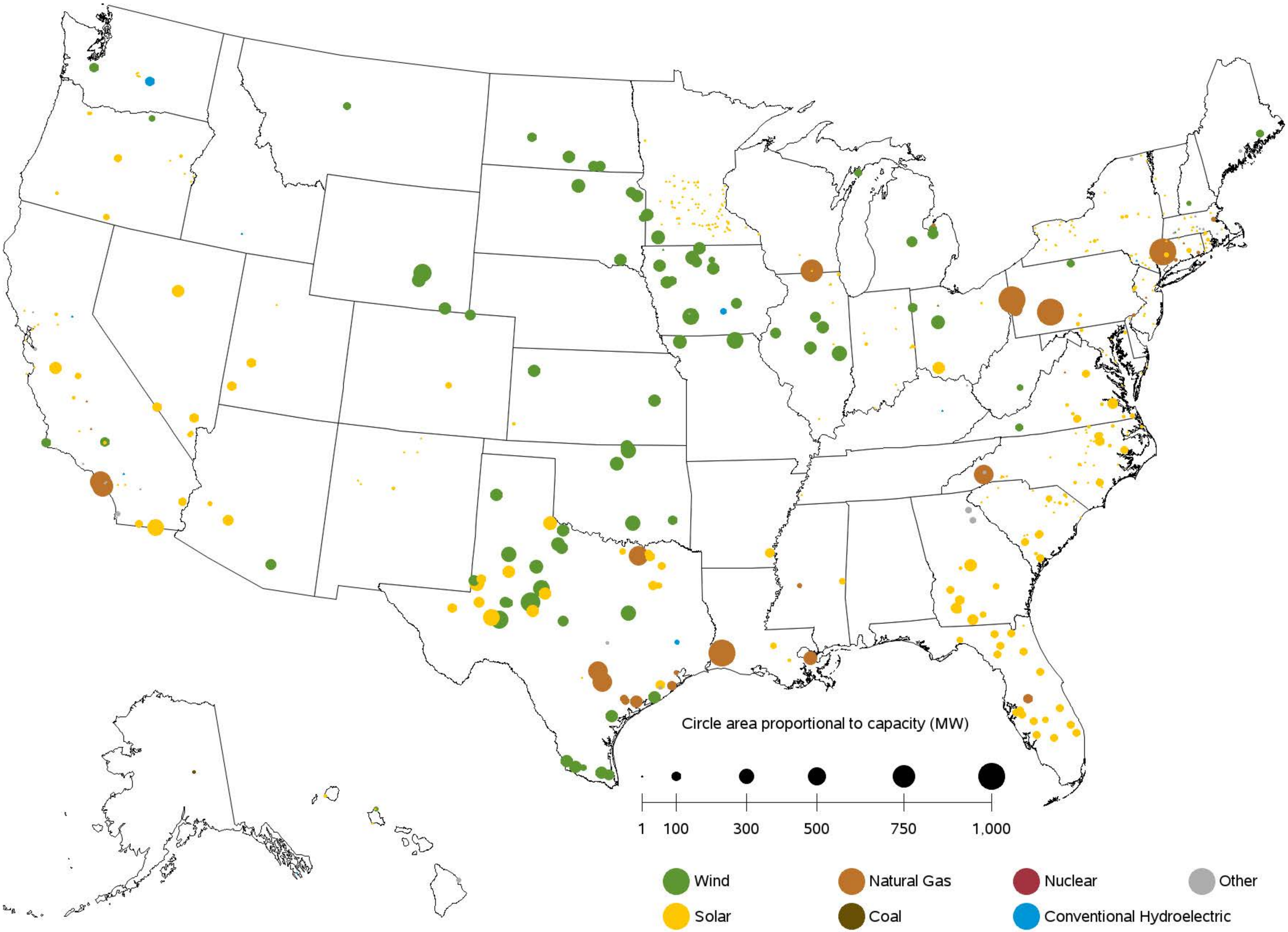
Sources: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report' and Form EIA-860M, 'Monthly Update to the Annual Electric Generator Report.'

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



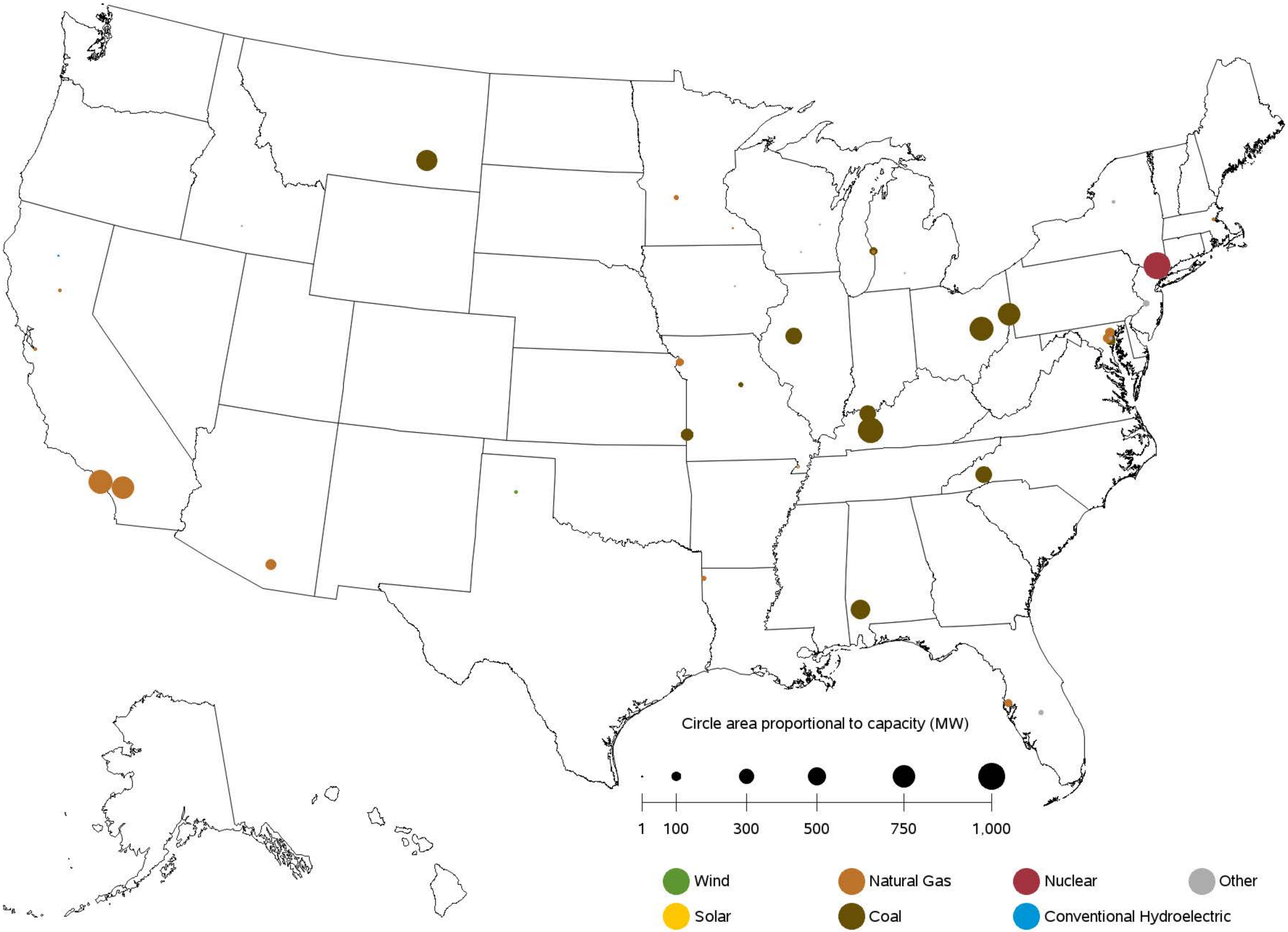
Sources: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report' and Form EIA-860M, 'Monthly Update to the Annual Electric Generator Report.'

Figure 6.1.C. Utility-Scale Generating Units Planned to Come Online from December 2019 to November 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 December 2019 to November 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	51,494,627	7,290,070	6,765,975	6,514,422	58,260,602	13,804,492	44,456,110
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	3,097,802	455,738	620,775	428,265	3,718,577	884,003	2,834,574
November	3,163,062	878,523	649,802	406,045	3,812,864	1,284,568	2,528,296
December	3,452,742	516,623	646,476	408,156	4,099,218	924,779	3,174,439
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
July	5,057,622	1,250,152	584,912	707,229	5,642,534	1,957,381	3,685,153
August	5,266,917	1,036,625	597,828	748,206	5,864,745	1,784,831	4,079,914
Sept	4,741,429	1,095,245	551,397	680,604	5,292,826	1,775,849	3,516,977

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 - November 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
2018	6,103	8,203	2,128	0	16,434
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	559	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	681	145	0	1,404
August	577	689	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	1,299
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	1,355
June	568	692	171	0	1,431
July	618	687	181	0	1,487
August	594	718	175	0	1,487
Sept	586	712	166	0	1,464
October	587	712	196	0	1,495
November	504	677	162	0	1,343
Year to Date					
2017	4,808	6,513	1,608	0	12,930
2018	5,609	7,561	1,966	0	15,136
2019	5,696	7,245	1,883	0	14,824
Rolling 12 Months Ending in November					
2018	5,846	7,867	2,105	0	15,817
2019	6,190	7,887	2,045	0	16,123

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 - November 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
2018	1,265	1,893	405	0	3,564
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	281
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
August	132	174	37	0	343
Sept	113	150	31	0	295
October	126	162	39	0	328
November	107	154	33	0	294
Year to Date					
2017	1,073	1,452	310	0	2,834
2018	1,153	1,739	374	0	3,265
2019	1,212	1,644	383	0	3,239
Rolling 12 Months Ending in November					
2018	1,203	1,837	408	0	3,447
2019	1,325	1,799	414	0	3,538

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 - November 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
2018	1,346,102	126,527	602	0	1,473,231
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	1,343,369	126,955	605	0	1,470,929
February	1,342,510	126,695	606	0	1,469,811
March	1,343,914	126,640	607	0	1,471,161
April	1,344,684	126,489	606	0	1,471,779
May	1,344,960	126,396	604	0	1,471,960
June	1,344,798	126,278	604	0	1,471,680
July	1,345,450	126,221	601	0	1,472,272
August	1,346,380	126,283	598	0	1,473,261
Sept	1,347,298	126,375	599	0	1,474,272
October	1,348,855	126,492	597	0	1,475,944
November	1,349,924	126,702	595	0	1,477,221
December	1,351,082	126,800	596	0	1,478,478
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
August	1,343,253	125,095	594	0	1,468,942
Sept	1,342,243	124,954	591	0	1,467,788
October	1,341,718	124,798	590	0	1,467,106
November	1,341,612	124,701	589	0	1,466,902
Rolling 12 Months Ending in November					
2018	1,345,060	126,534	603	0	1,472,197
2019	1,345,674	125,617	596	0	1,471,886

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 - November 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
2018	20.73	23.08	19.04	--	21.68
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	--	25.98
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	19.59	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
August	22.22	24.21	21.16	--	23.06
Sept	19.36	21.02	18.93	--	20.12
October	21.50	22.80	19.96	--	21.92
November	21.15	22.74	20.65	--	21.89
Year to Date					
2017	22.32	22.29	19.27	--	21.92
2018	20.55	23.00	19.01	--	21.57
2019	21.28	22.70	20.33	--	21.85
Rolling 12 Months Ending in November					
2018	20.57	23.35	19.39	--	21.79
2019	21.40	22.81	20.25	--	21.94

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

Table 8.5. Net Summer Capacity (MW) of Existing Utility Scale Units by Technology for Puerto Rico, 2007-November 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	35	3,604	145	99	5,781
2018	454	98	1,346	35	3,606	145	99	5,783
Year 2019								
January	454	98	1,335	33	3,606	145	99	5,769
February	454	98	1,335	33	3,606	145	99	5,769
March	454	98	1,346	33	3,606	145	99	5,780
April	454	98	1,346	33	3,606	145	99	5,780
May	454	98	1,346	33	3,606	145	99	5,780
June	454	98	1,346	33	3,606	145	99	5,780
July	454	98	1,346	33	3,606	145	99	5,780
August	454	98	1,346	33	3,606	145	99	5,780
Sept	454	98	1,346	33	3,606	145	99	5,780
October	454	98	1,346	33	3,606	145	99	5,780
November	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, November 2019

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**7**	**18**	**0**	**2**	**0**	**0**	**11**
Connecticut	0	45	0	1	0	0	37
Maine	28	17	0	15	0	0	16
Massachusetts	0	26	0	5	0	0	26
New Hampshire	0	11	0	0	0	0	23
Rhode Island	0	74	0	12	0	0	0
Vermont	0	177	0	0	0	0	24
Middle Atlantic	**3**	**18**	**0**	**1**	**27**	**0**	**3**
New Jersey	0	20	0	2	0	0	0
New York	0	26	0	2	0	0	2
Pennsylvania	3	37	0	1	36	0	14
East North Central	**0**	**6**	**0**	**1**	**9**	**0**	**11**
Illinois	0	10	0	8	0	0	50
Indiana	0	3	0	2	17	0	54
Michigan	3	17	0	1	0	0	20
Ohio	1	4	0	2	28	0	57
Wisconsin	0	72	0	2	0	0	15
West North Central	**1**	**10**	**0**	**4**	**0**	**0**	**7**
Iowa	0	15	0	3	0	0	25
Kansas	0	6	0	20	0	0	0
Minnesota	4	41	0	5	0	0	22
Missouri	0	10	0	16	0	0	26
Nebraska	4	129	0	32	0	0	21
North Dakota	0	14	0	23	0	0	13
South Dakota	0	48	0	25	0	0	10
South Atlantic	**0**	**7**	**16**	**1**	**0**	**0**	**6**
Delaware	0	87	0	5	0	0	0
District of Columbia	0	0	0	0	0	0	0
Florida	0	12	0	1	0	0	56
Georgia	1	23	138	2	0	0	12
Maryland	0	28	0	2	0	0	5
North Carolina	0	14	0	2	0	0	10
South Carolina	0	11	0	2	0	0	15
Virginia	0	13	0	3	0	0	20
West Virginia	1	0	0	8	0	0	20
East South Central	**0**	**2**	**0**	**1**	**97**	**0**	**5**
Alabama	0	14	0	2	273	0	7
Kentucky	0	0	0	3	0	0	9
Mississippi	0	3	0	2	0	0	0
Tennessee	0	2	0	3	0	0	9
West South Central	**0**	**3**	**6**	**1**	**7**	**0**	**10**
Arkansas	0	0	0	5	0	0	15
Louisiana	0	31	0	2	11	0	25
Oklahoma	0	9	0	3	0	0	18
Texas	0	5	75	1	4	0	22
Mountain	**1**	**8**	**0**	**1**	**7**	**0**	**4**
Arizona	0	6	0	1	0	0	4
Colorado	0	135	0	2	0	0	21
Idaho	156	0	0	8	0	0	8
Montana	4	82	0	16	0	0	7
Nevada	0	0	0	1	0	0	2
New Mexico	0	35	0	5	0	0	73
Utah	0	2	0	3	0	0	26
Wyoming	3	1	0	5	8	0	26
Pacific Contiguous	**0**	**22**	**0**	**1**	**3**	**0**	**2**
California	0	25	0	1	4	0	6
Oregon	0	0	0	2	0	0	3
Washington	0	64	0	4	0	0	1
Pacific Noncontiguous	**11**	**1**	**0**	**14**	**0**	**0**	**19**
Alaska	31	4	0	14	0	0	20
Hawaii	0	1	0	0	0	0	26
U.S. Total	**0**	**1**	**6**	**0**	**5**	**0**	**2**

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

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

Total (All Sectors) by Census Division and State, November 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**	**8**	**5**	**0**	**1**	**1**
Connecticut	0	0	0	23	13	0	0	1
Maine	0	0	0	87	6	0	0	6
Massachusetts	0	0	0	9	6	0	2	4
New Hampshire	0	0	0	0	19	0	0	2
Rhode Island	0	0	0	32	15	0	0	11
Vermont	0	0	0	22	14	0	0	15
Middle Atlantic	**0**	**0**	**0**	**7**	**3**	**0**	**2**	**1**
New Jersey	0	0	0	9	5	0	0	1
New York	0	0	0	11	5	0	2	1
Pennsylvania	0	0	0	33	6	0	7	1
East North Central	**0**	**0**	**0**	**11**	**3**	**0**	**5**	**0**
Illinois	0	0	0	27	3	0	0	1
Indiana	0	0	0	17	4	0	0	1
Michigan	0	0	0	23	5	0	20	1
Ohio	0	0	0	24	4	0	0	1
Wisconsin	0	0	0	36	8	0	38	1
West North Central	**0**	**0**	**0**	**7**	**2**	**0**	**6**	**1**
Iowa	0	0	0	68	3	0	0	1
Kansas	0	0	0	68	2	0	0	1
Minnesota	0	0	0	8	4	0	4	2
Missouri	0	0	0	26	6	0	0	1
Nebraska	0	0	0	49	4	0	0	3
North Dakota	0	0	0	0	4	0	45	1
South Dakota	0	0	0	225	9	0	0	5
South Atlantic	**0**	**0**	**0**	**2**	**2**	**0**	**0**	**0**
Delaware	0	0	0	43	28	0	0	4
District of Columbia	0	0	0	82	11	0	0	6
Florida	0	0	0	1	2	0	1	1
Georgia	0	0	0	5	4	0	0	1
Maryland	0	0	0	10	10	0	0	1
North Carolina	0	0	0	3	2	0	0	1
South Carolina	0	0	0	7	5	0	0	1
Virginia	0	0	0	9	6	0	0	1
West Virginia	0	0	0	0	10	0	0	1
East South Central	**0**	**0**	**0**	**6**	**3**	**0**	**0**	**1**
Alabama	0	0	0	12	5	0	0	1
Kentucky	0	0	0	37	18	0	0	1
Mississippi	0	0	0	4	4	0	0	1
Tennessee	0	0	0	14	8	0	0	1
West South Central	**0**	**0**	**0**	**2**	**1**	**0**	**3**	**1**
Arkansas	0	0	0	5	7	0	0	2
Louisiana	0	0	0	254	7	0	0	2
Oklahoma	0	0	0	38	2	0	0	2
Texas	0	0	0	2	1	0	4	1
Mountain	**0**	**23**	**0**	**2**	**3**	**0**	**4**	**1**
Arizona	0	0	0	3	5	0	0	0
Colorado	0	0	0	8	3	0	0	1
Idaho	0	132	0	11	8	0	0	5
Montana	0	0	0	52	9	0	0	3
Nevada	0	24	0	2	13	0	0	3
New Mexico	0	0	0	8	3	0	0	2
Utah	0	56	0	6	12	0	17	1
Wyoming	0	0	0	0	8	0	0	3
Pacific Contiguous	**0**	**13**	**0**	**2**	**3**	**0**	**2**	**1**
California	0	12	0	2	3	0	2	1
Oregon	0	87	0	11	6	0	0	2
Washington	0	0	0	49	5	0	0	1
Pacific Noncontiguous	**0**	**237**	**0**	**8**	**12**	**0**	**0**	**4**
Alaska	0	0	0	0	32	0	0	9
Hawaii	0	237	0	8	13	0	0	2
U.S. Total	**0**	**14**	**0**	**2**	**1**	**0**	**1**	**0**

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

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

Total (All Sectors) by Census Division and State, Year-to-Date through November 2019

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**7**	**18**	**0**	**2**	**0**	**0**	**11**
Connecticut	0	45	0	1	0	0	37
Maine	28	17	0	15	0	0	16
Massachusetts	0	26	0	5	0	0	26
New Hampshire	0	11	0	0	0	0	23
Rhode Island	0	74	0	12	0	0	0
Vermont	0	177	0	0	0	0	24
Middle Atlantic	**3**	**18**	**0**	**1**	**27**	**0**	**3**
New Jersey	0	20	0	2	0	0	0
New York	0	26	0	2	0	0	2
Pennsylvania	3	37	0	1	36	0	14
East North Central	**0**	**6**	**0**	**1**	**9**	**0**	**11**
Illinois	0	10	0	8	0	0	50
Indiana	0	3	0	2	17	0	54
Michigan	3	17	0	1	0	0	20
Ohio	1	4	0	2	28	0	57
Wisconsin	0	72	0	2	0	0	15
West North Central	**1**	**10**	**0**	**4**	**0**	**0**	**7**
Iowa	0	15	0	3	0	0	25
Kansas	0	6	0	20	0	0	0
Minnesota	4	41	0	5	0	0	22
Missouri	0	10	0	16	0	0	26
Nebraska	4	129	0	32	0	0	21
North Dakota	0	14	0	23	0	0	13
South Dakota	0	48	0	25	0	0	10
South Atlantic	**0**	**7**	**16**	**1**	**0**	**0**	**6**
Delaware	0	87	0	5	0	0	0
District of Columbia	0	0	0	0	0	0	0
Florida	0	12	0	1	0	0	56
Georgia	1	23	138	2	0	0	12
Maryland	0	28	0	2	0	0	5
North Carolina	0	14	0	2	0	0	10
South Carolina	0	11	0	2	0	0	15
Virginia	0	13	0	3	0	0	20
West Virginia	1	0	0	8	0	0	20
East South Central	**0**	**2**	**0**	**1**	**97**	**0**	**5**
Alabama	0	14	0	2	273	0	7
Kentucky	0	0	0	3	0	0	9
Mississippi	0	3	0	2	0	0	0
Tennessee	0	2	0	3	0	0	9
West South Central	**0**	**3**	**6**	**1**	**7**	**0**	**10**
Arkansas	0	0	0	5	0	0	15
Louisiana	0	31	0	2	11	0	25
Oklahoma	0	9	0	3	0	0	18
Texas	0	5	75	1	4	0	22
Mountain	**1**	**8**	**0**	**1**	**7**	**0**	**4**
Arizona	0	6	0	1	0	0	4
Colorado	0	135	0	2	0	0	21
Idaho	156	0	0	8	0	0	8
Montana	4	82	0	16	0	0	7
Nevada	0	0	0	1	0	0	2
New Mexico	0	35	0	5	0	0	73
Utah	0	2	0	3	0	0	26
Wyoming	3	1	0	5	8	0	26
Pacific Contiguous	**0**	**22**	**0**	**1**	**3**	**0**	**2**
California	0	25	0	1	4	0	6
Oregon	0	0	0	2	0	0	3
Washington	0	64	0	4	0	0	1
Pacific Noncontiguous	**11**	**1**	**0**	**14**	**0**	**0**	**19**
Alaska	31	4	0	14	0	0	20
Hawaii	0	1	0	0	0	0	26
U.S. Total	**0**	**1**	**6**	**0**	**5**	**0**	**2**

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

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

Total (All Sectors) by Census Division and State, Year-to-Date through November 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**	**8**	**5**	**0**	**1**	**1**
Connecticut	0	0	0	23	13	0	0	1
Maine	0	0	0	87	6	0	0	6
Massachusetts	0	0	0	9	6	0	2	4
New Hampshire	0	0	0	0	19	0	0	2
Rhode Island	0	0	0	32	15	0	0	11
Vermont	0	0	0	22	14	0	0	15
Middle Atlantic	**0**	**0**	**0**	**7**	**3**	**0**	**2**	**1**
New Jersey	0	0	0	9	5	0	0	1
New York	0	0	0	11	5	0	2	1
Pennsylvania	0	0	0	33	6	0	7	1
East North Central	**0**	**0**	**0**	**11**	**3**	**0**	**5**	**0**
Illinois	0	0	0	27	3	0	0	1
Indiana	0	0	0	17	4	0	0	1
Michigan	0	0	0	23	5	0	20	1
Ohio	0	0	0	24	4	0	0	1
Wisconsin	0	0	0	36	8	0	38	1
West North Central	**0**	**0**	**0**	**7**	**2**	**0**	**6**	**1**
Iowa	0	0	0	68	3	0	0	1
Kansas	0	0	0	68	2	0	0	1
Minnesota	0	0	0	8	4	0	4	2
Missouri	0	0	0	26	6	0	0	1
Nebraska	0	0	0	49	4	0	0	3
North Dakota	0	0	0	0	4	0	45	1
South Dakota	0	0	0	225	9	0	0	5
South Atlantic	**0**	**0**	**0**	**2**	**2**	**0**	**0**	**0**
Delaware	0	0	0	43	28	0	0	4
District of Columbia	0	0	0	82	11	0	0	6
Florida	0	0	0	1	2	0	1	1
Georgia	0	0	0	5	4	0	0	1
Maryland	0	0	0	10	10	0	0	1
North Carolina	0	0	0	3	2	0	0	1
South Carolina	0	0	0	7	5	0	0	1
Virginia	0	0	0	9	6	0	0	1
West Virginia	0	0	0	0	10	0	0	1
East South Central	**0**	**0**	**0**	**6**	**3**	**0**	**0**	**1**
Alabama	0	0	0	12	5	0	0	1
Kentucky	0	0	0	37	18	0	0	1
Mississippi	0	0	0	4	4	0	0	1
Tennessee	0	0	0	14	8	0	0	1
West South Central	**0**	**0**	**0**	**2**	**1**	**0**	**3**	**1**
Arkansas	0	0	0	5	7	0	0	2
Louisiana	0	0	0	254	7	0	0	2
Oklahoma	0	0	0	38	2	0	0	2
Texas	0	0	0	2	1	0	4	1
Mountain	**0**	**23**	**0**	**2**	**3**	**0**	**4**	**1**
Arizona	0	0	0	3	5	0	0	0
Colorado	0	0	0	8	3	0	0	1
Idaho	0	132	0	11	8	0	0	5
Montana	0	0	0	52	9	0	0	3
Nevada	0	24	0	2	13	0	0	3
New Mexico	0	0	0	8	3	0	0	2
Utah	0	56	0	6	12	0	17	1
Wyoming	0	0	0	0	8	0	0	3
Pacific Contiguous	**0**	**13**	**0**	**2**	**3**	**0**	**2**	**1**
California	0	12	0	2	3	0	2	1
Oregon	0	87	0	11	6	0	0	2
Washington	0	0	0	49	5	0	0	1
Pacific Noncontiguous	**0**	**237**	**0**	**8**	**12**	**0**	**0**	**4**
Alaska	0	0	0	0	32	0	0	9
Hawaii	0	237	0	8	13	0	0	2
U.S. Total	**0**	**14**	**0**	**2**	**1**	**0**	**1**	**0**

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Table A.1.C. Relative Standard Error (Percent) for Small Scale Solar Generation and Capacity by Sector, Census Division and State, November 2019

Census Region and State	Residential	Commercial	Industrial	Transportation	Total
New England	**0**	**0**	**1**	**.**	**0**
Connecticut	0	0	0	.	0
Maine	1	1	0	.	0
Massachusetts	0	0	1	.	0
New Hampshire	0	0	0	.	0
Rhode Island	0	0	0	.	0
Vermont	2	4	30	.	2
Middle Atlantic	**0**	**0**	**1**	**.**	**0**
New Jersey	0	0	1	.	0
New York	0	0	1	.	0
Pennsylvania	0	1	0	.	0
East North Central	**4**	**1**	**8**	**.**	**2**
Illinois	6	3	0	.	4
Indiana	13	1	0	.	4
Michigan	6	9	107	.	5
Ohio	10	1	9	.	3
Wisconsin	17	7	14	.	9
West North Central	**1**	**1**	**2**	**.**	**0**
Iowa	2	1	9	.	1
Kansas	4	3	0	.	3
Minnesota	2	3	1	.	1
Missouri	1	1	2	.	1
Nebraska	5	20	10	.	5
North Dakota	0	0	0	.	0
South Dakota	0	0	0	.	0
South Atlantic	**1**	**1**	**1**	**.**	**1**
Delaware	5	2	12	.	3
District of Columbia	0	0	0	.	0
Florida	3	3	1	.	3
Georgia	136	23	0	.	75
Maryland	1	1	1	.	1
North Carolina	6	1	0	.	4
South Carolina	4	3	0	.	3
Virginia	7	3	4	.	5
West Virginia	0	0	0	.	0
East South Central	**7**	**5**	**0**	**.**	**5**
Alabama	0	0	0	.	0
Kentucky	8	6	0	.	6
Mississippi	14	14	0	.	10
Tennessee	0	0	0	.	0
West South Central	**2**	**3**	**0**	**.**	**2**
Arkansas	14	14	0	.	9
Louisiana	3	5	0	.	2
Oklahoma	17	11	0	.	13
Texas	3	4	2	.	3
Mountain	**0**	**0**	**1**	**.**	**0**
Arizona	0	0	0	.	0
Colorado	2	0	17	.	1
Idaho	2	1	0	.	1
Montana	8	2	0	.	6
Nevada	0	0	0	.	0
New Mexico	2	1	28	.	1
Utah	1	1	0	.	1
Wyoming	12	8	0	.	9
Pacific Contiguous	**0**	**0**	**0**	**.**	**0**
California	0	0	0	.	0
Oregon	1	1	4	.	1
Washington	1	2	18	.	1
Pacific Noncontiguous	**0**	**0**	**0**	**.**	**0**
Alaska	2	3	0	.	2
Hawaii	0	0	0	.	0
U.S. Total	**0**	**0**	**0**	**.**	**0**

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

Table A.2.A. Relative Standard Error (Percent) for Net Generation by Fuel Type: Electric Utilities by Census Division and State, November 2019

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**0**	**41**	**0**	**91**	**0**	**0**	**25**
Connecticut	0	30	0	0	0	0	50
Maine	0	0	0	0	0	0	0
Massachusetts	0	87	0	150	0	0	52
New Hampshire	0	12	0	0	0	0	45
Rhode Island	0	0	0	0	0	0	0
Vermont	0	177	0	0	0	0	39
Middle Atlantic	**0**	**28**	**0**	**5**	**0**	**0**	**1**
New Jersey	0	0	0	127	0	0	0
New York	0	28	0	5	0	0	1
Pennsylvania	0	0	0	0	0	0	0
East North Central	**1**	**13**	**0**	**2**	**0**	**0**	**12**
Illinois	0	39	0	6	0	0	80
Indiana	0	3	0	6	0	0	54
Michigan	3	17	0	4	0	0	21
Ohio	4	24	0	8	0	0	58
Wisconsin	0	72	0	2	0	0	17
West North Central	**1**	**10**	**0**	**5**	**0**	**0**	**7**
Iowa	0	16	0	4	0	0	25
Kansas	0	6	0	22	0	0	0
Minnesota	4	41	0	5	0	0	29
Missouri	0	10	0	17	0	0	26
Nebraska	4	129	0	32	0	0	21
North Dakota	0	14	0	23	0	0	13
South Dakota	0	48	0	25	0	0	10
South Atlantic	**0**	**7**	**0**	**1**	**0**	**0**	**7**
Delaware	0	0	0	0	0	0	0
Florida	0	9	0	1	0	0	56
Georgia	0	13	0	3	0	0	12
Maryland	0	71	0	0	0	0	0
North Carolina	0	14	0	2	0	0	10
South Carolina	0	14	0	2	0	0	16
Virginia	0	23	0	5	0	0	21
West Virginia	0	0	0	0	0	0	34
East South Central	**0**	**1**	**0**	**2**	**0**	**0**	**5**
Alabama	0	0	0	7	0	0	7
Kentucky	0	0	0	3	0	0	9
Mississippi	0	3	0	2	0	0	0
Tennessee	0	2	0	3	0	0	9
West South Central	**0**	**4**	**0**	**3**	**0**	**0**	**11**
Arkansas	0	0	0	5	0	0	15
Louisiana	0	31	0	4	0	0	0
Oklahoma	0	9	0	4	0	0	18
Texas	0	13	0	5	0	0	23
Mountain	**1**	**8**	**0**	**1**	**0**	**0**	**4**
Arizona	0	6	0	1	0	0	4
Colorado	0	144	0	2	0	0	23
Idaho	0	0	0	6	0	0	8
Montana	0	641	0	24	0	0	7
Nevada	0	0	0	1	0	0	0
New Mexico	0	35	0	6	0	0	73
Utah	0	2	0	3	0	0	26
Wyoming	3	1	0	7	0	0	26
Pacific Contiguous	**0**	**23**	**0**	**2**	**0**	**0**	**1**
California	0	30	0	2	0	0	6
Oregon	0	0	0	5	0	0	3
Washington	0	634	0	5	0	0	1
Pacific Noncontiguous	**42**	**1**	**0**	**14**	**0**	**0**	**21**
Alaska	42	4	0	14	0	0	21
Hawaii	0	1	0	0	0	0	0
U.S. Total	**0**	**1**	**0**	**1**	**0**	**0**	**1**

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

Electric Utilities by Census Division and State, November 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**	**23**	**11**	**0**	**0**	**14**
Connecticut	0	0	0	0	0	0	0	15
Maine	0	0	0	0	0	0	0	0
Massachusetts	0	0	0	30	33	0	0	37
New Hampshire	0	0	0	0	0	0	0	21
Rhode Island	0	0	0	0	0	0	0	0
Vermont	0	0	0	38	15	0	0	20
Middle Atlantic	**0**	**0**	**0**	**36**	**36**	**0**	**0**	**2**
New Jersey	0	0	0	36	36	0	0	85
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**	**19**	**8**	**0**	**39**	**1**
Illinois	0	0	0	64	29	0	0	2
Indiana	0	0	0	25	16	0	0	1
Michigan	0	0	0	28	9	0	0	2
Ohio	0	0	0	117	113	0	0	4
Wisconsin	0	0	0	0	17	0	40	1
West North Central	**0**	**0**	**0**	**57**	**3**	**0**	**12**	**1**
Iowa	0	0	0	119	2	0	0	1
Kansas	0	0	0	224	8	0	0	1
Minnesota	0	0	0	191	9	0	0	2
Missouri	0	0	0	0	59	0	0	1
Nebraska	0	0	0	111	35	0	0	3
North Dakota	0	0	0	0	7	0	45	1
South Dakota	0	0	0	0	17	0	0	6
South Atlantic	**0**	**0**	**0**	**2**	**4**	**0**	**0**	**0**
Delaware	0	0	0	124	124	0	0	59
Florida	0	0	0	1	1	0	0	1
Georgia	0	0	0	10	10	0	0	1
Maryland	0	0	0	109	109	0	0	1
North Carolina	0	0	0	9	9	0	0	1
South Carolina	0	0	0	131	8	0	0	1
Virginia	0	0	0	20	24	0	0	2
West Virginia	0	0	0	0	0	0	0	0
East South Central	**0**	**0**	**0**	**32**	**25**	**0**	**0**	**1**
Alabama	0	0	0	56	56	0	0	1
Kentucky	0	0	0	37	28	0	0	1
Mississippi	0	0	0	0	0	0	0	2
Tennessee	0	0	0	171	171	0	0	1
West South Central	**0**	**0**	**0**	**35**	**10**	**0**	**0**	**1**
Arkansas	0	0	0	252	252	0	0	2
Louisiana	0	0	0	254	254	0	0	2
Oklahoma	0	0	0	38	10	0	0	4
Texas	0	0	0	102	35	0	0	3
Mountain	**0**	**88**	**0**	**8**	**6**	**0**	**42**	**1**
Arizona	0	0	0	10	10	0	0	1
Colorado	0	0	0	106	5	0	0	1
Idaho	0	0	0	0	37	0	0	6
Montana	0	0	0	0	33	0	0	7
Nevada	0	0	0	0	0	0	0	1
New Mexico	0	0	0	16	16	0	0	2
Utah	0	88	0	0	88	0	47	1
Wyoming	0	0	0	0	11	0	0	3
Pacific Contiguous	**0**	**0**	**0**	**14**	**5**	**0**	**0**	**1**
California	0	0	0	14	8	0	0	2
Oregon	0	0	0	124	9	0	0	2
Washington	0	0	0	0	7	0	0	1
Pacific Noncontiguous	**0**	**0**	**0**	**24**	**28**	**0**	**0**	**5**
Alaska	0	0	0	0	51	0	0	10
Hawaii	0	0	0	24	18	0	0	1
U.S. Total	**0**	**30**	**0**	**2**	**2**	**0**	**7**	**0**

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

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

Electric Utilities by Census Division and State, Year-to-Date through November 2019

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**0**	**41**	**0**	**91**	**0**	**0**	**25**
Connecticut	0	30	0	0	0	0	50
Maine	0	0	0	0	0	0	0
Massachusetts	0	87	0	150	0	0	52
New Hampshire	0	12	0	0	0	0	45
Rhode Island	0	0	0	0	0	0	0
Vermont	0	177	0	0	0	0	39
Middle Atlantic	**0**	**28**	**0**	**5**	**0**	**0**	**1**
New Jersey	0	0	0	127	0	0	0
New York	0	28	0	5	0	0	1
Pennsylvania	0	0	0	0	0	0	0
East North Central	**1**	**13**	**0**	**2**	**0**	**0**	**12**
Illinois	0	39	0	6	0	0	80
Indiana	0	3	0	6	0	0	54
Michigan	3	17	0	4	0	0	21
Ohio	4	24	0	8	0	0	58
Wisconsin	0	72	0	2	0	0	17
West North Central	**1**	**10**	**0**	**5**	**0**	**0**	**7**
Iowa	0	16	0	4	0	0	25
Kansas	0	6	0	22	0	0	0
Minnesota	4	41	0	5	0	0	29
Missouri	0	10	0	17	0	0	26
Nebraska	4	129	0	32	0	0	21
North Dakota	0	14	0	23	0	0	13
South Dakota	0	48	0	25	0	0	10
South Atlantic	**0**	**7**	**0**	**1**	**0**	**0**	**7**
Delaware	0	0	0	0	0	0	0
Florida	0	9	0	1	0	0	56
Georgia	0	13	0	3	0	0	12
Maryland	0	71	0	0	0	0	0
North Carolina	0	14	0	2	0	0	10
South Carolina	0	14	0	2	0	0	16
Virginia	0	23	0	5	0	0	21
West Virginia	0	0	0	0	0	0	34
East South Central	**0**	**1**	**0**	**2**	**0**	**0**	**5**
Alabama	0	0	0	7	0	0	7
Kentucky	0	0	0	3	0	0	9
Mississippi	0	3	0	2	0	0	0
Tennessee	0	2	0	3	0	0	9
West South Central	**0**	**4**	**0**	**3**	**0**	**0**	**11**
Arkansas	0	0	0	5	0	0	15
Louisiana	0	31	0	4	0	0	0
Oklahoma	0	9	0	4	0	0	18
Texas	0	13	0	5	0	0	23
Mountain	**1**	**8**	**0**	**1**	**0**	**0**	**4**
Arizona	0	6	0	1	0	0	4
Colorado	0	144	0	2	0	0	23
Idaho	0	0	0	6	0	0	8
Montana	0	641	0	24	0	0	7
Nevada	0	0	0	1	0	0	0
New Mexico	0	35	0	6	0	0	73
Utah	0	2	0	3	0	0	26
Wyoming	3	1	0	7	0	0	26
Pacific Contiguous	**0**	**23**	**0**	**2**	**0**	**0**	**1**
California	0	30	0	2	0	0	6
Oregon	0	0	0	5	0	0	3
Washington	0	634	0	5	0	0	1
Pacific Noncontiguous	**42**	**1**	**0**	**14**	**0**	**0**	**21**
Alaska	42	4	0	14	0	0	21
Hawaii	0	1	0	0	0	0	0
U.S. Total	**0**	**1**	**0**	**1**	**0**	**0**	**1**

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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 November 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**	**23**	**11**	**0**	**0**	**14**
Connecticut	0	0	0	0	0	0	0	15
Maine	0	0	0	0	0	0	0	0
Massachusetts	0	0	0	30	33	0	0	37
New Hampshire	0	0	0	0	0	0	0	21
Rhode Island	0	0	0	0	0	0	0	0
Vermont	0	0	0	38	15	0	0	20
Middle Atlantic	**0**	**0**	**0**	**36**	**36**	**0**	**0**	**2**
New Jersey	0	0	0	36	36	0	0	85
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**	**19**	**8**	**0**	**39**	**1**
Illinois	0	0	0	64	29	0	0	2
Indiana	0	0	0	25	16	0	0	1
Michigan	0	0	0	28	9	0	0	2
Ohio	0	0	0	117	113	0	0	4
Wisconsin	0	0	0	0	17	0	40	1
West North Central	**0**	**0**	**0**	**57**	**3**	**0**	**12**	**1**
Iowa	0	0	0	119	2	0	0	1
Kansas	0	0	0	224	8	0	0	1
Minnesota	0	0	0	191	9	0	0	2
Missouri	0	0	0	0	59	0	0	1
Nebraska	0	0	0	111	35	0	0	3
North Dakota	0	0	0	0	7	0	45	1
South Dakota	0	0	0	0	17	0	0	6
South Atlantic	**0**	**0**	**0**	**2**	**4**	**0**	**0**	**0**
Delaware	0	0	0	124	124	0	0	59
Florida	0	0	0	1	1	0	0	1
Georgia	0	0	0	10	10	0	0	1
Maryland	0	0	0	109	109	0	0	1
North Carolina	0	0	0	9	9	0	0	1
South Carolina	0	0	0	131	8	0	0	1
Virginia	0	0	0	20	24	0	0	2
West Virginia	0	0	0	0	0	0	0	0
East South Central	**0**	**0**	**0**	**32**	**25**	**0**	**0**	**1**
Alabama	0	0	0	56	56	0	0	1
Kentucky	0	0	0	37	28	0	0	1
Mississippi	0	0	0	0	0	0	0	2
Tennessee	0	0	0	171	171	0	0	1
West South Central	**0**	**0**	**0**	**35**	**10**	**0**	**0**	**1**
Arkansas	0	0	0	252	252	0	0	2
Louisiana	0	0	0	254	254	0	0	2
Oklahoma	0	0	0	38	10	0	0	4
Texas	0	0	0	102	35	0	0	3
Mountain	**0**	**88**	**0**	**8**	**6**	**0**	**42**	**1**
Arizona	0	0	0	10	10	0	0	1
Colorado	0	0	0	106	5	0	0	1
Idaho	0	0	0	0	37	0	0	6
Montana	0	0	0	0	33	0	0	7
Nevada	0	0	0	0	0	0	0	1
New Mexico	0	0	0	16	16	0	0	2
Utah	0	88	0	0	88	0	47	1
Wyoming	0	0	0	0	11	0	0	3
Pacific Contiguous	**0**	**0**	**0**	**14**	**5**	**0**	**0**	**1**
California	0	0	0	14	8	0	0	2
Oregon	0	0	0	124	9	0	0	2
Washington	0	0	0	0	7	0	0	1
Pacific Noncontiguous	**0**	**0**	**0**	**24**	**28**	**0**	**0**	**5**
Alaska	0	0	0	0	51	0	0	10
Hawaii	0	0	0	24	18	0	0	1
U.S. Total	**0**	**30**	**0**	**2**	**2**	**0**	**7**	**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, November 2019

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**0**	**23**	**0**	**2**	**0**	**0**	**11**
Connecticut	0	49	0	1	0	0	38
Maine	0	7	0	20	0	0	16
Massachusetts	0	28	0	5	0	0	30
New Hampshire	0	28	0	0	0	0	26
Rhode Island	0	76	0	13	0	0	0
Vermont	0	0	0	0	0	0	29
Middle Atlantic	**3**	**23**	**0**	**1**	**0**	**0**	**12**
New Jersey	0	20	0	2	0	0	0
New York	0	56	0	2	0	0	13
Pennsylvania	3	39	0	1	0	0	14
East North Central	**0**	**4**	**0**	**1**	**11**	**0**	**38**
Illinois	0	7	0	10	0	0	63
Indiana	0	0	0	0	0	0	0
Michigan	0	0	0	1	0	0	69
Ohio	0	4	0	1	33	0	0
Wisconsin	0	0	0	0	0	0	66
West North Central	**0**	**147**	**0**	**24**	**0**	**0**	**44**
Iowa	0	59	0	176	0	0	0
Kansas	0	0	0	0	0	0	0
Minnesota	0	307	0	26	0	0	50
Missouri	0	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0	0
South Atlantic	**4**	**21**	**0**	**2**	**0**	**0**	**12**
Delaware	0	87	0	7	0	0	0
Florida	0	68	0	9	0	0	0
Georgia	0	39	0	6	0	0	353
Maryland	0	29	0	3	0	0	5
North Carolina	0	55	0	6	0	0	88
South Carolina	0	0	0	11	0	0	102
Virginia	0	16	0	2	0	0	90
West Virginia	6	0	0	24	0	0	38
East South Central	**0**	**4**	**0**	**0**	**0**	**0**	**267**
Alabama	0	4	0	0	0	0	0
Kentucky	0	0	0	0	0	0	267
Mississippi	0	0	0	0	0	0	0
Tennessee	0	0	0	0	0	0	0
West South Central	**0**	**9**	**0**	**1**	**0**	**0**	**24**
Arkansas	0	0	0	0	0	0	55
Louisiana	0	0	0	6	0	0	25
Oklahoma	0	0	0	0	0	0	0
Texas	0	21	0	1	0	0	0
Mountain	**4**	**14**	**0**	**2**	**0**	**0**	**22**
Arizona	0	0	0	0	0	0	0
Colorado	0	0	0	10	0	0	55
Idaho	0	0	0	31	0	0	27
Montana	4	20	0	5	0	0	68
Nevada	0	0	0	0	0	0	63
New Mexico	0	0	0	7	0	0	0
Utah	0	0	0	0	0	0	0
Wyoming	0	0	0	0	0	0	0
Pacific Contiguous	**0**	**13**	**0**	**1**	**0**	**0**	**26**
California	0	0	0	1	0	0	36
Oregon	0	0	0	0	0	0	51
Washington	0	15	0	5	0	0	38
Pacific Noncontiguous	**6**	**0**	**0**	**0**	**0**	**0**	**0**
Alaska	50	0	0	0	0	0	0
Hawaii	0	0	0	0	0	0	0
U.S. Total	**1**	**4**	**0**	**1**	**6**	**0**	**7**

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

Independent Power Producers by Census Division and State, November 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**	**8**	**6**	**0**	**1**	**1**
Connecticut	0	0	0	24	13	0	0	1
Maine	0	0	0	87	8	0	0	7
Massachusetts	0	0	0	10	6	0	2	4
New Hampshire	0	0	0	0	21	0	0	2
Rhode Island	0	0	0	32	15	0	0	12
Vermont	0	0	0	27	23	0	0	20
Middle Atlantic	**0**	**0**	**0**	**7**	**4**	**0**	**0**	**1**
New Jersey	0	0	0	10	6	0	0	1
New York	0	0	0	12	5	0	0	1
Pennsylvania	0	0	0	35	6	0	0	1
East North Central	**0**	**0**	**0**	**13**	**3**	**0**	**31**	**0**
Illinois	0	0	0	28	3	0	0	1
Indiana	0	0	0	23	5	0	0	1
Michigan	0	0	0	37	7	0	40	1
Ohio	0	0	0	25	4	0	0	1
Wisconsin	0	0	0	37	9	0	0	1
West North Central	**0**	**0**	**0**	**7**	**2**	**0**	**0**	**2**
Iowa	0	0	0	83	6	0	0	3
Kansas	0	0	0	71	2	0	0	2
Minnesota	0	0	0	8	5	0	0	5
Missouri	0	0	0	28	6	0	0	6
Nebraska	0	0	0	54	4	0	0	4
North Dakota	0	0	0	0	5	0	0	5
South Dakota	0	0	0	225	10	0	0	10
South Atlantic	**0**	**0**	**0**	**3**	**2**	**0**	**1**	**1**
Delaware	0	0	0	46	34	0	0	7
District of Columbia	0	0	0	82	82	0	0	82
Florida	0	0	0	7	4	0	1	4
Georgia	0	0	0	6	4	0	0	5
Maryland	0	0	0	11	10	0	0	1
North Carolina	0	0	0	3	2	0	0	3
South Carolina	0	0	0	7	12	0	0	8
Virginia	0	0	0	10	9	0	0	2
West Virginia	0	0	0	0	10	0	0	5
East South Central	**0**	**0**	**0**	**6**	**7**	**0**	**0**	**0**
Alabama	0	0	0	12	12	0	0	0
Kentucky	0	0	0	245	65	0	0	5
Mississippi	0	0	0	4	5	0	0	0
Tennessee	0	0	0	14	15	0	0	14
West South Central	**0**	**0**	**0**	**2**	**1**	**0**	**0**	**1**
Arkansas	0	0	0	5	11	0	0	1
Louisiana	0	0	0	0	36	0	0	5
Oklahoma	0	0	0	0	2	0	0	2
Texas	0	0	0	2	1	0	0	1
Mountain	**0**	**26**	**0**	**2**	**3**	**0**	**0**	**2**
Arizona	0	0	0	3	5	0	0	1
Colorado	0	0	0	8	3	0	0	4
Idaho	0	132	0	11	10	0	0	9
Montana	0	0	0	52	10	0	0	4
Nevada	0	27	0	2	14	0	0	9
New Mexico	0	0	0	9	3	0	0	3
Utah	0	70	0	6	11	0	0	9
Wyoming	0	0	0	0	11	0	0	8
Pacific Contiguous	**0**	**13**	**0**	**2**	**3**	**0**	**0**	**1**
California	0	13	0	2	3	0	0	2
Oregon	0	87	0	11	7	0	0	2
Washington	0	0	0	49	8	0	0	2
Pacific Noncontiguous	**0**	**237**	**0**	**8**	**16**	**0**	**0**	**4**
Alaska	0	0	0	0	66	0	0	42
Hawaii	0	237	0	8	17	0	0	4
U.S. Total	**0**	**15**	**0**	**2**	**1**	**0**	**1**	**0**

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

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

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**0**	**23**	**0**	**2**	**0**	**0**	**11**
Connecticut	0	49	0	1	0	0	38
Maine	0	7	0	20	0	0	16
Massachusetts	0	28	0	5	0	0	30
New Hampshire	0	28	0	0	0	0	26
Rhode Island	0	76	0	13	0	0	0
Vermont	0	0	0	0	0	0	29
Middle Atlantic	**3**	**23**	**0**	**1**	**0**	**0**	**12**
New Jersey	0	20	0	2	0	0	0
New York	0	56	0	2	0	0	13
Pennsylvania	3	39	0	1	0	0	14
East North Central	**0**	**4**	**0**	**1**	**11**	**0**	**38**
Illinois	0	7	0	10	0	0	63
Indiana	0	0	0	0	0	0	0
Michigan	0	0	0	1	0	0	69
Ohio	0	4	0	1	33	0	0
Wisconsin	0	0	0	0	0	0	66
West North Central	**0**	**147**	**0**	**24**	**0**	**0**	**44**
Iowa	0	59	0	176	0	0	0
Kansas	0	0	0	0	0	0	0
Minnesota	0	307	0	26	0	0	50
Missouri	0	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0	0
South Atlantic	**4**	**21**	**0**	**2**	**0**	**0**	**12**
Delaware	0	87	0	7	0	0	0
Florida	0	68	0	9	0	0	0
Georgia	0	39	0	6	0	0	353
Maryland	0	29	0	3	0	0	5
North Carolina	0	55	0	6	0	0	88
South Carolina	0	0	0	11	0	0	102
Virginia	0	16	0	2	0	0	90
West Virginia	6	0	0	24	0	0	38
East South Central	**0**	**4**	**0**	**0**	**0**	**0**	**267**
Alabama	0	4	0	0	0	0	0
Kentucky	0	0	0	0	0	0	267
Mississippi	0	0	0	0	0	0	0
Tennessee	0	0	0	0	0	0	0
West South Central	**0**	**9**	**0**	**1**	**0**	**0**	**24**
Arkansas	0	0	0	0	0	0	55
Louisiana	0	0	0	6	0	0	25
Oklahoma	0	0	0	0	0	0	0
Texas	0	21	0	1	0	0	0
Mountain	**4**	**14**	**0**	**2**	**0**	**0**	**22**
Arizona	0	0	0	0	0	0	0
Colorado	0	0	0	10	0	0	55
Idaho	0	0	0	31	0	0	27
Montana	4	20	0	5	0	0	68
Nevada	0	0	0	0	0	0	63
New Mexico	0	0	0	7	0	0	0
Utah	0	0	0	0	0	0	0
Wyoming	0	0	0	0	0	0	0
Pacific Contiguous	**0**	**13**	**0**	**1**	**0**	**0**	**26**
California	0	0	0	1	0	0	36
Oregon	0	0	0	0	0	0	51
Washington	0	15	0	5	0	0	38
Pacific Noncontiguous	**6**	**0**	**0**	**0**	**0**	**0**	**0**
Alaska	50	0	0	0	0	0	0
Hawaii	0	0	0	0	0	0	0
U.S. Total	**1**	**4**	**0**	**1**	**6**	**0**	**7**

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

Independent Power Producers by Census Division and State, Year-to-Date through November 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**	**8**	**6**	**0**	**1**	**1**
Connecticut	0	0	0	24	13	0	0	1
Maine	0	0	0	87	8	0	0	7
Massachusetts	0	0	0	10	6	0	2	4
New Hampshire	0	0	0	0	21	0	0	2
Rhode Island	0	0	0	32	15	0	0	12
Vermont	0	0	0	27	23	0	0	20
Middle Atlantic	**0**	**0**	**0**	**7**	**4**	**0**	**0**	**1**
New Jersey	0	0	0	10	6	0	0	1
New York	0	0	0	12	5	0	0	1
Pennsylvania	0	0	0	35	6	0	0	1
East North Central	**0**	**0**	**0**	**13**	**3**	**0**	**31**	**0**
Illinois	0	0	0	28	3	0	0	1
Indiana	0	0	0	23	5	0	0	1
Michigan	0	0	0	37	7	0	40	1
Ohio	0	0	0	25	4	0	0	1
Wisconsin	0	0	0	37	9	0	0	1
West North Central	**0**	**0**	**0**	**7**	**2**	**0**	**0**	**2**
Iowa	0	0	0	83	6	0	0	3
Kansas	0	0	0	71	2	0	0	2
Minnesota	0	0	0	8	5	0	0	5
Missouri	0	0	0	28	6	0	0	6
Nebraska	0	0	0	54	4	0	0	4
North Dakota	0	0	0	0	5	0	0	5
South Dakota	0	0	0	225	10	0	0	10
South Atlantic	**0**	**0**	**0**	**3**	**2**	**0**	**1**	**1**
Delaware	0	0	0	46	34	0	0	7
District of Columbia	0	0	0	82	82	0	0	82
Florida	0	0	0	7	4	0	1	4
Georgia	0	0	0	6	4	0	0	5
Maryland	0	0	0	11	10	0	0	1
North Carolina	0	0	0	3	2	0	0	3
South Carolina	0	0	0	7	12	0	0	8
Virginia	0	0	0	10	9	0	0	2
West Virginia	0	0	0	0	10	0	0	5
East South Central	**0**	**0**	**0**	**6**	**7**	**0**	**0**	**0**
Alabama	0	0	0	12	12	0	0	0
Kentucky	0	0	0	245	65	0	0	5
Mississippi	0	0	0	4	5	0	0	0
Tennessee	0	0	0	14	15	0	0	14
West South Central	**0**	**0**	**0**	**2**	**1**	**0**	**0**	**1**
Arkansas	0	0	0	5	11	0	0	1
Louisiana	0	0	0	0	36	0	0	5
Oklahoma	0	0	0	0	2	0	0	2
Texas	0	0	0	2	1	0	0	1
Mountain	**0**	**26**	**0**	**2**	**3**	**0**	**0**	**2**
Arizona	0	0	0	3	5	0	0	1
Colorado	0	0	0	8	3	0	0	4
Idaho	0	132	0	11	10	0	0	9
Montana	0	0	0	52	10	0	0	4
Nevada	0	27	0	2	14	0	0	9
New Mexico	0	0	0	9	3	0	0	3
Utah	0	70	0	6	11	0	0	9
Wyoming	0	0	0	0	11	0	0	8
Pacific Contiguous	**0**	**13**	**0**	**2**	**3**	**0**	**0**	**1**
California	0	13	0	2	3	0	0	2
Oregon	0	87	0	11	7	0	0	2
Washington	0	0	0	49	8	0	0	2
Pacific Noncontiguous	**0**	**237**	**0**	**8**	**16**	**0**	**0**	**4**
Alaska	0	0	0	0	66	0	0	42
Hawaii	0	237	0	8	17	0	0	4
U.S. Total	**0**	**15**	**0**	**2**	**1**	**0**	**1**	**0**

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

Table A.4.A. Relative Standard Error for Net Generation by Fuel Type: Commercial Sector by Census Division and State, November 2019

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**0**	**26**	**0**	**13**	**0**	**0**	**0**
Connecticut	0	955	0	19	0	0	0
Maine	0	0	0	0	0	0	0
Massachusetts	0	114	0	19	0	0	0
New Hampshire	0	1	0	0	0	0	0
Rhode Island	0	0	0	0	0	0	0
Vermont	0	0	0	0	0	0	0
Middle Atlantic	**0**	**117**	**0**	**12**	**0**	**0**	**0**
New Jersey	0	0	0	22	0	0	0
New York	0	138	0	16	0	0	0
Pennsylvania	0	224	0	0	0	0	0
East North Central	**0**	**34**	**0**	**6**	**0**	**0**	**0**
Illinois	0	33	0	19	0	0	0
Indiana	0	0	0	0	0	0	0
Michigan	0	131	0	7	0	0	0
Ohio	0	0	0	5	0	0	0
Wisconsin	0	577	0	11	0	0	0
West North Central	**0**	**32**	**0**	**1**	**0**	**0**	**0**
Iowa	0	0	0	2	0	0	0
Minnesota	0	32	0	3	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	979	0	0	0	0	0
South Atlantic	**0**	**3**	**0**	**7**	**0**	**0**	**0**
District of Columbia	0	0	0	0	0	0	0
Florida	0	0	0	0	0	0	0
Georgia	0	31	0	0	0	0	0
Maryland	0	0	0	4	0	0	0
North Carolina	0	265	0	62	0	0	0
South Carolina	0	0	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**	**21**	**0**	**0**	**0**
Arkansas	0	0	0	123	0	0	0
Louisiana	0	0	0	36	0	0	0
Oklahoma	0	0	0	0	0	0	0
Texas	0	0	0	25	0	0	0
Mountain	**0**	**764**	**0**	**10**	**0**	**0**	**0**
Arizona	0	764	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	43	0	0	0
Utah	0	0	0	0	0	0	0
Pacific Contiguous	**0**	**17**	**0**	**4**	**0**	**0**	**611**
California	0	21	0	4	0	0	611
Oregon	0	0	0	0	0	0	0
Washington	0	0	0	0	0	0	0
Pacific Noncontiguous	**63**	**2**	**0**	**0**	**0**	**0**	**58**
Alaska	63	3	0	0	0	0	58
Hawaii	0	0	0	0	0	0	0
U.S. Total	**18**	**11**	**0**	**4**	**0**	**0**	**49**

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

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

Commercial Sector by Census Division and State, November 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**	**78**	**12**	**0**	**0**	**10**
Connecticut	0	0	0	110	110	0	0	18
Maine	0	0	0	0	0	0	0	0
Massachusetts	0	0	0	111	35	0	0	17
New Hampshire	0	0	0	0	0	0	0	0
Rhode Island	0	0	0	0	0	0	0	0
Vermont	0	0	0	0	0	0	0	0
Middle Atlantic	**0**	**0**	**0**	**25**	**7**	**0**	**9**	**7**
New Jersey	0	0	0	27	11	0	0	8
New York	0	0	0	79	7	0	7	10
Pennsylvania	0	0	0	146	18	0	46	14
East North Central	**0**	**0**	**0**	**68**	**18**	**0**	**0**	**5**
Illinois	0	0	0	165	163	0	0	19
Indiana	0	0	0	176	16	0	0	1
Michigan	0	0	0	204	5	0	0	6
Ohio	0	0	0	132	35	0	0	6
Wisconsin	0	0	0	121	56	0	0	14
West North Central	**0**	**0**	**0**	**0**	**22**	**0**	**56**	**7**
Iowa	0	0	0	0	25	0	0	5
Kansas	0	0	0	0	154	0	0	154
Minnesota	0	0	0	0	62	0	56	20
Missouri	0	0	0	0	0	0	0	0
Nebraska	0	0	0	0	0	0	0	0
North Dakota	0	0	0	0	297	0	0	293
South Dakota	0	0	0	0	0	0	0	979
South Atlantic	**0**	**0**	**0**	**25**	**8**	**0**	**0**	**5**
Delaware	0	0	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	0	0
Florida	0	0	0	83	27	0	0	20
Georgia	0	0	0	210	210	0	0	107
Maryland	0	0	0	67	35	0	0	4
North Carolina	0	0	0	29	28	0	0	27
South Carolina	0	0	0	0	0	0	0	0
Virginia	0	0	0	189	6	0	0	2
East South Central	**0**	**0**	**0**	**156**	**156**	**0**	**0**	**21**
Mississippi	0	0	0	0	0	0	0	0
Tennessee	0	0	0	156	156	0	0	21
West South Central	**0**	**0**	**0**	**33**	**17**	**0**	**0**	**20**
Arkansas	0	0	0	0	0	0	0	86
Louisiana	0	0	0	0	0	0	0	36
Oklahoma	0	0	0	0	0	0	0	0
Texas	0	0	0	123	21	0	0	23
Mountain	**0**	**0**	**0**	**30**	**3**	**0**	**0**	**4**
Arizona	0	0	0	82	82	0	0	5
Colorado	0	0	0	61	61	0	0	32
Idaho	0	0	0	0	0	0	0	0
Nevada	0	0	0	38	3	0	0	2
New Mexico	0	0	0	0	330	0	0	43
Utah	0	0	0	0	0	0	0	0
Pacific Contiguous	**0**	**0**	**0**	**23**	**6**	**0**	**0**	**4**
California	0	0	0	23	7	0	0	4
Oregon	0	0	0	0	31	0	0	12
Washington	0	0	0	0	65	0	0	63
Pacific Noncontiguous	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**14**
Alaska	0	0	0	0	0	0	0	35
Hawaii	0	0	0	0	0	0	0	0
U.S. Total	**0**	**0**	**0**	**12**	**3**	**0**	**5**	**3**

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

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

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

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**0**	**26**	**0**	**13**	**0**	**0**	**0**
Connecticut	0	955	0	19	0	0	0
Maine	0	0	0	0	0	0	0
Massachusetts	0	114	0	19	0	0	0
New Hampshire	0	1	0	0	0	0	0
Rhode Island	0	0	0	0	0	0	0
Vermont	0	0	0	0	0	0	0
Middle Atlantic	**0**	**117**	**0**	**12**	**0**	**0**	**0**
New Jersey	0	0	0	22	0	0	0
New York	0	138	0	16	0	0	0
Pennsylvania	0	224	0	0	0	0	0
East North Central	**0**	**34**	**0**	**6**	**0**	**0**	**0**
Illinois	0	33	0	19	0	0	0
Indiana	0	0	0	0	0	0	0
Michigan	0	131	0	7	0	0	0
Ohio	0	0	0	5	0	0	0
Wisconsin	0	577	0	11	0	0	0
West North Central	**0**	**32**	**0**	**1**	**0**	**0**	**0**
Iowa	0	0	0	2	0	0	0
Minnesota	0	32	0	3	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	979	0	0	0	0	0
South Atlantic	**0**	**3**	**0**	**7**	**0**	**0**	**0**
District of Columbia	0	0	0	0	0	0	0
Florida	0	0	0	0	0	0	0
Georgia	0	31	0	0	0	0	0
Maryland	0	0	0	4	0	0	0
North Carolina	0	265	0	62	0	0	0
South Carolina	0	0	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**	**21**	**0**	**0**	**0**
Arkansas	0	0	0	123	0	0	0
Louisiana	0	0	0	36	0	0	0
Oklahoma	0	0	0	0	0	0	0
Texas	0	0	0	25	0	0	0
Mountain	**0**	**764**	**0**	**10**	**0**	**0**	**0**
Arizona	0	764	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	43	0	0	0
Utah	0	0	0	0	0	0	0
Pacific Contiguous	**0**	**17**	**0**	**4**	**0**	**0**	**611**
California	0	21	0	4	0	0	611
Oregon	0	0	0	0	0	0	0
Washington	0	0	0	0	0	0	0
Pacific Noncontiguous	**63**	**2**	**0**	**0**	**0**	**0**	**58**
Alaska	63	3	0	0	0	0	58
Hawaii	0	0	0	0	0	0	0
U.S. Total	**18**	**11**	**0**	**4**	**0**	**0**	**49**

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

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

Commercial Sector by Census Division and State, Year-to-Date through November 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**	**78**	**12**	**0**	**0**	**10**
Connecticut	0	0	0	110	110	0	0	18
Maine	0	0	0	0	0	0	0	0
Massachusetts	0	0	0	111	35	0	0	17
New Hampshire	0	0	0	0	0	0	0	0
Rhode Island	0	0	0	0	0	0	0	0
Vermont	0	0	0	0	0	0	0	0
Middle Atlantic	**0**	**0**	**0**	**25**	**7**	**0**	**9**	**7**
New Jersey	0	0	0	27	11	0	0	8
New York	0	0	0	79	7	0	7	10
Pennsylvania	0	0	0	146	18	0	46	14
East North Central	**0**	**0**	**0**	**68**	**18**	**0**	**0**	**5**
Illinois	0	0	0	165	163	0	0	19
Indiana	0	0	0	176	16	0	0	1
Michigan	0	0	0	204	5	0	0	6
Ohio	0	0	0	132	35	0	0	6
Wisconsin	0	0	0	121	56	0	0	14
West North Central	**0**	**0**	**0**	**0**	**22**	**0**	**56**	**7**
Iowa	0	0	0	0	25	0	0	5
Kansas	0	0	0	0	154	0	0	154
Minnesota	0	0	0	0	62	0	56	20
Missouri	0	0	0	0	0	0	0	0
Nebraska	0	0	0	0	0	0	0	0
North Dakota	0	0	0	0	297	0	0	293
South Dakota	0	0	0	0	0	0	0	979
South Atlantic	**0**	**0**	**0**	**25**	**8**	**0**	**0**	**5**
Delaware	0	0	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	0	0
Florida	0	0	0	83	27	0	0	20
Georgia	0	0	0	210	210	0	0	107
Maryland	0	0	0	67	35	0	0	4
North Carolina	0	0	0	29	28	0	0	27
South Carolina	0	0	0	0	0	0	0	0
Virginia	0	0	0	189	6	0	0	2
East South Central	**0**	**0**	**0**	**156**	**156**	**0**	**0**	**21**
Mississippi	0	0	0	0	0	0	0	0
Tennessee	0	0	0	156	156	0	0	21
West South Central	**0**	**0**	**0**	**33**	**17**	**0**	**0**	**20**
Arkansas	0	0	0	0	0	0	0	86
Louisiana	0	0	0	0	0	0	0	36
Oklahoma	0	0	0	0	0	0	0	0
Texas	0	0	0	123	21	0	0	23
Mountain	**0**	**0**	**0**	**30**	**3**	**0**	**0**	**4**
Arizona	0	0	0	82	82	0	0	5
Colorado	0	0	0	61	61	0	0	32
Idaho	0	0	0	0	0	0	0	0
Nevada	0	0	0	38	3	0	0	2
New Mexico	0	0	0	0	330	0	0	43
Utah	0	0	0	0	0	0	0	0
Pacific Contiguous	**0**	**0**	**0**	**23**	**6**	**0**	**0**	**4**
California	0	0	0	23	7	0	0	4
Oregon	0	0	0	0	31	0	0	12
Washington	0	0	0	0	65	0	0	63
Pacific Noncontiguous	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**14**
Alaska	0	0	0	0	0	0	0	35
Hawaii	0	0	0	0	0	0	0	0
U.S. Total	**0**	**0**	**0**	**12**	**3**	**0**	**5**	**3**

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

Table A.5.A. Relative Standard Error for Net Generation by Fuel Type: Industrial Sector by Census Division and State, November 2019

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**149**	**33**	**0**	**9**	**0**	**0**	**80**
Connecticut	0	0	0	11	0	0	0
Maine	149	43	0	24	0	0	80
Massachusetts	0	0	0	9	0	0	0
New Hampshire	0	0	0	0	0	0	0
Rhode Island	0	7,880	0	36	0	0	0
Middle Atlantic	**0**	**13**	**0**	**8**	**27**	**0**	**43**
New Jersey	0	0	0	9	0	0	0
New York	0	3	0	7	0	0	43
Pennsylvania	0	44	0	12	36	0	0
East North Central	**7**	**6**	**0**	**5**	**14**	**0**	**34**
Illinois	7	0	0	13	0	0	0
Indiana	0	2	0	6	17	0	0
Michigan	76	36	0	12	0	0	201
Ohio	0	0	0	13	0	0	0
Wisconsin	25	0	0	13	0	0	34
West North Central	**5**	**0**	**0**	**5**	**0**	**0**	**0**
Iowa	2	0	0	6	0	0	0
Kansas	0	0	0	16	0	0	0
Minnesota	55	0	0	0	0	0	0
Missouri	0	0	0	0	0	0	0
Nebraska	9	0	0	0	0	0	0
North Dakota	70	0	0	0	0	0	0
South Atlantic	**40**	**37**	**138**	**5**	**0**	**0**	**32**
Delaware	0	0	0	0	0	0	0
Florida	130	63	0	13	0	0	0
Georgia	94	62	138	20	0	0	0
Maryland	0	0	0	0	0	0	0
North Carolina	22	87	0	24	0	0	482
South Carolina	0	0	0	0	0	0	0
Virginia	0	732	0	8	0	0	0
West Virginia	0	0	0	0	0	0	33
East South Central	**22**	**110**	**0**	**9**	**97**	**0**	**0**
Alabama	246	157	0	17	273	0	0
Kentucky	0	0	0	9	0	0	0
Mississippi	0	0	0	25	0	0	0
Tennessee	0	0	0	4	0	0	0
West South Central	**0**	**1**	**75**	**1**	**9**	**0**	**0**
Arkansas	0	0	0	26	0	0	0
Louisiana	0	0	0	2	11	0	0
Oklahoma	0	0	0	0	0	0	0
Texas	0	1	75	2	10	0	0
Mountain	**24**	**0**	**0**	**4**	**8**	**0**	**0**
Colorado	0	0	0	0	0	0	0
Idaho	156	0	0	26	0	0	0
Montana	88	0	0	34	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	25	0	0	7	8	0	0
Pacific Contiguous	**0**	**110**	**0**	**1**	**4**	**0**	**0**
California	0	0	0	1	4	0	0
Oregon	0	0	0	29	0	0	0
Washington	0	168	0	26	0	0	0
Pacific Noncontiguous	**0**	**3**	**0**	**0**	**0**	**0**	**67**
Alaska	0	16	0	0	0	0	0
Hawaii	0	0	0	0	0	0	67
U.S. Total	**5**	**8**	**47**	**1**	**7**	**0**	**22**

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

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

Industrial Sector by Census Division and State, November 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**	**109**	**9**	**0**	**0**	**7**
Connecticut	0	0	0	956	956	0	0	11
Maine	0	0	0	0	9	0	0	10
Massachusetts	0	0	0	109	142	0	0	9
New Hampshire	0	0	0	0	0	0	0	0
Rhode Island	0	0	0	0	0	0	0	36
Middle Atlantic	**0**	**0**	**0**	**64**	**10**	**0**	**0**	**7**
New Jersey	0	0	0	108	108	0	0	5
New York	0	0	0	109	20	0	0	7
Pennsylvania	0	0	0	118	11	0	0	11
East North Central	**0**	**0**	**0**	**0**	**7**	**0**	**3**	**4**
Illinois	0	0	0	0	0	0	0	5
Indiana	0	0	0	0	30	0	0	9
Michigan	0	0	0	0	11	0	0	7
Ohio	0	0	0	0	17	0	0	9
Wisconsin	0	0	0	0	12	0	65	8
West North Central	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**3**
Iowa	0	0	0	0	0	0	0	2
Kansas	0	0	0	0	0	0	0	16
Minnesota	0	0	0	0	0	0	0	8
Missouri	0	0	0	0	0	0	0	0
Nebraska	0	0	0	0	0	0	0	9
North Dakota	0	0	0	0	144	0	0	40
South Atlantic	**0**	**0**	**0**	**118**	**3**	**0**	**0**	**3**
Delaware	0	0	0	0	70	0	0	1
Florida	0	0	0	186	7	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	6	0	0	6
South Carolina	0	0	0	153	4	0	0	3
Virginia	0	0	0	0	0	0	0	3
West Virginia	0	0	0	0	0	0	0	16
East South Central	**0**	**0**	**0**	**121**	**4**	**0**	**0**	**4**
Alabama	0	0	0	0	5	0	0	6
Kentucky	0	0	0	0	23	0	0	14
Mississippi	0	0	0	0	5	0	0	7
Tennessee	0	0	0	121	9	0	0	4
West South Central	**0**	**0**	**0**	**0**	**5**	**0**	**3**	**1**
Arkansas	0	0	0	0	9	0	0	8
Louisiana	0	0	0	0	7	0	0	2
Oklahoma	0	0	0	0	0	0	0	0
Texas	0	0	0	0	13	0	5	2
Mountain	**0**	**0**	**0**	**97**	**2**	**0**	**0**	**4**
Colorado	0	0	0	0	0	0	0	0
Idaho	0	0	0	153	2	0	0	8
Montana	0	0	0	0	0	0	0	37
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	7
Pacific Contiguous	**0**	**0**	**0**	**54**	**8**	**0**	**3**	**2**
California	0	0	0	54	15	0	3	1
Oregon	0	0	0	0	16	0	0	14
Washington	0	0	0	0	11	0	0	10
Pacific Noncontiguous	**0**	**0**	**0**	**0**	**139**	**0**	**0**	**5**
Alaska	0	0	0	0	139	0	0	7
Hawaii	0	0	0	0	0	0	0	7
U.S. Total	**0**	**0**	**0**	**33**	**2**	**0**	**1**	**1**

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

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

Industrial Sector by Census Division and State, Year-to-Date through November 2019

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	**149**	**33**	**0**	**9**	**0**	**0**	**80**
Connecticut	0	0	0	11	0	0	0
Maine	149	43	0	24	0	0	80
Massachusetts	0	0	0	9	0	0	0
New Hampshire	0	0	0	0	0	0	0
Rhode Island	0	7,880	0	36	0	0	0
Middle Atlantic	**0**	**13**	**0**	**8**	**27**	**0**	**43**
New Jersey	0	0	0	9	0	0	0
New York	0	3	0	7	0	0	43
Pennsylvania	0	44	0	12	36	0	0
East North Central	**7**	**6**	**0**	**5**	**14**	**0**	**34**
Illinois	7	0	0	13	0	0	0
Indiana	0	2	0	6	17	0	0
Michigan	76	36	0	12	0	0	201
Ohio	0	0	0	13	0	0	0
Wisconsin	25	0	0	13	0	0	34
West North Central	**5**	**0**	**0**	**5**	**0**	**0**	**0**
Iowa	2	0	0	6	0	0	0
Kansas	0	0	0	16	0	0	0
Minnesota	55	0	0	0	0	0	0
Missouri	0	0	0	0	0	0	0
Nebraska	9	0	0	0	0	0	0
North Dakota	70	0	0	0	0	0	0
South Atlantic	**40**	**37**	**138**	**5**	**0**	**0**	**32**
Delaware	0	0	0	0	0	0	0
Florida	130	63	0	13	0	0	0
Georgia	94	62	138	20	0	0	0
Maryland	0	0	0	0	0	0	0
North Carolina	22	87	0	24	0	0	482
South Carolina	0	0	0	0	0	0	0
Virginia	0	732	0	8	0	0	0
West Virginia	0	0	0	0	0	0	33
East South Central	**22**	**110**	**0**	**9**	**97**	**0**	**0**
Alabama	246	157	0	17	273	0	0
Kentucky	0	0	0	9	0	0	0
Mississippi	0	0	0	25	0	0	0
Tennessee	0	0	0	4	0	0	0
West South Central	**0**	**1**	**75**	**1**	**9**	**0**	**0**
Arkansas	0	0	0	26	0	0	0
Louisiana	0	0	0	2	11	0	0
Oklahoma	0	0	0	0	0	0	0
Texas	0	1	75	2	10	0	0
Mountain	**24**	**0**	**0**	**4**	**8**	**0**	**0**
Colorado	0	0	0	0	0	0	0
Idaho	156	0	0	26	0	0	0
Montana	88	0	0	34	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	25	0	0	7	8	0	0
Pacific Contiguous	**0**	**110**	**0**	**1**	**4**	**0**	**0**
California	0	0	0	1	4	0	0
Oregon	0	0	0	29	0	0	0
Washington	0	168	0	26	0	0	0
Pacific Noncontiguous	**0**	**3**	**0**	**0**	**0**	**0**	**67**
Alaska	0	16	0	0	0	0	0
Hawaii	0	0	0	0	0	0	67
U.S. Total	**5**	**8**	**47**	**1**	**7**	**0**	**22**

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

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

Industrial Sector by Census Division and State, Year-to-Date through November 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**	**109**	**9**	**0**	**0**	**7**
Connecticut	0	0	0	956	956	0	0	11
Maine	0	0	0	0	9	0	0	10
Massachusetts	0	0	0	109	142	0	0	9
New Hampshire	0	0	0	0	0	0	0	0
Rhode Island	0	0	0	0	0	0	0	36
Middle Atlantic	**0**	**0**	**0**	**64**	**10**	**0**	**0**	**7**
New Jersey	0	0	0	108	108	0	0	5
New York	0	0	0	109	20	0	0	7
Pennsylvania	0	0	0	118	11	0	0	11
East North Central	**0**	**0**	**0**	**0**	**7**	**0**	**3**	**4**
Illinois	0	0	0	0	0	0	0	5
Indiana	0	0	0	0	30	0	0	9
Michigan	0	0	0	0	11	0	0	7
Ohio	0	0	0	0	17	0	0	9
Wisconsin	0	0	0	0	12	0	65	8
West North Central	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**3**
Iowa	0	0	0	0	0	0	0	2
Kansas	0	0	0	0	0	0	0	16
Minnesota	0	0	0	0	0	0	0	8
Missouri	0	0	0	0	0	0	0	0
Nebraska	0	0	0	0	0	0	0	9
North Dakota	0	0	0	0	144	0	0	40
South Atlantic	**0**	**0**	**0**	**118**	**3**	**0**	**0**	**3**
Delaware	0	0	0	0	70	0	0	1
Florida	0	0	0	186	7	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	6	0	0	6
South Carolina	0	0	0	153	4	0	0	3
Virginia	0	0	0	0	0	0	0	3
West Virginia	0	0	0	0	0	0	0	16
East South Central	**0**	**0**	**0**	**121**	**4**	**0**	**0**	**4**
Alabama	0	0	0	0	5	0	0	6
Kentucky	0	0	0	0	23	0	0	14
Mississippi	0	0	0	0	5	0	0	7
Tennessee	0	0	0	121	9	0	0	4
West South Central	**0**	**0**	**0**	**0**	**5**	**0**	**3**	**1**
Arkansas	0	0	0	0	9	0	0	8
Louisiana	0	0	0	0	7	0	0	2
Oklahoma	0	0	0	0	0	0	0	0
Texas	0	0	0	0	13	0	5	2
Mountain	**0**	**0**	**0**	**97**	**2**	**0**	**0**	**4**
Colorado	0	0	0	0	0	0	0	0
Idaho	0	0	0	153	2	0	0	8
Montana	0	0	0	0	0	0	0	37
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	7
Pacific Contiguous	**0**	**0**	**0**	**54**	**8**	**0**	**3**	**2**
California	0	0	0	54	15	0	3	1
Oregon	0	0	0	0	16	0	0	14
Washington	0	0	0	0	11	0	0	10
Pacific Noncontiguous	**0**	**0**	**0**	**0**	**139**	**0**	**0**	**5**
Alaska	0	0	0	0	139	0	0	7
Hawaii	0	0	0	0	0	0	0	7
U.S. Total	**0**	**0**	**0**	**33**	**2**	**0**	**1**	**1**

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

Table A.6.A. Relative Standard Error for Sales of Electricity to Ultimate Customers by End-Use Sector, Census Division, and State, November 2019

Census Region and State	Residential	Commercial	Industrial	Transportation	Total
New England	**0**	**1**	**2**	**0**	**1**
Connecticut	0	1	3	0	1
Maine	1	1	3	0	1
Massachusetts	1	1	5	0	1
New Hampshire	1	1	2	0	1
Rhode Island	0	0	0	0	0
Vermont	2	7	7	0	3
Middle Atlantic	**0**	**0**	**0**	**0**	**0**
New Jersey	0	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	1	2	4	0	2
Ohio	0	1	1	0	0
Wisconsin	1	4	8	0	3
West North Central	**1**	**2**	**4**	**0**	**1**
Iowa	3	9	7	0	4
Kansas	2	2	9	0	3
Minnesota	2	5	9	0	3
Missouri	1	3	7	0	2
Nebraska	2	9	12	0	5
North Dakota	2	5	10	0	5
South Dakota	3	11	16	0	6
South Atlantic	**0**	**0**	**2**	**0**	**0**
Delaware	1	2	5	0	2
District of Columbia	0	0	0	0	0
Florida	1	1	7	0	1
Georgia	1	1	5	0	1
Maryland	0	1	2	0	0
North Carolina	1	1	4	0	1
South Carolina	1	1	4	0	2
Virginia	1	0	5	0	1
West Virginia	0	1	0	0	0
East South Central	**1**	**2**	**2**	**0**	**1**
Alabama	1	1	3	0	1
Kentucky	1	4	3	0	2
Mississippi	2	2	6	0	2
Tennessee	1	3	5	0	2
West South Central	**1**	**1**	**2**	**0**	**1**
Arkansas	2	2	5	0	2
Louisiana	1	1	2	0	1
Oklahoma	1	1	5	0	2
Texas	1	1	2	0	1
Mountain	**1**	**2**	**2**	**0**	**1**
Arizona	1	3	5	0	2
Colorado	2	5	7	0	3
Idaho	1	5	7	0	3
Montana	3	9	6	0	4
Nevada	1	2	1	0	1
New Mexico	3	8	8	0	4
Utah	2	5	3	0	2
Wyoming	3	9	5	0	4
Pacific Contiguous	**0**	**1**	**3**	**0**	**1**
California	0	1	2	0	1
Oregon	1	5	12	0	3
Washington	1	5	9	0	3
Pacific Noncontiguous	**1**	**6**	**5**	**0**	**3**
Alaska	3	12	21	0	7
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 November 2019

Census Region and State	Residential	Commercial	Industrial	Transportation	Total
New England	**0**	**1**	**2**	**0**	**0**
Connecticut	0	1	3	0	1
Maine	0	1	2	0	1
Massachusetts	0	1	5	0	1
New Hampshire	0	1	2	0	1
Rhode Island	0	0	0	0	0
Vermont	1	6	6	0	3
Middle Atlantic	**0**	**0**	**0**	**1**	**0**
New Jersey	0	0	1	0	0
New York	0	0	1	1	0
Pennsylvania	0	0	0	0	0
East North Central	**0**	**1**	**1**	**0**	**0**
Illinois	0	1	1	0	0
Indiana	1	2	2	0	1
Michigan	0	2	3	0	1
Ohio	0	1	1	0	0
Wisconsin	0	3	5	0	2
West North Central	**0**	**2**	**3**	**0**	**1**
Iowa	1	6	5	0	3
Kansas	1	1	6	0	2
Minnesota	1	4	6	0	2
Missouri	1	2	5	0	1
Nebraska	1	6	8	0	3
North Dakota	1	3	7	0	3
South Dakota	1	7	11	0	4
South Atlantic	**0**	**0**	**1**	**0**	**0**
Delaware	1	2	5	0	1
District of Columbia	0	0	0	0	0
Florida	0	0	4	0	0
Georgia	1	1	3	0	1
Maryland	0	0	2	0	0
North Carolina	0	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	3	8	0	2
Washington	0	4	6	0	2
Pacific Noncontiguous	**0**	**4**	**4**	**0**	**2**
Alaska	1	8	14	0	5
Hawaii	0	0	0	0	0
U.S. Total	**0**	**0**	**1**	**0**	**0**

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

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

Census Region and State	Residential	Commercial	Industrial	Transportation	Total
New England	**1**	**1**	**2**	**0**	**1**
Connecticut	5	1	2	0	2
Maine	1	1	2	0	1
Massachusetts	1	1	3	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	1	0	0	0
East North Central	**0**	**1**	**1**	**0**	**0**
Illinois	1	1	1	0	1
Indiana	1	3	2	0	1
Michigan	1	2	5	0	1
Ohio	1	1	1	0	1
Wisconsin	1	3	9	0	2
West North Central	**1**	**2**	**5**	**0**	**1**
Iowa	2	7	10	0	4
Kansas	2	3	7	0	2
Minnesota	2	4	11	0	3
Missouri	2	4	7	0	2
Nebraska	2	8	16	0	5
North Dakota	2	4	10	0	4
South Dakota	3	9	18	0	5
South Atlantic	**1**	**1**	**2**	**0**	**0**
Delaware	2	3	13	0	2
District of Columbia	0	0	0	0	0
Florida	1	1	6	0	1
Georgia	2	2	5	0	1
Maryland	0	1	2	0	0
North Carolina	1	2	4	0	1
South Carolina	2	2	4	0	1
Virginia	1	1	4	0	1
West Virginia	0	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	1	4	6	0	2
West South Central	**1**	**1**	**2**	**0**	**1**
Arkansas	2	3	5	0	2
Louisiana	2	2	2	0	1
Oklahoma	2	3	6	0	2
Texas	2	2	2	0	1
Mountain	**1**	**2**	**3**	**0**	**1**
Arizona	2	3	7	0	2
Colorado	4	5	10	0	3
Idaho	1	5	10	0	2
Montana	2	6	9	0	3
Nevada	2	3	2	0	1
New Mexico	7	8	13	0	5
Utah	5	6	5	0	3
Wyoming	2	7	6	0	4
Pacific Contiguous	**0**	**1**	**2**	**0**	**1**
California	1	1	2	0	0
Oregon	1	3	14	0	3
Washington	1	3	11	0	2
Pacific Noncontiguous	**1**	**3**	**4**	**0**	**2**
Alaska	2	8	19	0	5
Hawaii	0	0	0	0	0
U.S. Total	**0**	**0**	**1**	**0**	**0**

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

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

by End-Use Sector, Census Division, and State, Year-to-Date through November 2019

Census Region and State	Residential	Commercial	Industrial	Transportation	Total
New England	**1**	**1**	**1**	**0**	**1**
Connecticut	4	1	1	0	2
Maine	0	1	1	0	0
Massachusetts	0	1	3	0	0
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**	**1**	**0**
New Jersey	0	0	1	0	0
New York	0	0	1	1	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	**0**	**1**	**3**	**0**	**1**
Iowa	1	4	6	0	2
Kansas	1	2	5	0	1
Minnesota	1	3	7	0	2
Missouri	1	2	4	0	1
Nebraska	1	5	10	0	3
North Dakota	1	3	7	0	3
South Dakota	1	6	12	0	3
South Atlantic	**0**	**0**	**1**	**0**	**0**
Delaware	1	3	6	0	1
District of Columbia	0	0	0	0	0
Florida	0	1	4	0	0
Georgia	1	1	3	0	1
Maryland	0	1	1	0	0
North Carolina	1	1	3	0	1
South Carolina	1	1	3	0	1
Virginia	1	1	3	0	0
West Virginia	0	1	0	0	0
East South Central	**1**	**1**	**2**	**0**	**1**
Alabama	1	1	2	0	1
Kentucky	1	3	2	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	1	2	4	0	1
Colorado	2	4	6	0	2
Idaho	1	3	4	0	1
Montana	1	4	7	0	2
Nevada	0	2	1	0	1
New Mexico	2	6	9	0	3
Utah	2	4	3	0	2
Wyoming	1	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**

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

Table A.8.A. Relative Standard Error for Average Price of Electricity to Ultimate Customers by End-Use Sector, Census Division, and State, November 2019

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

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

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

by End-Use Sector, Census Division, and State, Year-to-Date through November 2019

Census Region and State	Residential	Commercial	Industrial	Transportation	Total
New England	**1**	**1**	**2**	**0**	**1**
Connecticut	4	1	3	0	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	1
Indiana	1	3	2	0	1
Michigan	0	2	4	0	1
Ohio	0	1	1	0	0
Wisconsin	1	3	7	0	2
West North Central	**0**	**2**	**4**	**0**	**1**
Iowa	1	7	7	0	3
Kansas	1	2	7	0	2
Minnesota	1	4	8	0	3
Missouri	1	3	6	0	1
Nebraska	1	7	11	0	4
North Dakota	1	4	9	0	4
South Dakota	1	9	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	**0**	**2**	**2**	**0**	**1**
Alabama	1	2	3	0	1
Kentucky	1	4	3	0	2
Mississippi	1	2	6	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	5	0	1
Colorado	1	5	7	0	3
Idaho	1	4	4	0	2
Montana	1	7	8	0	3
Nevada	0	2	1	0	1
New Mexico	2	8	10	0	4
Utah	2	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	9	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	. .	. .	. Hours, . 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		
2019	1	. .	. .	. 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		116600
2019	1	. .	. .	. 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	133200	
2019	1	. .	. .	. Hours, . 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		230000
2019	1	. .	. .	. Hours, . Minutes	Prairie Power, Inc.	SERC	Illinois: Pike County;	Fuel supply emergencies that could impact electric power system adequacy or reliability.-Severe Weather		
2019	1	. .	. .	. Hours, . 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	. .	. .	. Hours, . 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	. .	. .	. Hours, . 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		
2019	1	. .	. .	. Hours, . Minutes	Prairie Power, Inc.	SERC	Illinois: Scott County;	Fuel supply emergencies that could impact electric power system adequacy or reliability.-Fuel Supply Deficiency		
2019	1	. .	. .	. Hours, . 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	
2019	1	. .	. .	. Hours, . Minutes	Pacific Gas & Electric Co	WECC	California:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	190	126700
2019	1	. .	. .	. Hours, . 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	. .	. .	. Hours, . 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	. .	. .	. Hours, . 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		112530
2019	2	. .	. .	. Hours, . 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		118781
2019	2	. .	. .	. Hours, . 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	. .	. .	. Hours, . Minutes	Ohio Edison Co	RF	Ohio	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		157274
2019	2	. .	. .	. Hours, . Minutes	Pacific Gas & Electric Co	WECC	California	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	182	121000
2019	2	. .	. .	. Hours, . 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	. .	. .	. Hours, . 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	. .	. .	. Hours, . Minutes	Monongahela Power Co	RF	Pennsylvania	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		94048
2019	2	. .	. .	. Hours, . Minutes	Puget Sound Energy	WECC	Washington	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		50940

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	. .	. .	. Hours, . Minutes	Duquesne Light Co	RF	Pennsylvania	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		132000
2019	2	. .	. .	. Hours, . Minutes	West Penn Power Company	RF	Pennsylvania	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		137216
2019	2	. .	. .	. Hours, . Minutes	Consumers Energy Co	RF	Michigan	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		115000
2019	2	. .	. .	. 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		
2019	2	. .	. .	. Hours, . Minutes	Consumers Energy Co	RF	Michigan	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		233000
2019	2	. .	. .	. Hours, . 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	2	. .	. .	. Hours, . 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		72332
2019	3	. .	. .	. Hours, . 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		66000
2019	3	. .	. .	. Hours, . 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	3	. .	. .	. Hours, . 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	. .	. .	. Hours, . 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		154124
2019	4	. .	. .	. 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
2019	4	. .	. .	. Hours, . 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	. .	. .	. Hours, . 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	. .	. .	. Hours, . 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	. .	. .	. Hours, . 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
2019	4	. .	. .	. Hours, . 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	. .	. .	. Hours, . 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		60467
2019	4	. .	. .	. Hours, . 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	. .	. .	. Hours, . 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

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	. .	. .	. Hours, . 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	. .	. .	. 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		54071
2019	4	. .	. .	. Hours, . Minutes	Dominion Virginia Power	SERC	Virginia:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		75290
2019	4	. .	. .	. Hours, . 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	. .	. .	. Hours, . 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	5	. .	. .	. Hours, . 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		68000
2019	5	. .	. .	. Hours, . 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	5	. .	. .	. Hours, . 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	. .	. .	. Hours, . 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	. .	. .	. Hours, . Minutes	Dominion Energy VA	SERC	Virginia:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		100000
2019	5	. .	. .	. Hours, . Minutes	Entergy Corp	TRE	Texas:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		61008
2019	5	. .	. .	. Hours, . 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	. .	. .	. Hours, . 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	. .	. .	. Hours, . 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		65844
2019	5	. .	. .	. Hours, . 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	6	. .	. .	. Hours, . 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	. .	. .	. Hours, . 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	. .	. .	. Hours, . 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		100000
2019	6	. .	. .	. Hours, . 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

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	. .	. .	. 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	. .	. .	. Hours, . Minutes	Entergy Corp	SPP RE	Arkansas:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		56451
2019	6	. .	. .	. Hours, . 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	. .	. .	. Hours, . 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		265000
2019	6	. .	. .	. 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		50000
2019	6	. .	. .	. Hours, . Minutes	Dominion Energy VA	SERC	Virginia:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		60000
2019	6	. .	. .	. Hours, . Minutes	Entergy Corp	SPP RE	Arkansas:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		82045
2019	6	. .	. .	. Hours, . 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		340000
2019	6	. .	. .	. Hours, . 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	. .	. .	. Hours, . 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		558000
2019	6	. .	. .	. 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		
2019	6	. .	. .	. Hours, . 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
2019	6	. .	. .	. Hours, . 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	. .	. .	. Hours, . Minutes	CPS Energy	TRE	Texas: Bexar County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		55017
2019	6	. .	. .	. Hours, . 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		
2019	7	. .	. .	. Hours, . 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
2019	7	. .	. .	. Hours, . 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	. .	. .	. Hours, . 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	. .	. .	. Hours, . 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	. .	. .	. Hours, . 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		165000

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	. .	. .	. Hours, . 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		160000
2019	7	. .	. .	. Hours, . 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	. .	. .	. Hours, . Minutes	Detroit Edison Co	RF	Michigan:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		400000
2019	7	. .	. .	. Hours, . Minutes	Entergy Corp	SERC	Louisiana:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		55730
2019	7	. .	. .	. Hours, . 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		63000
2019	7	. .	. .	. Hours, . 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	. .	. .	. Hours, . 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		13720
2019	7	. .	. .	. Hours, . 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		57000
2019	7	. .	. .	. Hours, . 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	. .	. .	. Hours, . 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	8	. .	. .	. Hours, . 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	. .	. .	. Hours, . 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
2019	8	. .	. .	. Hours, . 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		
2019	8	. .	. .	. Hours, . 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	. .	. .	. Hours, . 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		5600
2019	8	. .	. .	. Hours, . 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	
2019	8	. .	. .	. Hours, . 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	. .	. .	. 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	

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	. .	. .	. Hours, . 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		
2019	8	. .	. .	. Hours, . 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		103779
2019	8	. .	. .	. Hours, . 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		95000
2019	8	. .	. .	. Hours, . 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	. .	. .	. Hours, . 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	. .	08/19/2079 12:00 AM	. Hours, . 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	9	. .	. .	. Hours, . Minutes	Dominion Energy South Carolina	SERC	South Carolina:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		172278
2019	9	. .	. .	. Hours, . Minutes	Tucson Electric Power	WECC	Arizona: Pima County;	Fuel supply emergencies that could impact electric power system adequacy or reliability.-Fuel Supply Deficiency	0	0
2019	9	. .	. .	. Hours, . Minutes	Pacific Gas & Electric Co	WECC	California: Alameda County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Distribution Interruption		50072
2019	9	. .	. .	. Hours, . Minutes	Pacific Gas & Electric Co	WECC	California: Napa County, Nevada County, Placer County, Plumas County, Sonoma County, Butte County, Yuba County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	25	69524
2019	9	. .	. .	. Hours, . Minutes	Consumers Energy Co	RF	Michigan: Ionia County, Kent County, Barry County, Montcalm County, Allegan County, Ottawa County, Newaygo County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		54000
2019	9	. .	. .	. Hours, . Minutes	Pacificorp	WECC	Wyoming: Sweetwater 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	885	0
2019	9	. .	. .	. Hours, . Minutes	Dominion Energy VA	SERC	North Carolina:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		77000
2019	9	. .	. .	. Hours, . 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		116000
2019	9	. .	. .	. Hours, . 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	3	2000
2019	9	. .	. .	. Hours, . 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		
2019	10	. .	. .	. Hours, . Minutes	Tennessee Valley Authority	SERC	Tennessee:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		70000
2019	10	. .	. .	. Hours, . 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		101683
2019	10	. .	. .	. Hours, . Minutes	Entergy Corp	SERC	Louisiana:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		82124
2019	10	. .	. .	. Hours, . Minutes	Pacific Gas & Electric Co	WECC	California:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather/Transmission Interruption	3190	972000
2019	10	. .	. .	. Hours, . 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	10	. .	. .	. Hours, . Minutes	American Electric Power - Texas	TRE	Texas: Hidalgo County, Cameron 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		
2019	10	. .	. .	. 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

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	10	. .	. .	. Hours, . Minutes	FirstEnergy Corp	RF	Ohio: Lorain 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	10	. .	. .	. Hours, . Minutes	American Electric Power - Texas	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	0	0
2019	10	. .	. .	. Hours, . Minutes	Pacific Gas & Electric Co	WECC	California:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather/Transmission Interruption		50000
2019	10	. .	. .	. Hours, . Minutes	Pacific Gas & Electric Co	WECC	California:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather/Transmission Interruption	2400	737808
2019	10	. .	. .	. 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
2019	10	. .	. .	. Hours, . Minutes	Oncor Electric Delivery Company LLC	TRE	Texas: Cass County, Cameron County, Collin County, Dallas County, Ellis County, Erath County, Hunt County, Kaufman County, Lamar County, Panola County, Rains County, Rockwall County, Rusk County, Tarrant County, Van Zandt County, Wood County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		400000
2019	10	. .	. .	. Hours, . Minutes	Exelon Corporation/PECO	RF	Pennsylvania:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather/Distribution Interruption		53943
2019	10	. .	. .	. 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
2019	10	. .	. .	. Hours, . Minutes	Western Area Power Administration - Upper Great Plains Region	MRO	South Dakota: Codington County; 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	10	. .	. .	. Hours, . Minutes	Southern California Edison Co	WECC	California: Los Angeles County, Orange County, Riverside County, San Bernardino County, Ventura County, Kern County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather/Distribution Interruption	285	114402
2019	11	. .	. .	. Hours, . Minutes	Detroit Edison Co	RF	Michigan: Tuscola County, Sanilac County, Huron County, St. Clair County, Macomb County, Oakland County, Wayne County, Livingston County, Washtenaw County, Monroe County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	30	107000
2019	11	. .	. .	. Hours, . Minutes	Pacific Gas & Electric Co	WECC	California:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	300	93000
2019	11	. .	. .	. Hours, . Minutes	Pacific Gas & Electric Co	WECC	California: Colusa County, Lake County, Mendocino County, Napa County, Solano County, Sonoma County, Yolo County, Shasta County, Tehama County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather/Transmission Interruption	178	54000
2019	11	. .	. .	. Hours, . Minutes	Pacificorp	WECC	Utah: California: Oregon: Wyoming:	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	72	
2019	11	. .	. .	. Hours, . Minutes	JEA	FRCC	Florida: Duval 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	1500	
2019	11	. .	. .	. Hours, . Minutes	Northern States Power Co	MRO	Minnesota: Sherburne 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	11	. .	. .	. Hours, . Minutes	New York State Electric & Gas	NPCC	New York: Broome County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		66325
2019	11	. .	. .	. Hours, . Minutes	ISO New England	NPCC	Connecticut: Maine: Massachusetts: Rhode Island: New Hampshire: Vermont:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		80066
2019	11	. .	. .	. 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		8000

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

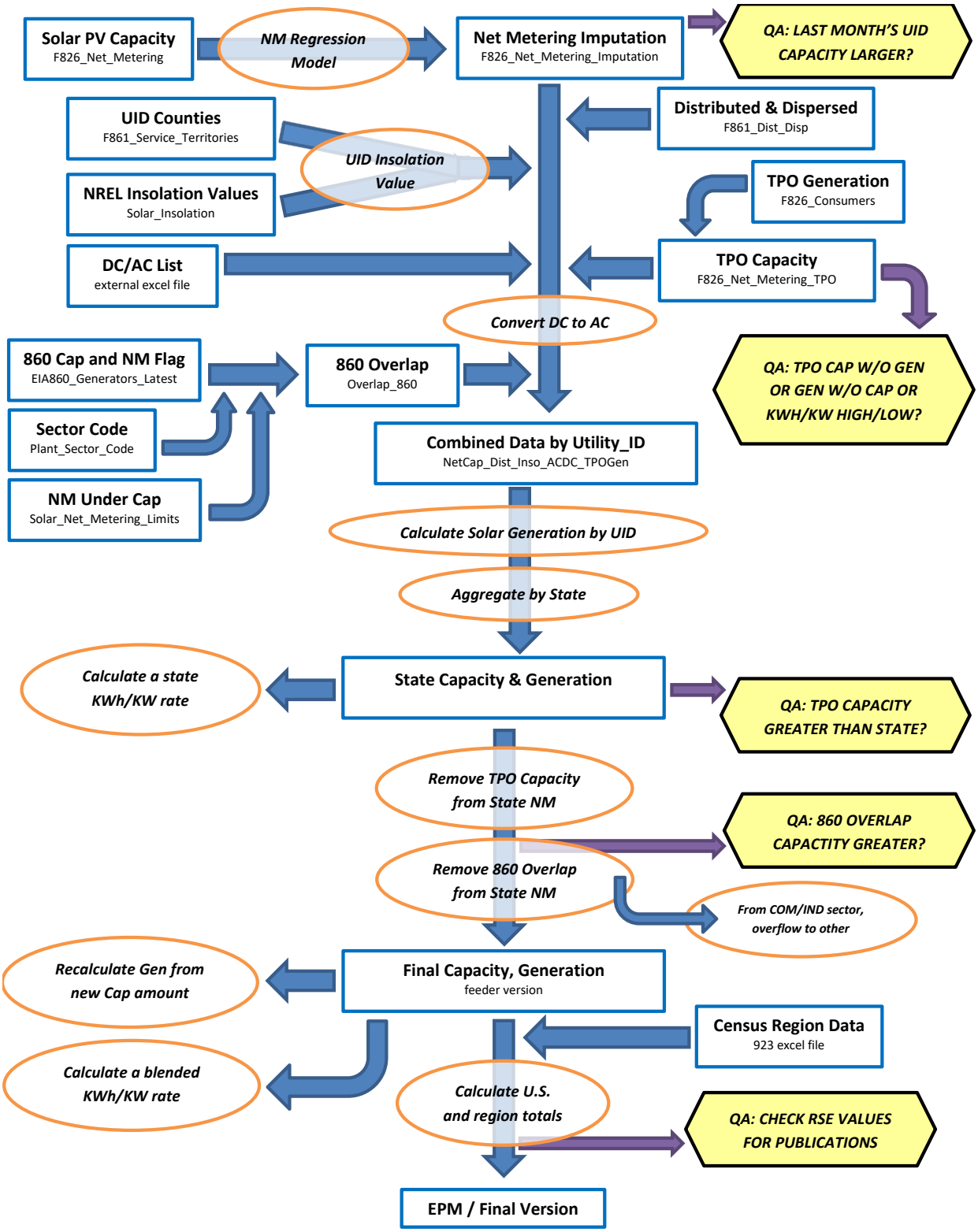
TMY3 (1991-2005) Weather Stations by MSA

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, November 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	25.10	5.95	--	1.04
Connecticut	--	5.80	--	1.04
Maine	24.70	6.25	--	1.04
Massachusetts	--	5.79	--	1.03
New Hampshire	25.40	5.70	--	1.03
Rhode Island	--	--	--	1.03
Vermont	--	--	--	--
Middle Atlantic	22.51	6.23	--	1.03
New Jersey	26.09	5.80	--	1.04
New York	26.05	6.34	--	1.03
Pennsylvania	22.37	5.90	--	1.03
East North Central	20.38	5.79	27.67	1.05
Illinois	17.84	5.79	--	1.01
Indiana	22.17	5.76	--	1.06
Michigan	18.57	5.89	27.56	1.06
Ohio	24.81	5.78	--	1.06
Wisconsin	18.83	5.88	28.04	1.02
West North Central	16.53	5.79	--	1.08
Iowa	17.53	5.75	--	1.10
Kansas	16.97	5.76	--	1.04
Minnesota	17.66	5.80	--	1.10
Missouri	17.81	5.80	--	1.04
Nebraska	17.02	--	--	1.06
North Dakota	13.00	5.99	--	1.00
South Dakota	16.47	--	--	--
South Atlantic	23.75	5.84	28.32	1.03
Delaware	--	--	--	1.04
District of Columbia	--	--	--	--
Florida	23.61	5.91	28.32	1.02
Georgia	19.80	5.91	--	1.03
Maryland	25.68	5.82	--	1.05
North Carolina	24.97	5.80	--	1.03
South Carolina	25.12	5.79	--	1.03
Virginia	21.30	5.85	--	1.05
West Virginia	24.91	5.81	--	1.08
East South Central	20.25	5.76	--	1.03
Alabama	18.96	5.69	--	1.03
Kentucky	21.50	5.80	--	1.04
Mississippi	14.40	5.80	--	1.03
Tennessee	22.32	5.77	--	1.00
West South Central	16.10	5.86	28.90	1.03
Arkansas	17.42	5.88	--	1.03
Louisiana	16.75	5.90	28.90	1.03
Oklahoma	17.28	5.80	--	1.05
Texas	15.78	5.68	--	1.02
Mountain	18.29	5.76	--	1.05
Arizona	18.15	5.74	--	1.03
Colorado	18.51	--	--	1.12
Idaho	--	--	--	1.00
Montana	16.68	--	--	1.05
Nevada	19.23	5.79	--	1.05
New Mexico	18.46	5.66	--	1.03
Utah	21.60	5.88	--	1.04
Wyoming	17.28	5.80	--	1.05
Pacific Contiguous	17.47	5.95	--	1.04
California	23.19	--	--	1.03
Oregon	17.54	5.93	--	1.05
Washington	16.62	6.00	--	1.09
Pacific Noncontiguous	18.20	6.13	--	1.00
Alaska	14.65	5.60	--	1.00
Hawaii	19.99	6.13	--	--
U.S. Total	19.02	6.08	28.62	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, 2016 through 2018

	Mean Absolute Value of Percent Change Total (All Sectors)		
Item	**2016**	**2017**	**2018**
Net Generation			
Coal	0.09%	0.17%	0.12%
Petroleum Liquids	3.08%	3.76%	2.56%
Petroleum Coke	1.46%	5.79%	5.97%
Natural Gas	0.30%	1.93%	1.09%
Other Gases	3.76%	11.64%	10.59%
Hydroelectric	0.76%	2.47%	2.37%
Nuclear	0.05%	0.00%	0.00%
Other	0.76%	2.50%	1.66%
Total	**0.08%**	**0.63%**	**0.20%**
Consumption of Fossil Fuels for Electricity Generation			
Coal	0.11%	0.13%	0.17%
Petroleum Liquids	5.81%	4.01%	5.23%
Petroleum Coke	0.87%	4.95%	10.63%
Natural Gas	2.26%	1.08%	0.79%
Fuel Stocks for Electric Power Sector			
Coal	0.72%	0.18%	0.09%
Petroleum Liquids	3.19%	1.97%	5.34%
Petroleum Coke	0.27%	14.42%	2.29%
Retail Sales			
Residential	0.26%	0.31%	0.34%
Commercial	0.55%	0.28%	0.37%
Industrial	4.31%	4.00%	5.12%
Transportation	0.06%	0.12%	0.95%
Total	**1.40%**	**1.12%**	**1.55%**
Revenue			
Residential	0.28%	0.26%	0.21%
Commercial	1.21%	0.28%	0.49%
Industrial	4.54%	3.52%	4.88%
Transportation	1.53%	0.21%	1.63%
Total	**1.34%**	**0.57%**	**1.06%**
Average Retail Price			
Residential	0.05%	0.21%	0.16%
Commercial	0.65%	0.20%	0.16%
Industrial	0.24%	0.51%	0.35%
Transportation	1.57%	0.20%	0.80%
Total	**0.10%**	**0.53%**	**0.48%**
Receipt of Fossil Fuels			
Coal	1.92%	1.30%	0.33%
Petroleum Liquids	1.16%	3.18%	11.02%
Petroleum Coke	0.01%	0.00%	0.00%
Natural Gas	0.21%	19.49%	8.23%
Cost of Fossil Fuels			
Coal	0.12%	0.83%	0.24%
Petroleum Liquids	0.26%	0.34%	1.04%
Petroleum Coke	0.12%	0.00%	0.00%
Natural Gas	0.12%	0.47%	0.54%

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, 2016 through 2018

	2016			2017			2018		
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	1,240,108	1,239,149	-0.08%	1,207,901	1,205,835	-0.17%	1,146,393	1,145,962	-0.04%
Petroleum Liquids	12,675	13,008	2.63%	12,583	12,414	-1.34%	15,742	16,245	3.19%
Petroleum Coke	11,232	11,197	-0.31%	8,508	8,976	5.50%	8,830	8,981	1.71%
Natural Gas	1,380,295	1,378,307	-0.14%	1,272,864	1,296,415	1.85%	1,468,013	1,468,727	0.05%
Other Gases	13,000	12,807	-1.48%	14,159	12,469	-11.94%	12,191	13,463	10.43%
Hydroelectric	259,143	261,126	0.77%	293,550	293,839	0.10%	285,819	286,619	0.28%
Nuclear	805,327	805,694	0.05%	804,950	804,950	0.00%	807,078	807,084	0.00%
Other	357,299	355,387	-0.54%	400,289	399,373	-0.23%	433,744	427,317	-1.48%
Total	**4,079,079**	**4,076,675**	**-0.06%**	**4,014,804**	**4,034,271**	**0.48%**	**4,177,810**	**4,174,398**	**-0.08%**
Consumption of Fossil Fuels for Electricity Generation									
Coal (1,000 tons)	678,005	677,371	-0.09%	663,479	663,911	0.07%	635,833	636,213	0.06%
Petroleum Liquids (1,000 barrels)	21,225	22,405	5.56%	21,935	21,696	-1.09%	27,245	28,614	5.02%
Petroleum Coke (1,000 tons)	4,275	4,253	-0.52%	3,349	3,490	4.21%	3,311	3,623	9.40%
Natural Gas (1,000 Mcf)	10,400,189	10,170,110	-2.21%	9,440,777	9,507,760	0.71%	10,855,155	10,831,005	-0.22%
Fuel Stocks for Electric Power Sector									
Coal (1,000 tons)	163,946	162,009	-1.18%	137,155	137,687	0.39%	102,786	103,043	0.25%
Petroleum Liquids (1,000 barrels)	30,880	31,839	3.11%	28,723	29,294	1.99%	25,082	27,337	8.99%
Petroleum Coke (1,000 tons)	872	845	-3.10%	1,113	864	-22.42%	541	539	-0.27%
Retail Sales (Million kWh)									
Residential	1,407,394	1,411,058	0.26%	1,378,819	1,378,648	-0.01%	1,464,373	1,469,096	0.32%
Commercial	1,359,617	1,367,191	0.56%	1,349,208	1,352,888	0.27%	1,376,741	1,381,761	0.36%
Industrial	936,269	976,715	4.32%	946,443	984,298	4.00%	953,076	1,001,597	5.09%
Transportation	7,499	7,497	-0.03%	7,524	7,523	-0.02%	7,738	7,665	-0.94%
Total	**3,710,779**	**3,762,462**	**1.39%**	**3,681,995**	**3,723,356**	**1.12%**	**3,801,928**	**3,860,119**	**1.53%**
Revenue (Million Dollars)									
Residential	176,585	177,077	0.28%	177,860	177,661	-0.11%	188,742	189,033	0.15%
Commercial	140,937	142,643	1.21%	144,108	144,242	0.09%	146,696	147,426	0.50%
Industrial	63,201	66,068	4.54%	65,394	67,691	3.51%	66,090	69,296	4.85%
Transportation	711	722	1.53%	727	728	0.15%	756	744	-1.65%
Total	**381,435**	**386,509**	**1.33%**	**388,089**	**390,322**	**0.58%**	**402,283**	**406,498**	**1.05%**
Average Retail Price (Cents/kWh)									
Residential	12.55	12.55	0.02%	12.90	12.89	-0.10%	12.89	12.87	-0.17%
Commercial	10.37	10.43	0.65%	10.68	10.66	-0.18%	10.66	10.67	0.13%
Industrial	6.75	6.76	0.21%	6.91	6.88	-0.47%	6.93	6.92	-0.23%
Transportation	9.48	9.63	1.55%	9.67	9.68	0.17%	9.77	9.70	-0.71%
Total	**10.28**	**10.27**	**-0.06%**	**10.54**	**10.48**	**-0.54%**	**10.58**	**10.53**	**-0.48%**
Receipt of Fossil Fuels									
Coal (1,000 tons)	638,564	650,770	1.91%	634,118	642,364	1.30%	594,683	596,215	0.26%
Petroleum Liquids (1,000 barrels)	16,610	16,807	1.18%	15,619	16,127	3.25%	19,717	22,290	13.05%
Petroleum Coke (1,000 tons)	4,166	4,166	0.01%	3,309	3,309	0.00%	3,010	3,010	0.00%
Natural Gas (1,000 Mcf)	10,258,688	10,271,180	0.12%	8,050,520	9,628,733	19.60%	10,039,232	10,885,764	8.43%
Cost of Fossil Fuels (Dollars per Million Btu)									
Coal (1,000 tons)	2.12	2.11	-0.15%	2.08	2.06	-0.87%	2.06	2.06	-0.22%
Petroleum Liquids (1,000 barrels)	9.36	9.39	0.28%	11.82	11.86	0.36%	14.24	14.40	1.16%
Petroleum Coke (1,000 tons)	1.65	1.65	0.15%	2.13	2.13	0.00%	2.54	2.54	0.00%
Natural Gas (1,000 Mcf)	2.88	2.87	-0.06%	3.39	3.37	-0.55%	3.55	3.55	0.03%

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 2018 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.