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Requests for additional information on other statistics available from the U.S. Energy Information Administration or questions concerning subscriptions and report distribution may be directed to the Office of Communications of the U.S. Energy Information Administration at infoctr@eia.gov.

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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Fuel	Facility Type	Total (All Sectors)				Net Generation and Consumption of Fuels for July				Commercial		Industrial		Residential	
		July 2020	July 2019	Percentage Change	Electric Utilities		Independent Power Producers		July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	
					July 2020	July 2019	July 2020	July 2019							
Net Generation (Thousand Megawatthours)															
Coal	Utility Scale Facilities	89,663	100,981	-11.2%	69,357	77,053	19,834	23,342	19	NM	453	566	0	0	
Petroleum Liquids	Utility Scale Facilities	950	1,029	-7.6%	689	715	220	274	10	10	32	30	0	0	
Petroleum Coke	Utility Scale Facilities	869	746	16.4%	678	551	138	NM	0	0	53	118	0	0	
Natural Gas	Utility Scale Facilities	185,407	174,341	6.3%	87,423	84,147	77,551	8,293	809	813	8,293	8,554	0	0	
Other Gas	Utility Scale Facilities	878	1,290	-32.0%	6	18	144	380	0	0	728	882	0	0	
Nuclear	Utility Scale Facilities	69,385	72,199	-3.9%	37,583	39,023	31,802	33,176	0	0	0	0	0	0	
Hydroelectric/Conventional	Utility Scale Facilities	25,960	23,730	9.4%	24,157	21,637	1,690	1,983	23	NM	90	94	0	0	
Renewable Sources Excluding Hydroelectric	Utility Scale Facilities	39,059	36,761	6.3%	4,704	4,281	31,824	29,751	296	296	2,234	2,433	0	0	
... Wind	Utility Scale Facilities	22,700	22,024	3.1%	3,221	3,138	19,396	18,865	12	12	71	NM	0	0	
... Solar Thermal and Photovoltaic	Utility Scale Facilities	10,284	8,169	25.9%	1,061	655	9,135	7,434	76	70	12	9	0	0	
... Wood and Wood-Derived Fuels	Utility Scale Facilities	3,119	3,669	-12.6%	242	314	776	885	13	16	2,089	2,354	0	0	
... Other Biomass	Utility Scale Facilities	1,506	1,587	-5.1%	92	90	1,187	1,272	165	164	62	61	0	0	
Hydroelectric/Pumped Storage	Utility Scale Facilities	1,448	1,412	2.7%	88	83	1,330	1,296	30	33	0	0	0	0	
... Geothermal	Utility Scale Facilities	-686	-622	-10.2%	-595	-505	-91	-118	0	0	0	0	0	0	
Other Energy Sources	Utility Scale Facilities	1,094	1,162	-5.8%	42	40	609	640	90	91	354	381	0	0	
All Energy Sources	Utility Scale Facilities	412,579	411,616	0.2%	228,778	230,233	170,316	167,067	1,247	1,247	12,237	13,088	0	0	
Estimated Small Scale Solar Photovoltaic	Small Scale Facilities	4,408	3,772	16.9%	0	0	0	0	1,389	1,184	370	321	2,670	2,267	
Estimated Total Solar Photovoltaic	All Facilities	14,249	11,541	23.5%	1,057	654	8,695	7,036	1,445	1,254	382	330	2,670	2,267	
Estimated Total Solar	All Facilities	14,693	11,941	23.1%	1,061	655	9,135	7,434	1,445	1,254	382	330	2,670	2,267	
Consumption of Fossil Fuels for Electricity Generation															
Coal (1000 tons)	Utility Scale Facilities	49,693	56,062	-11.4%	38,107	42,233	11,434	13,617	5	6	147	205	0	0	
Petroleum Liquids (1000 barrels)	Utility Scale Facilities	1,720	1,820	-5.5%	1,267	1,287	397	475	25	25	32	33	0	0	
Petroleum Coke (1000 tons)	Utility Scale Facilities	346	314	10.2%	270	227	62	61	0	0	14	25	0	0	
Natural Gas (1000 Mcf)	Utility Scale Facilities	1,395,122	1,294,629	7.8%	717,125	673,371	621,023	565,943	4,922	5,022	52,052	50,313	0	0	
Consumption of Fossil Fuels for Useful Thermal Output															
Coal (1000 tons)	Utility Scale Facilities	856	969	-11.7%	162	186	52	87	31	34	612	662	0	0	
Petroleum Liquids (1000 barrels)	Utility Scale Facilities	144	120	20.4%	3	4	17	14	26	25	98	76	0	0	
Petroleum Coke (1000 tons)	Utility Scale Facilities	71	79	-10.1%	1	2	7	8	0	0	64	69	0	0	
Natural Gas (1000 Mcf)	Utility Scale Facilities	106,597	104,637	1.9%	4,930	4,606	30,967	29,104	6,770	6,792	63,931	63,934	0	0	
Consumption of Fossil Fuels for Electricity Generation and Useful Thermal Output															
Coal (1000 tons)	Utility Scale Facilities	50,549	57,031	-11.4%	38,268	42,419	11,486	13,704	36	40	759	867	0	0	
Petroleum Liquids (1000 barrels)	Utility Scale Facilities	1,864	1,939	-3.9%	1,270	1,291	414	489	50	50	130	109	0	0	
Petroleum Coke (1000 tons)	Utility Scale Facilities	417	393	6.1%	271	230	69	69	0	0	78	95	0	0	
Natural Gas (1000 Mcf)	Utility Scale Facilities	1,501,719	1,399,265	7.3%	722,054	678,178	651,990	595,047	11,692	11,794	115,993	114,247	0	0	
Fuel Stocks (end-of-month)															
Coal (1000 tons)	Utility Scale Facilities	138,676	111,505	24.5%	110,991	89,638	27,363	21,295	57	51	465	521	0	0	
Petroleum Liquids (1000 barrels)	Utility Scale Facilities	27,832	27,458	1.4%	16,572	16,750	9,990	9,100	395	385	876	1,223	0	0	
Petroleum Coke (1000 tons)	Utility Scale Facilities	528	478	10.5%	424	348	19	8	1	1	84	122	0	0	
Sales, Revenue, and Average Price of Electricity to Ultimate Customers for July															
Total U.S. Electric Power Industry															
Sector	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)								
	July 2020	July 2019	Percentage Change	July 2020	July 2019	Percentage Change	July 2020	July 2019	Percentage Change						
Residential	166,773	153,141	8.9%	22,111	20,346	8.7%	13.26	13.29	-0.2%						
Commercial	126,048	130,429	-3.4%	13,722	14,355	-4.4%	10.89	11.01	-1.1%						
Industrial	81,314	86,057	-5.5%	6,186	6,186	-5.8%	7.19	7.19	-0.3%						
Transportation	555	646	-14.1%	96	101	-4.9%	10.16	9.88	2.8%						
All Sectors	374,690	370,272	1.2%	40,950	41,719	-1.9%	11.13	11.06	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.
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 2020 and 2019

Fuel	Net Generation and Consumption of Fuels for January through July																	
	Total (All Sectors)			Electric Utilities			Independent Power Producers			Commercial			Industrial			Residential		
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	Percentage Change
Net Generation (Thousand Megawatts-hours)	414,029	571,110	-27.5%	312,025	427,654	-27.5%	98,620	139,550	-29.0%	138	168	-17.2%	3,246	3,738	-13.2%	0	0	0
Coal	5,504	6,724	-16.7%	4,117	4,657	-11.6%	1,116	1,741	-35.9%	50	61	-18.0%	220	265	-17.0%	0	0	0
Petroleum Liquids	4,800	4,720	1.7%	3,596	3,439	4.6%	897	870	3.0%	2	4	-50.0%	305	407	-25.0%	0	0	0
Petroleum Coke	935,600	873,534	7.1%	470,044	433,095	8.5%	404,373	379,829	6.5%	4,760	4,919	-3.0%	56,424	55,990	0.8%	0	0	0
Natural Gas	6,927	7,963	-13.0%	47	106	-55.7%	1,640	2,465	-33.5%	0	0	0	5,392	5,392	0	0	0	0
Nuclear	484,250	472,203	2.6%	253,124	251,610	0.6%	211,126	220,593	-4.3%	0	0	0	0	0	0	0	0	0
Hydroelectric Conventional	176,452	176,452	0.0%	161,351	161,590	-0.1%	14,265	14,140	0.9%	144	140	2.9%	682	676	0.9%	0	0	0
Renewable Sources Excluding Hydroelectric	293,797	262,071	12.1%	38,191	32,943	16.2%	237,625	210,999	12.6%	1,970	1,954	0.8%	15,811	16,175	-2.3%	0	0	0
... Wind	197,663	174,894	13.0%	29,632	25,945	14.2%	167,758	148,775	12.8%	111	109	1.8%	182	65	64.3%	0	0	0
... Solar, Thermal and Photovoltaic	54,023	43,693	23.9%	5,973	3,927	47.5%	47,584	39,248	21.2%	406	370	9.2%	59	48	22.9%	0	0	0
... Wood and Wood-Derived Fuels	21,935	23,256	-5.7%	1,401	1,888	-25.9%	5,411	5,733	-4.9%	44	54	-18.5%	15,079	15,580	-3.2%	0	0	0
... Other Biomass	10,697	10,802	-1.1%	634	636	-0.3%	8,418	8,418	0.0%	1,144	1,162	-1.5%	491	483	1.6%	0	0	0
... Geothermal	9,470	9,527	-0.6%	550	547	0.5%	8,654	8,721	-0.8%	265	259	2.3%	0	0	0	0	0	0
Hydroelectric Pumped Storage	-2,882	-2,600	10.9%	-2,327	-2,001	16.3%	-598	-598	0	0	0	0	0	0	0	0	0	0
Other Energy Sources	7,382	7,691	-4.0%	277	269	2.9%	4,114	4,199	-2.0%	597	624	-4.3%	2,394	2,599	-8.3%	0	0	0
All Energy Sources	2,305,859	2,381,041	-3.2%	1,240,445	1,313,360	-6.3%	973,422	974,966	-0.2%	7,661	7,871	-2.7%	84,331	85,243	-1.1%	0	0	0
Estimated Small Scale Solar Photovoltaic	25,025	21,084	18.7%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Estimated Total Solar Photovoltaic	76,900	62,975	22.7%	5,945	3,908	49.8%	45,465	37,286	21.9%	8,227	7,097	15.8%	2,147	1,865	15.1%	15,117	12,540	20.9%
Estimated Total Solar	79,048	64,677	22.2%	5,973	3,927	49.8%	47,584	39,248	21.2%	8,227	7,097	15.8%	2,147	1,865	15.1%	15,117	12,540	20.9%
Consumption of Fossil Fuels for Electricity Generation	234,429	318,754	-26.5%	174,885	236,752	-26.5%	58,384	80,637	-27.6%	41	48	-14.3%	1,119	1,317	-15.0%	0	0	0
Coal (1000 tons)	10,099	11,883	-15.0%	7,709	8,522	-10.3%	2,037	2,956	-31.4%	126	127	-0.8%	227	278	-18.3%	0	0	0
Petroleum Liquids (1000 barrels)	1,885	1,800	4.9%	1,451	1,379	5.2%	348	403	-13.4%	1	1	0	88	107	-17.8%	0	0	0
Petroleum Coke (1000 tons)	6,846,486	6,384,300	7.2%	3,560,340	3,306,828	7.7%	2,897,594	2,716,069	6.6%	29,166	30,593	-4.7%	339,387	330,810	2.6%	0	0	0
Natural Gas (1000 Mcf)	6,215	7,600	-18.2%	949	1,270	-26.8%	341	763	-55.1%	222	266	-16.6%	4,702	5,302	-11.3%	0	0	0
Consumption of Fossil Fuels for Useful Thermal Output	911	1,423	-36.0%	26	48	-43.8%	95	156	-39.1%	137	277	-50.2%	653	941	-30.7%	0	0	0
Petroleum Liquids (1000 barrels)	409	522	-21.7%	11	10	10.0%	56	57	-1.7%	3	3	0	338	450	-24.9%	0	0	0
Petroleum Coke (1000 tons)	728,323	717,970	1.4%	28,524	26,931	5.9%	204,006	198,592	2.7%	29,166	30,593	-4.7%	449,948	445,750	0.9%	0	0	0
Natural Gas (1000 Mcf)	240,644	326,554	-26.3%	175,634	238,021	-26.2%	58,726	81,400	-27.8%	263	314	-16.2%	5,621	6,619	-15.1%	0	0	0
Consumption of Fossil Fuels for Electricity Generation and Useful Thermal Output	11,010	13,306	-17.3%	7,735	8,571	-10.0%	2,132	3,112	-31.5%	283	404	-30.0%	679	1,219	-43.5%	0	0	0
Petroleum Liquids (1000 barrels)	2,294	2,412	-4.9%	1,462	1,389	5.2%	402	460	-12.6%	4	7	-42.9%	426	557	-23.5%	0	0	0
Petroleum Coke (1000 tons)	7,574,809	7,102,270	6.7%	3,608,863	3,333,760	8.0%	3,101,000	2,914,661	6.4%	75,011	77,289	-2.9%	789,335	776,560	1.6%	0	0	0
Natural Gas (1000 Mcf)																		

Sales, Revenue, and Average Price of Electricity to Ultimate Customers for January through July

Sector	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)			Percentage Change			
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	Percentage Change	
Residential	840,472	823,734	2.0%	110,126	107,394	2.5%	13.10	13.04	0.5%				
Commercial	731,307	778,485	-6.1%	77,196	82,631	-6.6%	10.55	10.61	-0.6%				
Industrial	527,733	551,901	-4.4%	34,846	37,338	-6.7%	6.60	6.77	-2.5%				
Transportation	3,679	4,546	-19.7%	377	444	-15.2%	9.71	9.77	-0.6%				
All Sectors	2,103,391	2,158,667	-2.6%	222,515	227,606	-2.3%	10.58	10.55	0.3%				

YTD = Year to Date
 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 Coke includes distillate fuel oil, residual fuel oil, jet fuel, kerosene, propane, and waste oil.
 Petroleum Liquids includes distillate fuel oil, residual fuel oil, jet fuel, kerosene, propane, and waste oil.
 Natural Gas includes blast furnace gas and other manufactured and waste gases derived from fossil fuels.
 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 on the utility.

Table ES2.A. Summary Statistics: Receipts and Cost of Fossil Fuels for the Electric Power Industry by Sector, Physical Units, 2020 and 2019

Total (All Sectors)											
	Receipts (Physical Units)		Cost (Dollars / Physical Unit)		Number of Plants		Receipts (Physical Units)		Cost (Dollars / Physical Unit)		
	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	
Fuel											
Coal (1000 bns)	37,428	49,089	36.76	38.68	213	243	243,660	323,409	36.32	39.78	
Petroleum Liquids (1000 barrels)	1,186	977	49.14	82.54	115	114	7,187	8,443	57.75	83.01	
Petroleum Coke (1000 tons)	201	201	45.31	57.67	5	6	1,487	1,081	42.41	64.02	
Natural Gas (1000 Mcf)	1,239,233	1,162,227	2.09	2.62	586	585	6,389,593	6,006,388	2.28	3.18	
Electric Utilities											
Fuel											
Coal (1000 bns)	28,639	37,394	37.91	40.05	152	168	181,028	238,757	37.40	41.16	
Petroleum Liquids (1000 barrels)	911	728	47.48	79.99	81	77	5,235	6,372	58.70	82.45	
Petroleum Coke (1000 tons)	183	199	45.13	57.76	4	5	1,469	1,080	42.35	64.04	
Natural Gas (1000 Mcf)	605,922	573,479	2.27	2.74	302	301	3,162,889	2,943,334	2.51	3.34	
Independent Power Producers											
Fuel											
Coal (1000 bns)	8,300	11,154	31.98	33.51	49	57	58,908	80,403	32.08	34.96	
Petroleum Liquids (1000 barrels)	234	236	54.33	90.86	27	29	1,788	1,907	54.14	85.03	
Petroleum Coke (1000 tons)	0	0	-	-	0	0	0	0	-	-	
Natural Gas (1000 Mcf)	567,914	522,062	1.89	2.46	239	237	2,775,280	2,609,074	1.99	2.98	
Commercial Sector											
Fuel											
Coal (1000 bns)	0	0	-	67.89	0	1	4	5	67.52	65.77	
Petroleum Liquids (1000 barrels)	0	0	-	0	0	0	0	0	-	-	
Petroleum Coke (1000 tons)	0	0	-	-	0	0	0	0	-	-	
Natural Gas (1000 Mcf)	589	701	3.24	3.26	3	3	4,615	5,314	3.23	3.41	
Industrial Sector											
Fuel											
Coal (1000 bns)	488	551	50.24	50.57	12	17	3,720	4,245	51.00	52.80	
Petroleum Liquids (1000 barrels)	20	13	57.95	74.33	7	8	164	164	66.51	81.03	
Petroleum Coke (1000 tons)	19	2	47.01	46.96	1	1	19	2	47.01	46.96	
Natural Gas (1000 Mcf)	64,839	65,986	1.89	2.57	42	44	446,799	448,666	2.06	3.11	

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

Table ES2.B. Summary Statistics: Receipts and Cost of Fossil Fuels for the Electric Power Industry by Sector, Btus, 2020 and 2019

Total (All Sectors)											
Fuel	Receipts (Billion Btu)		Cost (Dollars / Million Btu)		Number of Plants		Receipts (Billion Btu)		Cost (Dollars / Million Btu)		
	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	
Coal	710,655	938,466	1.94	2.02	213	243	4,595,027	6,236,114	1.92	2.06	
Petroleum Liquids	7,035	5,853	8.14	13.78	115	114	43,112	50,943	9.63	13.76	
Petroleum Coke	5,610	5,766	1.62	2.01	5	6	42,179	30,954	1.50	2.24	
Natural Gas	1,276,779	1,201,858	2.03	2.53	585	585	6,599,946	6,204,956	2.20	3.05	
Fossil Fuels	2,000,079	2,151,942	2.02	2.33	720	729	11,284,284	12,522,967	2.11	2.60	

Electric Utilities											
Fuel	Receipts (Billion Btu)		Cost (Dollars / Million Btu)		Number of Plants		Receipts (Billion Btu)		Cost (Dollars / Million Btu)		
	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	
Coal	547,051	718,111	1.88	2.09	152	168	3,445,646	4,617,851	1.96	2.13	
Petroleum Liquids	5,546	4,389	7.80	13.28	81	77	31,600	38,648	9.72	13.59	
Petroleum Coke	5,104	5,723	1.62	2.01	4	5	41,673	30,912	1.49	2.24	
Natural Gas	623,294	592,859	2.21	2.65	302	301	3,264,035	3,039,356	2.43	3.24	
Fossil Fuels	1,180,996	1,321,082	2.13	2.39	396	400	6,783,954	7,726,766	2.22	2.62	

Independent Power Producers											
Fuel	Receipts (Billion Btu)		Cost (Dollars / Million Btu)		Number of Plants		Receipts (Billion Btu)		Cost (Dollars / Million Btu)		
	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	
Coal	153,536	208,969	1.73	1.79	49	57	1,076,033	1,530,413	1.75	1.83	
Petroleum Liquids	1,364	1,384	9.42	15.49	27	29	10,508	11,290	9.21	14.37	
Petroleum Coke	0	0	--	--	0	0	0	0	--	--	
Natural Gas	586,268	540,331	1.83	2.37	239	237	2,871,317	2,698,079	1.92	2.86	
Fossil Fuels	741,169	750,684	1.82	2.21	276	280	3,957,856	4,239,782	1.89	2.49	

Commercial Sector											
Fuel	Receipts (Billion Btu)		Cost (Dollars / Million Btu)		Number of Plants		Receipts (Billion Btu)		Cost (Dollars / Million Btu)		
	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	
Coal	0	1	--	2.97	0	1	84	119	--	2.90	
Petroleum Liquids	0	0	--	--	0	0	0	0	--	--	
Petroleum Coke	0	0	--	--	0	0	0	0	--	--	
Natural Gas	624	721	3.11	3.17	3	3	4,808	5,503	3.10	3.30	
Fossil Fuels	624	723	3.11	3.17	3	3	4,890	5,622	3.10	3.29	

Industrial Sector											
Fuel	Receipts (Billion Btu)		Cost (Dollars / Million Btu)		Number of Plants		Receipts (Billion Btu)		Cost (Dollars / Million Btu)		
	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	
Coal	10,067	11,355	2.44	2.45	12	17	76,294	87,732	2.49	2.55	
Petroleum Liquids	125	80	9.45	11.99	7	8	1,006	1,005	10.84	13.21	
Petroleum Coke	506	43	1.72	1.71	1	1	586	43	1.72	1.71	
Natural Gas	66,592	67,946	1.94	2.49	42	44	458,789	462,019	2.00	3.02	
Fossil Fuels	77,290	79,453	1.93	2.49	45	46	537,565	550,798	2.09	2.96	

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.A. Net Generation from Renewable Sources: Total (All Sectors), 2010-July 2020
(Thousand Megawatthours)

Period	Generation at Utility Scale Facilities						Generation from Utility and Small Scale Facilities					
	Wind	Solar Photovoltaics	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 Photovoltaics	Estimated Total Solar
Annual Totals												
2010	94,652	423	789	37,172	8,377	7,927	2,513	15,219	260,203	427,376	N/A	N/A
2011	120,177	1,012	896	37,449	9,044	7,354	2,624	15,316	513,336	513,336	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
2013	167,840	8,121	915	40,028	10,658	7,186	2,866	15,775	268,565	522,073	N/A	N/A
2014	181,655	15,250	2,441	42,340	11,220	6,522	3,202	15,877	259,367	536,579	11,233	26,482
2015	190,719	21,666	3,227	41,929	11,291	7,211	3,201	15,918	249,080	544,241	14,139	35,055
2016	226,993	36,670	3,384	40,947	11,218	7,265	3,311	15,822	267,812	609,445	18,812	51,483
2017	254,303	50,018	3,269	41,124	11,543	6,951	3,115	15,927	300,333	686,583	29,990	77,277
2018	272,697	60,234	3,552	40,936	11,036	7,136	2,224	15,967	292,524	706,816	29,539	83,365
2019	300,071	69,017	3,217	39,851	10,075	6,104	2,382	16,011	273,707	720,435	35,041	104,057
Year 2018												
January	25,599	3,191	128	3,686	964	588	265	1,341	25,064	60,826	1,619	4,939
February	23,199	3,705	191	3,235	906	559	251	1,274	24,902	59,213	1,768	5,065
March	26,454	4,799	258	3,547	972	597	253	1,367	25,861	64,117	2,434	7,490
April	26,431	5,743	314	3,102	920	566	239	1,188	28,115	66,618	2,740	8,796
May	23,953	6,419	430	3,352	930	573	228	1,383	30,444	67,712	3,011	9,430
June	24,703	6,898	517	3,471	889	629	202	1,300	27,597	66,206	3,059	9,957
July	16,447	6,374	380	3,749	909	638	202	1,370	25,100	55,170	3,146	9,521
August	19,846	6,286	409	3,630	919	630	208	1,367	22,017	55,313	3,017	9,303
September	18,520	5,531	430	3,281	836	582	192	1,328	19,166	49,844	2,674	8,205
October	21,194	4,695	275	3,216	918	594	231	1,273	19,548	51,944	2,382	7,687
November	22,016	3,575	168	3,264	920	584	220	1,331	21,913	53,960	1,985	5,840
December	24,306	3,018	92	3,404	951	616	233	1,446	22,797	56,863	1,775	4,885
Year 2019												
January	25,122	3,545	111	3,533	870	529	214	1,422	24,210	59,554	1,906	5,451
February	23,000	3,695	131	3,165	798	464	192	1,306	21,826	54,580	2,062	5,757
March	26,116	5,650	325	3,257	865	492	232	1,437	25,546	63,855	2,918	8,828
April	29,711	6,511	360	3,027	791	471	202	1,239	25,493	67,760	3,253	10,089
May	25,973	6,855	336	3,365	830	528	183	1,347	30,061	69,479	3,558	10,414
June	22,947	7,966	339	3,339	846	524	184	1,362	26,469	63,677	3,615	11,620
July	22,024	7,789	400	3,569	863	538	168	1,412	23,730	60,491	3,772	11,541
August	19,869	7,475	413	3,717	864	546	192	1,409	21,041	55,526	3,623	11,098
September	24,385	6,458	294	3,282	824	511	171	1,384	16,324	53,634	3,216	9,674
October	26,136	5,833	298	3,091	850	500	216	1,277	16,292	56,483	2,840	8,973
November	25,603	4,235	141	3,107	816	486	186	1,112	20,590	56,216	2,532	6,608
December	27,183	3,424	70	3,407	860	515	213	1,301	22,206	59,180	2,048	5,471
Year 2020												
January	28,403	4,439	115	3,349	875	521	213	1,255	24,286	63,457	2,283	6,848
February	29,235	5,468	194	3,154	802	464	195	1,156	25,077	65,734	2,609	8,261
March	29,483	6,104	210	3,223	879	585	208	1,490	22,269	64,400	3,469	9,513
April	29,594	7,076	334	2,992	838	505	189	1,350	20,771	64,195	3,801	11,277
May	28,190	8,296	440	3,103	850	518	163	1,241	23,468	73,464	4,245	13,941
June	30,147	9,063	464	2,994	768	473	167	1,242	26,061	79,960	4,258	13,521
July	27,100	9,840	444	3,119	802	528	173	1,449	23,900	65,018	4,469	14,685
Year to Date												
2018	168,765	37,129	2,118	34,143	6,491	4,150	1,450	9,223	187,083	438,862	17,776	54,005
2019	174,894	41,531	2,629	37,256	5,852	3,546	1,364	9,572	177,326	439,366	21,034	67,275
2020	197,683	51,875	2,148	21,835	5,814	3,546	1,327	9,470	176,452	470,249	25,025	79,046
Rolling 12 Months Ending In July												
2019	280,776	64,695	3,376	40,050	10,407	6,532	2,471	16,272	282,765	707,350	32,847	97,542
2020	322,681	79,301	3,963	38,539	10,027	6,104	2,315	15,953	272,835	751,289	38,982	121,646

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 2019 are preliminary. See technical notes for a discussion of the sample design for the Form EIA-923 and predecessor forms. 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; and Federal Energy Regulatory Commission, 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-961M, Form EIA-961, and from estimation methods described in the technical notes.

Table 1.2.A. Net Generation by Energy Source: Electric Utilities, 2010-July 2020
(Thousand Megawatthours)

Period	Generation at Utility Scale Facilities										Renewable Sources Excluding Hydroelectric and Solar	Hydroelectric Pumped Storage	Other	Total
	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gas	Nuclear	Hydroelectric Conventional	Solar	Renewable Sources Excluding Hydroelectric and Solar	Hydroelectric Pumped Storage				
Annual Total:	1,378,028	17,258	6,907	392,618	52	424,843	236,104	101	17,526	4,488	462	2,477,622		
2010	1,301,107	11,688	9,428	414,843	20	415,298	291,413	216	21,177	-5,492	604	2,469,851		
2011	1,164,460	9,892	6,664	504,958	20	394,823	262,886	639	27,378	-4,202	603	2,339,172		
2012	1,184,452	9,446	9,522	501,427	796	406,114	233,040	943	31,741	-3,773	615	2,388,058		
2013	1,173,073	10,696	9,147	501,414	112	419,871	238,185	1,124	35,827	-5,144	622	2,382,473		
2014	968,385	10,366	8,278	617,817	199	416,860	229,640	1,484	35,992	-4,105	556	2,315,323		
2015	922,399	9,089	8,891	654,780	154	424,400	247,797	1,995	40,666	-5,629	421	2,304,953		
2016	863,639	8,597	6,711	623,834	149	424,485	275,677	3,348	42,763	-5,448	553	2,274,279		
2017	863,605	10,108	6,917	720,206	151	424,251	267,336	4,918	44,184	-4,785	561	2,237,250		
2018	823,333	9,162	5,112	762,470	154	430,632	249,707	6,347	49,639	-4,261	491	2,230,308		
Year 2018	887,138	2,491	770	557,797	26	393,668	231,061	288	4,999	-4,751	411	2,141,525		
January	61,138	617	575	48,715	17	33,941	22,864	314	3,853	-226	38	171,887		
February	58,006	595	491	52,611	16	35,262	23,639	446	4,276	-408	48	175,132		
March	56,281	632	477	48,151	28	30,560	25,966	480	4,120	-795	39	165,993		
April	64,034	745	336	58,251	11	34,479	28,055	463	3,427	-309	45	189,538		
May	77,899	756	670	66,774	13	36,437	25,776	503	3,691	-339	50	212,232		
June	68,102	688	716	61,297	15	38,293	23,303	477	3,824	-628	55	235,229		
July	87,359	711	686	78,025	24	38,695	20,050	478	3,722	-628	56	228,767		
August	83,027	511	538	76,055	3	34,747	24,438	418	3,476	-408	41	199,116		
September	63,021	328	328	59,376	0	31,347	17,677	438	3,071	-408	41	175,452		
October	68,864	703	477	61,766	0	33,043	19,800	325	3,631	-254	50	175,265		
November	75,578	697	601	65,152	0	38,223	20,375	260	4,005	-426	49	190,963		
December	74,986	855	527	63,4	12	39,806	21,811	369	4,209	-247	42	199,767		
Year 2019	59,589	561	564	54,489	22	34,243	19,786	386	3,636	-310	33	172,999		
January	56,546	597	464	54,663	31	34,213	23,153	671	4,437	-309	33	174,409		
February	44,241	534	276	40,527	0	32,063	23,225	641	5,024	-26	37	156,547		
March	50,081	671	552	58,730	0	35,416	27,892	661	4,199	-305	44	182,728		
April	61,145	695	594	62,244	2	38,923	28,638	638	3,879	-286	41	186,976		
May	69,276	715	633	67,242	4	39,377	29,323	656	3,755	-305	41	190,705		
June	71,916	809	501	69,675	16	39,218	19,369	616	3,175	-470	51	224,895		
July	64,887	693	460	75,933	10	34,770	14,984	616	4,111	-583	43	195,903		
August	49,122	698	146	66,403	0	32,289	14,927	547	4,621	-316	43	168,490		
September	56,304	632	251	66,310	19	32,823	18,763	454	4,149	-424	41	168,422		
October	53,470	693	315	61,054	2	39,861	20,054	387	4,428	-465	44	179,844		
November	48,438	757	493	64,603	0	40,721	22,070	531	4,450	-354	42	181,751		
December	41,609	588	368	60,918	8	36,079	22,902	608	4,999	-182	41	170,053		
Year 2020	39,276	492	323	62,526	18	35,333	19,747	624	4,823	-262	41	162,468		
January	34,895	461	436	60,356	8	34,392	27,106	1,093	4,553	-273	42	163,120		
February	40,884	629	647	72,356	1	36,388	26,966	1,010	4,797	-420	33	191,692		
March	60,357	689	678	92,158	6	37,583	24,157	1,061	3,643	-595	42	228,778		
Year to Date	483,780	6,505	4,035	411,147	125	248,359	172,343	2,871	26,591	-2,573	316	1,363,997		
2018	427,654	4,697	3,439	433,095	109	251,610	161,990	3,927	29,016	-2,001	289	1,313,360		
2019	312,025	4,117	3,596	470,044	47	253,124	161,361	5,879	32,181	-2,327	277	1,240,445		
Rolling 12 Months Ending in July	797,379	9,369	6,220	742,154	92	427,692	266,563	5,973	46,569	-4,213	515	2,097,013		
2018	689,104	7,842	5,269	619,420	86	424,198	249,469	8,293	52,101	-4,597	489	2,177,899		

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 blast furnace gas and other manufactured and waste gases derived from fossil fuels. Prior to 2011, Other Gas included propane and synthesis gases.
 Other Gas includes blast furnace gas and other manufactured and waste gases derived from fossil fuels. Prior to 2011, Other Gas included propane and synthesis gases.
 See the technical notes for fuel conversion factors.
 Other includes non-biogenic municipal solid waste, batteries, hydrogen, purchased steam, sulfur, fire-derived fuel, and other miscellaneous energy sources.
 Other includes non-biogenic municipal solid waste, batteries, hydrogen, purchased steam, sulfur, fire-derived fuel, and other miscellaneous energy sources.
 Notes: Beginning with 2001 data, non-biogenic municipal solid waste and fire-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 and 2020 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. NN=Not meaningful due to large standard error. W=Withheld to avoid disclosure of individual company data.
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 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-900 Combined Heat and Power Plant Report, and predecessor forms.
 Form EIA-423, Monthly Cost and Quality of Fuels for Electric Plants 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, Form EIA-923, Monthly Report of Cost and Quality of Fuels for Electric Plants.

Table 1.2.B Net Generation by Energy Source: Independent Power Producers, 2010-July 2020
(Thousand Megawatthours)

Period	Generation at Utility Scale Facilities										Other	Total
	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gas	Nuclear	Hydroelectric Conventional	Solar	Renewable Sources Excluding Hydroelectric and Solar	Hydroelectric Pumped Storage		
Annual Total:	446,709	5,117	3,497	508,774	2,918	382,128	22,361	1,105	119,951	-1,036	6,345	1,500,764
2010	416,783	3,655	3,431	511,447	2,911	374,906	26,117	1,511	140,442	-928	7,059	1,487,335
2011	354,076	2,797	1,758	627,833	2,994	314,509	20,923	3,625	165,539	-748	7,030	1,551,186
2012	374,270	3,781	1,780	527,522	3,524	382,902	22,018	7,782	181,293	-908	6,742	1,515,687
2013	385,701	6,789	1,410	531,758	3,246	377,295	18,086	22,862	196,223	-1,030	6,838	1,554,530
2014	342,608	6,240	1,601	619,839	3,517	380,498	17,964	22,862	202,859	-987	6,838	1,603,971
2015	307,283	3,380	1,401	624,600	3,758	381,294	18,539	38,502	233,553	-1,057	6,941	1,613,156
2016	304,198	3,281	1,480	572,919	3,978	380,485	23,054	49,376	258,882	-1,047	6,927	1,603,774
2017	278,688	5,487	1,156	645,816	3,935	382,833	23,872	88,337	275,154	-1,119	6,877	1,680,917
2018	271,174	2,842	1,212	692,203	4,152	378,738	22,670	65,000	294,601	-1,000	7,217	1,704,875
Year 2018	29,839	2,951	137	45,672	318	35,263	1,864	3,000	25,984	-72	575	144,924
January	20,281	133	126	41,986	320	30,849	1,929	3,549	23,179	-89	543	122,766
February	21,377	186	96	46,436	331	31,770	2,114	4,563	26,200	-82	564	133,615
March	17,506	199	137	42,464	326	28,553	2,362	5,522	25,872	-82	527	123,416
April	20,600	248	124	48,762	379	32,841	2,284	6,325	24,380	-81	526	136,366
May	22,994	268	100	55,398	303	33,251	1,724	6,845	24,920	-95	582	146,291
June	26,647	260	139	75,987	344	34,163	1,700	6,214	17,729	-123	586	161,625
July	27,157	139	139	74,126	389	33,998	1,898	6,158	20,775	-121	579	164,790
August	28,222	282	128	84,827	326	34,336	1,938	5,478	19,648	-103	579	164,790
September	25,341	213	126	55,237	256	36,033	1,856	3,450	20,650	-88	551	134,900
October	21,841	245	140	47,623	311	30,911	2,150	3,366	22,175	-98	571	130,727
November	23,393	245	140	47,623	311	30,911	2,150	3,366	22,175	-98	571	130,727
December	24,120	254	144	49,384	350	33,434	2,277	2,792	24,124	-96	574	137,957
Year 2019	26,372	448	153	52,632	368	33,895	2,277	3,249	24,851	-76	629	143,797
January	19,948	197	139	48,354	355	30,472	1,856	3,405	22,800	-79	547	128,174
February	21,413	190	124	49,673	350	30,867	2,272	5,275	25,371	-100	581	136,013
March	15,249	204	124	44,189	339	28,518	1,734	6,130	27,877	-78	553	125,359
April	16,283	209	143	48,034	338	31,708	2,252	6,492	29,893	-83	632	132,882
May	19,975	205	133	51,937	325	31,936	2,196	7,232	29,511	-86	616	141,989
June	21,345	205	131	55,552	325	32,652	1,989	7,232	29,511	-86	616	141,989
July	21,688	224	131	77,290	388	32,693	1,949	7,196	20,725	-108	644	162,420
August	20,508	203	118	65,876	349	31,294	1,247	6,072	24,818	-88	595	150,188
September	17,179	216	91	58,402	227	29,744	1,270	5,529	27,011	-56	588	140,120
October	19,766	233	41	52,187	352	31,202	1,851	3,881	24,875	-84	580	134,423
November	18,545	226	42	58,680	372	33,212	2,034	3,073	26,428	-64	610	143,158
December	16,179	154	140	58,588	387	33,483	2,097	3,985	27,822	-52	611	143,088
Year 2020	13,937	122	40	54,135	389	28,871	2,055	5,000	27,822	-52	611	143,088
January	13,937	122	40	54,135	389	28,871	2,055	5,000	27,822	-52	611	143,088
February	13,937	122	40	54,135	389	28,871	2,055	5,000	27,822	-52	611	143,088
March	13,937	122	40	54,135	389	28,871	2,055	5,000	27,822	-52	611	143,088
April	13,937	122	40	54,135	389	28,871	2,055	5,000	27,822	-52	611	143,088
May	13,937	122	40	54,135	389	28,871	2,055	5,000	27,822	-52	611	143,088
June	13,937	122	40	54,135	389	28,871	2,055	5,000	27,822	-52	611	143,088
July	13,937	122	40	54,135	389	28,871	2,055	5,000	27,822	-52	611	143,088
Year to Date	159,223	4,246	860	354,685	2,322	226,709	13,979	36,018	187,703	-624	3,902	969,023
2018	139,550	1,741	870	379,829	2,485	220,593	14,919	39,248	171,751	-598	4,199	974,586
2019	98,620	1,116	897	404,373	1,640	211,126	14,265	47,584	180,241	-555	4,114	973,422
Rolling 12 Months Ending in July	258,935	2,982	NM	978,760	4,078	376,171	24,761	61,569	279,293	-1,084	6,974	1,686,490
2018	258,935	2,982	NM	978,760	4,078	376,171	24,761	61,569	279,293	-1,084	6,974	1,686,490
2019	182,244	2,218	1,239	716,891	3,327	309,270	22,018	73,258	373,698	-828	7,121	1,703,721

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 blast furnace gas and other manufactured and waste gases derived from fossil fuels. Prior to 2011, Other Gas included propane and synthesis gases.

Other Gas includes blast furnace gas and other manufactured and waste gases derived from fossil fuels. Prior to 2011, Other Gas included propane and synthesis gases.

See the technical notes for fuel conversion factors.

Other includes non-biogenic municipal solid waste, batteries, hydrogen, purchased steam, sulfur, fire-derived fuel, and other miscellaneous energy sources.

Notes: Beginning with 2001 data, non-biogenic municipal solid waste and fire-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 and 2020 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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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-900 Combined Heat and Power Plant Report, and predecessor forms.

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, Form EIA-900 Combined Heat and Power Plant Report.

Form EIA-423, Monthly Cost and Quality of Fuels for Electric Plants Report, and Federal Energy Regulatory Commission, Form EIA-900 Combined Heat and Power Plant Report.

Table 1.2.C. Net Generation by Energy Source: Commercial Sector, 2010–July 2020
(Thousand Megawatthours)

Period	Generation at Utility Scale Facilities										Net Generation From Utility and Small Scale Facilities				
	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gas	Nuclear	Hydroelectric Conventional	Solar	Hydroelectric and Solar	Renewable Sources Excluding Hydroelectric and Solar	Hydroelectric Pumped Storage	Other	Total Generation at Utility Scale Facilities	Estimated Solar Photovoltaic	Estimated Total Solar
Annual Total	1,111	177	4,725	3	5,487	3	80	1,708	5	2,392	0	834	8,592	N/A	N/A
2010	1,049	86	3	5,487	3	80	26	84	0	2,392	0	950	10,080	N/A	N/A
2011	883	191	6,603	0	28	448	2,397	0	0	1,046	0	1,181	11,301	N/A	N/A
2012	839	247	7,154	0	38	371	2,862	0	0	1,171	0	1,250	12,500	5,146	5,146
2013	908	193	7,471	0	35	418	2,893	0	0	1,170	0	1,256	12,596	5,088	6,106
2014	908	193	7,471	0	35	418	2,893	0	0	1,170	0	1,256	12,596	5,088	6,106
2015	908	193	7,471	0	35	418	2,893	0	0	1,170	0	1,256	12,596	5,088	6,106
2016	908	193	7,471	0	35	418	2,893	0	0	1,170	0	1,256	12,596	5,088	6,106
2017	908	193	7,471	0	35	418	2,893	0	0	1,170	0	1,256	12,596	5,088	6,106
2018	908	193	7,471	0	35	418	2,893	0	0	1,170	0	1,256	12,596	5,088	6,106
2019	908	193	7,471	0	35	418	2,893	0	0	1,170	0	1,256	12,596	5,088	6,106
2020	908	193	7,471	0	35	418	2,893	0	0	1,170	0	1,256	12,596	5,088	6,106
Year to Date	275	112	8,647	0	21	608	2,701	0	0	1,095	0	13,624	11,097	11,705	11,705
January	40	41	67	0	67	0	19	29	0	19	0	84	1,114	562	581
February	32	7	626	0	7	0	19	208	0	72	0	31	965	605	636
March	27	1	647	0	83	0	21	43	0	1,058	0	83	800	863	863
April	21	0	658	0	117	0	21	51	0	1,078	0	90	907	1,027	1,027
May	20	0	679	0	137	0	21	62	0	1,065	0	92	1,065	1,065	1,065
June	21	11	875	0	19	0	19	58	0	1,036	0	90	1,036	1,036	1,036
July	21	11	892	0	17	0	17	56	0	1,316	0	90	1,316	983	1,049
August	23	0	771	0	16	0	16	46	0	1,156	0	80	1,156	938	938
September	20	0	668	0	14	0	14	39	0	1,055	0	83	1,055	786	828
October	20	12	622	0	16	0	16	28	0	212	0	77	963	623	652
November	24	0	683	0	17	0	17	25	0	1,056	0	88	1,056	589	614
December	33	13	718	0	0	0	16	30	0	1,161	0	94	1,161	632	685
January	28	8	670	0	0	0	16	32	0	1,064	0	80	1,064	680	711
February	32	8	702	0	0	0	16	32	0	1,157	0	89	1,157	938	990
March	21	0	644	0	0	0	16	57	0	1,046	0	88	1,046	1,046	1,099
April	19	0	682	0	0	0	16	67	0	1,084	0	90	1,084	1,121	1,182
May	14	0	690	0	0	0	21	67	0	1,106	0	92	1,106	1,196	1,196
June	10	0	813	0	0	0	21	70	0	1,247	0	91	1,247	1,254	1,254
July	10	0	813	0	0	0	21	70	0	1,247	0	91	1,247	1,254	1,254
August	11	0	758	0	0	0	21	73	0	1,141	0	90	1,141	1,036	1,036
September	20	10	701	0	0	0	16	48	0	1,069	0	83	1,069	800	937
October	21	9	710	0	0	0	16	37	0	1,069	0	82	1,069	688	725
November	26	9	738	0	0	0	16	30	0	1,145	0	92	1,145	688	688
December	22	9	753	0	0	0	16	34	0	1,157	0	90	1,157	732	767
January	28	5	676	0	0	0	16	32	0	1,076	0	79	1,076	800	871
February	21	0	651	0	0	0	16	41	0	1,086	0	86	1,086	1,086	1,131
March	16	0	657	0	0	0	16	46	0	1,036	0	85	1,036	1,036	1,128
April	15	0	666	0	0	0	25	74	0	1,034	0	88	1,034	1,333	1,377
May	15	0	666	0	0	0	25	68	0	1,034	0	85	1,034	1,311	1,380
June	21	0	686	0	0	0	23	76	0	1,247	0	90	1,247	1,360	1,445
July	19	10	809	0	0	0	23	76	0	1,247	0	90	1,247	1,360	1,445
Year to Date	166	89	4,797	0	148	0	148	300	0	1,548	0	592	7,696	5,914	6,244
2018	168	61	4,919	0	140	0	140	370	0	1,584	0	604	7,871	6,727	7,097
2019	158	50	4,760	0	144	0	144	406	0	1,584	0	597	7,821	6,227	6,227
2020	105	8	8,541	0	0	0	0	569	0	2,724	0	1,042	13,481	10,611	11,176
Year to Date	244	101	8,488	0	0	0	0	645	0	2,681	0	1,038	13,444	12,917	12,835

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, petroleum coke-derived synthesis gas 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.
 Renewable Sources include wind, black liquor, other wood waste, biogenic municipal solid waste, landfill gas, sludge waste, agricultural 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 and 2020 are preliminary. See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
 Disputed values of monthly component coal values that round to zero. The exact version of this table has 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-923, Monthly Cost and Quality of Fuels for Electric Plants; and Federal Energy Regulatory Commission, Form EIA-861, Form EIA-861A, and from estimation methods described in the technical notes.
 Estimated small scale solar photovoltaic generation and small scale solar photovoltaic capacity are based on data from Form EIA-861A, Form EIA-861, and from estimation methods described in the technical notes.

Table 1.2.D. Net Generation by Energy Source: Industrial Sector, 2010-July 2020
(Thousand Megawatthours)

Period	Generation at Utility Scale Facilities										Small Scale Generation		Net Generation From Utility and Small Scale Facilities		
	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gas	Nuclear	Hydroelectric Conventional	Solar	Renewable Excluding Hydroelectric and Solar	Hydroelectric Pumped Storage	Other	Total Generation at Utility Scale Facilities	Estimated Solar Photovoltaic	Estimated Total	Estimated Total
Annual Total	18,441	8,444	1,414	81,583	8,343	0	1,668	2	26,574	0	5,214	144,062	N/A	N/A	N/A
2011	14,460	657	1,234	81,911	8,024	0	1,799	7	27,612	0	5,541	141,875	N/A	N/A	N/A
2012	12,603	593	2,359	86,500	8,913	0	2,353	14	24,603	0	5,108	146,107	N/A	N/A	N/A
2013	12,954	495	2,036	88,733	6,531	0	3,463	17	20,074	0	5,113	150,015	N/A	N/A	N/A
2014	12,341	544	1,399	86,209	6,664	0	1,262	16	28,669	0	4,978	144,063	1,139	1,159	1,156
2015	10,986	960	960	83,859	9,401	0	1,410	21	28,674	0	5,462	145,752	1,401	1,472	1,472
2016	7,868	463	776	81,947	8,343	0	1,382	42	26,528	0	4,926	143,756	2,364	2,468	2,468
2017	7,011	640	640	84,862	9,326	0	1,149	47	26,440	0	4,726	146,796	2,636	2,683	2,683
2018	6,367	440	662	98,434	9,326	0	1,120	79	27,696	0	4,530	148,645	3,041	3,120	3,120
Year 2018	687	73	57	8,163	752	0	83	2	2,450	0	410	12,665	146	149	149
January	619	47	52	7,184	755	0	89	4	2,177	0	340	11,205	105	106	106
February	618	41	54	7,280	811	0	47	4	2,437	0	413	11,742	225	225	225
March	618	41	54	7,280	811	0	47	4	2,437	0	413	11,742	225	225	225
April	618	41	54	7,280	811	0	47	4	2,437	0	413	11,742	225	225	225
May	618	41	54	7,280	811	0	47	4	2,437	0	413	11,742	225	225	225
June	618	41	54	7,280	811	0	47	4	2,437	0	413	11,742	225	225	225
July	618	41	54	7,280	811	0	47	4	2,437	0	413	11,742	225	225	225
August	618	41	54	7,280	811	0	47	4	2,437	0	413	11,742	225	225	225
September	618	41	54	7,280	811	0	47	4	2,437	0	413	11,742	225	225	225
October	618	41	54	7,280	811	0	47	4	2,437	0	413	11,742	225	225	225
November	618	41	54	7,280	811	0	47	4	2,437	0	413	11,742	225	225	225
December	618	41	54	7,280	811	0	47	4	2,437	0	413	11,742	225	225	225
Year 2019	607	44	52	8,677	734	0	102	4	2,374	0	429	13,023	188	172	172
January	529	38	42	7,462	734	0	87	6	2,194	0	343	11,443	178	182	182
February	529	38	42	7,462	734	0	87	6	2,194	0	343	11,443	178	182	182
March	529	38	42	7,462	734	0	87	6	2,194	0	343	11,443	178	182	182
April	529	38	42	7,462	734	0	87	6	2,194	0	343	11,443	178	182	182
May	529	38	42	7,462	734	0	87	6	2,194	0	343	11,443	178	182	182
June	529	38	42	7,462	734	0	87	6	2,194	0	343	11,443	178	182	182
July	529	38	42	7,462	734	0	87	6	2,194	0	343	11,443	178	182	182
August	529	38	42	7,462	734	0	87	6	2,194	0	343	11,443	178	182	182
September	529	38	42	7,462	734	0	87	6	2,194	0	343	11,443	178	182	182
October	529	38	42	7,462	734	0	87	6	2,194	0	343	11,443	178	182	182
November	529	38	42	7,462	734	0	87	6	2,194	0	343	11,443	178	182	182
December	529	38	42	7,462	734	0	87	6	2,194	0	343	11,443	178	182	182
Year 2020	538	34	52	9,056	624	0	100	4	2,375	0	341	13,324	192	196	196
January	497	33	MM	8,195	636	0	97	5	2,203	0	286	12,218	213	218	218
February	463	29	MM	8,213	636	0	104	4	2,315	0	288	12,205	210	210	210
March	463	29	MM	8,213	636	0	104	4	2,315	0	288	12,205	210	210	210
April	463	29	MM	8,213	636	0	104	4	2,315	0	288	12,205	210	210	210
May	463	30	30	7,444	704	0	102	12	2,217	0	370	11,339	349	361	361
June	407	34	48	7,868	698	0	93	11	2,184	0	301	11,706	355	366	366
July	453	32	53	8,293	728	0	90	12	2,222	0	354	12,237	370	382	382
Year to Date	4,224	317	391	53,900	5,428	0	614	28	16,588	0	2,715	64,237	1,575	1,603	1,603
2018	3,738	285	407	55,960	5,392	0	676	48	16,128	0	2,989	65,243	1,817	1,865	1,865
2020	3,240	220	305	50,424	5,239	0	662	59	15,752	0	2,394	64,331	2,088	2,147	2,147
Rolling 12 Months ending in July	6,525	465	658	96,929	9,341	0	1,211	67	27,979	0	4,899	147,884	2,378	2,445	2,445
2019	5,676	395	MM	98,868	9,176	0	1,133	90	27,310	0	4,326	147,734	3,312	3,402	3,402

Coal includes anthracite, bituminous, subbituminous, lignite, and waste coal; synthetic coal and refined coal; and beginning in 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, 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.
 Renewable Sources exclude wood, black liquor, other wood waste, biogenic municipal solid waste, landfill gas, sludge waste, agricultural byproducts, other biomass, geothermal, solar thermal, photovoltaic energy, and wind.
 Other includes non-biogenic municipal solid waste, batteries, hydrogen, purchased steam, sulfur, fire-derived fuel, and other miscellaneous energy sources.
 Notes: Beginning with 2001 data, non-biogenic municipal solid waste and fire-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 and 2020 are preliminary. See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.
 Disputed values of monthly consistent coal values that would increase the total generation of this category are additional production which may be accessed by selecting individual facilities.
 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-923, 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-861H, Form EIA-861, and from estimation methods described in the technical notes.

**Table 1.2.E. Net Generation by Energy Source: Residential Sector, 2014-July 2020
(Thousand Megawatthours)**

Period	Small Scale Generation	
		Estimated Small Scale Solar Photovoltaic Generation
Annual Totals		
2014		4,947
2015		6,999
2016		10,595
2017		13,942
2018		17,105
2019		20,902
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		2,267
August		2,183
Sept		1,929
October		1,696
November		1,346
December		1,209
Year 2020		
January		1,369
February		1,566
March		2,034
April		2,293
May		2,593
June		2,592
July		2,670
Year to Date		
2018		10,287
2019		12,540
2020		15,117
Rolling 12 Months Ending in July		
2019		19,357
2020		23,480

See Glossary for definitions. Values for 2018 and prior years are final. Values for 2019 and 2020 are preliminary.

Totals may not equal sum of components because of independent rounding. NM=Not meaningful due to large standard error. W=Withheld to avoid disclosure of individual company data.

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

Sources:

Estimated small scale solar photovoltaic generation and small scale solar photovoltaic capacity are based on data from Form EIA-861M, Form EIA-861 and from estimation methods described in the technical notes.

Table 1.3.A. Utility Scale Facility Net Generation by State, by Sector, July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
	Generation at Utility Scale Facilities			Electric Utilities		Independent Power Producers		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
New England	10,922	10,492	4.1%	249	276	10,274	9,811	128	124	272	282
Connecticut	4,413	4,116	7.2%	6	5	4,302	4,011	40	39	65	62
Maine	913	921	-0.9%	NM	0	731	730	9	10	172	180
Massachusetts	2,779	2,531	9.8%	130	95	2,564	2,347	68	65	17	24
New Hampshire	1,751	1,855	-5.6%	41	97	1,703	1,752	5	3	2	3
Rhode Island	889	870	2.1%	0	0	868	851	6	6	15	14
Vermont	177	199	-10.9%	72	79	105	119	0	0	0	0
Middle Atlantic	45,391	44,650	1.7%	3,910	3,828	40,929	40,197	220	220	332	405
New Jersey	7,402	7,468	-0.9%	19	24	7,266	7,320	57	55	60	68
New York	14,319	14,157	1.1%	3,887	3,798	10,234	10,155	129	131	69	73
Pennsylvania	23,669	23,025	2.8%	4	6	23,429	22,721	35	34	202	264
East North Central	55,453	56,993	-2.7%	20,960	23,038	33,426	32,795	178	181	889	979
Illinois	17,668	17,496	1.0%	954	827	16,419	16,373	50	52	245	244
Indiana	9,476	10,518	-9.9%	6,797	7,721	2,336	2,352	25	29	318	416
Michigan	9,916	11,570	-14.3%	6,518	8,168	3,214	3,217	60	62	124	123
Ohio	11,923	11,181	6.6%	1,460	1,480	10,373	9,621	29	27	61	54
Wisconsin	6,469	6,229	3.9%	5,231	4,842	1,084	1,232	13	12	141	142
West North Central	32,793	32,654	0.4%	27,158	27,229	5,294	4,932	63	65	277	428
Iowa	5,746	6,150	-6.6%	4,700	4,934	862	932	20	21	164	264
Kansas	5,254	4,985	5.4%	3,731	3,463	1,518	1,519	NM	NM	NM	NM
Minnesota	5,654	5,714	-1.0%	4,461	4,573	1,091	1,009	24	24	79	109
Missouri	7,516	7,735	-2.8%	7,005	7,198	491	517	18	18	3	2
Nebraska	3,683	3,567	3.3%	3,110	3,085	557	444	1	1	15	37
North Dakota	3,534	3,429	3.1%	3,037	3,028	485	387	NM	NM	12	NM
South Dakota	1,405	1,073	31.0%	1,114	949	291	124	NM	NM	0	0
South Atlantic	83,867	83,751	0.1%	68,223	68,945	13,896	12,946	168	163	1,579	1,697
Delaware	886	914	-3.1%	11	14	764	775	0	0	110	125
District of Columbia	11	6	70.4%	0	0	NM	NM	9	5	0	0
Florida	25,089	24,354	3.0%	23,478	22,702	1,190	1,189	6	6	414	458
Georgia	12,432	12,955	-4.0%	9,880	10,575	2,116	1,914	NM	1	435	464
Maryland	4,216	4,181	0.8%	455	529	3,660	3,547	96	101	5	3
North Carolina	13,743	14,019	-2.0%	11,692	12,045	1,878	1,820	25	21	147	133
South Carolina	9,763	9,720	0.4%	9,222	9,370	382	182	0	0	159	168
Virginia	11,037	10,474	5.4%	8,593	8,253	2,221	1,974	30	28	194	219
West Virginia	6,890	7,127	-6.1%	4,891	5,457	1,682	1,543	0	0	117	127
East South Central	36,269	36,451	-0.5%	30,792	30,960	4,671	4,647	22	21	784	824
Alabama	13,311	13,599	-2.1%	8,740	9,469	4,163	3,703	0	0	407	427
Kentucky	7,378	7,107	3.8%	7,132	6,973	195	83	0	0	50	52
Mississippi	7,165	7,223	-0.8%	6,739	6,243	262	813	0	0	164	167
Tennessee	8,415	8,522	-1.3%	8,181	8,275	50	49	22	21	162	177
West South Central	74,963	73,337	2.2%	27,716	26,283	40,778	40,051	112	103	6,357	6,900
Arkansas	5,944	5,772	3.0%	5,410	5,095	435	527	NM	NM	94	147
Louisiana	10,629	10,454	1.7%	7,427	7,005	616	710	16	15	2,571	2,723
Oklahoma	9,037	8,681	4.1%	5,322	4,468	3,647	4,140	0	0	68	74
Texas	49,352	48,430	1.9%	9,558	9,716	36,079	34,675	90	84	3,625	3,956
Mountain	35,338	36,217	-2.4%	27,650	28,329	7,309	7,594	79	82	300	213
Arizona	11,469	12,136	-5.5%	9,630	10,220	1,826	1,902	13	13	0	0
Colorado	4,989	5,257	-5.1%	3,698	4,063	1,278	1,184	6	4	6	6
Idaho	1,806	1,513	19.4%	1,284	963	485	494	4	4	32	52
Montana	2,119	2,294	-7.6%	1,180	804	937	1,488	0	0	NM	NM
Nevada	4,203	4,247	-1.0%	2,962	3,042	1,161	1,110	43	46	38	49
New Mexico	3,532	3,446	2.5%	2,513	2,638	1,010	796	9	9	0	3
Utah	3,372	3,689	-8.6%	2,936	3,269	404	385	3	5	28	30
Wyoming	3,849	3,635	5.9%	3,447	3,330	209	234	0	0	193	70
Pacific Contiguous	36,161	35,563	1.7%	21,121	20,306	13,405	13,716	217	230	1,418	1,311
California	19,763	20,833	-5.1%	7,172	9,107	11,216	10,355	208	223	1,167	1,148
Oregon	5,625	5,260	6.9%	4,156	3,463	1,400	1,727	6	7	63	64
Washington	10,773	9,469	13.8%	9,794	7,736	789	1,633	2	NM	189	99
Pacific Noncontiguous	1,423	1,508	-5.6%	999	1,039	333	379	62	58	29	31
Alaska	645	633	1.9%	589	579	18	NM	27	NM	10	11
Hawaii	779	875	-11.0%	410	460	315	359	34	36	19	20
U.S. Total	412,579	411,616	0.2%	228,778	230,233	170,316	167,067	1,247	1,247	12,237	13,068

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

NM = Not meaningful due to large relative standard error or excessive percentage change.

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

Negative generation denotes that electric power consumed for plant use exceeds gross generation.

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

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

Table 1.3.B. Utility Scale Facility Net Generation

by State, by Sector, Year-to-Date through July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	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	
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	56,796	58,787	-3.4%	1,334	1,513	52,984	54,819	758	768	1,720	1,687
Connecticut	24,458	22,601	8.2%	45	53	23,785	21,957	237	230	391	361
Maine	6,058	6,100	-0.7%	NM	0	4,898	4,953	64	79	1,094	1,067
Massachusetts	10,766	14,050	-23.4%	423	348	9,817	13,162	392	384	134	158
New Hampshire	9,289	10,315	-9.9%	323	609	8,919	9,650	32	39	16	17
Rhode Island	4,829	4,368	10.6%	0	0	4,711	4,250	32	33	86	84
Vermont	1,397	1,354	3.2%	542	504	854	847	2	2	0	0
Middle Atlantic	246,114	250,340	-1.7%	21,360	20,537	221,174	225,939	1,300	1,325	2,279	2,539
New Jersey	36,618	40,605	-9.8%	18	64	35,855	39,777	339	336	406	429
New York	77,030	75,640	1.8%	21,272	20,391	54,523	53,981	745	765	490	503
Pennsylvania	132,467	134,095	-1.2%	70	82	130,797	132,122	216	225	1,384	1,607
East North Central	313,497	344,946	-9.1%	107,211	128,976	198,869	208,441	1,017	1,066	6,399	6,463
Illinois	98,710	107,599	-8.3%	3,266	3,173	93,631	102,639	244	244	1,569	1,544
Indiana	50,615	61,470	-17.7%	31,593	43,262	16,344	15,427	143	152	2,534	2,629
Michigan	60,081	68,442	-12.2%	37,278	46,527	21,552	20,602	408	450	842	863
Ohio	67,828	71,130	-4.6%	7,227	8,005	60,048	62,575	132	137	421	412
Wisconsin	36,263	36,305	-0.1%	27,846	28,008	7,295	7,198	90	84	1,033	1,015
West North Central	192,805	197,805	-2.5%	146,030	157,503	44,313	37,534	351	373	2,111	2,395
Iowa	33,896	37,504	-9.6%	24,710	28,529	7,932	7,565	115	130	1,140	1,279
Kansas	31,166	30,067	3.7%	18,135	19,107	12,929	10,897	NM	9	93	55
Minnesota	31,224	33,892	-7.9%	22,634	26,070	7,874	6,939	115	118	601	765
Missouri	41,135	45,009	-8.6%	37,490	41,641	3,520	3,246	100	104	24	19
Nebraska	21,944	21,051	4.2%	17,005	16,911	4,766	3,942	10	10	162	188
North Dakota	24,532	22,760	7.8%	19,681	18,924	4,760	3,745	NM	NM	89	90
South Dakota	8,906	7,522	18.4%	6,375	6,321	2,531	1,200	NM	NM	0	0
South Atlantic	458,627	470,196	-2.5%	375,503	390,096	71,078	67,913	1,056	1,100	10,991	11,086
Delaware	3,096	3,091	0.2%	15	21	2,330	2,314	3	3	747	752
District of Columbia	66	55	20.6%	0	0	11	9	55	46	0	0
Florida	144,160	139,851	3.1%	134,362	130,605	6,928	6,270	44	41	2,825	2,935
Georgia	65,947	72,642	-9.2%	51,892	60,406	11,009	9,240	2	4	3,044	2,992
Maryland	21,576	23,555	-8.4%	1,948	2,641	19,025	20,152	575	637	28	125
North Carolina	72,011	75,096	-4.1%	59,946	63,593	10,839	10,338	161	155	1,065	1,010
South Carolina	57,056	59,785	-4.6%	54,318	57,620	1,678	1,090	2	2	1,057	1,074
Virginia	61,939	57,600	7.5%	48,310	45,191	12,007	10,783	213	212	1,410	1,413
West Virginia	32,776	38,522	-14.9%	24,712	30,018	7,250	7,719	0	0	815	785
East South Central	197,661	209,999	-5.9%	168,565	178,877	23,560	26,676	136	124	5,400	5,322
Alabama	78,154	82,208	-4.9%	55,012	59,208	20,355	20,287	0	0	2,787	2,713
Kentucky	36,390	41,656	-12.6%	35,680	41,097	378	227	0	0	333	332
Mississippi	38,726	37,781	2.5%	35,089	31,842	2,538	4,891	0	0	1,100	1,047
Tennessee	44,390	48,355	-8.2%	42,785	46,730	289	270	136	124	1,180	1,231
West South Central	413,254	413,693	-0.1%	132,669	137,369	235,726	230,685	590	610	44,269	45,029
Arkansas	28,865	35,450	-18.6%	25,474	31,370	2,676	3,029	36	24	678	1,027
Louisiana	61,625	57,917	6.4%	40,729	34,726	3,082	4,636	109	89	17,706	18,466
Oklahoma	49,427	47,423	4.2%	22,437	22,305	26,457	24,649	0	0	532	469
Texas	273,337	272,903	0.2%	44,029	48,968	203,510	198,370	445	497	25,352	25,067
Mountain	202,038	209,750	-3.7%	152,149	161,606	47,462	45,955	581	578	1,846	1,611
Arizona	60,986	64,528	-5.5%	50,995	55,280	9,905	9,161	85	88	0	0
Colorado	31,269	32,003	-2.3%	22,848	24,607	8,348	7,334	31	20	42	42
Idaho	11,148	9,845	13.2%	7,279	6,425	3,514	3,058	30	27	325	335
Montana	14,030	15,780	-11.1%	7,242	6,437	6,768	9,325	0	0	20	17
Nevada	22,955	22,384	2.5%	15,159	15,084	7,286	6,789	338	334	172	177
New Mexico	19,974	19,497	2.4%	12,332	13,152	7,576	6,281	56	60	10	4
Utah	19,172	22,087	-13.2%	16,624	19,477	2,283	2,255	41	49	224	307
Wyoming	22,504	23,625	-4.7%	19,670	21,144	1,781	1,752	0	0	1,053	729
Pacific Contiguous	216,040	216,483	-0.2%	129,462	130,853	76,003	75,226	1,462	1,511	9,113	8,893
California	109,049	117,517	-7.2%	39,948	51,089	60,087	57,192	1,404	1,454	7,610	7,782
Oregon	38,569	36,279	6.3%	27,938	25,954	10,160	9,898	44	42	428	385
Washington	68,422	62,687	9.1%	61,576	53,810	5,756	8,136	14	14	1,075	726
Pacific Noncontiguous	9,027	9,041	-0.2%	6,161	6,029	2,253	2,377	410	416	204	218
Alaska	3,825	3,534	8.2%	3,424	3,158	136	131	197	175	68	71
Hawaii	5,202	5,507	-5.5%	2,737	2,872	2,116	2,247	213	241	136	148
U.S. Total	2,305,859	2,381,041	-3.2%	1,240,445	1,313,360	973,422	974,566	7,661	7,871	84,331	85,243

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

NM = Not meaningful due to large relative standard error or excessive percentage change.

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

Negative generation denotes that electric power consumed for plant use exceeds gross generation.

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

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

**Table 1.4.A. Utility Scale Facility Net Generation from Coal
by State, by Sector, July 2020 and 2019 (Thousand Megawatthours)**

Census Division and State	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	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
New England	5	40	-87.5%	0	34	3	3	0	0	NM	NM
Connecticut	0	0	--	0	0	0	0	0	0	0	0
Maine	4	NM	NM	0	0	3	3	0	0	NM	NM
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	0	34	-100.0%	0	34	0	0	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	2,776	4,061	-31.6%	0	0	2,771	4,050	0	0	5	NM
New Jersey	80	90	-11.7%	0	0	80	90	0	0	0	0
New York	0	43	-100.0%	0	0	0	43	0	0	0	0
Pennsylvania	2,697	3,928	-31.3%	0	0	2,691	3,917	0	0	5	NM
East North Central	19,511	22,333	-12.6%	11,242	13,572	8,104	8,585	5	7	160	169
Illinois	3,988	4,846	-17.7%	247	359	3,607	4,348	3	NM	131	137
Indiana	5,368	6,656	-19.3%	4,951	6,220	416	432	2	4	0	0
Michigan	2,716	3,951	-31.3%	2,687	3,909	26	38	0	0	NM	NM
Ohio	4,541	4,314	5.2%	486	547	4,055	3,767	0	0	0	0
Wisconsin	2,898	2,566	12.9%	2,872	2,538	0	0	0	0	26	NM
West North Central	16,033	16,772	-4.4%	15,871	16,522	0	0	6	7	156	243
Iowa	2,374	2,716	-12.6%	2,247	2,554	0	0	5	5	122	157
Kansas	2,217	1,920	15.5%	2,217	1,920	0	0	0	0	0	0
Minnesota	1,869	1,893	-1.3%	1,857	1,852	0	0	1	1	NM	40
Missouri	5,063	5,474	-7.5%	5,063	5,474	0	0	0	0	0	0
Nebraska	2,090	2,128	-1.8%	2,075	2,091	0	0	0	0	15	37
North Dakota	2,251	2,410	-6.6%	2,243	2,401	0	0	0	0	NM	NM
South Dakota	169	231	-26.8%	169	231	0	0	0	0	0	0
South Atlantic	17,430	19,552	-10.9%	15,157	17,352	2,234	2,155	3	0	36	45
Delaware	58	80	-26.7%	0	0	58	80	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	1,973	2,256	-12.5%	1,971	2,250	0	0	0	0	NM	NM
Georgia	2,116	3,181	-33.5%	2,104	3,166	0	0	0	0	12	NM
Maryland	898	839	7.1%	0	0	898	839	0	0	0	0
North Carolina	3,614	4,347	-16.9%	3,595	4,329	8	8	3	0	8	10
South Carolina	1,622	1,615	0.5%	1,606	1,614	16	0	0	0	1	0
Virginia	1,109	658	68.6%	1,091	642	5	2	0	0	13	13
West Virginia	6,040	6,577	-8.2%	4,791	5,350	1,249	1,227	0	0	0	0
East South Central	10,503	10,563	-0.6%	10,249	10,282	218	235	0	0	36	47
Alabama	2,442	2,461	-0.8%	2,442	2,457	0	0	0	0	0	NM
Kentucky	5,031	5,116	-1.7%	5,031	5,116	0	0	0	0	0	0
Mississippi	537	507	6.0%	319	272	218	235	0	0	0	0
Tennessee	2,494	2,479	0.6%	2,458	2,437	0	0	0	0	36	42
West South Central	12,055	13,178	-8.5%	6,782	7,178	5,270	5,987	0	0	3	12
Arkansas	2,159	2,383	-9.4%	1,862	2,002	295	377	0	0	3	3
Louisiana	541	772	-30.0%	536	766	5	7	0	0	0	0
Oklahoma	1,130	886	27.6%	1,130	829	0	48	0	0	0	9
Texas	8,224	9,137	-10.0%	3,255	3,582	4,970	5,555	0	0	0	0
Mountain	10,785	13,247	-18.6%	9,837	11,759	920	1,455	0	0	28	NM
Arizona	1,412	2,655	-46.8%	1,412	2,655	0	0	0	0	0	0
Colorado	1,752	2,128	-17.7%	1,752	2,128	0	0	0	0	0	0
Idaho	NM	NM	NM	0	0	0	0	0	0	NM	NM
Montana	742	1,297	-42.8%	17	27	725	1,270	0	0	NM	NM
Nevada	269	250	7.8%	170	166	99	84	0	0	0	0
New Mexico	1,506	1,534	-1.8%	1,506	1,534	0	0	0	0	0	0
Utah	1,881	2,211	-14.9%	1,849	2,175	32	37	0	0	0	0
Wyoming	3,222	3,170	1.6%	3,132	3,074	64	64	0	0	26	NM
Pacific Contiguous	419	1,053	-60.2%	195	314	198	735	0	0	26	3
California	24	2	NM	0	0	0	0	0	0	24	2
Oregon	195	314	-38.1%	195	314	0	0	0	0	0	0
Washington	200	736	-72.9%	0	0	198	735	0	0	1	1
Pacific Noncontiguous	145	182	-20.6%	NM	39	116	136	NM	NM	0	0
Alaska	NM	63	NM	NM	39	NM	NM	NM	NM	0	0
Hawaii	101	120	-15.4%	0	0	101	120	0	0	0	0
U.S. Total	89,663	100,981	-11.2%	69,357	77,053	19,834	23,342	19	NM	453	566

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NM = Not meaningful due to large relative standard error or excessive percentage change.

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

Negative generation denotes that electric power consumed for plant use exceeds gross generation.

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

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

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

by State, by Sector, Year-to-Date through July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
	Generation at Utility Scale Facilities			Electric Utilities		Independent Power Producers		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	83	351	-76.4%	56	241	15	94	0	0	12	16
Connecticut	-13	60	-120.9%	0	0	-13	60	0	0	0	0
Maine	40	50	-19.6%	0	0	27	34	0	0	12	16
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	56	241	-77.0%	56	241	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	14,270	24,821	-42.5%	0	0	14,236	24,746	0	0	34	76
New Jersey	538	623	-13.6%	0	0	538	623	0	0	0	0
New York	144	366	-62.7%	0	0	144	366	0	0	0	0
Pennsylvania	13,589	23,813	-42.9%	0	0	13,554	23,738	0	0	34	76
East North Central	93,518	135,719	-31.1%	53,480	79,319	38,916	55,204	22	42	1,100	1,153
Illinois	16,877	29,864	-43.5%	1,068	2,194	14,901	26,758	14	19	894	892
Indiana	25,185	37,785	-33.3%	22,474	35,532	2,702	2,230	9	23	0	0
Michigan	14,139	23,256	-39.2%	13,899	23,023	218	197	0	0	22	36
Ohio	23,541	29,085	-19.1%	2,447	3,063	21,094	26,019	0	0	0	3
Wisconsin	13,776	15,729	-12.4%	13,592	15,506	0	0	0	0	184	223
West North Central	78,008	95,746	-18.5%	76,861	94,323	0	0	32	46	1,115	1,377
Iowa	7,837	14,066	-44.3%	7,001	13,121	0	0	28	38	808	906
Kansas	9,139	9,954	-8.2%	9,139	9,954	0	0	0	0	0	0
Minnesota	6,953	11,192	-37.9%	6,863	10,961	0	0	1	2	90	229
Missouri	27,862	33,252	-16.2%	27,858	33,246	0	0	3	6	0	0
Nebraska	11,248	11,516	-2.3%	11,085	11,327	0	0	0	0	162	188
North Dakota	14,050	14,158	-0.8%	13,995	14,104	0	0	0	0	55	54
South Dakota	919	1,608	-42.9%	919	1,608	0	0	0	0	0	0
South Atlantic	63,609	93,041	-31.6%	56,432	83,336	6,882	9,326	22	27	273	353
Delaware	43	110	-61.0%	0	0	43	110	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	8,162	11,990	-31.9%	8,139	11,951	0	0	0	0	23	39
Georgia	5,354	15,165	-64.7%	5,253	15,066	0	0	0	0	101	99
Maryland	1,968	3,118	-36.9%	0	0	1,968	3,087	0	0	0	32
North Carolina	10,696	16,513	-35.2%	10,546	16,304	55	110	21	23	75	77
South Carolina	6,456	8,586	-24.8%	6,408	8,580	43	0	0	0	4	7
Virginia	2,002	2,204	-9.1%	1,916	1,990	15	111	1	4	69	99
West Virginia	28,926	35,354	-18.2%	24,170	29,445	4,757	5,908	0	0	0	0
East South Central	46,536	58,887	-21.0%	44,636	56,963	1,658	1,627	0	0	242	296
Alabama	11,241	15,178	-25.9%	11,233	15,151	0	0	0	0	NM	27
Kentucky	25,143	30,850	-18.5%	25,143	30,850	0	0	0	0	0	0
Mississippi	2,591	2,918	-11.2%	933	1,291	1,658	1,627	0	0	0	0
Tennessee	7,562	9,940	-23.9%	7,327	9,672	0	0	0	0	235	269
West South Central	54,123	77,946	-30.6%	25,217	41,891	28,832	35,962	0	0	73	93
Arkansas	8,030	13,342	-39.8%	6,278	11,240	1,730	2,079	0	0	21	23
Louisiana	2,187	4,646	-52.9%	2,066	3,472	121	1,174	0	0	0	0
Oklahoma	2,567	5,408	-52.5%	2,425	5,202	89	136	0	0	52	70
Texas	41,340	54,551	-24.2%	14,448	21,977	26,893	32,574	0	0	0	0
Mountain	60,504	79,109	-23.5%	54,287	70,222	6,000	8,672	0	0	217	215
Arizona	6,631	14,021	-52.7%	6,631	14,021	0	0	0	0	0	0
Colorado	11,295	14,129	-20.1%	11,295	14,125	0	0	0	0	0	4
Idaho	NM	NM	NM	0	0	0	0	0	0	NM	NM
Montana	5,000	7,646	-34.6%	129	166	4,865	7,476	0	0	NM	NM
Nevada	992	1,526	-35.0%	413	980	578	546	0	0	0	0
New Mexico	7,194	8,198	-12.2%	7,194	8,198	0	0	0	0	0	0
Utah	11,280	13,774	-18.1%	11,123	13,533	157	241	0	0	0	0
Wyoming	18,101	19,804	-8.6%	17,500	19,198	400	409	0	0	201	196
Pacific Contiguous	2,320	4,380	-47.0%	823	1,119	1,318	3,101	0	0	178	160
California	164	145	12.5%	0	0	0	0	0	0	164	145
Oregon	823	1,119	-26.5%	823	1,119	0	0	0	0	0	0
Washington	1,333	3,115	-57.2%	0	0	1,318	3,101	0	0	15	14
Pacific Noncontiguous	1,059	1,110	-4.6%	233	239	764	817	62	54	0	0
Alaska	397	390	1.8%	233	239	102	97	62	54	0	0
Hawaii	662	720	-8.1%	0	0	662	720	0	0	0	0
U.S. Total	414,029	571,110	-27.5%	312,025	427,654	98,620	139,550	138	168	3,246	3,738

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells. NM = Not meaningful due to large relative standard error or excessive percentage change.

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

Negative generation denotes that electric power consumed for plant use exceeds gross generation.

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

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

Table 1.5.A. Utility Scale Facility Net Generation from Petroleum Liquids by State, by Sector, July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
	Generation at Utility Scale Facilities			Electric Utilities		Independent Power Producers		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
New England	25	44	-43.6%	3	4	20	37	NM	2	NM	NM
Connecticut	10	8	26.1%	NM	1	10	7	NM	NM	0	0
Maine	1	7	-82.9%	0	0	1	6	0	0	NM	NM
Massachusetts	11	25	-53.8%	NM	NM	9	22	NM	1	0	0
New Hampshire	1	3	-63.9%	1	2	NM	NM	0	1	0	0
Rhode Island	NM	NM	NM	0	0	NM	NM	0	0	NM	NM
Vermont	NM	NM	NM	NM	NM	0	0	0	0	0	0
Middle Atlantic	59	54	10.7%	24	10	32	41	NM	NM	1	1
New Jersey	NM	NM	NM	0	0	NM	NM	0	0	0	0
New York	38	29	30.5%	24	10	12	18	NM	NM	1	0
Pennsylvania	18	22	-17.9%	0	0	17	21	1	1	NM	1
East North Central	52	39	34.1%	33	25	19	13	NM	0	0	0
Illinois	4	3	33.5%	NM	1	3	2	0	0	0	0
Indiana	15	9	62.9%	14	9	0	0	0	0	0	0
Michigan	13	11	23.1%	13	11	0	0	NM	0	NM	0
Ohio	17	12	35.3%	1	1	16	11	0	0	0	0
Wisconsin	NM	4	NM	NM	4	0	0	NM	NM	0	0
West North Central	23	22	4.5%	22	21	NM	NM	0	0	0	0
Iowa	7	5	35.6%	7	5	NM	0	0	0	0	0
Kansas	2	5	-50.3%	2	5	0	0	0	0	0	0
Minnesota	NM	NM	NM	NM	NM	NM	NM	0	0	0	0
Missouri	7	5	39.7%	7	5	0	0	0	0	0	0
Nebraska	NM	NM	NM	NM	NM	0	0	0	0	0	0
North Dakota	2	2	19.1%	2	2	0	0	0	0	0	0
South Dakota	NM	2	NM	NM	2	0	0	NM	NM	0	0
South Atlantic	128	130	-1.0%	82	95	33	23	5	6	8	5
Delaware	NM	5	NM	0	0	NM	5	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	21	36	-40.3%	20	35	NM	NM	0	0	1	NM
Georgia	12	9	38.3%	7	3	NM	NM	0	1	4	4
Maryland	21	10	103.4%	NM	0	21	10	NM	0	0	0
North Carolina	14	15	-6.3%	12	13	NM	NM	NM	NM	NM	NM
South Carolina	5	8	-36.3%	5	8	0	0	0	0	1	0
Virginia	34	30	12.9%	23	19	6	6	5	5	NM	NM
West Virginia	16	17	-7.1%	16	16	0	1	0	0	0	0
East South Central	22	22	1.4%	22	22	NM	NM	0	0	1	NM
Alabama	1	2	-55.5%	0	1	NM	NM	0	0	NM	NM
Kentucky	7	5	32.1%	7	5	0	0	0	0	0	0
Mississippi	1	1	17.3%	0	1	0	0	0	0	0	0
Tennessee	14	15	-4.3%	14	14	0	0	0	0	0	0
West South Central	10	8	22.4%	9	6	1	2	0	0	0	0
Arkansas	4	3	12.6%	4	1	0	2	0	0	0	0
Louisiana	NM	NM	NM	NM	NM	0	0	0	0	0	0
Oklahoma	2	2	39.6%	2	2	0	0	0	0	0	0
Texas	3	3	18.2%	2	2	1	NM	0	0	0	0
Mountain	14	18	-20.8%	14	16	0	1	NM	NM	0	0
Arizona	3	4	-9.5%	3	4	0	0	NM	NM	0	0
Colorado	NM	NM	NM	NM	NM	0	0	0	0	0	0
Idaho	0	0	-100.0%	0	0	0	0	0	0	0	0
Montana	NM	1	NM	NM	NM	0	1	0	0	0	0
Nevada	1	2	-73.2%	0	2	0	0	0	0	0	0
New Mexico	2	2	-0.1%	2	2	0	0	0	0	0	0
Utah	4	2	73.3%	4	2	0	0	0	0	0	0
Wyoming	2	5	-53.4%	2	5	0	0	0	0	0	0
Pacific Contiguous	8	6	32.4%	4	4	2	1	0	0	NM	NM
California	5	3	38.2%	4	3	1	0	NM	0	0	0
Oregon	1	1	-23.1%	1	1	0	0	0	0	0	0
Washington	3	2	46.8%	NM	NM	2	1	0	0	NM	NM
Pacific Noncontiguous	608	687	-11.4%	476	511	112	154	1	0	20	21
Alaska	92	77	20.1%	89	72	0	0	0	NM	4	5
Hawaii	516	609	-15.4%	387	439	112	154	1	0	16	16
U.S. Total	950	1,029	-7.6%	689	715	220	274	10	10	32	30

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

NM = Not meaningful due to large relative standard error or excessive percentage change.

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

Negative generation denotes that electric power consumed for plant use exceeds gross generation.

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

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

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

by State, by Sector, Year-to-Date through July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
	Generation at Utility Scale Facilities			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					
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	95	179	-46.6%	15	18	64	131	12	20	5	10
Connecticut	31	53	-40.3%	3	3	28	45	NM	3	0	2
Maine	16	20	-17.0%	0	0	11	12	1	1	5	7
Massachusetts	29	78	-63.2%	7	NM	18	64	4	6	0	1
New Hampshire	11	17	-31.8%	4	7	NM	NM	7	8	0	0
Rhode Island	NM	11	NM	0	0	NM	NM	1	2	NM	NM
Vermont	1	NM	NM	1	NM	0	0	0	0	0	0
Middle Atlantic	189	582	-67.5%	47	172	129	385	5	8	7	16
New Jersey	27	53	-49.9%	0	1	26	51	0	1	0	1
New York	108	401	-73.1%	47	171	53	213	NM	NM	4	12
Pennsylvania	54	128	-57.4%	0	0	49	122	2	2	3	4
East North Central	221	296	-25.3%	143	177	74	109	1	1	3	9
Illinois	13	24	-47.2%	3	3	9	21	0	0	0	0
Indiana	66	80	-17.4%	65	76	0	0	0	NM	1	4
Michigan	49	58	-15.7%	48	55	0	0	NM	1	1	2
Ohio	73	104	-29.9%	8	20	64	81	0	0	1	3
Wisconsin	20	29	-31.8%	18	22	1	7	NM	0	0	0
West North Central	158	195	-18.8%	154	187	NM	6	1	2	1	1
Iowa	25	43	-42.1%	24	41	2	2	0	0	0	0
Kansas	44	35	22.9%	44	35	0	0	0	0	0	0
Minnesota	21	27	-21.3%	18	20	NM	NM	1	2	1	1
Missouri	36	49	-26.2%	36	49	0	0	0	0	0	0
Nebraska	NM	12	NM	NM	12	0	0	0	0	0	0
North Dakota	20	24	-14.5%	20	24	0	0	0	0	0	0
South Dakota	NM	5	NM	NM	5	0	0	NM	NM	0	0
South Atlantic	524	793	-34.0%	364	579	89	136	25	22	46	56
Delaware	16	31	-46.5%	0	0	16	30	0	0	0	0
District of Columbia	0	0	-	0	0	0	0	0	0	0	0
Florida	120	194	-38.3%	109	185	2	1	0	0	8	8
Georgia	23	78	-70.5%	-6	35	NM	6	1	2	25	36
Maryland	47	52	-8.8%	0	0	47	50	NM	0	0	1
North Carolina	87	151	-42.2%	78	140	NM	5	NM	NM	6	6
South Carolina	40	58	-30.9%	37	53	0	1	0	0	3	4
Virginia	104	155	-32.7%	61	93	17	42	24	19	3	2
West Virginia	86	75	14.6%	85	74	0	1	0	0	0	0
East South Central	112	164	-31.6%	107	156	1	1	0	0	5	7
Alabama	5	12	-60.5%	2	7	1	1	0	0	2	4
Kentucky	34	43	-21.5%	34	43	0	0	0	0	0	0
Mississippi	5	10	-50.9%	3	9	0	0	0	0	2	1
Tennessee	69	99	-30.5%	68	97	0	0	0	0	1	2
West South Central	68	80	-15.9%	52	57	14	18	0	0	1	5
Arkansas	22	29	-21.8%	18	18	5	9	0	0	0	1
Louisiana	5	6	-12.0%	5	6	0	0	0	0	0	0
Oklahoma	12	12	-4.2%	11	11	0	0	0	0	0	1
Texas	28	33	-16.0%	18	22	9	9	0	0	1	2
Mountain	97	128	-24.2%	92	118	5	9	NM	NM	0	0
Arizona	21	39	-45.0%	21	39	0	0	NM	NM	0	0
Colorado	NM	7	NM	NM	7	0	0	0	0	0	0
Idaho	0	0	-72.0%	0	0	0	0	0	0	0	0
Montana	4	9	-54.8%	NM	NM	4	7	0	0	0	0
Nevada	3	8	-56.6%	3	6	1	2	0	0	0	0
New Mexico	17	21	-18.3%	17	21	0	0	0	0	0	0
Utah	22	21	4.5%	21	21	1	1	0	0	0	0
Wyoming	23	23	-1.1%	23	23	0	0	0	0	0	0
Pacific Contiguous	39	43	-9.1%	23	23	7	8	0	0	9	13
California	27	30	-11.3%	19	20	3	1	0	0	5	8
Oregon	2	2	-15.7%	2	2	0	0	0	0	0	0
Washington	11	12	-2.5%	2	NM	5	6	0	0	NM	5
Pacific Noncontiguous	4,000	4,263	-6.2%	3,121	3,170	730	938	6	7	143	149
Alaska	564	486	16.0%	533	455	0	0	2	4	29	27
Hawaii	3,436	3,776	-9.0%	2,588	2,714	730	938	4	3	114	122
U.S. Total	5,504	6,724	-18.1%	4,117	4,657	1,116	1,741	50	61	220	265

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

Negative generation denotes that electric power consumed for plant use exceeds gross generation.

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

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

Table 1.6.A. Utility Scale Facility Net Generation from Petroleum Coke by State, by Sector, July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
	Generation at Utility Scale Facilities			Electric Utilities		Independent Power Producers		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
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	2	NM	NM	0	0	0	0	0	0	2	NM
New Jersey	2	6	-71.4%	0	0	0	0	0	0	2	6
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	0	NM	NM	0	0	0	0	0	0	0	NM
East North Central	201	179	12.0%	79	125	105	NM	0	0	16	17
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	85	130	-34.8%	68	113	0	0	0	0	16	17
Ohio	105	NM	NM	0	0	105	NM	0	0	0	0
Wisconsin	11	12	-13.8%	11	12	0	0	0	0	0	0
West North Central	7	58	-87.2%	0	0	0	0	0	0	7	58
Iowa	7	58	-87.2%	0	0	0	0	0	0	7	58
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	220	108	103.1%	197	87	0	0	0	0	22	NM
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	197	87	126.1%	197	87	0	0	0	0	0	0
Georgia	22	NM	NM	0	0	0	0	0	0	22	NM
Maryland	0	0	--	0	0	0	0	0	0	0	0
North Carolina	0	0	--	0	0	0	0	0	0	0	0
South Carolina	0	0	--	0	0	0	0	0	0	0	0
Virginia	0	0	--	0	0	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	0	0	--	0	0	0	0	0	0	0	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	0	0	--	0	0	0	0	0	0	0	0
West South Central	407	348	16.9%	401	338	0	0	0	0	6	NM
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	401	338	18.6%	401	338	0	0	0	0	0	0
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	6	NM	NM	0	0	0	0	0	0	6	NM
Mountain	32	41	-20.7%	0	0	32	41	0	0	0	0
Arizona	0	0	--	0	0	0	0	0	0	0	0
Colorado	0	0	--	0	0	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	32	41	-20.7%	0	0	32	41	0	0	0	0
Nevada	0	0	--	0	0	0	0	0	0	0	0
New Mexico	0	0	--	0	0	0	0	0	0	0	0
Utah	0	0	--	0	0	0	0	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	0	0	--	0	0	0	0	0	0	0	0
California	0	0	--	0	0	0	0	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	0	0	--	0	0	0	0	0	0	0	0
Pacific Noncontiguous	0	0	--	0	0	0	0	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	869	746	16.4%	678	551	138	NM	0	0	53	118

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Negative generation denotes that electric power consumed for plant use exceeds gross generation.

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

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

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

by State, by Sector, Year-to-Date through July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
	Generation at Utility Scale Facilities			Electric Utilities		Independent Power Producers		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 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	18	83	-78.0%	0	0	0	0	0	0	18	83
New Jersey	18	39	-52.7%	0	0	0	0	0	0	18	39
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	0	45	-100.0%	0	0	0	0	0	0	0	45
East North Central	1,220	1,176	3.8%	493	507	639	589	0	0	88	79
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	530	533	-0.5%	442	456	0	0	0	0	88	77
Ohio	639	591	8.2%	0	0	639	589	0	0	0	2
Wisconsin	51	51	-1.0%	51	51	0	0	0	0	0	0
West North Central	39	67	-42.0%	0	0	0	0	2	4	36	62
Iowa	39	67	-42.0%	0	0	0	0	2	4	36	62
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	1,054	885	19.1%	940	769	0	0	0	0	114	116
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	940	769	22.2%	940	769	0	0	0	0	0	0
Georgia	114	116	-1.6%	0	0	0	0	0	0	114	116
Maryland	0	0	--	0	0	0	0	0	0	0	0
North Carolina	0	0	--	0	0	0	0	0	0	0	0
South Carolina	0	0	--	0	0	0	0	0	0	0	0
Virginia	0	0	--	0	0	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	0	0	--	0	0	0	0	0	0	0	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	0	0	--	0	0	0	0	0	0	0	0
West South Central	2,210	2,228	-0.8%	2,162	2,162	0	0	0	0	48	66
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	2,162	2,168	-0.3%	2,162	2,162	0	0	0	0	0	6
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	48	61	-20.8%	0	0	0	0	0	0	48	61
Mountain	258	281	-8.0%	0	0	258	281	0	0	0	0
Arizona	0	0	--	0	0	0	0	0	0	0	0
Colorado	0	0	--	0	0	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	258	281	-8.0%	0	0	258	281	0	0	0	0
Nevada	0	0	--	0	0	0	0	0	0	0	0
New Mexico	0	0	--	0	0	0	0	0	0	0	0
Utah	0	0	--	0	0	0	0	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	0	0	--	0	0	0	0	0	0	0	0
California	0	0	--	0	0	0	0	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	0	0	--	0	0	0	0	0	0	0	0
Pacific Noncontiguous	0	0	--	0	0	0	0	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	4,800	4,720	1.7%	3,596	3,439	897	870	2	4	305	407

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Negative generation denotes that electric power consumed for plant use exceeds gross generation.

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

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

Table 1.7.A. Utility Scale Facility Net Generation from Natural Gas by State, by Sector, July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
	Generation at Utility Scale Facilities			Electric Utilities		Independent Power Producers		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
New England	6,839	6,198	10.3%	107	61	6,469	5,878	111	108	152	151
Connecticut	2,681	2,389	12.2%	4	3	2,573	2,287	39	38	65	62
Maine	316	227	39.4%	0	0	259	174	3	3	54	50
Massachusetts	2,379	2,150	10.6%	93	55	2,207	2,013	62	60	16	23
New Hampshire	622	602	3.5%	10	3	609	595	1	1	2	3
Rhode Island	840	830	1.2%	0	0	820	811	6	6	15	14
Vermont	0	0	-19.8%	0	0	0	0	0	0	0	0
Middle Atlantic	25,985	22,292	16.6%	1,706	1,597	23,933	20,341	112	114	235	240
New Jersey	4,474	4,587	-2.5%	NM	31	4,391	4,504	12	13	40	39
New York	7,932	6,880	15.3%	1,674	1,565	6,119	5,174	88	89	51	52
Pennsylvania	13,580	10,825	25.5%	1	1	13,422	10,662	12	12	144	150
East North Central	19,699	17,626	11.8%	7,367	6,489	11,805	10,652	152	152	375	333
Illinois	4,190	3,149	33.1%	691	453	3,385	2,588	46	48	69	60
Indiana	3,561	3,163	12.6%	1,771	1,430	1,595	1,557	19	21	176	155
Michigan	4,279	3,879	10.3%	1,934	1,647	2,240	2,134	51	52	54	46
Ohio	5,480	5,090	7.7%	957	908	4,473	4,141	27	25	22	16
Wisconsin	2,188	2,346	-6.7%	2,013	2,051	111	233	8	6	56	56
West North Central	5,028	4,871	3.2%	4,425	4,263	526	522	34	32	43	53
Iowa	1,142	1,160	-1.6%	1,101	1,104	NM	NM	11	12	29	43
Kansas	485	493	-1.5%	482	491	0	0	0	0	NM	NM
Minnesota	1,384	1,459	-5.1%	1,113	1,231	254	215	10	7	7	6
Missouri	1,310	1,047	25.1%	1,024	726	272	307	12	12	2	2
Nebraska	303	303	0.2%	303	302	0	0	0	1	0	0
North Dakota	170	172	-1.1%	169	171	0	0	0	0	1	0
South Dakota	234	237	-1.5%	234	237	0	0	0	0	0	0
South Atlantic	42,513	40,391	5.3%	34,352	32,745	7,586	7,067	107	106	468	474
Delaware	788	788	0.0%	10	13	691	681	0	0	87	93
District of Columbia	5	0	--	0	0	0	0	5	0	0	0
Florida	19,204	18,192	5.6%	18,238	17,205	823	838	2	1	141	149
Georgia	6,261	5,925	5.7%	4,564	4,252	1,626	1,611	0	0	71	62
Maryland	1,777	1,736	2.3%	454	529	1,227	1,108	92	97	5	3
North Carolina	4,577	4,173	9.7%	3,723	3,286	830	865	NM	NM	16	14
South Carolina	2,724	2,668	2.1%	2,600	2,608	106	48	0	0	18	12
Virginia	6,789	6,638	2.3%	4,727	4,816	1,990	1,747	0	1	73	75
West Virginia	388	271	43.4%	36	36	294	169	0	0	58	66
East South Central	15,652	14,714	6.4%	11,063	10,181	4,321	4,273	22	20	247	240
Alabama	6,416	5,927	8.3%	2,177	2,164	4,124	3,646	0	0	115	117
Kentucky	1,899	1,537	23.6%	1,684	1,438	194	81	0	0	21	18
Mississippi	5,524	5,507	0.3%	5,483	4,926	1	544	0	0	40	37
Tennessee	1,813	1,743	4.0%	1,719	1,654	2	2	22	20	70	68
West South Central	44,331	42,683	3.9%	17,181	15,820	21,368	20,690	105	97	5,676	6,076
Arkansas	2,147	2,290	-6.3%	2,018	2,150	106	113	NM	NM	20	25
Louisiana	7,663	7,211	6.3%	4,945	4,315	510	600	16	15	2,192	2,280
Oklahoma	5,803	5,403	7.4%	3,981	3,353	1,777	2,012	0	0	45	38
Texas	28,718	27,778	3.4%	6,237	6,002	18,974	17,965	86	78	3,420	3,733
Mountain	13,570	13,061	3.9%	11,100	10,654	2,297	2,254	31	34	142	120
Arizona	5,803	5,259	10.4%	4,581	3,890	1,211	1,357	12	12	0	0
Colorado	1,943	1,956	-0.7%	1,619	1,626	322	329	0	0	2	2
Idaho	458	510	-10.3%	279	305	165	193	3	3	NM	9
Montana	51	64	-20.4%	47	51	NM	12	0	0	NM	NM
Nevada	2,799	2,904	-3.6%	2,564	2,658	193	191	5	6	37	48
New Mexico	1,357	1,233	10.0%	948	1,055	400	166	8	9	0	3
Utah	1,000	1,040	-3.8%	968	1,006	3	6	2	4	26	25
Wyoming	160	95	67.7%	94	63	0	0	0	0	66	33
Pacific Contiguous	11,457	12,136	-5.6%	4,530	5,250	5,842	5,874	135	150	949	862
California	8,974	8,222	9.2%	3,023	2,925	4,951	4,298	130	145	870	853
Oregon	1,444	2,152	-32.9%	828	1,129	601	1,013	4	4	NM	5
Washington	1,038	1,762	-41.1%	679	1,196	290	563	1	0	69	3
Pacific Noncontiguous	333	369	-9.7%	327	363	0	0	0	0	6	6
Alaska	333	369	-9.7%	327	363	0	0	0	0	6	6
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	185,407	174,341	6.3%	92,158	87,423	84,147	77,551	809	813	8,293	8,554

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

NM = Not meaningful due to large relative standard error or excessive percentage change.

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

Negative generation denotes that electric power consumed for plant use exceeds gross generation.

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

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

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

by State, by Sector, Year-to-Date through July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
	Generation at Utility Scale Facilities			Electric Utilities		Independent Power Producers		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	29,519	28,029	5.3%	167	102	27,819	26,465	634	613	900	849
Connecticut	13,733	11,914	15.3%	20	20	13,091	11,313	231	222	391	359
Maine	1,087	931	16.7%	0	0	789	676	18	18	280	237
Massachusetts	8,134	9,398	-13.5%	135	78	7,520	8,830	351	339	128	151
New Hampshire	2,094	1,719	21.8%	11	4	2,062	1,691	5	7	16	17
Rhode Island	4,470	4,065	10.0%	0	0	4,357	3,954	27	27	86	84
Vermont	1	1	-9.0%	1	1	0	0	1	1	0	0
Middle Atlantic	116,975	104,335	12.1%	6,100	5,902	108,830	96,320	610	650	1,435	1,463
New Jersey	18,261	22,834	-20.0%	82	83	17,868	22,442	64	76	247	233
New York	30,588	27,559	11.0%	6,016	5,816	23,740	20,904	482	496	351	342
Pennsylvania	68,125	53,942	26.3%	2	2	67,222	52,974	64	78	837	888
East North Central	99,662	88,503	12.6%	34,951	29,367	61,422	56,041	848	845	2,441	2,250
Illinois	13,880	10,549	31.6%	2,091	883	11,199	9,095	225	219	364	351
Indiana	19,646	17,687	11.1%	8,616	7,259	9,807	9,282	107	102	1,116	1,044
Michigan	21,901	18,913	15.8%	7,540	5,903	13,639	12,300	348	361	373	350
Ohio	30,937	29,619	4.4%	4,609	4,751	26,062	24,610	122	127	145	131
Wisconsin	13,299	11,734	13.3%	12,095	10,571	715	754	46	35	442	374
West North Central	19,034	18,036	5.5%	16,003	15,354	2,373	2,058	196	200	462	425
Iowa	4,520	4,400	2.7%	4,193	4,054	NM	NM	60	62	267	280
Kansas	1,735	1,872	-7.3%	1,644	1,820	0	0	0	0	90	52
Minnesota	5,780	5,708	1.2%	4,835	4,984	813	593	60	60	71	70
Missouri	4,535	4,207	7.8%	2,878	2,656	1,560	1,460	74	74	23	17
Nebraska	807	588	37.4%	805	585	0	0	2	3	0	0
North Dakota	786	630	24.7%	776	625	0	0	0	0	10	5
South Dakota	871	631	37.9%	871	631	0	0	0	0	0	0
South Atlantic	234,194	219,461	6.7%	192,894	181,579	37,512	34,230	652	696	3,136	2,956
Delaware	2,868	2,776	3.3%	11	17	2,213	2,121	0	0	643	638
District of Columbia	21	14	49.1%	0	0	0	0	21	14	0	0
Florida	109,460	103,074	6.2%	104,040	98,320	4,457	3,813	14	11	949	930
Georgia	33,870	31,948	6.0%	25,339	24,006	8,103	7,571	0	0	429	371
Maryland	8,552	9,102	-6.0%	1,944	2,636	6,031	5,810	549	612	28	44
North Carolina	24,737	23,907	3.5%	19,855	18,949	4,718	4,818	60	50	104	90
South Carolina	14,755	13,654	8.1%	14,318	13,208	326	375	0	0	111	71
Virginia	38,479	34,080	12.9%	27,333	24,336	10,633	9,279	8	8	506	457
West Virginia	1,452	906	60.3%	54	108	1,031	443	0	0	367	355
East South Central	80,599	77,109	4.5%	57,704	52,121	21,101	23,248	134	121	1,661	1,618
Alabama	31,605	32,328	-2.2%	10,718	11,607	20,119	19,957	0	0	768	764
Kentucky	8,359	8,055	3.8%	7,859	7,705	366	215	0	0	135	135
Mississippi	31,550	27,264	15.7%	30,672	23,937	606	3,065	0	0	273	261
Tennessee	9,084	9,462	-4.0%	8,456	8,872	10	11	134	121	485	457
West South Central	224,212	215,687	4.0%	80,871	73,965	103,538	101,648	538	560	39,265	39,514
Arkansas	9,645	11,254	-14.3%	8,741	10,295	747	749	NM	NM	135	189
Louisiana	42,774	40,953	4.4%	25,600	22,652	2,202	2,732	109	89	14,863	15,480
Oklahoma	27,680	24,050	15.1%	17,889	14,991	9,500	8,833	0	0	291	226
Texas	144,113	139,430	3.4%	28,641	26,027	91,088	89,334	408	450	23,975	23,619
Mountain	68,762	62,327	10.3%	55,139	50,147	12,482	11,106	227	242	913	832
Arizona	27,613	24,071	14.7%	21,211	18,035	6,324	5,957	78	80	0	0
Colorado	10,889	9,689	12.4%	9,320	8,286	1,550	1,390	5	1	14	12
Idaho	2,192	1,709	28.3%	1,067	947	1,026	671	23	22	77	69
Montana	223	282	-20.8%	198	196	23	84	0	0	NM	2
Nevada	14,915	14,002	6.5%	13,463	12,555	1,248	1,234	34	38	170	175
New Mexico	7,139	6,456	10.6%	4,803	4,667	2,271	1,727	54	58	10	4
Utah	5,017	5,564	-9.8%	4,764	5,258	38	42	33	43	181	221
Wyoming	774	553	40.2%	314	203	1	1	0	0	459	349
Pacific Contiguous	60,899	58,705	3.7%	24,507	22,956	29,296	28,714	922	992	6,173	6,043
California	44,078	41,670	5.8%	14,390	13,732	23,005	21,028	886	959	5,797	5,951
Oregon	10,001	10,632	-5.9%	5,261	5,177	4,638	5,385	27	26	75	44
Washington	6,819	6,403	6.5%	4,857	4,047	1,653	2,301	8	7	302	48
Pacific Noncontiguous	1,746	1,643	6.3%	1,708	1,601	0	0	0	0	38	42
Alaska	1,746	1,643	6.3%	1,708	1,601	0	0	0	0	38	42
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	935,600	873,834	7.1%	470,044	433,095	404,373	379,829	4,760	4,919	56,424	55,990

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

NM = Not meaningful due to large relative standard error or excessive percentage change.

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

Negative generation denotes that electric power consumed for plant use exceeds gross generation.

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

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

**Table 1.7.C. Utility Scale Facility Net Generation from Natural Gas by Technology: Total (All Sectors), 2010-July 2020
(Thousand Megawatthours)**

Period	Natural Gas					Total
	Natural Gas Fired Combined Cycle	Natural Gas Fired Combustion Turbine	Steam Turbine	Internal Combustion Engine	Natural Gas Other	
Annual Factors						
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	1,094,952	111,732	84,520	4,370	869	1,296,442
2018	1,231,946	132,866	98,017	5,203	1,101	1,469,133
2019	1,330,364	135,654	109,602	6,043	152	1,581,815
Year 2018						
January	93,426	10,362	6,045	382	77	110,293
February	86,046	8,021	4,015	352	77	98,512
March	90,850	9,834	5,356	395	88	106,524
April	82,423	9,766	5,761	348	73	98,371
May	94,192	10,839	9,763	421	68	115,284
June	108,641	11,513	10,170	424	79	130,826
July	133,649	15,618	14,735	630	116	164,749
August	133,733	14,426	12,809	587	122	161,676
Sept	118,249	12,775	10,195	465	102	141,786
October	102,793	11,156	8,654	428	111	123,142
November	91,899	9,822	5,963	389	94	108,168
December	96,044	8,733	4,551	381	92	109,802
Year 2019						
January	105,687	7,722	5,542	346	10	119,307
February	97,877	7,398	5,327	394	9	111,005
March	98,275	7,716	6,558	387	10	112,945
April	86,329	9,029	7,278	358	12	103,006
May	96,563	10,004	9,267	389	13	116,236
June	115,478	10,748	10,300	455	13	136,994
July	139,491	18,801	15,231	802	16	174,341
August	141,757	18,269	15,578	835	19	176,458
Sept	123,665	13,981	12,455	636	16	150,753
October	109,426	13,292	10,391	543	15	133,667
November	101,265	10,088	5,910	489	9	117,762
December	114,550	8,609	5,764	410	9	129,342
Year 2020						
January	117,472	8,641	6,449	409	9	132,980
February	110,696	8,581	6,335	404	8	126,024
March	106,077	9,495	7,481	507	10	123,569
April	93,433	7,623	6,670	401	10	108,138
May	98,720	9,178	7,892	436	9	116,236
June	118,512	13,018	11,145	560	13	143,247
July	145,127	21,968	17,470	826	16	185,407

Values for 2018 and prior years are final. Values for 2019 and 2020 are preliminary.

The 'Natural Gas Other' category consists of power plants with prime movers of Fuel Cells and Other Prime Movers that consume natural gas.

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

Sources: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report; U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report; and predecessor forms.

Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report.

**Table 1.8.A. Utility Scale Facility Net Generation from Other Gases
by State, by Sector, July 2020 and 2019 (Thousand Megawatthours)**

Census Division and State	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	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
New England	0	0	--	0	0	0	0	0	0	0	0
Connecticut	0	0	--	0	0	0	0	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	0	0	--	0	0	0	0	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	NM	72	NM	0	0	0	0	0	0	NM	72
New Jersey	16	19	-16.0%	0	0	0	0	0	0	16	19
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	NM	53	NM	0	0	0	0	0	0	NM	53
East North Central	159	492	-67.6%	6	18	NM	215	0	0	131	259
Illinois	22	24	-5.7%	0	0	0	0	0	0	22	24
Indiana	97	224	-56.8%	0	0	0	0	0	0	97	224
Michigan	17	174	-90.0%	6	18	11	156	0	0	0	0
Ohio	NM	70	NM	0	0	NM	60	0	0	12	10
Wisconsin	0	0	--	0	0	0	0	0	0	0	0
West North Central	3	5	-37.1%	0	0	0	0	0	0	3	5
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	5	-37.1%	0	0	0	0	0	0	3	5
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	25	35	-29.1%	0	0	0	0	0	0	25	35
Delaware	22	31	-27.1%	0	0	0	0	0	0	22	31
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	0	0	-15.7%	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	2	4	-43.4%	0	0	0	0	0	0	2	4
East South Central	NM	NM	NM	0	0	0	0	0	0	NM	NM
Alabama	NM	NM	NM	0	0	0	0	0	0	NM	NM
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	1	1	-28.6%	0	0	0	0	0	0	1	1
West South Central	443	479	-7.6%	0	0	121	139	0	0	322	340
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	229	230	-0.4%	0	0	0	0	0	0	229	230
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	214	249	-14.2%	0	0	121	139	0	0	93	110
Mountain	34	5	588.7%	0	0	1	1	0	0	33	NM
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	-23.9%	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	2	2	-21.7%	0	0	0	0	0	0	2	2
Wyoming	31	NM	NM	0	0	0	0	0	0	31	NM
Pacific Contiguous	183	200	-8.6%	0	0	0	34	0	0	183	166
California	155	166	-6.7%	0	0	0	0	0	0	155	166
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	28	34	-18.0%	0	0	0	34	0	0	28	0
Pacific Noncontiguous	0	0	-100.0%	0	0	0	0	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	0	0	-100.0%	0	0	0	0	0	0	0	0
U.S. Total	878	1,290	-32.0%	6	18	144	390	0	0	728	882

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

NM = Not meaningful due to large relative standard error or excessive percentage change.

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

Negative generation denotes that electric power consumed for plant use exceeds gross generation.

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

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

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

by State, by Sector, Year-to-Date through July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	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	
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 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	389	441	-11.9%	0	0	26	0	0	0	363	441
New Jersey	118	122	-3.5%	0	0	0	0	0	0	118	122
New York	0	2	-100.0%	0	0	0	0	0	0	0	2
Pennsylvania	271	317	-14.7%	0	0	26	0	0	0	245	317
East North Central	2,066	3,002	-31.2%	47	106	631	1,298	0	0	1,388	1,598
Illinois	174	143	22.1%	0	0	0	0	0	0	174	143
Indiana	1,135	1,359	-16.5%	0	0	0	0	0	0	1,135	1,359
Michigan	412	1,052	-60.8%	47	106	365	946	0	0	0	0
Ohio	344	448	-23.3%	0	0	266	352	0	0	78	96
Wisconsin	0	0	--	0	0	0	0	0	0	0	0
West North Central	23	29	-22.9%	0	0	0	0	0	0	23	29
Iowa	0	0	--	0	0	0	0	0	0	0	0
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	0	0	--	0	0	0	0	0	0	0	0
Missouri	0	0	--	0	0	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	23	29	-22.9%	0	0	0	0	0	0	23	29
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	124	134	-7.3%	0	0	0	0	0	0	124	134
Delaware	98	109	-9.9%	0	0	0	0	0	0	98	109
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	0	0	-33.2%	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	26	25	4.2%	0	0	0	0	0	0	26	25
East South Central	10	10	4.2%	0	0	0	0	0	0	10	10
Alabama	NM	NM	NM	0	0	0	0	0	0	NM	NM
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	7	7	-3.9%	0	0	0	0	0	0	7	7
West South Central	2,983	3,128	-4.6%	0	0	889	999	0	0	2,094	2,129
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	1,477	1,479	-0.1%	0	0	0	0	0	0	1,477	1,479
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	1,507	1,650	-8.7%	0	0	889	999	0	0	618	651
Mountain	236	158	49.2%	0	0	7	5	0	0	229	153
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	7	5	45.7%	0	0	7	5	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	3	9	-71.7%	0	0	0	0	0	0	3	9
Wyoming	226	144	57.0%	0	0	0	0	0	0	226	144
Pacific Contiguous	1,092	1,057	3.3%	0	0	87	163	0	0	1,006	894
California	910	894	1.7%	0	0	0	0	0	0	910	894
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	183	163	12.1%	0	0	87	163	0	0	96	0
Pacific Noncontiguous	3	4	-20.5%	0	0	0	0	0	0	3	4
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	3	4	-20.5%	0	0	0	0	0	0	3	4
U.S. Total	6,927	7,963	-13.0%	47	106	1,640	2,465	0	0	5,239	5,392

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells. NM = Not meaningful due to large relative standard error or excessive percentage change.

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

Negative generation denotes that electric power consumed for plant use exceeds gross generation.

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

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

Table 1.9.A. Utility Scale Facility Net Generation from Nuclear Energy by State, by Sector, July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
	Generation at Utility Scale Facilities			Electric Utilities		Independent Power Producers		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
New England	2,472	2,465	0.3%	0	0	2,472	2,465	0	0	0	0
Connecticut	1,544	1,538	0.4%	0	0	1,544	1,538	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	927	927	0.0%	0	0	927	927	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	12,341	13,817	-10.7%	0	0	12,341	13,817	0	0	0	0
New Jersey	2,560	2,513	1.9%	0	0	2,560	2,513	0	0	0	0
New York	3,164	3,922	-19.3%	0	0	3,164	3,922	0	0	0	0
Pennsylvania	6,617	7,382	-10.4%	0	0	6,617	7,382	0	0	0	0
East North Central	13,218	13,773	-4.0%	1,603	2,325	11,615	11,448	0	0	0	0
Illinois	8,586	8,594	-0.1%	0	0	8,586	8,594	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	2,187	2,831	-22.8%	1,603	2,325	584	506	0	0	0	0
Ohio	1,558	1,452	7.3%	0	0	1,558	1,452	0	0	0	0
Wisconsin	887	896	-1.0%	0	0	887	896	0	0	0	0
West North Central	3,938	4,061	-3.0%	3,580	3,620	359	441	0	0	0	0
Iowa	359	441	-18.7%	0	0	359	441	0	0	0	0
Kansas	890	890	-0.1%	890	890	0	0	0	0	0	0
Minnesota	1,232	1,263	-2.4%	1,232	1,263	0	0	0	0	0	0
Missouri	888	889	-0.1%	888	889	0	0	0	0	0	0
Nebraska	570	577	-1.3%	570	577	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	18,164	18,342	-1.0%	16,865	17,041	1,299	1,300	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	2,418	2,741	-11.8%	2,418	2,741	0	0	0	0	0	0
Georgia	3,028	2,886	4.9%	3,028	2,886	0	0	0	0	0	0
Maryland	1,299	1,300	-0.1%	0	0	1,299	1,300	0	0	0	0
North Carolina	3,845	3,842	0.1%	3,845	3,842	0	0	0	0	0	0
South Carolina	4,932	4,922	0.2%	4,932	4,922	0	0	0	0	0	0
Virginia	2,642	2,650	-0.3%	2,642	2,650	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	7,661	8,330	-8.0%	7,661	8,330	0	0	0	0	0	0
Alabama	3,414	3,926	-13.1%	3,414	3,926	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	936	1,044	-10.4%	936	1,044	0	0	0	0	0	0
Tennessee	3,311	3,359	-1.4%	3,311	3,359	0	0	0	0	0	0
West South Central	6,618	5,949	11.2%	2,902	2,246	3,716	3,704	0	0	0	0
Arkansas	1,358	660	105.7%	1,358	660	0	0	0	0	0	0
Louisiana	1,544	1,586	-2.6%	1,544	1,586	0	0	0	0	0	0
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	3,716	3,704	0.3%	0	0	3,716	3,704	0	0	0	0
Mountain	2,929	2,936	-0.2%	2,929	2,936	0	0	0	0	0	0
Arizona	2,929	2,936	-0.2%	2,929	2,936	0	0	0	0	0	0
Colorado	0	0	--	0	0	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	0	0	--	0	0	0	0	0	0	0	0
New Mexico	0	0	--	0	0	0	0	0	0	0	0
Utah	0	0	--	0	0	0	0	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	2,045	2,525	-19.0%	2,045	2,525	0	0	0	0	0	0
California	1,279	1,687	-24.2%	1,279	1,687	0	0	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	766	838	-8.6%	766	838	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	69,385	72,199	-3.9%	37,583	39,023	31,802	33,176	0	0	0	0

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

NM = Not meaningful due to large relative standard error or excessive percentage change.

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

Negative generation denotes that electric power consumed for plant use exceeds gross generation.

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

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

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

by State, by Sector, Year-to-Date through July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
	Generation at Utility Scale Facilities			Electric Utilities		Independent Power Producers		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	14,719	17,868	-17.6%	0	0	14,719	17,868	0	0	0	0
Connecticut	9,433	9,345	0.9%	0	0	9,433	9,345	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	0	2,177	-100.0%	0	0	0	2,177	0	0	0	0
New Hampshire	5,286	6,346	-16.7%	0	0	5,286	6,346	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	83,086	90,249	-7.9%	0	0	83,086	90,249	0	0	0	0
New Jersey	16,056	15,415	4.2%	0	0	16,056	15,415	0	0	0	0
New York	23,067	25,194	-8.4%	0	0	23,067	25,194	0	0	0	0
Pennsylvania	43,962	49,640	-11.4%	0	0	43,962	49,640	0	0	0	0
East North Central	91,386	92,320	-1.0%	13,258	15,226	78,128	77,093	0	0	0	0
Illinois	57,941	58,181	-0.4%	0	0	57,941	58,181	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	17,379	19,149	-9.2%	13,258	15,226	4,121	3,923	0	0	0	0
Ohio	10,277	9,352	9.9%	0	0	10,277	9,352	0	0	0	0
Wisconsin	5,788	5,638	2.7%	0	0	5,788	5,638	0	0	0	0
West North Central	27,895	26,053	7.1%	25,100	23,039	2,795	3,014	0	0	0	0
Iowa	2,795	3,014	-7.3%	0	0	2,795	3,014	0	0	0	0
Kansas	6,162	6,196	-0.6%	6,162	6,196	0	0	0	0	0	0
Minnesota	8,796	8,109	8.5%	8,796	8,109	0	0	0	0	0	0
Missouri	6,102	4,705	29.7%	6,102	4,705	0	0	0	0	0	0
Nebraska	4,040	4,030	0.3%	4,040	4,030	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	118,967	119,581	-0.5%	110,404	111,081	8,564	8,501	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	17,261	16,786	2.8%	17,261	16,786	0	0	0	0	0	0
Georgia	18,758	18,779	-0.1%	18,758	18,779	0	0	0	0	0	0
Maryland	8,564	8,501	0.7%	0	0	8,564	8,501	0	0	0	0
North Carolina	24,909	23,902	4.2%	24,909	23,902	0	0	0	0	0	0
South Carolina	31,847	34,075	-6.5%	31,847	34,075	0	0	0	0	0	0
Virginia	17,628	17,539	0.5%	17,628	17,539	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	49,998	53,915	-7.3%	49,998	53,915	0	0	0	0	0	0
Alabama	25,574	25,127	1.8%	25,574	25,127	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	3,481	6,606	-47.3%	3,481	6,606	0	0	0	0	0	0
Tennessee	20,943	22,183	-5.6%	20,943	22,183	0	0	0	0	0	0
West South Central	43,156	38,088	13.3%	19,321	14,220	23,834	23,868	0	0	0	0
Arkansas	8,427	7,788	8.2%	8,427	7,788	0	0	0	0	0	0
Louisiana	10,894	6,432	69.4%	10,894	6,432	0	0	0	0	0	0
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	23,834	23,868	-0.1%	0	0	23,834	23,868	0	0	0	0
Mountain	18,813	19,128	-1.6%	18,813	19,128	0	0	0	0	0	0
Arizona	18,813	19,128	-1.6%	18,813	19,128	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	16,231	15,000	8.2%	16,231	15,000	0	0	0	0	0	0
California	10,982	10,366	5.9%	10,982	10,366	0	0	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	5,250	4,634	13.3%	5,250	4,634	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	464,250	472,203	-1.7%	253,124	251,610	211,126	220,593	0	0	0	0

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells. NM = Not meaningful due to large relative standard error or excessive percentage change.

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

Negative generation denotes that electric power consumed for plant use exceeds gross generation.

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

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

Table 1.10.A. Utility Scale Facility Net Generation from Hydroelectric (Conventional) Power by State, by Sector, July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
	Generation at Utility Scale Facilities			Electric Utilities		Independent Power Producers		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
New England	533	642	-17.1%	74	90	450	542	0	0	NM	NM
Connecticut	39	44	-11.7%	NM	NM	38	43	0	0	0	0
Maine	246	274	-10.1%	NM	0	237	264	0	0	NM	NM
Massachusetts	82	96	-14.8%	NM	24	63	71	0	0	0	0
New Hampshire	78	121	-35.5%	NM	31	NM	91	0	0	0	0
Rhode Island	0	0	-15.8%	0	0	0	0	0	0	0	0
Vermont	88	108	-18.5%	NM	35	63	73	0	0	0	0
Middle Atlantic	2,870	2,988	-3.9%	2,233	2,252	634	730	0	0	NM	5
New Jersey	1	2	-65.7%	0	0	1	2	0	0	0	0
New York	2,556	2,632	-2.9%	2,231	2,247	322	380	0	0	NM	5
Pennsylvania	313	354	-11.6%	2	6	311	348	0	0	0	0
East North Central	423	309	37.1%	381	273	30	26	0	0	12	NM
Illinois	13	12	6.5%	NM	NM	NM	8	0	0	0	0
Indiana	NM	20	NM	NM	20	0	0	0	0	0	0
Michigan	151	99	53.2%	141	90	NM	NM	0	0	NM	NM
Ohio	NM	25	NM	NM	22	0	3	0	0	0	0
Wisconsin	233	152	53.3%	209	136	NM	NM	0	0	11	NM
West North Central	1,373	930	47.7%	1,340	906	28	NM	0	0	5	9
Iowa	92	54	71.8%	92	53	1	1	0	0	0	0
Kansas	4	0	NM	0	0	4	0	0	0	0	0
Minnesota	100	68	47.3%	72	44	24	NM	0	0	5	9
Missouri	NM	83	NM	NM	83	0	0	0	0	0	0
Nebraska	136	89	53.6%	136	89	0	0	0	0	0	0
North Dakota	341	206	65.3%	341	206	0	0	0	0	0	0
South Dakota	665	430	54.8%	665	430	0	0	0	0	0	0
South Atlantic	1,203	1,608	-25.2%	1,041	1,365	101	183	1	2	59	58
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	20	NM	NM	20	0	0	0	0	0	0
Georgia	230	335	-31.3%	227	333	NM	NM	0	0	NM	1
Maryland	50	126	-60.0%	0	0	50	126	0	0	0	0
North Carolina	461	535	-13.8%	456	528	NM	NM	1	1	NM	NM
South Carolina	171	279	-38.9%	166	274	NM	NM	0	0	0	0
Virginia	133	160	-16.8%	127	156	NM	NM	0	0	0	0
West Virginia	142	154	-8.1%	49	55	36	43	0	0	56	57
East South Central	1,866	2,191	-14.8%	1,865	2,190	NM	NM	0	0	0	0
Alabama	704	917	-23.2%	704	917	0	0	0	0	0	0
Kentucky	394	400	-1.4%	393	399	NM	NM	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	768	875	-12.2%	768	875	0	0	0	0	0	0
West South Central	421	674	-37.5%	319	569	102	105	0	0	0	0
Arkansas	168	284	-40.9%	162	279	NM	NM	0	0	0	0
Louisiana	94	96	-1.9%	0	0	94	96	0	0	0	0
Oklahoma	115	183	-37.0%	115	183	0	0	0	0	0	0
Texas	NM	110	NM	NM	107	2	3	0	0	0	0
Mountain	3,378	2,554	32.3%	3,248	2,460	127	92	3	2	0	0
Arizona	605	632	-4.2%	605	632	0	0	0	0	0	0
Colorado	174	145	20.3%	148	123	23	NM	3	2	0	0
Idaho	1,076	701	53.5%	994	646	82	56	0	0	0	0
Montana	1,115	720	54.9%	1,102	711	NM	NM	0	0	0	0
Nevada	209	216	-3.2%	202	210	NM	NM	0	0	0	0
New Mexico	NM	NM	NM	NM	NM	0	0	0	0	0	0
Utah	89	61	46.4%	89	61	0	0	0	0	0	0
Wyoming	95	67	42.1%	93	65	2	2	0	0	0	0
Pacific Contiguous	13,728	11,718	17.2%	13,511	11,431	216	286	NM	NM	0	0
California	2,695	4,471	-39.7%	2,543	4,227	152	243	NM	NM	0	0
Oregon	2,982	1,854	60.8%	2,959	1,838	24	NM	0	0	0	0
Washington	8,050	5,392	49.3%	8,010	5,365	41	NM	0	0	0	0
Pacific Noncontiguous	166	117	41.6%	145	100	1	2	NM	NM	NM	NM
Alaska	162	110	47.2%	144	99	0	0	NM	NM	0	0
Hawaii	NM	NM	NM	0	1	1	2	0	0	NM	NM
U.S. Total	25,960	23,730	9.4%	24,157	21,637	1,690	1,983	23	NM	90	94

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

Negative generation denotes that electric power consumed for plant use exceeds gross generation.

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

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

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

by State, by Sector, Year-to-Date through July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
	Generation at Utility Scale Facilities			Electric Utilities		Independent Power Producers		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	4,710	4,641	1.5%	682	677	3,955	3,891	3	4	70	69
Connecticut	330	333	-0.8%	20	28	310	305	0	0	0	0
Maine	2,020	1,967	2.7%	NM	0	1,949	1,898	0	0	70	69
Massachusetts	698	686	1.6%	169	171	526	512	3	4	0	0
New Hampshire	865	869	-0.4%	231	218	634	651	0	0	0	0
Rhode Island	3	2	8.1%	0	0	3	2	0	0	0	0
Vermont	794	783	1.4%	260	261	534	523	0	0	0	0
Middle Atlantic	20,830	19,930	4.5%	15,439	14,659	5,347	5,226	5	5	39	40
New Jersey	12	24	-50.5%	0	0	12	24	0	0	0	0
New York	18,194	17,341	4.9%	15,372	14,580	2,778	2,717	5	5	39	40
Pennsylvania	2,624	2,565	2.3%	67	79	2,557	2,486	0	0	0	0
East North Central	2,779	2,488	11.7%	2,480	2,213	219	203	0	1	80	71
Illinois	93	75	23.1%	35	25	57	49	0	1	0	0
Indiana	143	145	-1.3%	143	145	0	0	0	0	0	0
Michigan	930	824	12.9%	864	756	60	63	0	0	NM	NM
Ohio	172	182	-5.5%	152	160	20	22	0	0	0	0
Wisconsin	1,440	1,261	14.2%	1,285	1,126	82	69	0	0	74	66
West North Central	8,814	7,762	13.6%	8,596	7,563	171	141	0	0	46	58
Iowa	565	469	20.5%	560	464	5	5	0	0	0	0
Kansas	22	11	103.4%	0	0	22	11	0	0	0	0
Minnesota	630	560	12.5%	439	377	144	125	0	0	46	58
Missouri	578	622	-7.0%	578	622	0	0	0	0	0	0
Nebraska	842	741	13.6%	842	741	0	0	0	0	0	0
North Dakota	2,086	1,769	17.9%	2,086	1,769	0	0	0	0	0	0
South Dakota	4,091	3,590	13.9%	4,091	3,590	0	0	0	0	0	0
South Atlantic	12,530	12,618	-0.7%	10,246	10,030	1,836	2,159	11	12	438	415
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	132	141	-6.4%	132	141	0	0	0	0	0	0
Georgia	2,499	2,432	2.8%	2,475	2,414	NM	NM	0	0	11	6
Maryland	1,389	1,717	-19.1%	0	0	1,389	1,717	0	0	0	0
North Carolina	4,257	4,110	3.6%	4,209	4,058	34	37	8	11	NM	NM
South Carolina	1,995	2,014	-0.9%	1,946	1,964	47	48	2	2	0	0
Virginia	1,121	1,102	1.8%	1,081	1,063	40	39	0	0	0	0
West Virginia	1,138	1,102	3.2%	403	391	313	306	0	0	421	404
East South Central	16,423	15,964	2.9%	16,417	15,958	NM	NM	0	0	0	0
Alabama	7,466	7,297	2.3%	7,466	7,297	0	0	0	0	0	0
Kentucky	2,542	2,413	5.3%	2,536	2,407	NM	NM	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	6,415	6,253	2.6%	6,415	6,253	0	0	0	0	0	0
West South Central	4,770	4,811	-0.8%	4,004	4,067	766	743	NM	NM	0	0
Arkansas	1,990	2,013	-1.1%	1,956	1,982	33	31	0	0	0	0
Louisiana	714	687	4.0%	0	0	714	687	0	0	0	0
Oklahoma	1,306	1,314	-0.6%	1,306	1,314	0	0	0	0	0	0
Texas	761	798	-4.7%	742	771	18	26	NM	NM	0	0
Mountain	20,780	19,209	8.2%	20,001	18,502	772	700	8	7	0	0
Arizona	3,824	3,650	4.8%	3,824	3,650	0	0	0	0	0	0
Colorado	1,064	1,052	1.1%	924	918	132	127	8	7	0	0
Idaho	6,612	5,831	13.4%	6,107	5,376	505	455	0	0	0	0
Montana	6,850	6,012	13.9%	6,769	5,940	81	72	0	0	0	0
Nevada	1,209	1,538	-21.4%	1,168	1,506	41	32	0	0	0	0
New Mexico	86	89	-3.9%	86	89	0	0	0	0	0	0
Utah	556	505	10.2%	549	496	7	9	0	0	0	0
Wyoming	581	532	9.2%	575	526	6	6	0	0	0	0
Pacific Contiguous	83,777	88,961	-5.8%	82,594	87,111	1,177	1,838	NM	NM	0	0
California	14,066	27,252	-48.4%	13,278	25,753	783	1,486	NM	NM	0	0
Oregon	21,025	19,015	10.6%	20,880	18,883	145	132	0	0	0	0
Washington	48,687	42,694	14.0%	48,437	42,475	250	219	0	0	0	0
Pacific Noncontiguous	1,039	941	10.3%	894	811	16	11	110	97	19	22
Alaska	999	902	10.8%	889	804	0	0	110	97	0	0
Hawaii	40	40	-0.3%	5	6	16	11	0	0	19	22
U.S. Total	176,452	177,325	-0.5%	161,351	161,590	14,265	14,919	144	140	692	676

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Negative generation denotes that electric power consumed for plant use exceeds gross generation.

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

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

Table 1.11.A. Utility Scale Facility Net Generation from Renewable Sources Excluding Hydroelectric by State, by Sector, July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
	Generation at Utility Scale Facilities			Electric Utilities		Independent Power Producers		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
New England	920	997	-7.7%	65	86	745	793	12	10	98	107
Connecticut	89	88	1.1%	0	0	87	86	NM	NM	NM	NM
Maine	317	377	-16.0%	0	0	217	268	3	3	97	106
Massachusetts	261	240	8.9%	18	15	238	220	4	4	NM	NM
New Hampshire	117	163	-28.0%	0	27	114	134	4	1	0	0
Rhode Island	47	39	21.5%	0	0	47	39	0	0	0	0
Vermont	88	90	-1.8%	47	44	42	46	0	0	0	0
Middle Atlantic	1,239	1,235	0.3%	9	9	1,114	1,108	61	59	54	59
New Jersey	238	215	10.6%	9	9	198	177	30	29	NM	NM
New York	588	584	0.7%	0	0	555	549	19	19	14	16
Pennsylvania	412	436	-5.4%	0	0	361	382	12	11	39	42
East North Central	2,218	2,274	-2.5%	360	317	1,719	1,810	14	15	125	132
Illinois	841	844	-0.3%	10	9	831	834	NM	NM	0	0
Indiana	382	413	-7.4%	49	42	326	364	2	2	5	5
Michigan	567	589	-3.8%	177	164	335	367	4	4	50	54
Ohio	184	179	2.8%	NM	NM	155	151	NM	NM	26	25
Wisconsin	244	249	-2.1%	122	100	72	95	NM	NM	6	44
West North Central	6,366	5,883	8.2%	1,917	1,864	4,367	3,940	20	22	62	57
Iowa	1,764	1,716	2.8%	1,253	1,218	502	489	3	4	6	6
Kansas	1,655	1,677	-1.3%	140	157	1,514	1,519	NM	NM	0	0
Minnesota	1,037	999	3.8%	173	170	800	767	9	11	56	51
Missouri	228	219	4.0%	3	3	219	211	6	5	0	0
Nebraska	582	469	24.1%	25	25	557	444	1	0	0	0
North Dakota	763	630	21.1%	277	243	485	387	NM	NM	0	0
South Dakota	337	173	95.0%	45	49	291	124	0	0	0	0
South Atlantic	4,187	3,506	19.4%	908	607	2,416	1,973	38	38	825	887
Delaware	11	11	7.8%	NM	NM	10	9	0	0	NM	NM
District of Columbia	6	6	-12.7%	0	0	NM	NM	4	5	0	0
Florida	1,009	736	37.2%	618	364	234	209	5	4	153	158
Georgia	850	688	23.6%	42	33	488	301	NM	NM	319	353
Maryland	136	134	2.1%	NM	NM	131	128	4	5	0	0
North Carolina	1,193	1,062	12.3%	61	45	1,012	912	13	13	107	92
South Carolina	399	313	27.6%	8	33	255	128	0	0	136	152
Virginia	477	451	5.8%	176	130	181	179	12	11	108	131
West Virginia	104	105	-0.9%	0	0	104	105	0	0	0	0
East South Central	645	689	-6.3%	16	16	131	138	NM	NM	498	535
Alabama	334	365	-8.7%	4	3	39	56	0	0	291	306
Kentucky	42	46	-9.5%	12	12	NM	1	0	0	29	33
Mississippi	167	164	2.1%	0	0	44	34	0	0	124	130
Tennessee	102	114	-9.8%	NM	NM	48	47	NM	NM	54	66
West South Central	10,610	9,952	6.6%	128	137	10,194	9,415	7	6	281	394
Arkansas	102	148	-30.9%	NM	NM	28	28	3	0	71	119
Louisiana	124	184	-32.6%	NM	NM	6	7	0	0	117	177
Oklahoma	1,998	2,219	-10.0%	105	113	1,870	2,080	0	0	23	25
Texas	8,386	7,401	13.3%	22	23	8,290	7,300	4	6	70	73
Mountain	4,559	4,297	6.1%	519	488	3,914	3,726	45	46	81	37
Arizona	697	622	12.0%	80	75	615	546	NM	NM	0	0
Colorado	1,137	1,041	9.2%	202	205	932	834	NM	NM	0	0
Idaho	265	293	-9.6%	NM	NM	238	246	1	1	15	35
Montana	161	147	10.1%	NM	NM	145	130	0	0	2	2
Nevada	923	874	5.6%	24	5	861	829	38	40	0	0
New Mexico	653	665	-1.8%	43	35	610	630	NM	NM	0	0
Utah	390	363	7.3%	20	20	369	342	1	1	0	0
Wyoming	332	292	13.9%	125	123	144	168	0	0	64	0
Pacific Contiguous	8,175	7,808	4.7%	766	743	7,118	6,761	81	80	209	224
California	6,495	6,174	5.2%	255	227	6,094	5,799	78	76	68	72
Oregon	999	934	6.9%	173	180	772	693	2	2	52	59
Washington	680	700	-2.7%	338	336	251	269	1	NM	90	94
Pacific Noncontiguous	141	121	17.1%	18	14	105	87	18	19	NM	NM
Alaska	NM	14	NM	NM	NM	NM	NM	3	3	NM	NM
Hawaii	128	107	19.8%	11	7	102	83	15	16	0	0
U.S. Total	39,059	36,761	6.3%	4,704	4,281	31,824	29,751	297	296	2,234	2,433

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

by State, by Sector, Year-to-Date through July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
	Generation at Utility Scale Facilities			Electric Utilities		Independent Power Producers		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	6,795	6,892	-1.4%	416	475	5,635	5,650	84	97	660	670
Connecticut	597	562	6.3%	2	2	590	555	5	5	NM	NM
Maine	2,704	2,925	-7.6%	0	0	2,030	2,234	20	27	654	664
Massachusetts	1,599	1,455	9.8%	113	92	1,446	1,323	34	35	6	NM
New Hampshire	945	1,092	-13.5%	21	139	904	929	20	24	0	0
Rhode Island	349	289	20.7%	0	0	345	284	4	5	0	0
Vermont	601	568	5.7%	280	242	320	325	1	1	0	0
Middle Atlantic	9,528	9,049	5.3%	48	46	8,729	8,241	385	372	366	389
New Jersey	1,359	1,216	11.7%	48	46	1,127	999	178	167	5	5
New York	4,516	4,401	2.6%	0	0	4,297	4,169	123	125	96	107
Pennsylvania	3,653	3,432	6.4%	0	0	3,306	3,073	83	81	264	278
East North Central	22,602	21,345	5.9%	2,821	2,459	18,792	17,847	100	116	888	923
Illinois	9,603	8,612	11.5%	68	66	9,530	8,541	5	NM	0	0
Indiana	4,179	4,213	-0.8%	295	250	3,835	3,915	14	13	35	35
Michigan	5,118	4,944	3.5%	1,654	1,412	3,093	3,110	28	40	344	382
Ohio	1,839	1,741	5.6%	12	12	1,626	1,550	10	10	191	169
Wisconsin	1,862	1,835	1.5%	793	719	708	730	43	48	318	337
West North Central	58,570	49,335	18.7%	19,187	16,580	38,884	32,237	99	107	401	411
Iowa	18,116	15,445	17.3%	12,932	10,849	5,130	4,540	24	26	29	31
Kansas	14,062	11,997	17.2%	1,146	1,102	12,907	10,888	NM	9	0	0
Minnesota	8,833	8,095	9.1%	1,604	1,539	6,829	6,138	32	41	368	378
Missouri	2,005	1,829	9.6%	19	17	1,960	1,786	23	24	2	1
Nebraska	4,998	4,165	20.0%	223	216	4,766	3,942	8	7	0	0
North Dakota	7,534	6,118	23.2%	2,771	2,370	4,760	3,745	NM	NM	NM	NM
South Dakota	3,022	1,687	79.2%	491	486	2,531	1,200	0	0	0	0
South Atlantic	26,175	22,104	18.4%	5,333	3,893	14,663	11,964	250	247	5,929	6,000
Delaware	71	65	8.9%	4	4	57	52	3	3	6	6
District of Columbia	45	40	10.5%	0	0	11	9	33	32	0	0
Florida	6,372	5,038	26.5%	3,742	2,454	1,496	1,451	30	30	1,104	1,103
Georgia	5,419	4,148	30.6%	207	186	2,891	1,652	NM	1	2,319	2,309
Maryland	897	890	0.8%	5	5	866	811	26	26	0	49
North Carolina	7,022	6,196	13.3%	350	240	5,851	5,179	71	70	750	706
South Carolina	2,319	1,879	23.4%	144	244	1,257	663	0	0	918	972
Virginia	2,872	2,784	3.2%	881	759	1,075	1,084	85	85	832	855
West Virginia	1,158	1,064	8.8%	0	0	1,158	1,064	0	0	0	0
East South Central	4,369	4,276	2.2%	94	93	794	793	3	3	3,477	3,388
Alabama	2,260	2,263	-0.1%	19	18	235	330	0	0	2,006	1,915
Kentucky	277	275	0.9%	73	72	6	6	0	0	198	197
Mississippi	1,100	984	11.8%	0	0	274	199	0	0	825	784
Tennessee	732	755	-3.1%	NM	NM	279	259	3	3	448	492
West South Central	81,246	71,182	14.1%	1,054	1,014	77,822	67,395	52	49	2,319	2,724
Arkansas	696	976	-28.7%	NM	NM	161	162	16	3	519	810
Louisiana	1,157	1,279	-9.5%	NM	NM	45	44	0	0	1,112	1,234
Oklahoma	17,924	16,689	7.4%	871	841	16,869	15,679	0	0	185	169
Texas	61,469	52,238	17.7%	181	171	60,748	51,510	36	46	504	512
Mountain	32,280	29,120	10.9%	3,801	3,557	27,804	25,004	346	329	329	230
Arizona	4,030	3,626	11.1%	440	412	3,583	3,207	8	8	0	0
Colorado	8,070	7,204	12.0%	1,395	1,383	6,656	5,807	18	12	2	2
Idaho	2,292	2,254	1.7%	106	102	1,984	1,932	6	5	197	215
Montana	1,563	1,374	13.7%	145	133	1,405	1,229	0	0	13	12
Nevada	5,818	5,298	9.8%	94	24	5,418	4,976	304	296	2	1
New Mexico	5,539	4,733	17.0%	233	177	5,304	4,554	NM	NM	0	0
Utah	2,219	2,101	5.6%	130	132	2,080	1,962	8	6	0	0
Wyoming	2,749	2,529	8.7%	1,258	1,193	1,375	1,336	0	0	116	0
Pacific Contiguous	51,242	47,906	7.0%	5,307	4,705	43,958	41,257	535	505	1,442	1,438
California	38,462	36,785	4.6%	1,317	1,280	36,203	34,586	512	482	430	438
Oregon	6,695	5,496	21.8%	972	773	5,353	4,365	17	16	353	341
Washington	6,085	5,625	8.2%	3,018	2,652	2,402	2,306	6	7	658	660
Pacific Noncontiguous	991	861	15.1%	130	121	743	611	117	128	NM	NM
Alaska	121	115	5.2%	63	60	34	33	23	20	NM	NM
Hawaii	870	746	16.6%	67	61	709	578	94	107	0	0
U.S. Total	293,797	262,071	12.1%	38,191	32,943	237,825	210,999	1,970	1,954	15,811	16,175

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Negative generation denotes that electric power consumed for plant use exceeds gross generation.

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

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

Table 1.12.A. Utility Scale Facility Net Generation from Hydroelectric (Pumped Storage) Power by State, by Sector, July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
	Generation at Utility Scale Facilities			Electric Utilities		Independent Power Producers		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
New England	-29	-53	-45.7%	0	0	-29	-53	0	0	0	0
Connecticut	0	0	125.5%	0	0	0	0	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	-29	-53	-45.0%	0	0	-29	-53	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	-124	-105	17.9%	-62	-41	-62	-65	0	0	0	0
New Jersey	-21	-16	30.4%	-21	-16	0	0	0	0	0	0
New York	-41	-25	66.1%	-41	-25	0	0	0	0	0	0
Pennsylvania	-62	-65	-3.7%	0	0	-62	-65	0	0	0	0
East North Central	-112	-109	3.3%	-112	-109	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	-112	-109	3.3%	-112	-109	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	-14	18	-175.1%	-14	18	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	-14	18	-175.1%	-14	18	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	-379	-348	9.1%	-379	-348	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	-91	-98	-7.3%	-91	-98	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	-95	-89	6.8%	-95	-89	0	0	0	0	0	0
Virginia	-193	-161	20.3%	-193	-161	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	-88	-64	37.3%	-88	-64	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	-88	-64	37.3%	-88	-64	0	0	0	0	0	0
West South Central	-6	-10	-41.4%	-6	-10	0	0	0	0	0	0
Arkansas	6	2	161.1%	6	2	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	-12	-12	-1.3%	-12	-12	0	0	0	0	0	0
Texas	0	0	--	0	0	0	0	0	0	0	0
Mountain	-5	8	-157.0%	-5	8	0	0	0	0	0	0
Arizona	19	29	-33.7%	19	29	0	0	0	0	0	0
Colorado	-24	-20	17.1%	-24	-20	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	71	40	78.8%	71	40	0	0	0	0	0	0
California	69	40	73.2%	69	40	0	0	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	2	0	-950.9%	2	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	-686	-622	10.2%	-595	-505	-91	-118	0	0	0	0

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Negative generation denotes that electric power consumed for plant use exceeds gross generation.

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

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

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

by State, by Sector, Year-to-Date through July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
	Generation at Utility Scale Facilities			Electric Utilities		Independent Power Producers		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	-216	-261	-17.2%	0	0	-216	-261	0	0	0	0
Connecticut	0	2	-95.3%	0	0	0	2	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	-216	-263	-17.9%	0	0	-216	-263	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	-614	-580	5.7%	-275	-243	-339	-338	0	0	0	0
New Jersey	-111	-67	66.2%	-111	-67	0	0	0	0	0	0
New York	-163	-176	-7.0%	-163	-176	0	0	0	0	0	0
Pennsylvania	-339	-338	0.4%	0	0	-339	-338	0	0	0	0
East North Central	-473	-410	15.2%	-473	-410	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	-473	-410	15.2%	-473	-410	0	0	0	0	0	0
Ohio	0	0	--	0	0	0	0	0	0	0	0
Wisconsin	0	0	--	0	0	0	0	0	0	0	0
West North Central	18	346	-94.8%	18	346	0	0	0	0	0	0
Iowa	0	0	--	0	0	0	0	0	0	0	0
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	0	0	--	0	0	0	0	0	0	0	0
Missouri	18	346	-94.8%	18	346	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	-1,108	-1,170	-5.3%	-1,108	-1,170	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	-135	-80	69.6%	-135	-80	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	-382	-503	-24.0%	-382	-503	0	0	0	0	0	0
Virginia	-591	-587	0.6%	-591	-587	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	-425	-349	21.8%	-425	-349	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	-425	-349	21.8%	-425	-349	0	0	0	0	0	0
West South Central	-12	-7	61.1%	-12	-7	0	0	0	0	0	0
Arkansas	53	46	14.0%	53	46	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	-65	-54	20.5%	-65	-54	0	0	0	0	0	0
Texas	0	0	--	0	0	0	0	0	0	0	0
Mountain	-36	-117	-69.3%	-36	-117	0	0	0	0	0	0
Arizona	55	-5	NM	55	-5	0	0	0	0	0	0
Colorado	-91	-112	-18.4%	-91	-112	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	-17	-51	-67.1%	-17	-51	0	0	0	0	0	0
California	-30	-53	-43.6%	-30	-53	0	0	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	13	2	580.1%	13	2	0	0	0	0	0	0
Pacific Noncontiguous	0	0	--	0	0	0	0	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	-2,882	-2,600	10.9%	-2,327	-2,001	-555	-598	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, July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	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	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
New England	158	159	-0.7%	0	0	144	144	4	4	11	11
Connecticut	49	50	-1.6%	0	0	49	50	0	0	0	0
Maine	28	30	-6.4%	0	0	14	15	4	4	11	11
Massachusetts	76	74	2.4%	0	0	76	74	0	0	0	0
New Hampshire	5	5	-2.1%	0	0	5	5	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	213	223	-4.6%	0	0	166	175	45	44	2	4
New Jersey	50	50	-0.1%	0	0	34	32	14	14	2	4
New York	82	90	-9.4%	0	0	61	69	21	21	0	0
Pennsylvania	81	83	-2.1%	0	0	71	73	10	9	0	0
East North Central	84	76	10.0%	1	2	7	7	7	7	68	60
Illinois	23	23	-0.8%	0	0	-1	-1	0	0	24	24
Indiana	42	33	29.2%	0	0	0	0	2	2	40	31
Michigan	13	15	-15.5%	0	0	8	8	5	5	0	2
Ohio	1	1	-48.3%	0	0	0	0	0	0	1	2
Wisconsin	5	4	36.5%	2	2	0	0	0	0	3	NM
West North Central	35	35	-1.2%	17	16	14	12	3	4	1	3
Iowa	0	0	--	0	0	0	0	0	0	0	0
Kansas	0	0	-0.7%	0	0	0	0	0	0	0	0
Minnesota	30	30	-1.8%	12	11	14	12	3	4	0	3
Missouri	0	0	--	0	0	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	5	5	2.1%	5	5	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	376	428	-12.0%	0	0	226	244	13	12	137	172
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	249	286	-13.0%	0	0	134	142	0	0	115	145
Georgia	4	8	-48.8%	0	0	0	0	0	0	4	8
Maryland	34	36	-4.6%	0	0	34	36	0	0	0	0
North Carolina	39	46	-14.4%	0	0	25	30	0	0	15	16
South Carolina	4	4	-6.8%	0	0	1	1	0	0	3	4
Virginia	47	48	-1.4%	0	0	34	36	13	12	0	0
West Virginia	-1	0	219.0%	0	0	-1	0	0	0	0	0
East South Central	6	4	52.2%	5	3	0	0	0	0	NM	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	5	3	50.5%	5	3	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	NM	0	NM	0	0	0	0	0	0	NM	0
West South Central	75	75	-0.7%	0	0	6	8	0	0	69	67
Arkansas	0	1	-95.1%	0	0	0	0	0	0	0	1
Louisiana	32	36	-10.2%	0	0	0	0	0	0	32	36
Oklahoma	0	1	-51.8%	0	0	0	0	0	0	0	1
Texas	42	38	11.0%	0	0	6	8	0	0	36	30
Mountain	41	51	-19.4%	7	8	17	25	0	0	17	19
Arizona	0	0	-128.8%	0	0	0	0	0	0	0	0
Colorado	6	5	0.7%	0	0	1	2	0	0	4	4
Idaho	5	7	-17.6%	0	0	0	0	0	0	5	7
Montana	16	23	-30.7%	0	0	16	23	0	0	0	0
Nevada	2	2	-2.5%	2	2	0	0	0	0	0	0
New Mexico	0	0	-51.4%	0	0	0	0	0	0	0	0
Utah	5	9	-41.4%	5	6	0	0	0	0	0	3
Wyoming	7	5	33.7%	0	0	0	0	0	0	7	5
Pacific Contiguous	76	78	-1.9%	-1	-1	28	25	0	0	50	55
California	66	68	-2.6%	-1	-1	18	15	0	0	50	55
Oregon	4	4	-14.5%	0	0	4	4	0	0	0	0
Washington	6	5	17.1%	0	0	6	5	0	0	0	0
Pacific Noncontiguous	30	32	-6.4%	12	12	0	0	18	20	0	0
Alaska	0	0	-31.4%	0	0	0	0	0	0	0	0
Hawaii	30	32	-6.6%	12	13	0	0	18	20	0	0
U.S. Total	1,094	1,162	-5.8%	42	40	609	640	90	91	354	391

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Negative generation denotes that electric power consumed for plant use exceeds gross generation.

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

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

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

by State, by Sector, Year-to-Date through July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
	Generation at Utility Scale Facilities			Electric Utilities		Independent Power Producers		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	1,091	1,088	0.2%	0	0	993	980	25	33	73	75
Connecticut	346	333	4.0%	0	0	346	333	0	0	0	0
Maine	190	207	-8.1%	0	0	93	99	25	33	73	75
Massachusetts	523	518	1.0%	0	0	523	518	0	0	0	0
New Hampshire	32	31	2.6%	0	0	32	31	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	1,443	1,429	1.0%	0	0	1,131	1,110	295	290	16	29
New Jersey	341	345	-1.2%	0	0	228	223	97	92	16	29
New York	575	533	8.0%	0	0	444	399	131	134	0	0
Pennsylvania	526	551	-4.4%	0	0	459	487	67	64	0	0
East North Central	517	509	1.5%	11	11	47	58	46	61	412	380
Illinois	129	151	-15.0%	0	0	-8	-6	0	0	136	158
Indiana	261	200	30.4%	0	0	0	0	14	13	247	187
Michigan	95	124	-22.9%	0	0	55	64	32	48	8	12
Ohio	6	8	-21.4%	-1	-1	0	0	0	0	7	8
Wisconsin	26	26	-1.1%	12	12	0	0	0	0	14	14
West North Central	247	236	4.7%	112	111	87	79	21	14	27	31
Iowa	0	0	--	0	0	0	0	0	0	0	0
Kansas	3	3	-0.6%	0	0	0	0	0	0	3	3
Minnesota	212	202	5.0%	79	80	87	79	21	14	24	28
Missouri	0	0	--	0	0	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	32	31	3.0%	32	31	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	2,557	2,748	-6.9%	-1	-1	1,532	1,597	95	96	931	1,056
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	1,712	1,858	-7.9%	-1	-1	973	1,005	0	0	740	854
Georgia	45	56	-19.7%	0	0	0	0	0	0	45	56
Maryland	160	176	-9.3%	0	0	160	176	0	0	0	0
North Carolina	303	316	-4.3%	0	0	178	190	0	0	125	126
South Carolina	26	23	14.3%	0	0	4	3	0	0	21	20
Virginia	322	324	-0.6%	0	0	227	227	95	96	0	0
West Virginia	-9	-4	139.6%	0	0	-9	-4	0	0	0	0
East South Central	39	24	62.9%	35	20	0	0	0	0	5	4
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	35	20	69.5%	35	20	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	5	4	25.8%	0	0	0	0	0	0	5	4
West South Central	498	550	-9.5%	0	0	31	52	0	0	468	497
Arkansas	3	3	-3.3%	0	0	0	0	0	0	3	3
Louisiana	255	268	-5.1%	0	0	0	0	0	0	255	268
Oklahoma	4	4	-15.6%	0	0	0	1	0	0	4	3
Texas	237	275	-13.7%	0	0	31	52	0	0	206	223
Mountain	344	407	-15.5%	52	48	134	178	0	0	157	181
Arizona	-2	-2	-35.9%	0	0	-2	-2	0	0	0	0
Colorado	37	33	10.8%	0	0	10	9	0	0	27	25
Idaho	41	40	3.1%	0	0	0	0	0	0	41	40
Montana	125	171	-26.8%	0	0	125	171	0	0	0	0
Nevada	17	12	36.2%	17	12	0	0	0	0	0	0
New Mexico	-1	-1	7.7%	-1	-1	0	0	0	0	0	0
Utah	76	113	-32.5%	36	36	0	0	0	0	40	77
Wyoming	50	40	23.6%	0	0	0	0	0	0	50	40
Pacific Contiguous	457	482	-5.2%	-7	-9	159	146	0	0	305	345
California	392	428	-8.4%	-6	-9	93	91	0	0	305	345
Oregon	24	16	53.1%	0	0	24	16	0	0	0	0
Washington	41	38	7.5%	0	0	41	39	0	0	0	0
Pacific Noncontiguous	190	219	-13.3%	75	88	0	0	115	131	0	0
Alaska	-2	-2	-17.3%	-2	-2	0	0	0	0	0	0
Hawaii	191	221	-13.3%	77	90	0	0	115	131	0	0
U.S. Total	7,382	7,691	-4.0%	277	269	4,114	4,199	597	624	2,394	2,599

Displayed values of zero may represent small values that round to zero. The Excel version of this table provides additional precision which may be accessed by selecting individual cells. NM = Not meaningful due to large relative standard error or excessive percentage change.

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

Negative generation denotes that electric power consumed for plant use exceeds gross generation.

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

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

Table 1.14.A. Utility Scale Facility Net Generation from Wind by State, by Sector, July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	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	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
New England	223	237	-5.9%	NM	NM	205	219	NM	NM	NM	NM
Connecticut	NM	NM	NM	0	0	NM	NM	0	0	0	0
Maine	135	152	-10.9%	0	0	135	152	0	0	0	0
Massachusetts	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
New Hampshire	33	31	6.2%	0	0	33	31	0	0	0	0
Rhode Island	13	12	8.1%	0	0	13	12	0	0	0	0
Vermont	25	26	-1.5%	NM	NM	14	13	0	0	0	0
Middle Atlantic	544	580	-6.1%	0	0	544	579	NM	NM	NM	NM
New Jersey	NM	NM	NM	0	0	NM	NM	0	0	0	0
New York	309	341	-9.4%	0	0	308	340	NM	NM	NM	NM
Pennsylvania	234	238	-1.4%	0	0	234	238	0	0	0	0
East North Central	1,660	1,726	-3.8%	249	224	1,405	1,495	NM	NM	NM	NM
Illinois	796	800	-0.4%	NM	NM	795	799	NM	NM	0	0
Indiana	299	338	-11.4%	0	0	299	338	0	0	0	0
Michigan	362	364	-0.5%	166	153	197	211	0	0	0	0
Ohio	88	99	-11.2%	NM	NM	82	93	0	0	NM	NM
Wisconsin	114	125	-8.8%	81	69	31	55	NM	NM	0	0
West North Central	5,957	5,523	7.8%	1,880	1,831	4,073	3,689	NM	NM	0	0
Iowa	1,742	1,696	2.7%	1,251	1,216	491	480	0	0	0	0
Kansas	1,643	1,669	-1.6%	140	157	1,501	1,511	NM	NM	0	0
Minnesota	699	700	-0.1%	149	148	549	550	NM	NM	0	0
Missouri	205	196	4.4%	0	0	205	196	0	0	0	0
Nebraska	570	460	24.0%	NM	19	552	441	0	0	0	0
North Dakota	763	630	21.1%	277	243	485	387	NM	NM	0	0
South Dakota	336	172	95.1%	45	49	291	123	0	0	0	0
South Atlantic	162	168	-3.4%	0	0	162	167	0	0	0	0
Delaware	0	0	28.8%	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	33	36	-7.1%	0	0	33	36	0	0	0	0
North Carolina	24	27	-8.3%	0	0	24	27	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	104	105	-0.9%	0	0	104	105	0	0	0	0
East South Central	NM	NM	NM	0	0	NM	NM	0	0	0	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	NM	NM	NM	0	0	NM	NM	0	0	0	0
West South Central	9,291	8,986	3.4%	116	128	9,170	8,853	4	4	NM	NM
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	1,964	2,185	-10.1%	96	106	1,869	2,078	0	0	0	0
Texas	7,326	6,802	7.7%	20	22	7,301	6,774	4	4	NM	NM
Mountain	2,192	2,131	2.8%	349	352	1,778	1,778	NM	NM	64	0
Arizona	46	46	-1.5%	0	0	46	46	0	0	0	0
Colorado	946	889	6.4%	201	204	745	685	NM	NM	0	0
Idaho	164	176	-7.1%	NM	NM	154	166	0	0	0	0
Montana	155	141	10.3%	NM	NM	141	126	0	0	0	0
Nevada	26	27	-2.0%	0	0	26	27	0	0	0	0
New Mexico	456	507	-10.1%	0	0	455	507	NM	NM	0	0
Utah	75	76	-0.5%	0	0	75	76	0	0	0	0
Wyoming	323	268	20.5%	125	123	135	145	0	0	64	0
Pacific Contiguous	2,613	2,611	0.1%	605	579	2,007	2,031	0	0	1	1
California	1,297	1,310	-1.0%	122	100	1,174	1,209	0	0	1	1
Oregon	764	742	3.0%	168	175	597	567	0	0	0	0
Washington	552	560	-1.3%	315	305	237	255	0	0	0	0
Pacific Noncontiguous	55	58	-5.6%	NM	NM	48	51	0	0	0	0
Alaska	NM	NM	NM	NM	NM	NM	NM	0	0	0	0
Hawaii	45	47	-5.6%	0	0	45	47	0	0	0	0
U.S. Total	22,700	22,024	3.1%	3,221	3,138	19,396	18,865	12	12	71	NM

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

NM = Not meaningful due to large relative standard error or excessive percentage change.

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

Negative generation denotes that electric power consumed for plant use exceeds gross generation.

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

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

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

by State, by Sector, Year-to-Date through July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	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	
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	2,297	2,204	4.2%	147	138	2,129	2,045	18	19	NM	NM
Connecticut	8	NM	NM	0	0	8	NM	0	0	0	0
Maine	1,450	1,448	0.2%	0	0	1,450	1,448	0	0	0	0
Massachusetts	149	135	10.5%	38	34	95	84	14	14	NM	NM
New Hampshire	312	250	24.8%	0	0	312	250	0	0	0	0
Rhode Island	140	135	3.9%	0	0	136	130	4	5	0	0
Vermont	238	229	3.7%	109	104	129	125	0	0	0	0
Middle Atlantic	5,177	5,110	1.3%	0	0	5,172	5,105	NM	NM	NM	NM
New Jersey	14	14	4.5%	0	0	14	14	0	0	0	0
New York	2,794	2,964	-5.7%	0	0	2,789	2,960	NM	NM	NM	NM
Pennsylvania	2,369	2,132	11.1%	0	0	2,369	2,132	0	0	0	0
East North Central	18,974	17,802	6.6%	2,243	1,916	16,665	15,822	18	17	48	47
Illinois	9,310	8,328	11.8%	8	8	9,300	8,318	NM	NM	0	0
Indiana	3,686	3,771	-2.3%	0	0	3,686	3,771	0	0	0	0
Michigan	3,733	3,435	8.7%	1,596	1,357	2,137	2,077	0	0	0	0
Ohio	1,168	1,246	-6.3%	8	NM	1,113	1,194	2	2	44	43
Wisconsin	1,078	1,023	5.4%	631	544	429	462	13	12	4	4
West North Central	56,263	47,276	19.0%	18,979	16,366	37,256	30,883	29	28	0	0
Iowa	17,975	15,312	17.4%	12,919	10,837	5,054	4,473	2	2	0	0
Kansas	13,992	11,950	17.1%	1,145	1,101	12,838	10,841	NM	9	0	0
Minnesota	6,940	6,411	8.3%	1,476	1,400	5,448	4,996	16	15	0	0
Missouri	1,878	1,703	10.3%	0	0	1,878	1,703	0	0	0	0
Nebraska	4,924	4,098	20.2%	177	172	4,747	3,926	0	0	0	0
North Dakota	7,533	6,116	23.2%	2,771	2,370	4,760	3,745	NM	NM	0	0
South Dakota	3,021	1,685	79.3%	491	486	2,530	1,199	0	0	0	0
South Atlantic	1,872	1,726	8.4%	0	0	1,869	1,723	3	3	0	0
Delaware	3	3	0.1%	0	0	0	0	3	3	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	0	0	--	0	0	0	0	0	0	0	0
Georgia	0	0	--	0	0	0	0	0	0	0	0
Maryland	346	339	2.2%	0	0	346	339	0	0	0	0
North Carolina	365	320	13.9%	0	0	365	320	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	1,158	1,064	8.8%	0	0	1,158	1,064	0	0	0	0
East South Central	30	27	11.4%	0	0	30	27	0	0	0	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	30	27	11.4%	0	0	30	27	0	0	0	0
West South Central	74,335	65,384	13.7%	1,000	969	73,295	64,375	33	32	NM	8
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	17,687	16,471	7.4%	830	804	16,857	15,668	0	0	0	0
Texas	56,648	48,913	15.8%	170	166	56,437	48,707	33	32	NM	8
Mountain	18,412	16,626	10.7%	2,891	2,800	15,400	13,819	NM	NM	116	2
Arizona	340	344	-1.2%	0	0	340	344	0	0	0	0
Colorado	7,057	6,375	10.7%	1,390	1,380	5,665	4,991	NM	NM	2	2
Idaho	1,638	1,585	3.4%	98	95	1,540	1,490	0	0	0	0
Montana	1,529	1,342	13.9%	145	133	1,384	1,209	0	0	0	0
Nevada	198	199	-0.9%	0	0	198	199	0	0	0	0
New Mexico	4,512	3,863	16.8%	0	0	4,510	3,861	NM	NM	0	0
Utah	494	502	-1.6%	0	0	494	502	0	0	0	0
Wyoming	2,644	2,415	9.5%	1,258	1,193	1,269	1,223	0	0	116	0
Pacific Contiguous	19,865	18,289	8.6%	4,310	3,695	15,548	14,587	4	4	3	3
California	9,343	9,242	1.1%	537	514	8,799	8,721	4	4	3	3
Oregon	5,375	4,388	22.5%	937	738	4,439	3,650	0	0	0	0
Washington	5,146	4,660	10.4%	2,836	2,443	2,310	2,217	0	0	0	0
Pacific Noncontiguous	457	449	1.9%	63	60	395	389	0	0	0	0
Alaska	97	93	4.4%	63	60	34	33	0	0	0	0
Hawaii	360	356	1.3%	0	0	360	356	0	0	0	0
U.S. Total	197,683	174,894	13.0%	29,632	25,945	167,758	148,775	111	109	182	65

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Negative generation denotes that electric power consumed for plant use exceeds gross generation.

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

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

**Table 1.15.A. Utility Scale Facility Net Generation from Biomass
by State, by Sector, July 2020 and 2019 (Thousand Megawatthours)**

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
	Generation at Utility Scale Facilities			Electric Utilities		Independent Power Producers		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
New England	464	575	-19.2%	27	54	331	407	9	7	97	106
Connecticut	59	67	-11.6%	0	0	59	67	0	0	0	0
Maine	181	224	-19.5%	0	0	81	115	3	3	97	106
Massachusetts	85	87	-2.2%	0	0	83	84	2	2	0	0
New Hampshire	84	132	-36.0%	0	27	81	104	4	1	0	0
Rhode Island	16	20	-19.6%	0	0	16	20	0	0	0	0
Vermont	40	45	-12.6%	27	27	NM	18	0	0	0	0
Middle Atlantic	384	426	-9.8%	0	0	292	329	41	41	51	56
New Jersey	64	69	-7.4%	0	0	51	56	13	12	0	0
New York	160	169	-5.8%	0	0	129	137	17	17	13	15
Pennsylvania	161	188	-14.4%	0	0	112	136	11	11	38	41
East North Central	431	456	-5.6%	72	64	229	255	9	10	120	126
Illinois	35	36	-3.3%	9	8	27	28	0	0	0	0
Indiana	35	35	-1.3%	24	25	4	4	2	2	5	5
Michigan	183	205	-10.7%	0	0	129	148	4	4	50	54
Ohio	58	60	-3.8%	0	0	36	39	1	1	21	20
Wisconsin	119	119	0.4%	40	31	33	36	3	4	44	48
West North Central	166	157	5.3%	33	30	54	52	17	18	62	57
Iowa	20	18	9.3%	NM	NM	10	8	3	3	6	6
Kansas	5	5	-3.8%	0	0	5	5	0	0	0	0
Minnesota	123	118	4.5%	23	21	36	36	7	9	56	51
Missouri	11	11	2.2%	2	2	3	3	6	5	0	0
Nebraska	7	6	21.7%	6	5	0	0	1	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	1,554	1,664	-6.6%	158	201	552	555	21	21	824	886
Delaware	4	4	-1.9%	0	0	3	4	0	0	NM	NM
District of Columbia	4	5	-25.4%	0	0	0	0	4	5	0	0
Florida	350	379	-7.6%	47	61	147	157	3	3	153	157
Georgia	458	463	-1.0%	0	0	139	109	0	0	319	353
Maryland	36	37	-4.8%	0	0	34	35	2	2	0	0
North Carolina	189	202	-6.5%	0	0	82	109	NM	NM	107	92
South Carolina	195	223	-12.2%	7	32	52	39	0	0	136	152
Virginia	319	352	-9.4%	103	107	95	102	12	11	108	131
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	515	565	-8.8%	7	7	10	23	0	0	497	534
Alabama	294	321	-8.4%	0	0	3	15	0	0	291	306
Kentucky	37	41	-10.6%	7	7	1	1	0	0	29	33
Mississippi	125	131	-4.9%	0	0	NM	NM	0	0	124	130
Tennessee	59	71	-17.1%	0	0	6	6	0	0	53	65
West South Central	325	446	-27.0%	0	0	46	52	0	1	279	393
Arkansas	77	125	-38.2%	0	0	6	6	0	0	71	119
Louisiana	124	184	-32.7%	0	0	6	7	0	0	117	177
Oklahoma	24	27	-10.9%	0	0	2	2	0	0	23	25
Texas	100	110	-8.9%	0	0	32	38	0	0	69	72
Mountain	68	95	-28.3%	NM	NM	49	56	2	2	16	36
Arizona	NM	21	NM	0	0	NM	21	0	0	0	0
Colorado	14	14	0.4%	0	0	14	14	0	0	0	0
Idaho	26	46	-44.4%	NM	NM	9	10	1	1	14	34
Montana	2	2	8.3%	0	0	0	0	0	0	2	2
Nevada	4	5	-3.6%	0	0	4	5	0	0	0	0
New Mexico	NM	1	NM	0	0	NM	1	0	0	0	0
Utah	6	6	-6.0%	0	0	5	5	1	1	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	694	745	-6.9%	34	42	396	422	61	61	203	220
California	478	508	-6.0%	6	6	353	377	58	57	61	68
Oregon	92	102	-9.3%	5	5	34	36	2	2	52	59
Washington	124	135	-8.6%	NM	32	10	9	1	NM	90	94
Pacific Noncontiguous	25	28	-11.7%	2	4	4	4	18	19	NM	NM
Alaska	3	3	1.2%	0	0	0	0	3	3	NM	NM
Hawaii	21	25	-13.5%	2	4	4	4	15	16	0	0
U.S. Total	4,625	5,157	-10.3%	333	404	1,963	2,157	179	180	2,150	2,416

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

NM = Not meaningful due to large relative standard error or excessive percentage change.

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

Negative generation denotes that electric power consumed for plant use exceeds gross generation.

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

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

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

by State, by Sector, Year-to-Date through July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
	Generation at Utility Scale Facilities			Electric Utilities		Independent Power Producers		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
				July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD				
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	3,265	3,710	-12.0%	149	255	2,406	2,722	56	68	654	664
Connecticut	435	447	-2.6%	0	0	435	447	0	0	0	0
Maine	1,247	1,471	-15.2%	0	0	572	779	20	27	654	664
Massachusetts	591	597	-0.9%	0	0	577	581	15	16	0	0
New Hampshire	633	842	-24.8%	21	139	593	679	20	24	0	0
Rhode Island	124	117	6.5%	0	0	124	117	0	0	0	0
Vermont	234	237	-1.0%	129	116	105	119	1	1	0	0
Middle Atlantic	2,736	2,790	-1.9%	0	0	2,111	2,143	278	274	347	373
New Jersey	447	473	-5.5%	0	0	360	390	87	83	0	0
New York	1,094	1,068	2.4%	0	0	896	856	111	113	88	99
Pennsylvania	1,195	1,248	-4.3%	0	0	855	896	80	78	260	273
East North Central	2,903	3,079	-5.7%	385	395	1,610	1,722	69	86	839	875
Illinois	247	244	1.4%	59	57	188	186	0	0	0	0
Indiana	242	237	1.8%	166	163	29	28	12	11	35	35
Michigan	1,278	1,409	-9.3%	0	0	908	988	26	39	344	382
Ohio	401	403	-0.5%	0	0	251	273	5	5	145	125
Wisconsin	735	787	-6.6%	160	175	235	247	26	32	314	333
West North Central	1,030	1,046	-1.5%	191	201	369	355	70	79	401	411
Iowa	127	124	2.3%	9	8	67	63	22	23	29	31
Kansas	36	35	1.5%	0	0	36	35	0	0	0	0
Minnesota	755	777	-2.8%	126	138	244	236	17	25	368	378
Missouri	61	60	2.0%	15	14	21	21	23	23	2	1
Nebraska	49	48	4.1%	42	41	0	0	8	7	0	0
North Dakota	NM	NM	NM	0	0	0	0	0	0	NM	NM
South Dakota	0	0	-	0	0	0	0	0	0	0	0
South Atlantic	10,894	11,045	-1.4%	980	1,295	3,835	3,599	155	155	5,925	5,996
Delaware	31	30	1.9%	0	0	24	24	0	0	6	6
District of Columbia	33	32	5.5%	0	0	0	0	33	32	0	0
Florida	2,520	2,679	-5.9%	320	418	1,074	1,137	24	23	1,103	1,102
Georgia	3,283	2,911	12.7%	0	0	964	603	0	0	2,319	2,309
Maryland	182	242	-24.9%	0	0	170	180	12	13	0	49
North Carolina	1,409	1,445	-2.5%	0	0	656	736	3	4	750	706
South Carolina	1,338	1,443	-7.2%	137	241	285	232	0	0	915	969
Virginia	2,098	2,262	-7.3%	522	636	661	688	83	84	832	855
West Virginia	0	0	-	0	0	0	0	0	0	0	0
East South Central	3,596	3,589	0.2%	50	49	73	156	0	0	3,473	3,384
Alabama	2,026	2,019	0.4%	0	0	20	104	0	0	2,006	1,915
Kentucky	253	251	0.9%	50	49	5	5	0	0	198	197
Mississippi	832	791	5.2%	0	0	7	7	0	0	825	784
Tennessee	485	529	-8.2%	0	0	41	41	0	0	444	488
West South Central	2,646	3,072	-13.8%	-1	0	333	341	3	14	2,311	2,716
Arkansas	565	856	-34.0%	0	0	43	42	3	3	519	810
Louisiana	1,156	1,278	-9.5%	0	0	45	44	0	0	1,112	1,234
Oklahoma	196	180	8.8%	0	0	11	11	0	0	185	169
Texas	729	758	-3.8%	-1	0	234	243	0	11	496	504
Mountain	577	614	-6.1%	8	8	348	370	14	11	206	225
Arizona	124	140	-11.1%	0	0	124	140	0	0	0	0
Colorado	98	91	7.1%	0	0	98	91	0	0	0	0
Idaho	263	291	-9.7%	8	8	55	65	6	5	194	214
Montana	13	12	6.7%	0	0	0	0	0	0	13	12
Nevada	31	30	2.5%	0	0	31	30	0	0	0	0
New Mexico	6	11	-39.6%	0	0	6	11	0	0	0	0
Utah	43	40	6.1%	0	0	35	34	8	6	0	0
Wyoming	0	0	-	0	0	0	0	0	0	0	0
Pacific Contiguous	4,810	4,917	-2.2%	257	282	2,715	2,817	426	401	1,412	1,416
California	3,277	3,363	-2.6%	43	42	2,430	2,528	403	378	400	416
Oregon	620	615	0.9%	32	31	219	226	17	16	353	341
Washington	912	939	-2.9%	181	209	66	63	6	7	658	660
Pacific Noncontiguous	163	197	-16.9%	16	38	30	29	117	128	NM	NM
Alaska	24	22	8.6%	0	0	0	0	23	20	NM	NM
Hawaii	140	175	-20.1%	16	38	30	29	94	107	0	0
U.S. Total	32,622	34,058	-4.2%	2,035	2,524	13,829	14,254	1,188	1,217	15,570	16,063

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

NM = Not meaningful due to large relative standard error or excessive percentage change.

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

Negative generation denotes that electric power consumed for plant use exceeds gross generation.

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

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

Table 1.16.A. Utility Scale Facility Net Generation from Geothermal by State, by Sector, July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
	Generation at Utility Scale Facilities			Electric Utilities		Independent Power Producers		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
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	378	366	3.1%	20	20	327	313	30	33	0	0
Arizona	0	0	--	0	0	0	0	0	0	0	0
Colorado	0	0	--	0	0	0	0	0	0	0	0
Idaho	7	6	3.2%	0	0	7	6	0	0	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	330	318	3.5%	0	0	299	285	30	33	0	0
New Mexico	2	4	-44.7%	0	0	2	4	0	0	0	0
Utah	40	38	4.2%	20	20	20	18	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	1,061	1,035	2.6%	68	63	993	972	0	0	0	0
California	1,048	1,022	2.6%	68	63	980	959	0	0	0	0
Oregon	14	13	4.2%	0	0	14	13	0	0	0	0
Washington	0	0	--	0	0	0	0	0	0	0	0
Pacific Noncontiguous	10	10	-7.3%	0	0	10	10	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	10	10	-7.3%	0	0	10	10	0	0	0	0
U.S. Total	1,449	1,412	2.7%	88	83	1,330	1,296	30	33	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.

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

Negative generation denotes that electric power consumed for plant use exceeds gross generation.

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

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

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

by State, by Sector, Year-to-Date through July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	All Sectors			Electric Power Sector				Commercial Sector		Industrial Sector	
	Generation at Utility Scale Facilities			Electric Utilities		Independent Power Producers		Generation at Utility Scale Facilities		Generation at Utility Scale Facilities	
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	0	0	--	0	0	0	0	0	0	0	0
Connecticut	0	0	--	0	0	0	0	0	0	0	0
Maine	0	0	--	0	0	0	0	0	0	0	0
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	0	0	--	0	0	0	0	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	0	0	--	0	0	0	0	0	0	0	0
New Jersey	0	0	--	0	0	0	0	0	0	0	0
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	0	0	--	0	0	0	0	0	0	0	0
East North Central	0	0	--	0	0	0	0	0	0	0	0
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	0	0	--	0	0	0	0	0	0	0	0
Ohio	0	0	--	0	0	0	0	0	0	0	0
Wisconsin	0	0	--	0	0	0	0	0	0	0	0
West North Central	0	0	--	0	0	0	0	0	0	0	0
Iowa	0	0	--	0	0	0	0	0	0	0	0
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	0	0	--	0	0	0	0	0	0	0	0
Missouri	0	0	--	0	0	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	0	0	--	0	0	0	0	0	0	0	0
Delaware	0	0	--	0	0	0	0	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	0	0	--	0	0	0	0	0	0	0	0
Georgia	0	0	--	0	0	0	0	0	0	0	0
Maryland	0	0	--	0	0	0	0	0	0	0	0
North Carolina	0	0	--	0	0	0	0	0	0	0	0
South Carolina	0	0	--	0	0	0	0	0	0	0	0
Virginia	0	0	--	0	0	0	0	0	0	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	0	0	--	0	0	0	0	0	0	0	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	0	0	--	0	0	0	0	0	0	0	0
West South Central	0	0	--	0	0	0	0	0	0	0	0
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	0	0	--	0	0	0	0	0	0	0	0
Mountain	2,570	2,514	2.2%	130	132	2,174	2,123	265	259	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	42	42	-1.5%	0	0	42	42	0	0	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	2,249	2,185	2.9%	0	0	1,984	1,927	265	259	0	0
New Mexico	30	34	-11.7%	0	0	30	34	0	0	0	0
Utah	249	252	-1.2%	130	132	119	119	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	6,826	6,935	-1.6%	420	415	6,406	6,521	0	0	0	0
California	6,741	6,849	-1.6%	420	415	6,321	6,435	0	0	0	0
Oregon	85	86	-1.1%	0	0	85	86	0	0	0	0
Washington	0	0	--	0	0	0	0	0	0	0	0
Pacific Noncontiguous	74	78	-4.6%	0	0	74	78	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	74	78	-4.6%	0	0	74	78	0	0	0	0
U.S. Total	9,470	9,527	-0.6%	550	547	8,654	8,721	265	259	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 1.17.A. Net Generation from Solar Photovoltaic by State, by Sector, July 2020 and 2019 (Thousand Megawatts/hour)

Census Division and State	All Sectors				Electric Power Sector				Commercial Sector				Industrial Sector				Residential Sector		
	Estimated Generation From Utility Scale Facilities		Percentage From Utility Scale Facilities		Electric Utilities		Independent Power Producers		Estimated Generation From 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		
	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	
New England	882	653	21.1%	185	233	15	209	167	19	157	18	136	18	134	14	101	46	186	
Connecticut	112	90	25.1%	20	20	0	27	17	0	0	0	0	0	0	0	0	0	42	
Maine	NM	NM	NM	NM	NM	0	NM	NM	0	0	0	0	0	0	0	0	0	0	5
Massachusetts	448	385	16.2%	151	138	14	146	126	NM	NM	NM	NM	NM	NM	NM	NM	13	100	
New Hampshire	17	15	18.2%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	
Rhode Island	50	26	90.4%	18	7	0	18	7	29	13	0	0	0	0	0	0	0	9	
Mid-Atlantic	818	744	23.6%	310	229	9	276	196	267	26	19	20	218	174	21	26	268	272	
Maryland	452	390	18.6%	173	145	9	146	118	145	128	17	16	128	110	NM	NM	22	130	
New Jersey	380	269	31.9%	120	74	0	117	72	NM	NM	NM	NM	NM	NM	NM	NM	2	130	
Pennsylvania	84	66	27.3%	17	10	0	15	8	NM	NM	NM	NM	NM	NM	NM	NM	7	38	
West North Central	247	176	40.2%	111	92	136	84	39	30	70	60	NM	NM	NM	NM	NM	7	62	
Illinois	62	30	109.1%	10	8	53	22	NM	0	9	7	NM	NM	NM	NM	NM	0	24	
Indiana	67	54	25.2%	48	40	20	14	25	17	22	22	NM	NM	NM	NM	NM	0	9	
Michigan	40	33	21.0%	15	11	12	17	15	0	0	0	0	0	0	0	0	0	0	
Minnesota	8	5	40.3%	2	2	NM	NM	0	0	0	0	0	0	0	0	0	0	0	
Nebraska	0	0	NM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
North Dakota	0	0	15.3%	NM	NM	0	0	0	0	0	0	0	0	0	0	0	0	0	
South Dakota	0	0	NM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
South Atlantic	2,837	1,980	43.3%	2,468	1,673	371	307	748	405	1,702	1,251	99	94	171	17	82	77	33	
Delaware	21	20	3.8%	7	6	14	14	NM	NM	6	5	3	4	1	0	0	0	0	
District of Columbia	NM	11	NM	NM	12	9	0	0	0	NM	NM	6	4	0	0	0	0	0	
Florida	757	420	80.2%	659	365	102	64	567	301	87	53	NM	NM	15	13	NM	NM	1	
Georgia	NM	256	NM	392	225	NM	42	33	350	192	NM	NM	NM	5	4	0	0	0	
Maryland	183	175	4.8%	60	64	116	84	57	NM	NM	27	29	3	4	0	0	0	0	
North Carolina	1,151	825	27.1%	625	414	15	625	29	23	13	12	15	12	15	12	15	12	15	
South Carolina	241	131	94.8%	204	104	35	202	104	35	202	104	35	202	104	35	202	104	35	
Virginia	180	113	59.8%	158	100	22	133	73	23	85	76	NM	NM	7	4	0	0	0	
West Virginia	2	1	25.2%	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	
East South Central	145	137	6.1%	127	120	19	17	8	8	117	111	NM	NM	11	11	NM	NM	0	
Alabama	NM	46	NM	40	44	4	4	4	4	NM	NM	3	2	0	0	0	0	0	
Kentucky	10	9	16.2%	5	5	6	6	6	6	4	4	4	4	4	4	4	4	4	
Mississippi	44	34	29.6%	43	33	2	43	33	1	1	1	1	1	1	1	1	1	1	
Tennessee	130	100	3.2%	386	379	10	386	379	10	386	379	10	386	379	10	386	379	10	
West North Central	1,311	659	17.8%	659	523	16	44	44	44	22	23	4	1	1	1	1	1	1	
Arkansas	NM	27	17.8%	25	23	16	4	NM	NM	2	2	2	2	2	2	2	2	2	
Louisiana	NM	24	NM	NM	23	NM	NM	0	0	0	0	0	0	0	0	0	0	0	
Oklahoma	9	38	7%	10	7	3	2	10	7	0	0	1	0	0	0	0	0	0	
Texas	1,098	953	85.2%	959	490	139	103	103	114	1,055	1,474	143	132	12	10	131	122	25	
Mountain	2,350	2,098	13.6%	1,819	1,600	534	469	148	114	1,655	1,474	143	132	12	10	131	122	25	
Arizona	819	715	14.9%	548	465	270	246	80	75	469	389	NM	NM	76	70	1	0	0	
Colorado	247	204	21.2%	177	138	70	86	70	173	138	NM	NM	22	22	0	0	0	0	
Montana	8	7	21.9%	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
Nebraska	634	576	9.5%	546	509	88	70	24	5	514	497	19	18	7	7	12	11	4	
New Mexico	228	180	26.2%	195	153	33	26	43	35	152	118	9	8	0	0	0	0	0	
Utah	325	291	11.9%	269	243	56	48	0	0	269	243	10	9	0	0	0	0	0	
Wyoming	10	24	57.4%	9	23	1	1	0	0	9	23	0	0	0	0	0	0	0	
Pacific	5,407	4,814	12.3%	3,487	3,123	1,920	1,691	60	59	3,401	3,042	469	427	20	19	446	409	273	
California	5,207	4,699	11.5%	3,353	3,040	1,854	1,628	59	58	3,288	2,960	449	407	20	19	429	398	270	
Idaho	162	116	44.1%	78	35	36	NM	NM	NM	71	51	17	17	0	0	0	0	0	
Washington	189	134	25.8%	129	24	117	110	9	3	43	21	46	42	0	0	45	42	0	
Pacific Noncontiguous	1	1	64.3%	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	
Alaska	168	133	25.6%	52	24	116	109	9	3	43	21	44	42	0	0	44	42	0	
Hawaii	14,249	11,541	23.9%	7,899	4,409	3,772	1,057	634	8,695	7,036	1,448	1,254	76	70	1,369	1,194	362	330	
U.S. Total	14,249	11,541	23.9%	7,899	4,409	3,772	1,057	634	8,695	7,036	1,448	1,254	76	70	1,369	1,194	362	330	

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

NM = Not meaningful due to large relative standard error or excessive percentage change.

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

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

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

Estimated small scale solar photovoltaic generation and small scale solar photovoltaic capacity are based on data from Form EIA-861M, Form EIA-861, and from estimation methods described in the technical notes.

Table 1.18.A. Utility Scale Facility Net Generation from Solar Thermal by State, by Sector, July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	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	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
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	15	0	--	0	0	15	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	15	0	--	0	0	15	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	4	1	209.3%	4	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	4	1	209.3%	4	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	105	105	0.4%	0	0	105	105	0	0	0	0
Arizona	88	89	-1.8%	0	0	88	89	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	17	15	13.3%	0	0	17	15	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	320	294	8.9%	0	0	320	294	0	0	0	0
California	320	294	8.9%	0	0	320	294	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	444	400	11.2%	4	1	440	398	0	0	0	0

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

NM = Not meaningful due to large relative standard error or excessive percentage change.

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

Negative generation denotes that electric power consumed for plant use exceeds gross generation.

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

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

Chapter 2

Consumption of Fossil Fuels

Table 2.1.A. Coal: Consumption for Electricity Generation, by Sector, 2010-July 2020 (Thousand Tons)

Period	Total (all sectors)	Electric Power Sector			Commercial Sector	Industrial Sector
		Electric Utilities	Independent Power Producers			
Annual Totals						
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	
2019	538,465	398,671	137,460	78	2,257	
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	181	
June	44,274	33,482	10,611	4	176	
July	56,062	42,233	13,617	6	205	
August	52,512	39,619	12,686	5	202	
Sept	47,418	35,347	11,876	6	189	
October	37,435	26,979	10,273	6	177	
November	41,918	30,311	11,414	6	188	
December	40,429	29,663	10,574	7	184	
Year 2020						
January	36,697	27,198	9,302	6	191	
February	31,971	23,594	8,189	9	179	
March	28,917	21,602	7,139	6	171	
April	23,617	16,922	6,542	4	150	
May	26,827	19,765	6,911	5	146	
June	36,706	27,697	8,868	7	135	
July	49,693	38,107	11,434	5	147	
Year to Date						
2018	362,815	270,467	90,760	53	1,535	
2019	318,754	236,752	80,637	48	1,317	
2020	234,429	174,885	58,384	41	1,119	
Rolling 12 Months Ending in July						
2019	592,152	439,902	149,853	82	2,315	
2020	454,141	336,804	115,207	71	2,060	

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 and 2020 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, 2010-July 2020 (Thousand Tons)

Period	Total (all sectors)	Electric Power Sector			Commercial Sector	Industrial Sector
		Electric Utilities	Independent Power Producers			
Annual Totals						
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
2019	12,720	2,194	1,091		448	8,987
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	877
February	1,139	201	91		44	802
March	1,127	202	108		45	772
April	1,044	155	104		33	752
May	1,001	136	100		34	731
June	1,015	177	106		26	706
July	969	186	87		34	662
August	999	208	71		37	682
Sept	931	179	60		37	656
October	1,060	177	68		33	783
November	1,059	177	60		38	784
December	1,070	183	69		39	780
Year 2020						
January	1,047	164	53		35	795
February	1,002	150	51		40	761
March	926	135	40		34	716
April	813	104	41		26	642
May	797	112	50		27	607
June	774	122	54		29	569
July	856	162	52		31	612
Year to Date						
2018	8,308	1,390	808		301	5,808
2019	7,600	1,270	763		266	5,302
2020	6,215	949	341		222	4,702
Rolling 12 Months Ending in July						
2019	13,106	2,147	1,311		455	9,193
2020	11,334	1,873	669		405	8,387

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 and 2020 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, 2010-July 2020 (Thousand Tons)

Period	Total (all sectors)	Electric Power Sector		Commercial Sector	Industrial Sector
		Electric Utilities	Independent Power Producers		
Annual Totals					
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
2019	551,185	400,864	138,550	526	11,244
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	57,136	41,510	14,472	58	1,095
February	46,195	33,567	11,575	52	1,000
March	45,165	31,874	12,292	54	944
April	34,476	24,636	8,884	39	918
May	41,062	30,356	9,754	40	912
June	45,289	33,659	10,717	31	882
July	57,031	42,419	13,704	40	867
August	53,511	39,827	12,757	42	885
Sept	48,349	35,525	11,936	42	845
October	38,495	27,156	10,341	38	960
November	42,977	30,488	11,473	44	971
December	41,499	29,846	10,642	46	964
Year 2020					
January	37,744	27,362	9,355	41	986
February	32,973	23,744	8,241	48	940
March	29,843	21,737	7,179	41	887
April	24,430	17,026	6,582	30	792
May	27,624	19,878	6,961	32	753
June	37,481	27,819	8,922	36	704
July	50,549	38,268	11,486	36	759
Year to Date					
2018	371,123	271,858	91,568	354	7,343
2019	326,354	238,021	81,400	314	6,619
2020	240,644	175,834	58,726	263	5,821
Rolling 12 Months Ending in July					
2019	605,257	442,049	151,163	536	11,509
2020	465,475	338,677	115,876	476	10,446

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 and 2020 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, 2010-July 2020 (Thousand Barrels)

Period	Total (all sectors)	Electric Power Sector			Commercial Sector	Industrial Sector
		Electric Utilities	Independent Power Producers			
Annual Totals						
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
2019	20,430	14,920	4,806		245	459
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	1,261	336		27	37
October	1,697	1,263	376		24	33
November	1,607	1,177	369		24	37
December	1,690	1,248	387		21	35
Year 2020						
January	1,711	1,385	269		21	34
February	1,396	1,115	233		12	35
March	1,330	947	335		17	32
April	1,149	872	236		12	29
May	1,260	961	247		20	33
June	1,533	1,162	319		20	32
July	1,720	1,267	397		25	32
Year to Date						
2018	19,528	11,784	7,243		170	331
2019	11,883	8,522	2,956		127	278
2020	10,099	7,709	2,037		126	227
Rolling 12 Months Ending in July						
2019	20,969	15,083	5,179		227	481
2020	18,646	14,107	3,887		244	408

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 and 2020 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, 2010-July 2020 (Thousand Barrels)

Period	Total (all sectors)	Electric Power Sector		Commercial Sector	Industrial Sector
		Electric Utilities	Independent Power Producers		
Annual Totals					
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
2019	2,285	70	250	405	1,559
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
December	154	4	18	25	107
Year 2020					
January	138	4	11	25	99
February	128	4	11	17	96
March	119	3	13	19	84
April	107	6	14	11	76
May	130	3	14	22	91
June	145	4	14	17	110
July	144	3	17	26	98
Year to Date					
2018	1,637	81	212	231	1,114
2019	1,423	48	156	277	941
2020	911	26	95	137	653
Rolling 12 Months Ending in July					
2019	2,399	70	298	396	1,635
2020	1,773	48	189	265	1,270

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 and 2020 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, 2010-July 2020 (Thousand Barrels)

Period	Total (all sectors)	Electric Power Sector			Commercial Sector	Industrial Sector
		Electric Utilities	Independent Power Producers			
Annual Totals						
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
2019	22,715	14,990	5,056		650	2,018
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	1,818	1,265	357		56	140
October	1,836	1,267	398		45	126
November	1,869	1,181	388		55	243
December	1,845	1,252	405		46	142
Year 2020						
January	1,849	1,389	281		46	133
February	1,524	1,119	244		29	132
March	1,449	949	348		36	116
April	1,256	878	251		23	104
May	1,390	964	261		42	123
June	1,677	1,166	333		37	142
July	1,864	1,270	414		50	130
Year to Date						
2018	21,165	11,865	7,455		401	1,445
2019	13,306	8,571	3,112		404	1,219
2020	11,010	7,735	2,132		263	879
Rolling 12 Months Ending in July						
2019	23,368	15,153	5,477		622	2,115
2020	20,419	14,155	4,076		509	1,678

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.

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Petroleum Liquids includes distillate and residual fuel oils, jet fuel, kerosene, waste oil, and beginning in 2011, propane. Prior to 2011 propane was included in Other Gases.

See the Technical Notes for fuel conversion factors.

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

Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.

Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report.

Table 2.3.A. Petroleum Coke: Consumption for Electricity Generation, by Sector, 2010-July 2020 (Thousand Tons)

Period	Total (all sectors)	Electric Power Sector			Commercial Sector	Industrial Sector
		Electric Utilities	Independent Power Producers			
Annual Totals						
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
2019	2,806	2,067	556		1	182
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
December	167	137	16		0	15
Year 2020						
January	285	204	66		0	15
February	174	147	14		0	13
March	273	210	50		0	13
April	230	179	43		0	8
May	248	183	54		0	11
June	329	258	58		0	14
July	346	270	62		0	14
Year to Date						
2018	2,125	1,614	407		1	103
2019	1,890	1,379	403		1	107
2020	1,885	1,451	346		1	88
Rolling 12 Months Ending in July						
2019	3,388	2,505	700		2	181
2020	2,801	2,139	499		1	162

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.B. Petroleum Coke: Consumption for Useful Thermal Output, by Sector, 2010-July 2020 (Thousand Tons)

Period	Total (all sectors)	Electric Power Sector		Commercial Sector	Industrial Sector
		Electric Utilities	Independent Power Producers		
Annual Totals					
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
2019	865	17	93	6	750
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	59	1	2	0	56
November	52	2	9	0	41
December	70	2	9	1	58
Year 2020					
January	78	1	9	2	65
February	48	1	9	1	36
March	41	1	9	0	31
April	33	3	8	0	23
May	63	3	8	0	52
June	74	1	6	0	67
July	71	1	7	0	64
Year to Date					
2018	547	8	52	5	482
2019	522	10	57	5	450
2020	409	11	56	3	338
Rolling 12 Months Ending in July					
2019	904	14	98	10	781
2020	752	18	92	4	639

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, 2010-July 2020 (Thousand Tons)

Period	Total (all sectors)	Electric Power Sector		Commercial Sector	Industrial Sector
		Electric Utilities	Independent Power Producers		
Annual Totals					
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
2019	3,671	2,083	649	7	932
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	348	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	141	65	5	0	70
November	182	102	24	0	56
December	237	139	25	1	73
Year 2020					
January	363	205	76	2	80
February	222	148	23	1	50
March	314	211	59	0	44
April	263	182	50	0	31
May	311	187	62	0	62
June	403	258	64	0	81
July	417	271	69	0	78
Year to Date					
2018	2,672	1,622	458	6	585
2019	2,412	1,389	460	7	557
2020	2,294	1,462	402	4	426
Rolling 12 Months Ending in July					
2019	4,292	2,519	799	12	962
2020	3,553	2,156	591	5	801

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.

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

Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.

Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report.

Table 2.4.A. Natural Gas: Consumption for Electricity Generation, by Sector, 2010-July 2020 (Million Cubic Feet)

Period	Total (all sectors)	Electric Power Sector			
		Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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	9,508,062	4,754,893	4,161,984	50,060	541,126
2018	10,833,043	5,551,181	4,663,935	52,650	565,276
2019	11,550,825	5,958,855	4,958,970	53,622	579,377
Year 2018					
January	805,929	425,891	327,351	4,145	48,542
February	706,517	363,824	296,296	3,886	42,511
March	772,448	395,826	329,151	4,071	43,400
April	722,667	372,401	303,383	3,616	43,268
May	868,518	459,568	359,038	4,201	45,712
June	973,956	520,305	402,054	4,633	46,963
July	1,245,648	639,299	549,546	5,518	51,285
August	1,208,900	605,610	546,123	5,593	51,575
Sept	1,051,922	530,570	468,776	4,838	47,737
October	909,338	457,374	400,338	4,290	47,335
November	784,673	395,480	337,321	3,760	48,112
December	782,527	385,034	344,559	4,098	48,836
Year 2019					
January	860,020	432,058	372,463	4,517	50,981
February	793,583	406,415	338,912	4,129	44,128
March	815,951	415,407	349,668	4,332	46,544
April	755,102	392,685	313,252	4,039	45,126
May	852,486	449,520	351,859	4,218	46,890
June	1,012,529	537,372	423,972	4,355	46,829
July	1,294,629	673,371	565,943	5,002	50,313
August	1,308,612	687,844	564,762	5,152	50,854
Sept	1,115,418	581,736	481,039	4,665	47,978
October	981,373	509,470	419,699	4,351	47,854
November	842,003	421,378	366,242	4,309	50,074
December	919,118	451,599	411,160	4,552	51,807
Year 2020					
January	952,082	484,401	410,175	4,610	52,896
February	902,594	471,058	379,128	4,138	48,271
March	899,962	475,282	371,903	4,021	48,756
April	780,120	416,058	317,179	3,526	43,357
May	849,293	457,548	343,154	3,743	44,847
June	1,067,313	558,868	455,032	4,206	49,207
July	1,395,122	717,125	621,023	4,922	52,052
Year to Date					
2018	6,095,683	3,177,114	2,566,819	30,070	321,681
2019	6,384,300	3,306,828	2,716,069	30,593	330,810
2020	6,846,486	3,580,340	2,897,594	29,166	339,387
Rolling 12 Months Ending in July					
2019	11,121,659	5,680,896	4,813,185	53,173	574,405
2020	12,013,011	6,232,367	5,140,496	52,195	587,954

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.

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

Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.

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Table 2.4.B. Natural Gas: Consumption for Useful Thermal Output, by Sector, 2010-July 2020 (Million Cubic Feet)

Period	Total (all sectors)	Electric Power Sector			
		Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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	1,168,544	38,740	309,949	104,324	715,532
2018	1,205,962	43,156	331,952	81,856	748,997
2019	1,239,527	46,793	342,807	80,544	769,383
Year 2018					
January	107,213	3,929	28,934	7,417	66,933
February	94,793	3,366	26,629	6,706	58,093
March	100,213	3,557	28,088	6,844	61,724
April	92,932	2,942	25,265	6,133	58,592
May	94,707	3,306	26,238	6,099	59,064
June	97,016	3,642	26,642	6,537	60,196
July	107,003	4,484	30,339	7,649	64,531
August	105,929	4,079	29,861	7,691	64,297
Sept	99,289	3,479	27,089	6,581	62,140
October	99,045	3,013	27,218	6,411	62,402
November	101,846	3,185	27,080	6,829	64,751
December	105,976	4,174	28,570	6,959	66,273
Year 2019					
January	113,278	3,993	32,023	7,638	69,624
February	100,217	3,790	27,223	6,884	62,320
March	104,850	3,703	29,358	6,896	64,893
April	97,156	3,166	26,595	6,151	61,245
May	98,314	3,375	26,480	6,008	62,449
June	99,519	4,099	27,809	6,327	61,285
July	104,637	4,806	29,104	6,792	63,934
August	106,122	4,697	30,997	6,667	63,761
Sept	99,954	4,233	27,779	6,336	61,606
October	99,767	3,232	27,473	6,369	62,694
November	104,425	3,738	28,110	6,983	65,595
December	111,289	3,963	29,855	7,494	69,977
Year 2020					
January	113,337	4,083	31,051	7,474	70,729
February	103,523	3,835	28,827	6,849	64,012
March	105,716	3,947	29,648	6,685	65,436
April	99,410	3,865	26,816	5,990	62,740
May	100,313	3,752	27,973	6,014	62,574
June	99,427	4,113	28,725	6,063	60,526
July	106,597	4,930	30,967	6,770	63,931
Year to Date					
2018	693,878	25,226	192,134	47,385	429,134
2019	717,970	26,931	198,592	46,696	445,750
2020	728,323	28,524	204,006	45,845	449,948
Rolling 12 Months Ending in July					
2019	1,230,054	44,862	338,411	81,168	765,614
2020	1,249,880	48,386	348,221	79,693	773,581

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 and 2020 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 2.4.C. Natural Gas: Consumption for Electricity Generation and Useful Thermal Output, by Sector, 2010-July 2020 (Million Cubic Feet)

Period	Total (all sectors)	Electric Power Sector			Commercial Sector	Industrial Sector
		Electric Utilities	Independent Power Producers			
Annual Totals						
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	10,676,606	4,793,632	4,471,933		154,383	1,256,658
2018	12,039,005	5,594,338	4,995,888		134,507	1,314,273
2019	12,790,352	6,005,649	5,301,778		134,166	1,348,760
Year 2018						
January	913,142	429,820	356,285		11,562	115,475
February	801,310	367,190	322,924		10,592	100,604
March	872,661	399,383	357,239		10,914	105,124
April	815,600	375,343	328,647		9,750	101,860
May	963,226	462,873	385,276		10,300	104,776
June	1,070,972	523,947	428,696		11,170	107,159
July	1,352,652	643,783	579,885		13,167	115,816
August	1,314,829	609,689	575,984		13,285	115,872
Sept	1,151,210	534,049	495,866		11,419	109,877
October	1,008,383	460,387	427,556		10,702	109,738
November	886,519	398,665	364,401		10,589	112,863
December	888,503	389,208	373,128		11,058	115,109
Year 2019						
January	973,298	436,051	404,486		12,155	120,605
February	893,800	410,205	366,134		11,013	106,448
March	920,801	419,110	379,026		11,228	111,438
April	852,258	395,850	339,847		10,190	106,371
May	950,800	452,895	378,339		10,226	109,339
June	1,112,048	541,471	451,782		10,682	108,113
July	1,399,265	678,178	595,047		11,794	114,247
August	1,414,734	692,541	595,760		11,819	114,615
Sept	1,215,372	585,969	508,818		11,001	109,584
October	1,081,140	512,701	447,172		10,720	110,547
November	946,429	425,116	394,352		11,292	115,669
December	1,030,408	455,562	441,015		12,046	121,785
Year 2020						
January	1,065,419	488,484	441,227		12,084	123,625
February	1,006,117	474,894	407,955		10,987	112,283
March	1,005,678	479,229	401,550		10,706	114,193
April	879,530	419,923	343,995		9,516	106,097
May	949,606	461,300	371,127		9,758	107,422
June	1,166,739	562,981	483,756		10,268	109,734
July	1,501,719	722,054	651,990		11,692	115,983
Year to Date						
2018	6,789,562	3,202,339	2,758,953		77,455	750,815
2019	7,102,270	3,333,760	2,914,661		77,289	776,560
2020	7,574,809	3,608,863	3,101,600		75,011	789,335
Rolling 12 Months Ending in July						
2019	12,351,713	5,725,758	5,151,596		134,341	1,340,019
2020	13,262,891	6,280,752	5,488,717		131,888	1,361,535

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 and 2020 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.A. Landfill Gas: Consumption for Electricity Generation, by Sector, 2010-July 2020 (Million Cubic Feet)

Period	Total (all sectors)	Electric Power Sector			
		Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2019	241,156	19,107	204,005	15,145	2,898
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	20,524	1,599	17,016	1,651	259
February	18,832	1,462	15,686	1,448	237
March	21,461	1,750	17,858	1,578	275
April	19,036	1,540	16,347	902	247
May	19,116	1,596	16,802	503	214
June	19,846	1,544	17,003	1,084	216
July	20,607	1,593	17,528	1,277	209
August	20,901	1,621	17,778	1,280	223
Sept	19,765	1,592	16,684	1,266	224
October	20,270	1,605	17,015	1,386	264
November	19,995	1,576	16,752	1,408	258
December	20,803	1,629	17,537	1,364	273
Year 2020					
January	20,771	1,641	17,491	1,361	278
February	19,269	1,556	16,106	1,349	259
March	20,895	1,747	17,464	1,431	253
April	19,656	1,626	16,622	1,203	205
May	19,908	1,640	16,965	1,144	160
June	18,336	1,539	15,372	1,236	189
July	19,326	1,638	16,149	1,339	199
Year to Date					
2018	158,700	14,830	130,322	11,440	2,107
2019	139,422	11,084	118,240	8,442	1,656
2020	138,162	11,387	116,168	9,063	1,544
Rolling 12 Months Ending in July					
2019	250,957	19,833	211,431	16,792	2,901
2020	239,896	19,410	201,934	15,766	2,786

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 and 2020 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, 2010-July 2020 (Million Cubic Feet)

Period	Total (all sectors)	Electric Power Sector			Commercial Sector	Industrial Sector
		Electric Utilities	Independent Power Producers			
Annual Totals						
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	
2019	3,646	0	1,993	820	833	
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	377	0	222	84	71	
February	347	0	217	67	62	
March	391	0	233	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	102	74	64	
October	335	0	184	77	74	
November	343	0	208	59	76	
December	292	0	207	21	65	
Year 2020						
January	351	0	237	36	78	
February	373	0	233	65	74	
March	305	0	161	73	71	
April	194	0	60	70	64	
May	214	0	107	54	53	
June	271	0	145	65	60	
July	299	0	165	76	58	
Year to Date						
2018	2,139	0	1,104	507	528	
2019	2,196	0	1,190	516	490	
2020	2,006	0	1,108	439	459	
Rolling 12 Months Ending in July						
2019	3,678	0	1,952	920	805	
2020	3,456	0	1,911	743	802	

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 and 2020 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, 2010-July 2020 (Million Cubic Feet)

Period	Total (all sectors)	Electric Power Sector			
		Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2019	244,801	19,107	205,998	15,965	3,731
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	20,901	1,599	17,238	1,734	330
February	19,180	1,462	15,903	1,515	299
March	21,852	1,750	18,091	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	17,672	1,319	282
August	21,141	1,621	17,881	1,353	287
Sept	20,005	1,592	16,786	1,340	288
October	20,604	1,605	17,198	1,463	337
November	20,338	1,576	16,961	1,467	334
December	21,095	1,629	17,744	1,384	338
Year 2020					
January	21,123	1,641	17,728	1,397	356
February	19,642	1,556	16,339	1,414	334
March	21,200	1,747	17,624	1,503	325
April	19,850	1,626	16,681	1,273	270
May	20,122	1,640	17,072	1,198	213
June	18,607	1,539	15,517	1,301	250
July	19,625	1,638	16,314	1,416	257
Year to Date					
2018	160,839	14,830	131,427	11,946	2,635
2019	141,617	11,084	119,430	8,958	2,146
2020	140,168	11,387	117,276	9,502	2,004
Rolling 12 Months Ending in July					
2019	254,634	19,833	213,383	17,712	3,706
2020	243,352	19,410	203,844	16,509	3,589

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, 2010-July 2020 (Thousand Tons)

Period	Total (all sectors)	Electric Power Sector			Commercial Sector	Industrial Sector
		Electric Utilities	Independent Power Producers			
Annual Totals						
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	
2019	15,333	297	12,821	2,204	10	
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	1,254	25	1,056	173	1	
December	1,317	20	1,105	191	1	
Year 2020						
January	1,287	19	1,079	188	1	
February	1,183	14	1,002	166	1	
March	1,309	26	1,096	186	1	
April	1,227	25	1,049	152	1	
May	1,279	24	1,071	183	1	
June	1,210	25	1,005	178	1	
July	1,337	26	1,120	190	1	
Year to Date						
2018	9,794	264	8,107	1,417	6	
2019	8,874	175	7,403	1,290	6	
2020	8,832	160	7,422	1,243	6	
Rolling 12 Months Ending in July						
2019	15,863	378	13,155	2,321	9	
2020	15,291	282	12,841	2,157	11	

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, 2010-July 2020 (Thousand Tons)

Period	Total (all sectors)	Electric Power Sector			
		Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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
2019	1,576	0	743	646	187
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
December	131	0	61	55	15
Year 2020					
January	139	0	73	53	13
February	133	0	69	47	16
March	131	0	62	54	15
April	131	0	61	54	16
May	140	0	67	57	16
June	123	0	67	43	13
July	128	0	59	54	15
Year to Date					
2018	1,207	0	430	670	107
2019	945	0	446	393	106
2020	925	0	458	362	105
Rolling 12 Months Ending in July					
2019	1,788	0	768	833	187
2020	1,556	0	754	615	186

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 and 2020 are preliminary. See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms.

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

Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920 Combined Heat and Power Plant Report, and predecessor forms.

Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report.

Table 2.6.C. Biogenic Municipal Solid Waste: Consumption for Electricity Generation and

Useful Thermal Output, by Sector, 2010-July 2020 (Thousand Tons)

Period	Total (all sectors)	Electric Power Sector			Commercial Sector	Industrial Sector
		Electric Utilities	Independent Power Producers			
Annual Totals						
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	
2019	16,909	297	13,564	2,850	197	
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	1,385	25	1,119	226	15	
December	1,448	20	1,166	246	16	
Year 2020						
January	1,426	19	1,152	240	14	
February	1,316	14	1,071	214	17	
March	1,439	26	1,158	240	16	
April	1,359	25	1,110	206	17	
May	1,419	24	1,138	239	17	
June	1,333	25	1,072	221	14	
July	1,465	26	1,179	245	16	
Year to Date						
2018	11,001	264	8,537	2,087	113	
2019	9,819	175	7,849	1,683	112	
2020	9,757	160	7,880	1,605	111	
Rolling 12 Months Ending in July						
2019	17,651	378	13,923	3,154	196	
2020	16,847	282	13,595	2,773	197	

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 and 2020 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, 2010-July 2020 (Billion Btus)

Period	Total (all sectors)	Electric Power Sector			Commercial Sector	Industrial Sector
		Electric Utilities	Independent Power Producers			
Annual Totals						
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	363,646	42,806	151,877		460	168,503
2018	361,703	45,856	143,288		520	172,039
2019	345,524	43,977	135,117		583	165,847
Year 2018						
January	33,136	4,713	13,790		63	14,571
February	28,906	3,689	12,141		42	13,033
March	31,435	4,501	12,243		36	14,655
April	26,860	2,966	10,597		16	13,280
May	29,530	3,196	11,683		32	14,619
June	31,205	3,909	12,733		53	14,509
July	33,490	4,670	13,260		59	15,501
August	32,186	4,427	12,624		69	15,067
Sept	28,704	3,340	11,278		52	14,034
October	27,972	3,376	10,642		27	13,927
November	28,539	3,741	10,733		20	14,044
December	29,741	3,326	11,563		51	14,801
Year 2019						
January	31,376	4,520	12,600		52	14,204
February	27,246	3,766	10,416		57	13,007
March	28,118	3,557	10,504		72	13,984
April	26,183	3,119	9,726		24	13,314
May	29,824	4,146	11,947		18	13,712
June	28,468	3,285	11,228		31	13,923
July	30,855	4,378	11,756		101	14,620
August	33,338	4,707	13,628		63	14,940
Sept	28,678	3,644	11,785		51	13,199
October	25,957	2,745	10,123		42	13,047
November	25,825	2,218	10,029		35	13,543
December	29,656	3,892	11,374		37	14,353
Year 2020						
January	28,475	3,424	10,667		48	14,337
February	27,208	3,194	10,869		41	13,104
March	27,129	2,818	10,317		32	13,963
April	24,640	2,310	9,052		8	13,270
May	26,343	2,470	10,477		29	13,366
June	25,326	2,450	10,106		54	12,716
July	26,993	3,299	10,401		88	13,205
Year to Date						
2018	214,562	27,645	86,448		301	100,167
2019	202,069	26,772	78,178		355	96,765
2020	186,115	19,965	71,890		300	93,960
Rolling 12 Months Ending in July						
2019	349,210	44,982	135,017		574	168,637
2020	329,570	37,171	128,829		527	163,043

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 and 2020 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, 2010-July 2020 (Billion Btus)

Period	Total (all sectors)	Electric Power Sector			
		Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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	939,633	11,656	22,986	4,522	900,469
2018	929,365	10,297	21,623	4,806	892,639
2019	970,743	10,663	21,629	4,969	933,482
Year 2018					
January	81,175	844	2,115	454	77,762
February	73,007	878	2,141	474	69,514
March	78,989	948	1,966	493	75,583
April	73,967	869	1,533	339	71,225
May	77,198	673	1,679	319	74,528
June	75,544	655	1,683	402	72,805
July	80,237	991	1,899	382	76,964
August	79,868	854	1,930	417	76,667
Sept	73,254	655	1,676	336	70,587
October	76,266	1,005	1,607	329	73,326
November	76,373	891	1,635	343	73,503
December	83,486	1,033	1,759	518	80,175
Year 2019					
January	88,362	1,038	1,789	544	84,991
February	79,866	874	1,544	478	76,970
March	81,029	961	1,656	436	77,976
April	79,775	906	1,927	344	76,597
May	80,246	997	1,870	356	77,023
June	78,568	874	1,970	342	75,382
July	80,830	865	1,949	403	77,613
August	83,650	900	1,946	398	80,406
Sept	77,203	914	1,882	394	74,013
October	77,961	743	1,535	423	75,260
November	80,344	756	1,650	442	77,497
December	82,909	834	1,912	410	79,754
Year 2020					
January	76,322	805	2,074	484	72,959
February	70,708	859	1,874	454	67,521
March	71,551	839	1,934	353	68,425
April	71,126	684	1,623	238	68,581
May	75,779	311	2,554	322	72,593
June	66,416	321	2,202	395	63,499
July	69,352	312	2,208	251	66,581
Year to Date					
2018	540,118	5,858	13,017	2,863	518,381
2019	568,676	6,516	12,705	2,903	546,553
2020	501,255	4,131	14,470	2,496	480,158
Rolling 12 Months Ending in July					
2019	957,923	10,955	21,311	4,846	920,811
2020	903,322	8,278	23,395	4,562	867,088

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 and 2020 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, 2010-July 2020 (Billion Btus)

Period	Total (all sectors)	Electric Power Sector			
		Electric Utilities	Independent Power Producers	Commercial Sector	Industrial Sector
Annual Totals					
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	1,303,279	54,462	174,862	4,982	1,068,972
2018	1,291,068	56,153	164,911	5,326	1,064,678
2019	1,316,268	54,641	156,746	5,552	1,099,329
Year 2018					
January	114,312	5,557	15,905	517	92,333
February	101,913	4,567	14,282	516	82,547
March	110,425	5,449	14,209	528	90,238
April	100,826	3,835	12,131	356	84,505
May	106,728	3,869	13,362	351	89,146
June	106,749	4,564	14,416	455	87,314
July	113,727	5,661	15,160	441	92,465
August	112,054	5,281	14,554	486	91,733
Sept	101,958	3,995	12,954	388	84,621
October	104,238	4,381	12,248	356	87,253
November	104,912	4,633	12,368	363	87,548
December	113,227	4,360	13,322	569	94,976
Year 2019					
January	119,738	5,558	14,389	596	99,195
February	107,112	4,640	11,960	535	89,977
March	109,147	4,518	12,160	508	91,960
April	105,958	4,025	11,653	368	89,912
May	110,071	5,144	13,818	374	90,735
June	107,036	4,159	13,198	373	89,306
July	111,684	5,243	13,705	505	92,232
August	116,988	5,608	15,574	461	95,346
Sept	105,881	4,558	13,666	446	87,212
October	103,918	3,488	11,658	464	88,307
November	106,170	2,974	11,679	477	91,040
December	112,565	4,726	13,286	447	94,107
Year 2020					
January	104,797	4,229	12,741	532	87,295
February	97,917	4,053	12,744	495	80,625
March	98,681	3,657	12,251	385	82,388
April	95,766	2,994	10,675	246	81,851
May	102,122	2,781	13,032	351	85,958
June	91,742	2,771	12,309	448	76,214
July	96,345	3,611	12,609	339	79,787
Year to Date					
2018	754,679	33,503	99,465	3,164	618,548
2019	770,745	33,287	90,883	3,258	643,317
2020	687,370	24,096	86,360	2,795	574,118
Rolling 12 Months Ending in July					
2019	1,307,133	55,937	156,329	5,420	1,089,448
2020	1,232,892	45,449	152,223	5,089	1,030,130

Notes: Beginning with the collection of Form EIA-923 in January 2008, the methodology to allocate total fuel consumption for electricity generation and consumption for useful thermal output was changed.

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Values for 2018 and prior years are final. Values for 2019 and 2020 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,
July 2020 and July 2019 (Thousand Tons)**

Census Division and State	Electric Power Sector										
	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
New England	3	18	-83.0%	0	16	3	1	0	0	NM	NM
Connecticut	2	0	--	0	0	2	0	0	0	0	0
Maine	1	1	-4.6%	0	0	1	1	0	0	NM	NM
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	0	16	-100.0%	0	16	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	1,512	2,112	-28.0%	0	0	1,510	2,109	0	0	1	4
New Jersey	35	39	-11.0%	0	0	35	39	0	0	0	0
New York	0	21	-100.0%	0	0	0	21	0	0	0	0
Pennsylvania	1,477	2,053	-28.0%	0	0	1,476	2,049	0	0	1	4
East North Central	10,164	12,045	-16.0%	5,943	7,299	4,167	4,686	1	2	54	58
Illinois	2,468	2,994	-18.0%	142	196	2,284	2,752	1	1	42	44
Indiana	2,670	3,459	-23.0%	2,471	3,255	198	203	0	1	0	0
Michigan	1,532	2,187	-30.0%	1,519	2,166	12	19	0	0	NM	2
Ohio	1,882	1,965	-4.2%	210	253	1,672	1,712	0	0	0	0
Wisconsin	1,612	1,440	12.0%	1,601	1,429	0	0	0	0	11	12
West North Central	10,156	10,703	-5.1%	10,094	10,596	0	0	1	2	61	106
Iowa	1,378	1,562	-12.0%	1,336	1,513	0	0	1	1	41	48
Kansas	1,443	1,272	13.0%	1,443	1,272	0	0	0	0	0	0
Minnesota	1,102	1,100	0.1%	1,098	1,079	0	0	0	0	4	20
Missouri	3,014	3,275	-8.0%	3,014	3,275	0	0	0	0	0	0
Nebraska	1,265	1,393	-9.2%	1,251	1,359	0	0	0	0	14	34
North Dakota	1,847	1,957	-5.6%	1,845	1,953	0	0	0	0	3	3
South Dakota	109	144	-25.0%	109	144	0	0	0	0	0	0
South Atlantic	7,663	8,544	-10.0%	6,685	7,611	967	920	1	0	10	12
Delaware	32	45	-30.0%	0	0	32	45	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	907	1,030	-12.0%	907	1,029	0	0	0	0	NM	NM
Georgia	1,163	1,671	-30.0%	1,160	1,668	0	0	0	0	2	NM
Maryland	401	366	9.4%	0	0	401	366	0	0	0	0
North Carolina	1,460	1,743	-16.0%	1,454	1,738	3	3	1	0	2	2
South Carolina	704	690	2.0%	701	690	4	0	0	0	0	0
Virginia	532	335	59.0%	523	327	3	3	0	0	6	6
West Virginia	2,465	2,663	-7.4%	1,940	2,160	525	503	0	0	0	0
East South Central	5,404	5,460	-1.0%	5,152	5,190	245	259	0	0	8	10
Alabama	1,333	1,353	-1.5%	1,333	1,352	0	0	0	0	0	NM
Kentucky	2,393	2,467	-3.0%	2,393	2,467	0	0	0	0	0	0
Mississippi	453	421	7.4%	208	162	245	259	0	0	0	0
Tennessee	1,226	1,219	0.6%	1,218	1,210	0	0	0	0	8	9
West South Central	8,173	8,868	-7.8%	4,450	4,756	3,723	4,105	0	0	1	6
Arkansas	1,298	1,405	-7.6%	1,123	1,194	174	210	0	0	1	1
Louisiana	352	575	-39.0%	349	571	3	4	0	0	0	0
Oklahoma	760	600	27.0%	760	556	0	39	0	0	0	5
Texas	5,763	6,288	-8.3%	2,218	2,436	3,545	3,852	0	0	0	0
Mountain	6,262	7,524	-17.0%	5,638	6,548	617	968	0	0	7	9
Arizona	848	1,450	-42.0%	848	1,450	0	0	0	0	0	0
Colorado	1,023	1,221	-16.0%	1,023	1,221	0	0	0	0	0	0
Idaho	NM	NM	NM	0	0	0	0	0	0	NM	NM
Montana	500	864	-42.0%	19	27	481	837	0	0	NM	NM
Nevada	144	143	0.8%	88	94	56	49	0	0	0	0
New Mexico	865	846	2.3%	865	846	0	0	0	0	0	0
Utah	911	1,037	-12.0%	878	1,001	33	35	0	0	0	0
Wyoming	1,972	1,963	0.4%	1,918	1,908	47	47	0	0	7	8
Pacific Contiguous	265	673	-61.0%	126	181	134	491	0	0	5	1
California	5	1	711.0%	0	0	0	0	0	0	5	1
Oregon	126	181	-30.0%	126	181	0	0	0	0	0	0
Washington	134	492	-73.0%	0	0	134	491	0	0	0	0
Pacific Noncontiguous	90	115	-22.0%	NM	35	69	78	2	2	0	0
Alaska	33	50	-33.0%	NM	35	12	13	2	2	0	0
Hawaii	57	65	-13.0%	0	0	57	65	0	0	0	0
U.S. Total	49,693	56,062	-11.0%	38,107	42,233	11,434	13,617	5	6	147	205

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

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

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

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

**Table 2.8.B. Consumption of Coal for Electricity Generation by State, by Sector,
Year-to-Date through July 2020 and July 2019 (Thousand Tons)**

Census Division and State	Electric Power Sector										
	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	35	164	-79.0%	25	108	8	53	0	0	2	3
Connecticut	2	46	-96.0%	0	0	2	46	0	0	0	0
Maine	8	10	-17.0%	0	0	6	7	0	0	2	3
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	25	108	-77.0%	25	108	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	8,357	13,017	-36.0%	0	0	8,350	12,995	0	0	7	22
New Jersey	236	263	-10.0%	0	0	236	263	0	0	0	0
New York	64	168	-62.0%	0	0	64	168	0	0	0	0
Pennsylvania	8,058	12,586	-36.0%	0	0	8,051	12,564	0	0	7	22
East North Central	48,211	71,929	-33.0%	28,602	42,885	19,232	28,649	7	12	370	382
Illinois	9,925	18,170	-45.0%	597	1,210	9,031	16,669	5	6	291	285
Indiana	12,767	19,441	-34.0%	11,476	18,365	1,289	1,071	2	5	0	0
Michigan	7,900	13,178	-40.0%	7,783	13,067	110	98	0	0	6	13
Ohio	9,901	12,190	-19.0%	1,099	1,379	8,802	10,811	0	0	0	0
Wisconsin	7,719	8,949	-14.0%	7,646	8,865	0	0	0	0	72	84
West North Central	50,276	61,137	-18.0%	49,774	60,510	0	0	8	12	493	615
Iowa	4,528	8,104	-44.0%	4,250	7,805	0	0	7	10	271	290
Kansas	6,162	6,634	-7.1%	6,162	6,634	0	0	0	0	0	0
Minnesota	4,153	6,519	-36.0%	4,125	6,407	0	0	0	1	27	111
Missouri	16,378	19,618	-17.0%	16,377	19,616	0	0	1	1	0	0
Nebraska	6,921	7,637	-9.4%	6,745	7,442	0	0	0	0	176	195
North Dakota	11,553	11,622	-0.6%	11,534	11,603	0	0	0	0	19	19
South Dakota	580	1,003	-42.0%	580	1,003	0	0	0	0	0	0
South Atlantic	27,727	41,189	-33.0%	24,689	37,025	2,960	4,059	5	7	73	98
Delaware	32	72	-56.0%	0	0	32	72	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	3,697	5,410	-32.0%	3,692	5,403	0	0	0	0	5	7
Georgia	2,991	8,319	-64.0%	2,971	8,298	0	0	0	0	20	21
Maryland	888	1,418	-37.0%	0	0	888	1,410	0	0	0	8
North Carolina	4,350	6,693	-35.0%	4,311	6,639	20	33	5	6	15	15
South Carolina	2,849	3,649	-22.0%	2,839	3,648	10	0	0	0	1	1
Virginia	1,061	1,188	-11.0%	1,018	1,090	11	52	0	1	32	45
West Virginia	11,858	14,439	-18.0%	9,859	11,947	1,999	2,492	0	0	0	0
East South Central	24,173	30,652	-21.0%	22,328	28,829	1,792	1,758	0	0	52	65
Alabama	6,224	8,009	-22.0%	6,222	8,001	0	0	0	0	NM	8
Kentucky	11,872	14,990	-21.0%	11,872	14,990	0	0	0	0	0	0
Mississippi	2,430	2,557	-5.0%	638	799	1,792	1,758	0	0	0	0
Tennessee	3,647	5,095	-28.0%	3,597	5,039	0	0	0	0	50	57
West South Central	37,851	52,329	-28.0%	17,210	27,505	20,612	24,781	0	0	29	43
Arkansas	4,875	7,794	-37.0%	3,844	6,623	1,028	1,167	0	0	4	4
Louisiana	1,468	3,195	-54.0%	1,375	2,373	93	822	0	0	0	0
Oklahoma	1,764	3,585	-51.0%	1,668	3,444	72	102	0	0	25	39
Texas	29,743	37,754	-21.0%	10,323	15,065	19,420	22,689	0	0	0	0
Mountain	35,658	44,838	-20.0%	31,557	39,012	4,045	5,771	0	0	55	55
Arizona	4,063	7,609	-47.0%	4,063	7,609	0	0	0	0	0	0
Colorado	6,640	8,119	-18.0%	6,640	8,118	0	0	0	0	0	1
Idaho	2	2	-3.1%	0	0	0	0	0	0	2	2
Montana	3,378	5,070	-33.0%	131	165	3,244	4,903	0	0	2	2
Nevada	574	872	-34.0%	232	551	342	321	0	0	0	0
New Mexico	4,247	4,418	-3.9%	4,247	4,418	0	0	0	0	0	0
Utah	5,479	6,592	-17.0%	5,321	6,349	158	244	0	0	0	0
Wyoming	11,275	12,155	-7.2%	10,923	11,802	301	304	0	0	51	49
Pacific Contiguous	1,463	2,794	-48.0%	496	664	931	2,096	0	0	37	34
California	33	30	9.0%	0	0	0	0	0	0	33	30
Oregon	496	664	-25.0%	496	664	0	0	0	0	0	0
Washington	935	2,100	-55.0%	0	0	931	2,096	0	0	4	4
Pacific Noncontiguous	679	705	-3.7%	203	213	454	474	21	18	0	0
Alaska	304	306	-0.6%	203	213	80	75	21	18	0	0
Hawaii	374	399	-6.1%	0	0	374	399	0	0	0	0
U.S. Total	234,429	318,754	-26.0%	174,885	236,752	58,384	80,637	41	48	1,119	1,317

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

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

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

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

**Table 2.9.A. Consumption of Petroleum Liquids for Electricity Generation by State, by Sector,
July 2020 and July 2019 (Thousand Barrels)**

Census Division and State	Electric Power Sector										
	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
New England	47	85	-45.0%	7	9	39	74	1	2	1	1
Connecticut	20	19	8.0%	NM	1	19	17	NM	NM	0	0
Maine	2	14	-87.0%	0	0	1	12	0	1	1	1
Massachusetts	20	45	-55.0%	NM	NM	16	42	NM	1	0	0
New Hampshire	2	5	-60.0%	2	4	NM	NM	0	0	0	0
Rhode Island	NM	NM	NM	0	0	NM	NM	0	0	NM	NM
Vermont	1	NM	NM	NM	NM	0	0	0	0	0	0
Middle Atlantic	132	120	10.0%	48	20	79	94	NM	NM	3	3
New Jersey	NM	NM	NM	0	0	NM	NM	0	0	0	0
New York	74	56	32.0%	48	20	25	34	NM	NM	1	0
Pennsylvania	51	58	-12.0%	0	0	47	54	2	2	2	2
East North Central	105	78	35.0%	67	51	38	26	NM	0	0	0
Illinois	9	6	36.0%	NM	1	7	5	NM	NM	0	0
Indiana	29	19	58.0%	29	18	0	0	0	0	0	0
Michigan	26	20	27.0%	26	20	0	0	NM	0	0	0
Ohio	33	24	39.0%	2	2	31	21	0	0	0	0
Wisconsin	NM	NM	NM	NM	NM	0	0	NM	NM	0	0
West North Central	45	45	0.8%	43	43	NM	NM	0	0	0	0
Iowa	13	10	34.0%	13	9	NM	1	0	0	0	0
Kansas	5	10	-52.0%	5	10	0	0	0	0	0	0
Minnesota	NM	NM	NM	NM	NM	NM	NM	0	0	0	0
Missouri	14	10	38.0%	14	10	0	0	0	0	0	0
Nebraska	NM	NM	NM	NM	NM	0	0	0	0	0	0
North Dakota	4	3	24.0%	4	3	0	0	0	0	0	0
South Dakota	NM	NM	NM	NM	NM	0	0	NM	NM	0	0
South Atlantic	254	237	7.1%	159	166	70	48	17	19	7	5
Delaware	NM	9	NM	0	0	NM	9	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	39	49	-21.0%	37	48	1	NM	0	0	1	1
Georgia	18	15	24.0%	13	8	NM	NM	0	2	3	3
Maryland	46	23	97.0%	NM	0	46	23	NM	0	0	0
North Carolina	26	26	-1.5%	23	24	NM	NM	NM	NM	1	1
South Carolina	10	18	-42.0%	9	18	0	0	0	NM	1	0
Virginia	77	67	15.0%	49	38	11	12	17	17	0	NM
West Virginia	28	30	-6.9%	28	29	0	1	0	0	0	0
East South Central	44	38	15.0%	43	38	NM	NM	0	0	1	0
Alabama	1	3	-63.0%	1	3	NM	NM	0	0	NM	NM
Kentucky	14	10	39.0%	14	10	0	0	0	0	0	0
Mississippi	1	1	-11.0%	1	1	0	0	0	0	0	0
Tennessee	28	24	16.0%	28	24	0	0	0	0	0	0
West South Central	19	15	25.0%	17	11	2	4	0	0	0	0
Arkansas	7	6	18.0%	6	2	0	3	0	0	0	0
Louisiana	NM	NM	NM	NM	NM	0	0	0	0	0	0
Oklahoma	5	3	39.0%	5	3	0	0	0	0	0	0
Texas	6	5	19.0%	5	5	2	NM	0	0	0	0
Mountain	27	34	-22.0%	26	31	1	3	NM	NM	0	0
Arizona	7	7	-8.9%	7	7	0	0	NM	NM	0	0
Colorado	NM	NM	NM	NM	NM	0	0	0	0	0	0
Idaho	0	0	-100.0%	0	0	0	0	0	0	0	0
Montana	NM	NM	NM	NM	NM	NM	2	0	0	0	0
Nevada	1	4	-74.0%	1	3	0	1	0	0	0	0
New Mexico	5	5	-2.5%	5	5	0	0	0	0	0	0
Utah	7	4	76.0%	7	4	0	0	0	0	0	0
Wyoming	5	10	-53.0%	5	10	0	0	0	0	0	0
Pacific Contiguous	15	11	37.0%	9	8	5	2	NM	NM	NM	1
California	10	7	38.0%	7	6	2	0	NM	NM	NM	NM
Oregon	NM	1	NM	1	1	0	0	NM	NM	0	0
Washington	NM	3	NM	NM	NM	3	2	0	0	NM	1
Pacific Noncontiguous	1,032	1,156	-11.0%	849	911	162	222	3	0	18	23
Alaska	172	135	27.0%	167	129	0	0	0	0	5	7
Hawaii	860	1,021	-16.0%	682	782	162	222	3	0	14	16
U.S. Total	1,720	1,820	-5.5%	1,267	1,287	397	475	25	25	32	33

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Table 2.9.B. Consumption of Petroleum Liquids for Electricity Generation by State, by Sector, Year-to-Date through July 2020 and July 2019 (Thousand Barrels)

Census Division and State	Electric Power Sector										
	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	225	354	-36.0%	32	42	176	283	12	22	5	7
Connecticut	94	121	-22.0%	5	5	88	111	NM	3	0	2
Maine	27	29	-6.5%	0	0	21	20	2	4	4	5
Massachusetts	67	148	-55.0%	13	NM	51	127	3	5	0	1
New Hampshire	19	30	-36.0%	12	20	NM	NM	7	8	0	0
Rhode Island	NM	24	NM	0	0	NM	NM	0	1	NM	NM
Vermont	2	NM	NM	2	NM	0	0	0	0	0	0
Middle Atlantic	521	1,101	-53.0%	125	315	369	745	10	16	16	25
New Jersey	55	93	-41.0%	0	3	54	89	0	1	0	1
New York	279	662	-58.0%	125	312	145	330	NM	NM	4	11
Pennsylvania	188	346	-46.0%	0	0	171	325	4	7	12	14
East North Central	484	579	-16.0%	320	361	160	208	1	3	2	7
Illinois	39	50	-23.0%	6	7	32	43	NM	NM	0	0
Indiana	134	154	-13.0%	133	150	0	0	0	NM	1	4
Michigan	115	110	4.5%	114	108	0	0	0	2	0	1
Ohio	142	208	-32.0%	16	47	125	159	0	0	1	2
Wisconsin	54	56	-4.9%	50	50	3	5	0	1	0	0
West North Central	355	419	-15.0%	346	404	NM	12	1	2	1	1
Iowa	76	80	-5.9%	72	76	3	4	0	0	0	0
Kansas	91	71	28.0%	91	71	0	0	0	0	0	0
Minnesota	39	50	-22.0%	34	40	NM	NM	1	2	1	1
Missouri	79	130	-40.0%	79	130	0	0	0	0	0	0
Nebraska	NM	28	NM	NM	28	0	0	0	0	0	0
North Dakota	40	46	-14.0%	40	46	0	0	0	0	0	0
South Dakota	NM	13	NM	NM	12	0	0	NM	NM	0	0
South Atlantic	1,064	1,451	-27.0%	743	1,053	195	278	84	70	43	50
Delaware	32	56	-42.0%	0	0	32	55	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	195	319	-39.0%	180	308	7	3	0	0	7	8
Georgia	82	116	-29.0%	55	71	NM	12	1	4	20	28
Maryland	113	124	-8.7%	1	3	111	120	NM	0	0	1
North Carolina	169	278	-39.0%	157	263	NM	9	NM	NM	6	6
South Carolina	79	112	-30.0%	74	104	1	3	0	NM	4	4
Virginia	240	313	-23.0%	121	172	32	74	81	65	6	3
West Virginia	154	133	16.0%	154	132	0	2	0	0	0	0
East South Central	225	331	-32.0%	220	322	1	3	0	0	4	7
Alabama	9	21	-60.0%	6	15	1	2	0	0	2	4
Kentucky	84	94	-11.0%	84	94	0	0	0	0	0	0
Mississippi	9	18	-48.0%	8	17	0	0	0	0	1	1
Tennessee	124	197	-37.0%	122	195	0	0	0	0	1	2
West South Central	143	148	-3.5%	114	109	27	33	0	1	2	5
Arkansas	52	49	6.6%	43	32	8	16	0	0	0	1
Louisiana	12	13	-8.3%	12	13	0	0	0	0	0	0
Oklahoma	24	24	1.3%	24	22	0	0	0	0	1	2
Texas	55	63	-12.0%	35	42	19	18	0	1	1	2
Mountain	191	253	-24.0%	180	233	11	20	NM	0	0	0
Arizona	43	75	-43.0%	43	75	0	0	NM	NM	0	0
Colorado	NM	18	NM	NM	18	0	0	0	0	0	0
Idaho	0	0	-56.0%	0	0	0	0	0	0	0	0
Montana	9	19	-54.0%	NM	NM	8	15	0	0	0	0
Nevada	8	16	-52.0%	6	13	1	3	0	0	0	0
New Mexico	35	42	-16.0%	35	42	0	0	0	0	0	0
Utah	40	38	6.2%	38	37	2	1	0	0	0	0
Wyoming	44	45	-3.0%	44	45	0	0	0	0	0	0
Pacific Contiguous	70	76	-9.0%	43	43	17	16	NM	NM	9	16
California	48	54	-11.0%	36	38	8	5	0	1	4	11
Oregon	NM	4	NM	3	4	0	0	NM	NM	0	0
Washington	19	18	0.7%	NM	NM	8	12	0	0	5	5
Pacific Noncontiguous	6,822	7,170	-4.9%	5,586	5,641	1,073	1,357	17	14	146	159
Alaska	1,047	908	15.0%	1,009	867	0	0	3	4	34	37
Hawaii	5,775	6,262	-7.8%	4,577	4,774	1,073	1,357	14	9	111	122
U.S. Total	10,099	11,883	-15.0%	7,709	8,522	2,037	2,956	126	127	227	278

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**Table 2.10.A. Consumption of Petroleum Coke for Electricity Generation by State, by Sector,
July 2020 and July 2019 (Thousand Tons)**

Census Division and State	Electric Power Sector										
	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
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	NM	NM	0	0	0	0	0	0	0	NM
New Jersey	0	1	-52.0%	0	0	0	0	0	0	0	1
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	0	NM	NM	0	0	0	0	0	0	0	NM
East North Central	95	116	-18.0%	40	61	48	46	0	0	7	8
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	41	64	-35.0%	35	56	0	0	0	0	7	8
Ohio	48	46	4.4%	0	0	48	46	0	0	0	0
Wisconsin	5	5	-8.4%	5	5	0	0	0	0	0	0
West North Central	1	8	-87.0%	0	0	0	0	0	0	1	8
Iowa	1	8	-87.0%	0	0	0	0	0	0	1	8
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	75	35	116.0%	71	31	0	0	0	0	4	4
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	71	31	128.0%	71	31	0	0	0	0	0	0
Georgia	4	4	6.0%	0	0	0	0	0	0	4	4
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	161	138	16.0%	159	134	0	0	0	0	2	4
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	159	134	18.0%	159	134	0	0	0	0	0	0
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	2	4	-39.0%	0	0	0	0	0	0	2	4
Mountain	14	15	-9.7%	0	0	14	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	14	15	-9.7%	0	0	14	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	346	314	10.0%	270	227	62	61	0	0	14	25

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

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

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

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

Table 2.10.B. Consumption of Petroleum Coke for Electricity Generation by State, by Sector, Year-to-Date through July 2020 and July 2019 (Thousand Tons)

Census Division and State	Electric Power Sector										
	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 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	2	11	-81.0%	0	0	0	0	0	0	2	11
New Jersey	2	4	-50.0%	0	0	0	0	0	0	2	4
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	0	7	-100.0%	0	0	0	0	0	0	0	7
East North Central	538	596	-9.8%	249	259	250	302	0	0	38	35
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	264	270	-2.2%	227	236	0	0	0	0	38	34
Ohio	250	303	-17.0%	0	0	250	302	0	0	0	0
Wisconsin	23	23	0.1%	23	23	0	0	0	0	0	0
West North Central	6	10	-41.0%	0	0	0	0	1	1	5	9
Iowa	6	10	-41.0%	0	0	0	0	1	1	5	9
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	363	299	21.0%	343	280	0	0	0	0	19	20
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	343	280	23.0%	343	280	0	0	0	0	0	0
Georgia	19	20	-0.4%	0	0	0	0	0	0	19	20
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	881	874	0.8%	858	841	0	0	0	0	23	33
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	858	842	2.0%	858	841	0	0	0	0	0	1
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	23	32	-29.0%	0	0	0	0	0	0	23	32
Mountain	96	101	-4.8%	0	0	96	101	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	96	101	-4.8%	0	0	96	101	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	1,885	1,890	-0.3%	1,451	1,379	346	403	1	1	88	107

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

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

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

Table 2.11.A. Consumption of Natural Gas for Electricity Generation by State, by Sector, July 2020 and July 2019 (Million Cubic Feet)

Census Division and State	Electric Power Sector										
	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
New England	50,314	45,448	11.0%	1,021	567	47,870	43,483	566	551	857	847
Connecticut	18,697	16,758	12.0%	29	20	18,081	16,178	209	205	377	354
Maine	2,280	1,627	40.0%	0	0	2,015	1,381	14	13	250	233
Massachusetts	17,993	16,106	12.0%	851	516	16,756	15,178	312	298	75	113
New Hampshire	4,524	4,271	5.9%	140	30	4,366	4,219	4	6	14	16
Rhode Island	6,819	6,685	2.0%	0	0	6,652	6,526	27	28	140	131
Vermont	1	2	-34.0%	1	2	0	0	0	0	0	0
Middle Atlantic	192,565	163,793	18.0%	16,062	15,046	174,430	146,646	755	768	1,318	1,333
New Jersey	32,388	32,900	-1.6%	NM	299	31,814	32,320	76	81	206	200
New York	63,225	55,159	15.0%	15,758	14,742	46,537	39,470	610	616	320	330
Pennsylvania	96,951	75,734	28.0%	13	5	96,078	74,855	69	71	791	803
East North Central	154,482	135,298	14.0%	62,395	53,870	88,713	78,291	818	813	2,557	2,324
Illinois	35,932	26,463	36.0%	5,316	3,476	29,932	22,343	253	257	432	387
Indiana	26,995	23,945	13.0%	14,676	12,235	10,917	10,396	97	107	1,305	1,208
Michigan	34,340	29,801	15.0%	18,249	14,448	15,522	14,829	269	277	300	247
Ohio	40,319	37,472	7.6%	8,896	8,535	31,170	28,734	140	128	113	75
Wisconsin	16,896	17,617	-4.1%	15,257	15,176	1,173	1,990	59	44	408	407
West North Central	38,678	35,728	8.3%	34,115	31,458	4,187	3,871	174	167	202	231
Iowa	7,761	7,630	1.7%	7,578	7,377	NM	NM	62	65	120	178
Kansas	4,068	4,093	-0.6%	4,044	4,083	0	0	0	0	24	10
Minnesota	10,046	9,852	2.0%	7,994	8,386	1,972	1,402	47	33	32	31
Missouri	10,938	8,476	29.0%	8,653	5,949	2,214	2,459	61	63	9	6
Nebraska	2,489	2,318	7.4%	2,486	2,311	0	0	4	7	0	0
North Dakota	1,559	1,571	-0.8%	1,544	1,566	0	0	0	0	15	6
South Dakota	1,817	1,786	1.7%	1,817	1,786	0	0	0	0	0	0
South Atlantic	313,272	295,784	5.9%	250,627	237,611	58,970	54,437	981	1,038	2,694	2,698
Delaware	5,914	5,888	0.4%	105	143	5,366	5,278	0	0	443	467
District of Columbia	61	53	15.0%	0	0	0	0	61	53	0	0
Florida	139,917	132,493	5.6%	132,643	125,071	6,528	6,643	10	8	736	770
Georgia	45,585	43,037	5.9%	33,299	30,831	11,890	11,841	0	0	395	365
Maryland	13,431	12,651	6.2%	3,077	3,568	9,508	8,169	824	897	22	17
North Carolina	34,284	31,215	9.8%	27,992	24,582	6,134	6,492	86	75	72	65
South Carolina	20,825	20,233	2.9%	19,701	19,739	1,017	419	0	0	107	74
Virginia	49,793	47,909	3.9%	33,400	33,271	15,702	13,955	5	5	690	679
West Virginia	3,462	2,305	50.0%	409	405	2,824	1,640	0	0	229	260
East South Central	117,939	109,937	7.3%	85,249	78,009	31,312	30,591	103	97	1,275	1,239
Alabama	46,584	43,924	6.1%	17,041	17,324	28,921	25,969	0	0	621	631
Kentucky	15,416	11,899	30.0%	12,965	10,818	2,368	1,006	0	0	83	75
Mississippi	41,121	41,112	0.0%	40,917	37,333	8	3,602	0	0	195	178
Tennessee	14,818	13,001	14.0%	14,325	12,534	14	14	103	97	376	356
West South Central	334,556	315,473	6.0%	143,259	131,594	154,932	148,280	540	505	35,825	35,095
Arkansas	16,215	17,290	-6.2%	15,495	16,510	588	624	NM	NM	95	120
Louisiana	57,012	54,414	4.8%	39,628	35,629	4,231	5,058	70	69	13,083	13,659
Oklahoma	46,548	42,013	11.0%	33,484	27,380	12,707	14,296	0	0	356	336
Texas	214,781	201,756	6.5%	54,651	52,075	137,406	128,301	434	399	22,290	20,981
Mountain	106,227	101,857	4.3%	87,417	83,546	17,502	17,127	177	185	1,131	999
Arizona	44,506	40,886	8.9%	35,488	30,835	8,966	9,998	52	53	0	0
Colorado	15,212	14,902	2.1%	12,400	12,079	2,780	2,795	0	0	32	29
Idaho	3,583	3,883	-7.7%	2,203	2,330	1,318	1,496	14	14	48	42
Montana	507	627	-19.0%	NM	516	NM	111	0	0	NM	NM
Nevada	21,689	21,753	-0.3%	19,980	19,990	1,368	1,328	23	24	319	411
New Mexico	11,725	11,251	4.2%	8,672	9,812	3,010	1,353	43	45	0	40
Utah	7,759	7,860	-1.3%	7,380	7,499	26	45	44	48	309	268
Wyoming	1,245	695	79.0%	824	486	0	0	0	0	422	209
Pacific Contiguous	83,696	87,620	-4.5%	33,611	38,003	43,108	43,217	808	877	6,169	5,523
California	65,748	60,144	9.3%	22,557	21,581	36,704	32,233	785	856	5,702	5,474
Oregon	10,432	15,005	-30.0%	6,013	7,855	4,323	7,098	18	21	NM	32
Washington	7,516	12,471	-40.0%	5,042	8,568	2,081	3,886	4	0	389	17
Pacific Noncontiguous	3,395	3,690	-8.0%	3,370	3,666	0	0	0	0	25	24
Alaska	3,395	3,690	-8.0%	3,370	3,666	0	0	0	0	25	24
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	1,395,122	1,294,629	7.8%	717,125	673,371	621,023	565,943	4,922	5,002	52,052	50,313

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

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

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

Table 2.11.B. Consumption of Natural Gas for Electricity Generation by State, by Sector, Year-to-Date through July 2020 and July 2019 (Million Cubic Feet)

Census Division and State	Electric Power Sector										
	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	212,110	202,707	4.6%	1,692	1,059	201,914	193,616	3,235	3,131	5,270	4,901
Connecticut	94,670	83,203	14.0%	176	186	90,994	79,728	1,238	1,194	2,262	2,095
Maine	7,546	6,606	14.0%	0	0	6,160	5,425	90	85	1,297	1,095
Massachusetts	59,701	68,157	-12.0%	1,345	817	55,823	64,860	1,751	1,690	781	789
New Hampshire	15,059	12,438	21.0%	163	46	14,777	12,256	19	28	99	108
Rhode Island	35,124	32,291	8.8%	0	0	34,160	31,347	133	130	830	813
Vermont	11	13	-12.0%	8	9	0	0	3	3	0	0
Middle Atlantic	832,530	744,215	12.0%	55,588	54,460	764,665	677,150	4,172	4,430	8,106	8,176
New Jersey	128,983	159,328	-19.0%	NM	850	126,464	156,797	410	481	1,267	1,200
New York	236,269	216,092	9.3%	54,723	53,590	175,883	156,782	3,440	3,532	2,223	2,188
Pennsylvania	467,279	368,794	27.0%	24	19	462,318	363,570	322	418	4,615	4,787
East North Central	742,043	651,025	14.0%	283,539	234,279	437,092	396,188	4,555	4,574	16,857	15,983
Illinois	114,806	86,982	32.0%	15,481	7,134	95,698	76,283	1,229	1,198	2,399	2,367
Indiana	142,900	128,256	11.0%	68,179	57,245	65,618	62,006	549	526	8,554	8,479
Michigan	166,324	140,001	19.0%	68,495	50,337	93,869	85,859	1,807	1,892	2,153	1,912
Ohio	219,363	210,750	4.1%	41,949	43,248	176,077	166,234	623	648	714	620
Wisconsin	98,650	85,035	16.0%	89,434	76,315	5,831	5,807	348	309	3,036	2,605
West North Central	146,109	135,562	7.8%	123,764	116,327	19,172	16,272	999	1,024	2,174	1,940
Iowa	30,690	28,911	6.2%	29,287	27,393	NM	NM	312	325	1,089	1,150
Kansas	14,836	15,983	-7.2%	14,295	15,676	0	0	0	0	541	308
Minnesota	41,760	40,273	3.7%	34,491	34,966	6,665	4,665	282	291	322	352
Missouri	36,610	33,664	8.8%	23,641	21,655	12,505	11,565	380	380	84	64
Nebraska	7,394	5,571	33.0%	7,369	5,543	0	0	25	28	0	0
North Dakota	7,821	6,116	28.0%	7,683	6,050	0	0	0	0	138	66
South Dakota	6,998	5,043	39.0%	6,998	5,043	0	0	0	0	0	0
South Atlantic	1,702,012	1,599,206	6.4%	1,393,707	1,319,329	283,754	255,807	6,110	6,821	18,441	17,249
Delaware	20,561	19,729	4.2%	131	196	17,109	16,260	0	0	3,320	3,274
District of Columbia	241	354	-32.0%	0	0	0	0	241	354	0	0
Florida	792,566	757,915	4.6%	752,218	722,131	35,337	30,883	76	63	4,936	4,838
Georgia	244,482	229,106	6.7%	183,199	172,809	58,759	54,114	0	1	2,525	2,182
Maryland	63,517	65,444	-2.9%	13,056	17,832	45,167	41,574	5,166	5,825	128	213
North Carolina	183,943	177,233	3.8%	149,138	141,826	33,698	34,423	584	533	522	451
South Carolina	109,596	101,666	7.8%	106,097	97,845	2,815	3,363	0	0	684	458
Virginia	274,827	240,620	14.0%	189,259	165,491	80,640	70,646	43	45	4,885	4,438
West Virginia	12,279	7,138	72.0%	608	1,197	10,229	4,545	0	0	1,441	1,396
East South Central	587,819	564,304	4.2%	428,560	392,605	150,023	162,661	647	578	8,590	8,459
Alabama	225,698	232,953	-3.1%	79,921	88,729	141,610	139,974	0	0	4,166	4,251
Kentucky	61,710	59,261	4.1%	56,681	56,267	4,479	2,441	0	0	550	553
Mississippi	232,142	201,702	15.0%	226,987	180,293	3,847	20,157	0	0	1,308	1,252
Tennessee	68,270	70,388	-3.0%	64,970	67,317	87	90	647	578	2,565	2,403
West South Central	1,644,538	1,563,958	5.2%	672,340	611,138	736,261	721,011	2,853	2,943	233,085	228,866
Arkansas	73,372	84,186	-13.0%	68,359	78,872	4,122	4,148	NM	239	653	927
Louisiana	310,122	300,233	3.3%	203,449	185,671	17,506	20,989	482	392	88,685	93,181
Oklahoma	213,999	184,351	16.0%	144,090	119,169	67,620	63,254	0	0	2,288	1,928
Texas	1,047,044	995,188	5.2%	256,441	227,425	647,012	632,620	2,131	2,312	141,459	132,830
Mountain	528,480	486,992	8.5%	426,196	392,758	93,764	85,953	1,212	1,295	7,307	6,987
Arizona	211,768	187,755	13.0%	164,583	143,957	46,845	43,447	340	351	0	0
Colorado	83,065	72,792	14.0%	69,744	60,746	13,077	11,840	28	7	215	198
Idaho	16,756	15,466	8.3%	8,871	7,503	7,430	7,546	101	96	354	321
Montana	2,504	2,967	-16.0%	2,275	2,204	214	752	0	0	15	11
Nevada	111,480	104,568	6.6%	101,166	94,286	8,733	8,633	141	156	1,440	1,493
New Mexico	59,610	57,356	3.9%	42,038	43,973	17,173	13,033	279	300	121	50
Utah	37,780	42,244	-11.0%	34,961	38,472	283	693	322	385	2,214	2,694
Wyoming	5,517	3,845	43.0%	2,559	1,617	9	10	0	0	2,949	2,218
Pacific Contiguous	433,145	419,391	3.3%	177,415	168,111	210,949	207,411	5,383	5,796	39,398	38,073
California	315,642	298,961	5.6%	106,620	102,018	166,571	153,768	5,218	5,637	37,234	37,538
Oregon	69,627	74,290	-6.3%	36,271	36,334	32,751	37,558	132	130	473	268
Washington	47,876	46,140	3.8%	34,524	29,759	11,627	16,085	34	29	1,691	267
Pacific Noncontiguous	17,699	16,939	4.5%	17,540	16,762	0	0	0	0	159	176
Alaska	17,699	16,939	4.5%	17,540	16,762	0	0	0	0	159	176
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	6,846,486	6,384,300	7.2%	3,580,340	3,306,828	2,897,594	2,716,069	29,166	30,593	339,387	330,810

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Table 2.12.A. Consumption of Landfill Gas for Electricity Generation by State, by Sector, July 2020 and July 2019 (Million Cubic Feet)

Census Division and State	Electric Power Sector										
	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
New England	780	884	-12.0%	0	0	761	877	19	7	0	0
Connecticut	NM	NM	NM	0	0	NM	NM	0	0	0	0
Maine	50	51	-2.2%	0	0	50	51	0	0	0	0
Massachusetts	303	311	-2.4%	0	0	303	311	0	0	0	0
New Hampshire	86	79	8.6%	0	0	67	72	19	7	0	0
Rhode Island	310	406	-24.0%	0	0	310	406	0	0	0	0
Vermont	NM	NM	NM	0	0	NM	NM	0	0	0	0
Middle Atlantic	2,969	3,975	-25.0%	0	0	2,853	3,848	NM	NM	61	72
New Jersey	368	529	-30.0%	0	0	352	514	NM	NM	0	0
New York	1,225	1,268	-3.4%	0	0	1,225	1,268	0	0	0	0
Pennsylvania	1,376	2,178	-37.0%	0	0	1,276	2,066	NM	NM	61	72
East North Central	4,737	4,953	-4.4%	736	766	3,965	4,138	19	27	17	22
Illinois	846	861	-1.7%	204	200	641	661	0	0	0	0
Indiana	633	661	-4.3%	532	566	102	96	0	0	0	0
Michigan	1,576	1,657	-4.9%	0	0	1,576	1,657	0	0	0	0
Ohio	897	924	-2.9%	0	0	897	924	0	0	0	0
Wisconsin	785	851	-7.7%	0	0	749	801	19	27	17	22
West North Central	756	704	7.3%	242	229	514	476	0	0	0	0
Iowa	207	162	28.0%	0	0	207	162	0	0	0	0
Kansas	120	123	-2.5%	0	0	120	123	0	0	0	0
Minnesota	163	167	-2.2%	49	49	114	117	0	0	0	0
Missouri	129	132	-1.7%	58	58	72	73	0	0	0	0
Nebraska	136	121	12.0%	136	121	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	3,946	3,899	1.2%	356	291	3,403	3,406	NM	NM	121	NM
Delaware	87	88	-1.4%	0	0	78	79	0	0	NM	NM
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	811	757	7.1%	172	100	639	657	0	0	0	0
Georgia	525	565	-6.9%	0	0	513	553	0	0	12	12
Maryland	160	188	-15.0%	0	0	126	129	NM	NM	0	0
North Carolina	889	849	4.8%	0	0	872	834	NM	NM	0	0
South Carolina	308	306	0.6%	181	184	NM	NM	0	0	NM	NM
Virginia	1,166	1,146	1.7%	3	7	1,148	1,125	NM	NM	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	406	417	-2.7%	171	176	235	241	0	0	0	0
Alabama	63	65	-2.4%	0	0	63	65	0	0	0	0
Kentucky	185	191	-3.0%	171	176	14	15	0	0	0	0
Mississippi	NM	NM	NM	0	0	NM	NM	0	0	0	0
Tennessee	138	141	-2.4%	0	0	138	141	0	0	0	0
West South Central	878	917	-4.2%	0	0	878	917	0	0	0	0
Arkansas	90	92	-2.4%	0	0	90	92	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	NM	38	NM	0	0	NM	38	0	0	0	0
Texas	751	786	-4.5%	0	0	751	786	0	0	0	0
Mountain	432	493	-12.0%	NM	NM	370	430	41	42	0	0
Arizona	72	74	-2.5%	0	0	72	74	0	0	0	0
Colorado	81	83	-2.5%	0	0	81	83	0	0	0	0
Idaho	44	41	6.9%	NM	NM	NM	NM	16	13	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	120	122	-2.2%	0	0	120	122	0	0	0	0
New Mexico	NM	NM	NM	0	0	NM	NM	0	0	0	0
Utah	107	165	-35.0%	0	0	83	136	24	29	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	4,355	4,302	1.2%	111	110	3,170	3,196	1,074	996	0	0
California	3,808	3,758	1.3%	NM	NM	2,753	2,780	1,047	971	0	0
Oregon	455	449	1.3%	104	103	324	321	NM	NM	0	0
Washington	93	95	-2.4%	0	0	93	95	0	0	0	0
Pacific Noncontiguous	65	63	3.9%	0	0	0	0	65	63	0	0
Alaska	65	63	3.9%	0	0	0	0	65	63	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	19,326	20,607	-6.2%	1,638	1,593	16,149	17,528	1,339	1,277	199	209

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Table 2.12.B. Consumption of Landfill Gas for Electricity Generation by State, by Sector, Year-to-Date through July 2020 and July 2019 (Million Cubic Feet)

Census Division and State	Electric Power Sector										
	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	5,805	5,604	3.6%	0	0	5,697	5,473	108	130	0	0
Connecticut	107	129	-17.0%	0	0	107	129	0	0	0	0
Maine	348	341	1.8%	0	0	348	341	0	0	0	0
Massachusetts	2,105	2,058	2.2%	0	0	2,105	2,058	0	0	0	0
New Hampshire	572	599	-4.6%	0	0	464	469	108	130	0	0
Rhode Island	2,544	2,348	8.3%	0	0	2,544	2,348	0	0	0	0
Vermont	130	127	2.4%	0	0	130	127	0	0	0	0
Middle Atlantic	24,524	27,034	-9.3%	0	0	23,750	26,105	243	308	532	621
New Jersey	2,887	3,773	-23.0%	0	0	2,812	3,682	NM	91	0	0
New York	8,648	8,676	-0.3%	0	0	8,648	8,676	0	0	0	0
Pennsylvania	12,989	14,585	-11.0%	0	0	12,289	13,747	168	217	532	621
East North Central	33,252	34,014	-2.2%	5,162	5,186	27,764	28,440	183	239	144	148
Illinois	5,826	5,786	0.7%	1,396	1,379	4,431	4,407	0	0	0	0
Indiana	4,444	4,459	-0.3%	3,766	3,808	679	651	0	0	0	0
Michigan	11,293	11,442	-1.3%	0	0	11,293	11,442	0	0	0	0
Ohio	6,019	6,485	-7.2%	0	0	6,019	6,485	0	0	0	0
Wisconsin	5,669	5,842	-3.0%	0	0	5,343	5,454	183	239	144	148
West North Central	5,238	5,002	4.7%	1,670	1,661	3,568	3,341	0	0	0	0
Iowa	1,454	1,278	14.0%	0	0	1,454	1,278	0	0	0	0
Kansas	829	809	2.5%	0	0	829	809	0	0	0	0
Minnesota	1,145	1,125	1.8%	357	357	788	768	0	0	0	0
Missouri	923	914	1.1%	426	427	498	487	0	0	0	0
Nebraska	886	877	1.1%	886	877	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	27,410	27,283	0.5%	2,416	2,192	23,697	23,533	428	671	869	887
Delaware	606	594	2.0%	0	0	544	534	0	0	62	60
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	5,518	5,299	4.1%	1,095	872	4,423	4,426	0	0	0	0
Georgia	3,616	3,924	-7.9%	0	0	3,544	3,844	0	0	72	81
Maryland	1,122	1,332	-16.0%	0	0	877	860	244	473	0	0
North Carolina	5,939	5,792	2.5%	0	0	5,856	5,696	NM	96	0	0
South Carolina	2,219	2,212	0.3%	1,291	1,277	194	190	0	0	734	746
Virginia	8,391	8,130	3.2%	30	43	8,260	7,984	NM	103	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	2,829	2,782	1.7%	1,187	1,174	1,642	1,608	0	0	0	0
Alabama	439	429	2.2%	0	0	439	429	0	0	0	0
Kentucky	1,299	1,286	1.0%	1,187	1,174	112	112	0	0	0	0
Mississippi	137	134	2.4%	0	0	137	134	0	0	0	0
Tennessee	954	932	2.3%	0	0	954	932	0	0	0	0
West South Central	6,073	6,494	-6.5%	0	0	6,073	6,305	0	189	0	0
Arkansas	623	610	2.2%	0	0	623	610	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	257	251	2.4%	0	0	257	251	0	0	0	0
Texas	5,192	5,633	-7.8%	0	0	5,192	5,444	0	189	0	0
Mountain	3,106	3,268	-5.0%	148	148	2,658	2,882	301	239	0	0
Arizona	496	484	2.4%	0	0	496	484	0	0	0	0
Colorado	561	548	2.5%	0	0	561	548	0	0	0	0
Idaho	306	291	5.1%	148	148	50	NM	109	92	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	838	823	1.9%	0	0	838	823	0	0	0	0
New Mexico	61	NM	NM	0	0	61	NM	0	0	0	0
Utah	844	1,061	-20.0%	0	0	651	915	192	146	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	29,477	27,552	7.0%	805	723	21,320	20,553	7,352	6,275	0	0
California	25,727	23,956	7.4%	102	NM	18,469	17,831	7,156	6,079	0	0
Oregon	3,104	2,963	4.8%	703	677	2,205	2,090	196	196	0	0
Washington	646	632	2.2%	0	0	646	632	0	0	0	0
Pacific Noncontiguous	448	390	15.0%	0	0	0	0	448	390	0	0
Alaska	448	390	15.0%	0	0	0	0	448	390	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	138,162	139,422	-0.9%	11,387	11,084	116,168	118,240	9,063	8,442	1,544	1,656

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Table 2.13.A. Consumption of Biogenic Municipal Solid Waste for Electricity Generation by State, by Sector, July 2020 and July 2019 (Thousand Tons)

Census Division and State	Electric Power Sector										
	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
New England	279	276	1.1%	0	0	267	266	12	10	0	0
Connecticut	100	94	6.8%	0	0	100	94	0	0	0	0
Maine	22	20	13.0%	0	0	11	10	12	10	0	0
Massachusetts	147	153	-3.8%	0	0	147	153	0	0	0	0
New Hampshire	10	10	-2.4%	0	0	10	10	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	436	447	-2.6%	0	0	344	356	92	92	0	0
New Jersey	114	110	3.7%	0	0	84	81	30	29	0	0
New York	155	171	-9.6%	0	0	114	130	41	42	0	0
Pennsylvania	167	166	0.6%	0	0	146	145	21	21	0	0
East North Central	14	15	-2.3%	2	3	0	0	12	12	0	0
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	2	1	28.0%	0	0	0	0	2	1	0	0
Michigan	10	10	1.2%	0	0	0	0	10	10	0	0
Ohio	0	0	--	0	0	0	0	0	0	0	0
Wisconsin	2	3	-26.0%	2	3	0	0	0	0	0	0
West North Central	44	43	0.9%	24	24	20	19	NM	NM	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	44	43	0.9%	24	24	20	19	NM	NM	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	463	466	-0.7%	0	0	427	434	35	32	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	315	316	-0.3%	0	0	315	316	0	0	0	0
Georgia	0	0	--	0	0	0	0	0	0	0	0
Maryland	48	57	-16.0%	0	0	48	57	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	100	93	7.3%	0	0	65	61	35	32	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	0	0	--	0	0	0	0	0	0	0	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	0	0	--	0	0	0	0	0	0	0	0
West South Central	1	1	-19.0%	0	0	0	0	0	0	1	1
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	1	1	-19.0%	0	0	0	0	0	0	1	1
Texas	0	0	--	0	0	0	0	0	0	0	0
Mountain	0	0	--	0	0	0	0	0	0	0	0
Arizona	0	0	--	0	0	0	0	0	0	0	0
Colorado	0	0	--	0	0	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	0	0	--	0	0	0	0	0	0	0	0
New Mexico	0	0	--	0	0	0	0	0	0	0	0
Utah	0	0	--	0	0	0	0	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	62	57	8.7%	0	0	62	57	0	0	0	0
California	38	33	17.0%	0	0	38	33	0	0	0	0
Oregon	9	10	-6.3%	0	0	9	10	0	0	0	0
Washington	14	14	0.8%	0	0	14	14	0	0	0	0
Pacific Noncontiguous	39	40	-2.6%	0	0	0	0	39	40	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	39	40	-2.6%	0	0	0	0	39	40	0	0
U.S. Total	1,337	1,345	-0.6%	26	27	1,120	1,132	190	185	1	1

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Table 2.13.B. Consumption of Biogenic Municipal Solid Waste for Electricity Generation by State, by Sector, Year-to-Date through July 2020 and July 2019 (Thousand Tons)

Census Division and State	Electric Power Sector										
	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	1,897	1,885	0.6%	0	0	1,825	1,801	72	84	0	0
Connecticut	675	654	3.2%	0	0	675	654	0	0	0	0
Maine	136	147	-7.9%	0	0	64	63	72	84	0	0
Massachusetts	1,019	1,016	0.3%	0	0	1,019	1,016	0	0	0	0
New Hampshire	66	68	-1.9%	0	0	66	68	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	2,930	2,892	1.3%	0	0	2,335	2,291	595	602	0	0
New Jersey	753	737	2.2%	0	0	559	545	194	192	0	0
New York	1,080	1,058	2.1%	0	0	809	784	270	274	0	0
Pennsylvania	1,096	1,098	-0.1%	0	0	967	961	130	136	0	0
East North Central	97	110	-12.0%	18	20	0	0	79	90	0	0
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	12	10	17.0%	0	0	0	0	12	10	0	0
Michigan	67	79	-16.0%	0	0	0	0	67	79	0	0
Ohio	0	0	--	0	0	0	0	0	0	0	0
Wisconsin	18	20	-9.7%	18	20	0	0	0	0	0	0
West North Central	272	269	1.2%	142	155	131	115	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	272	269	1.2%	142	155	131	115	0	0	0	0
Missouri	0	0	--	0	0	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	3,017	3,073	-1.8%	0	0	2,773	2,824	245	250	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	2,064	2,045	0.9%	0	0	2,064	2,045	0	0	0	0
Georgia	0	0	--	0	0	0	0	0	0	0	0
Maryland	293	361	-19.0%	0	0	293	361	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	660	668	-1.2%	0	0	415	418	245	250	0	0
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	0	0	--	0	0	0	0	0	0	0	0
Alabama	0	0	--	0	0	0	0	0	0	0	0
Kentucky	0	0	--	0	0	0	0	0	0	0	0
Mississippi	0	0	--	0	0	0	0	0	0	0	0
Tennessee	0	0	--	0	0	0	0	0	0	0	0
West South Central	6	6	8.6%	0	0	0	0	0	0	6	6
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	0	0	--	0	0	0	0	0	0	0	0
Oklahoma	6	6	8.6%	0	0	0	0	0	0	6	6
Texas	0	0	--	0	0	0	0	0	0	0	0
Mountain	0	0	--	0	0	0	0	0	0	0	0
Arizona	0	0	--	0	0	0	0	0	0	0	0
Colorado	0	0	--	0	0	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	0	0	--	0	0	0	0	0	0	0	0
New Mexico	0	0	--	0	0	0	0	0	0	0	0
Utah	0	0	--	0	0	0	0	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	359	373	-3.6%	0	0	359	373	0	0	0	0
California	216	220	-1.9%	0	0	216	220	0	0	0	0
Oregon	54	64	-16.0%	0	0	54	64	0	0	0	0
Washington	89	88	0.9%	0	0	89	88	0	0	0	0
Pacific Noncontiguous	253	265	-4.3%	0	0	0	0	253	265	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	253	265	-4.3%	0	0	0	0	253	265	0	0
U.S. Total	8,832	8,874	-0.5%	160	175	7,422	7,403	1,243	1,290	6	6

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

Table 2.14.A. Consumption of Wood / Wood Waste Biomass for Electricity Generation by State, by Sector, July 2020 and July 2019 (Billion Btus)

Census Division and State	Electric Power Sector										
	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
New England	3,173	4,526	-30.0%	427	907	2,277	3,102	0	1	469	515
Connecticut	NM	276	NM	0	0	NM	276	0	0	0	0
Maine	1,245	1,710	-27.0%	0	0	776	1,195	0	0	469	515
Massachusetts	NM	183	NM	0	0	NM	183	0	0	0	0
New Hampshire	997	1,735	-42.0%	0	488	997	1,247	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	572	622	-8.1%	427	420	NM	201	0	1	0	0
Middle Atlantic	787	765	2.9%	0	0	522	475	0	0	265	290
New Jersey	0	0	--	0	0	0	0	0	0	0	0
New York	592	556	6.6%	0	0	521	474	0	0	71	82
Pennsylvania	194	209	-7.1%	0	0	0	1	0	0	194	209
East North Central	1,981	2,103	-5.8%	460	409	946	1,086	0	0	575	607
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	1,211	1,367	-11.0%	0	0	937	1,076	0	0	274	291
Ohio	104	101	2.4%	0	0	9	11	0	0	94	90
Wisconsin	667	635	5.0%	460	409	0	0	0	0	207	226
West North Central	539	537	0.4%	NM	101	117	125	74	85	250	225
Iowa	4	7	-47.0%	0	0	0	0	4	7	0	0
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	504	501	0.5%	NM	101	117	125	38	49	250	225
Missouri	32	29	8.4%	0	0	0	0	32	29	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	10,157	10,946	-7.2%	1,990	2,524	3,033	2,862	15	15	5,118	5,544
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	1,412	1,746	-19.0%	541	785	NM	162	0	0	762	799
Georgia	3,630	3,290	10.0%	0	0	1,590	1,053	0	0	2,040	2,237
Maryland	15	15	-4.9%	0	0	0	0	15	15	0	0
North Carolina	1,057	1,211	-13.0%	0	0	501	750	0	0	556	460
South Carolina	1,359	1,588	-14.0%	0	141	563	567	0	0	796	879
Virginia	2,684	3,095	-13.0%	1,450	1,598	NM	329	0	0	964	1,168
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	2,963	3,290	-9.9%	0	0	0	130	0	0	2,963	3,160
Alabama	1,979	2,198	-9.9%	0	0	0	130	0	0	1,979	2,068
Kentucky	140	159	-12.0%	0	0	0	0	0	0	140	159
Mississippi	583	611	-4.6%	0	0	0	0	0	0	583	611
Tennessee	262	322	-19.0%	0	0	0	0	0	0	262	322
West South Central	1,708	2,224	-23.0%	0	0	0	80	0	0	1,708	2,145
Arkansas	361	601	-40.0%	0	0	0	0	0	0	361	601
Louisiana	877	1,042	-16.0%	0	0	0	0	0	0	877	1,042
Oklahoma	129	138	-6.8%	0	0	0	0	0	0	129	138
Texas	341	443	-23.0%	0	0	0	80	0	0	341	363
Mountain	436	587	-26.0%	0	0	351	413	0	0	85	174
Arizona	NM	271	NM	0	0	NM	271	0	0	0	0
Colorado	126	113	12.0%	0	0	126	113	0	0	0	0
Idaho	96	182	-47.0%	0	0	34	29	0	0	62	153
Montana	23	21	8.3%	0	0	0	0	0	0	23	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	5,250	5,877	-11.0%	NM	436	3,155	3,483	0	0	1,772	1,959
California	3,692	4,055	-9.0%	0	0	2,940	3,222	0	0	752	834
Oregon	620	736	-16.0%	0	0	NM	261	0	0	405	475
Washington	938	1,086	-14.0%	NM	436	0	0	0	0	615	650
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	26,993	30,855	-13.0%	3,299	4,378	10,401	11,756	88	101	13,205	14,620

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

Table 2.14.B. Consumption of Wood / Wood Waste Biomass for Electricity Generation by State, by Sector, Year-to-Date through July 2020 and July 2019 (Billion Btus)

Census Division and State	Electric Power Sector										
	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	21,623	28,520	-24.0%	2,365	4,319	16,091	20,980	4	6	3,164	3,215
Connecticut	1,517	1,836	-17.0%	0	0	1,517	1,836	0	0	0	0
Maine	8,402	11,381	-26.0%	0	0	5,238	8,166	0	0	3,164	3,215
Massachusetts	1,092	1,240	-12.0%	0	0	1,092	1,240	0	0	0	0
New Hampshire	7,420	10,884	-32.0%	388	2,523	7,032	8,361	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	3,192	3,180	0.4%	1,977	1,796	1,211	1,377	4	6	0	0
Middle Atlantic	5,091	5,085	0.1%	0	0	3,315	3,190	0	0	1,775	1,895
New Jersey	0	0	--	0	0	0	0	0	0	0	0
New York	3,788	3,729	1.6%	0	0	3,315	3,189	0	0	473	540
Pennsylvania	1,303	1,356	-4.0%	0	0	0	1	0	0	1,302	1,355
East North Central	11,957	13,789	-13.0%	2,194	2,516	5,724	7,074	0	0	4,038	4,199
Illinois	0	0	--	0	0	0	0	0	0	0	0
Indiana	0	0	--	0	0	0	0	0	0	0	0
Michigan	7,575	9,065	-16.0%	0	0	5,672	6,996	0	0	1,903	2,069
Ohio	708	641	10.0%	0	0	52	78	0	0	656	563
Wisconsin	3,674	4,083	-10.0%	2,194	2,516	0	0	0	0	1,480	1,567
West North Central	3,148	3,377	-6.8%	492	616	821	830	210	264	1,626	1,666
Iowa	31	38	-19.0%	0	0	0	0	31	38	0	0
Kansas	0	0	--	0	0	0	0	0	0	0	0
Minnesota	2,983	3,210	-7.1%	492	616	821	830	45	97	1,626	1,666
Missouri	134	129	3.9%	0	0	0	0	134	129	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	0	0	--	0	0	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	70,455	72,004	-2.2%	12,340	16,357	21,239	18,224	86	85	36,789	37,338
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	9,893	11,945	-17.0%	3,709	5,164	1,007	1,560	0	0	5,178	5,221
Georgia	25,173	20,571	22.0%	0	0	10,377	5,813	0	0	14,796	14,758
Maryland	86	342	-75.0%	0	0	0	0	86	85	0	257
North Carolina	8,219	8,843	-7.1%	0	0	4,320	5,163	0	0	3,899	3,680
South Carolina	9,505	10,180	-6.6%	494	1,080	3,710	3,492	0	0	5,301	5,608
Virginia	17,578	20,123	-13.0%	8,137	10,113	1,826	2,197	0	0	7,616	7,813
West Virginia	0	0	--	0	0	0	0	0	0	0	0
East South Central	20,674	20,917	-1.2%	0	0	0	878	0	0	20,674	20,039
Alabama	13,637	13,860	-1.6%	0	0	0	878	0	0	13,637	12,982
Kentucky	940	934	0.6%	0	0	0	0	0	0	940	934
Mississippi	3,887	3,699	5.1%	0	0	0	0	0	0	3,887	3,699
Tennessee	2,210	2,424	-8.8%	0	0	0	0	0	0	2,210	2,424
West South Central	12,968	15,295	-15.0%	0	0	194	374	0	0	12,774	14,921
Arkansas	2,615	4,066	-36.0%	0	0	0	0	0	0	2,615	4,066
Louisiana	6,630	7,372	-10.0%	0	0	0	0	0	0	6,630	7,372
Oklahoma	1,051	956	9.9%	0	0	0	0	0	0	1,051	956
Texas	2,673	2,901	-7.9%	0	0	194	374	0	0	2,479	2,527
Mountain	3,609	3,850	-6.3%	0	0	2,597	2,756	0	0	1,012	1,094
Arizona	1,648	1,861	-11.0%	0	0	1,648	1,861	0	0	0	0
Colorado	761	719	5.8%	0	0	761	719	0	0	0	0
Idaho	1,053	1,132	-6.9%	0	0	188	176	0	0	866	956
Montana	147	138	6.6%	0	0	0	0	0	0	147	138
Nevada	0	0	--	0	0	0	0	0	0	0	0
New Mexico	0	0	--	0	0	0	0	0	0	0	0
Utah	0	0	--	0	0	0	0	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	36,590	39,230	-6.7%	2,575	2,963	21,909	23,870	0	0	12,107	12,397
California	25,340	27,330	-7.3%	0	0	20,467	22,132	0	0	4,873	5,198
Oregon	4,236	4,483	-5.5%	0	0	1,441	1,739	0	0	2,795	2,745
Washington	7,014	7,417	-5.4%	2,575	2,963	0	0	0	0	4,439	4,454
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	186,115	202,069	-7.9%	19,965	26,772	71,890	78,178	300	355	93,960	96,765

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Chapter 3

Fossil-Fuel Stocks for Electricity Generation

Table 3.1. Stocks of Coal, Petroleum Liquids, and Petroleum Coke: Electric Power Sector, 2010 - July 2020

Period	Electric Power Sector			Electric Utilities			Independent Power Producers		
	Coal (Thousand Tons)	Petroleum Liquids (Thousand Barrels)	Petroleum Coke (Thousand Tons)	Coal (Thousand Tons)	Petroleum Liquids (Thousand Barrels)	Petroleum Coke (Thousand Tons)	Coal (Thousand Tons)	Petroleum Liquids (Thousand Barrels)	Petroleum Coke (Thousand Tons)
End of Year Stocks									
2010	174,917	34,841	1,019	143,744	23,934	850	31,173	10,908	168
2011	172,387	33,742	508	142,103	24,544	404	30,284	9,198	104
2012	165,116	30,862	465	150,942	22,513	414	34,174	8,349	81
2013	147,884	30,387	390	120,792	21,208	303	27,092	9,179	86
2014	151,548	32,322	827	116,684	21,304	686	34,864	11,018	142
2015	195,548	31,694	1,340	153,226	20,253	1,163	42,322	11,441	177
2016	162,009	30,593	845	130,885	19,167	603	31,124	10,827	241
2017	137,687	28,089	864	114,782	19,047	682	22,905	9,041	171
2018	102,193	25,977	539	84,728	16,553	521	18,065	9,423	119
2019	128,497	25,976	443	104,344	16,642	429	24,153	9,333	14
Year 2018, End of Month Stocks									
January	123,235	25,853	720	103,761	17,653	579	19,474	8,200	141
February	120,526	26,831	692	101,532	18,213	561	18,994	8,618	131
March	126,008	26,763	736	106,377	16,301	612	19,631	8,462	124
April	128,571	26,608	731	107,870	18,236	647	20,701	8,372	84
May	127,982	26,794	709	107,176	18,315	648	20,806	8,479	61
June	121,041	26,494	591	101,498	17,964	526	19,544	8,530	65
July	110,348	25,912	688	93,099	17,412	614	17,248	8,500	53
August	103,744	24,815	625	87,944	16,602	580	15,800	8,213	45
Sept	100,384	24,595	608	84,696	16,378	557	15,688	8,217	51
October	104,855	24,591	541	87,394	16,183	511	17,461	8,409	30
November	104,075	24,720	557	86,252	16,114	540	17,823	8,606	16
December	102,793	25,977	539	84,728	16,553	521	18,065	9,423	19
Year 2019, End of Month Stocks									
January	99,378	26,028	528	81,756	16,685	518	17,622	9,341	9
February	96,835	26,270	506	81,339	16,923	495	17,497	9,347	11
March	97,102	26,266	498	79,627	17,016	482	17,475	9,250	16
April	108,852	26,382	510	88,960	17,185	501	19,891	9,227	10
May	115,888	26,453	445	93,643	17,229	435	22,245	9,224	10
June	117,710	26,217	389	94,364	17,016	382	23,346	9,202	7
July	110,933	25,850	355	89,638	16,750	348	21,285	9,100	8
August	110,560	25,160	381	89,229	16,231	373	21,331	8,929	8
Sept	110,952	25,374	293	89,877	16,438	282	21,075	8,935	11
October	119,045	25,294	283	96,515	16,414	277	22,530	8,881	6
November	123,033	25,550	425	99,827	16,490	408	23,207	9,060	17
December	128,497	25,976	443	104,344	16,642	429	24,153	9,333	14
Year 2020, End of Month Stocks									
January	134,402	25,340	521	108,369	16,375	518	26,033	8,965	2
February	139,558	25,203	615	112,442	16,308	599	27,116	8,895	16
March	145,451	25,392	537	116,736	16,402	523	28,715	8,950	14
April	151,998	25,350	537	122,308	16,301	521	29,680	9,049	17
May	154,340	25,760	525	124,071	16,522	514	30,269	9,238	11
June	150,728	25,839	476	120,815	16,436	467	29,913	9,404	9
July	138,354	26,562	443	110,991	16,572	424	27,363	9,990	19

Notes: See Glossary for definitions. Values for 2018 and prior years are final. Values for 2019 and 2020 are preliminary. See Technical Notes for a discussion of the sample design for the Form EIA-923 and predecessor forms. Totals may not equal sum of components because of independent rounding. Sources: U.S. Energy Information Administration, Form EIA-906, Power Plant Report; U.S. Energy Information Administration, Form EIA-920, Combined Heat and Power Plant Report; and predecessor forms. Beginning with 2008 data, the Form EIA-923, Power Plant Operations Report, replaced the following: Form EIA-906, Power Plant Report; Form EIA-920, Combined Heat and Power Plant Report; Form EIA-423, Monthly Cost and Quality of Fuels for Electric Plants Report; and Federal Energy Regulatory Commission, FERC Form 423, Monthly Report of Cost and Quality of Fuels for Electric Plants.

**Table 3.2 Stocks of Coal, Petroleum Liquids, and Petroleum Coke:
Electric Power Sector, by State, July 2020 and 2019**

Census Division and State	Coal (Thousand Tons)			Petroleum Liquids (Thousand Barrels)			Petroleum Coke (Thousand Tons)		
	July 2020	July 2019	Percentage Change	July 2020	July 2019	Percentage Change	July 2020	July 2019	Percentage Change
New England	W	W	W	3,675	3,373	9.0%	0	0	--
Connecticut	W	W	W	1,298	1,185	9.6%	0	0	--
Maine	0	0	--	322	268	20.4%	0	0	--
Massachusetts	0	W	W	1,429	1,328	7.7%	0	0	--
New Hampshire	W	W	W	391	355	10.2%	0	0	--
Rhode Island	0	0	--	211	197	7.0%	0	0	--
Vermont	0	0	--	23	41	-43.6%	0	0	--
Middle Atlantic	3,410	4,202	-18.8%	5,019	5,114	-1.9%	0	0	--
New Jersey	W	W	W	707	643	9.9%	0	0	--
New York	0	W	W	2,998	3,167	-5.4%	0	0	--
Pennsylvania	W	4,042	W	1,314	1,303	0.8%	0	0	--
East North Central	31,836	22,952	38.7%	1,607	1,044	54.0%	W	71	W
Illinois	5,687	4,606	23.5%	NM	73	NM	0	0	--
Indiana	11,000	6,678	64.7%	117	83	41.8%	0	W	W
Michigan	4,626	3,784	22.2%	255	269	-5.1%	W	W	W
Ohio	7,358	4,619	59.3%	442	430	2.7%	0	0	--
Wisconsin	3,165	3,265	-3.1%	723	189	283.7%	W	W	W
West North Central	25,957	18,048	43.8%	723	805	-10.2%	0	0	--
Iowa	6,982	3,097	125.4%	NM	126	NM	0	0	--
Kansas	3,383	2,902	16.6%	118	110	7.6%	0	0	--
Minnesota	3,061	3,295	-7.1%	NM	84	NM	0	0	--
Missouri	7,854	5,116	53.5%	304	331	-8.2%	0	0	--
Nebraska	2,978	2,341	27.2%	NM	90	NM	0	0	--
North Dakota	W	W	W	34	24	41.8%	0	0	--
South Dakota	W	W	W	NM	40	NM	0	0	--
South Atlantic	21,559	20,752	3.9%	11,389	10,848	5.0%	W	W	W
Delaware	W	W	W	687	579	18.7%	0	0	--
District of Columbia	0	0	--	0	0	--	0	0	--
Florida	2,458	3,027	-18.8%	3,990	3,969	0.5%	W	W	W
Georgia	5,361	3,896	37.6%	1,056	861	22.6%	0	0	--
Maryland	1,440	1,703	-15.4%	667	676	-1.4%	0	0	--
North Carolina	3,665	3,897	-6.0%	1,459	1,293	12.9%	0	0	--
South Carolina	2,166	2,506	-13.6%	822	751	9.4%	0	0	--
Virginia	W	W	W	2,536	2,575	-1.5%	0	0	--
West Virginia	5,615	4,554	23.3%	173	145	19.7%	0	W	W
East South Central	11,075	10,557	4.9%	1,060	1,202	-11.8%	0	0	--
Alabama	2,944	W	W	212	210	1.1%	0	0	--
Kentucky	5,518	5,322	3.7%	225	227	-0.9%	0	0	--
Mississippi	W	W	W	NM	36	NM	0	0	--
Tennessee	W	2,810	W	616	729	-15.5%	0	0	--
West South Central	23,217	14,898	55.8%	1,246	1,400	-11.0%	W	W	W
Arkansas	4,325	3,263	32.5%	190	169	13.0%	0	0	--
Louisiana	3,523	2,445	44.1%	168	231	-27.1%	W	W	W
Oklahoma	2,848	2,378	19.8%	111	95	17.5%	0	0	--
Texas	12,520	6,811	83.8%	776	906	-14.3%	0	0	--
Mountain	18,806	17,238	9.1%	377	362	3.9%	W	W	W
Arizona	3,861	3,482	10.9%	119	137	-13.1%	0	0	--
Colorado	3,450	4,107	-16.0%	123	117	5.5%	0	0	--
Idaho	0	0	--	0	0	-41.7%	0	0	--
Montana	W	W	W	14	13	7.0%	W	W	W
Nevada	W	W	W	3	3	28.6%	0	0	--
New Mexico	W	W	W	NM	20	NM	0	0	--
Utah	4,589	3,057	50.2%	50	45	10.6%	0	0	--
Wyoming	5,261	4,153	26.7%	51	28	85.2%	0	0	--
Pacific Contiguous	W	W	W	344	355	-3.1%	0	0	--
California	0	0	--	176	175	0.2%	0	0	--
Oregon	W	W	W	NM	78	NM	0	0	--
Washington	W	W	W	94	101	-7.2%	0	0	--
Pacific Noncontiguous	W	W	W	1,123	1,348	-16.7%	0	0	--
Alaska	0	0	--	NM	98	NM	0	0	--
Hawaii	W	W	W	1,070	1,249	-14.3%	0	0	--
U.S. Total	138,354	110,933	24.7%	26,562	25,850	2.8%	443	355	24.6%

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

NM = Not meaningful due to large relative standard error or excessive percentage change.

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

Negative generation denotes that electric power consumed for plant use exceeds gross generation.

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

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

**Table 3.3 Stocks of Coal, Petroleum Liquids, and Petroleum Coke:
Electric Power Sector, by Census Division, July 2020 and 2019**

Census Division	Electric Power Sector			Electric Utilities		Independent Power Producers	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019
Coal (Thousand Tons)							
New England	W	W	W	W	W	W	W
Middle Atlantic	3,410	4,202	-18.8%	W	0	W	4,202
East North Central	31,836	22,952	38.7%	19,932	14,736	11,903	8,216
West North Central	25,957	18,048	43.8%	25,957	18,048	0	0
South Atlantic	21,559	20,752	3.9%	19,451	17,898	2,108	2,854
East South Central	11,075	10,557	4.9%	11,075	10,557	0	0
West South Central	23,217	14,898	55.8%	15,580	11,265	7,636	3,633
Mountain	18,806	17,238	9.1%	W	W	W	W
Pacific Contiguous	W	W	W	W	W	W	W
Pacific Noncontiguous	W	W	W	0	0	W	W
U.S. Total	138,354	110,933	24.7%	110,991	89,638	27,363	21,295
Petroleum Liquids (Thousand Barrels)							
New England	3,675	3,373	9.0%	499	492	3,176	2,880
Middle Atlantic	5,019	5,114	-1.9%	1,976	2,028	3,043	3,086
East North Central	1,607	1,044	54.0%	696	682	911	362
West North Central	723	805	-10.2%	702	779	NM	26
South Atlantic	11,389	10,848	5.0%	9,017	8,680	2,372	2,169
East South Central	1,060	1,202	-11.8%	968	1,111	92	91
West South Central	1,246	1,400	-11.0%	1,025	1,060	222	339
Mountain	377	362	3.9%	348	335	29	27
Pacific Contiguous	344	355	-3.1%	263	272	81	82
Pacific Noncontiguous	1,123	1,348	-16.7%	1,079	1,309	44	39
U.S. Total	26,562	25,850	2.8%	16,572	16,750	9,990	9,100
Petroleum Coke (Thousand Tons)							
New England	0	0	--	0	0	0	0
Middle Atlantic	0	0	--	0	0	0	0
East North Central	W	71	W	W	71	0	0
West North Central	0	0	--	0	0	0	0
South Atlantic	W	W	W	W	W	0	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	443	355	24.6%	424	348	19	8

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

**Table 3.4. Stocks of Coal by Coal Rank: Electric Power Sector, 2010 - July 2020
(Thousand Tons)**

Period	Electric Power Sector			Total
	Bituminous Coal	Subbituminous Coal	Lignite Coal	
End of Year Stocks				
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	41,507	58,247	3,039	102,793
2019	55,103	69,988	3,124	128,497
Year 2018, End of Month Stocks				
January	47,910	72,251	3,074	123,235
February	47,658	69,960	2,909	120,526
March	49,027	73,768	3,213	126,008
April	50,499	74,747	3,324	128,571
May	51,393	73,377	3,212	127,982
June	48,411	69,439	3,191	121,041
July	44,487	63,014	2,847	110,348
August	42,359	58,570	2,816	103,744
Sept	40,384	57,155	2,845	100,384
October	42,588	59,252	3,016	104,855
November	42,392	58,575	3,108	104,075
December	41,507	58,247	3,039	102,793
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	50,265	57,646	2,670	110,933
August	49,818	58,009	2,409	110,560
Sept	49,070	59,148	2,395	110,952
October	51,780	64,308	2,590	119,045
November	52,799	66,935	2,959	123,033
December	55,103	69,988	3,124	128,497
Year 2020, End of Month Stocks				
January	56,268	74,560	3,307	134,402
February	57,374	78,705	3,235	139,558
March	59,838	81,734	3,624	145,451
April	61,845	85,920	3,947	151,998
May	61,513	88,352	4,117	154,340
June	59,319	86,944	4,139	150,728
July	53,722	79,950	4,369	138,354

Notes: See Glossary for definitions.

Values for 2018 and prior years are final. Values for 2019 and 2020 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), 2010 - July 2020

Period	Coal						Petroleum Liquids					
	Receipts		Average Cost				Receipts		Average Cost			
	(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												
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
2019	10,668,588	555,022	2.02	38.86	1.32	100.7	86,383	14,319	13.58	81.95	0.49	63.0
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	39.25	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	8,708	1,430	13.16	80.17	0.48	89.5
March	820,727	41,993	2.08	40.68	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	14.85	89.57	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	82.28	0.49	59.8
July	938,466	49,099	2.02	38.68	1.28	86.1	5,853	977	13.78	82.54	0.48	50.4
August	979,476	51,055	2.00	38.44	1.27	95.4	5,115	860	14.24	84.72	0.51	42.1
Sept	889,676	46,432	1.96	37.59	1.27	96.0	8,156	1,344	12.62	76.57	0.48	73.9
October	868,407	45,266	1.96	37.64	1.28	117.6	6,655	1,103	13.69	82.56	0.50	60.1
November	845,303	44,419	1.97	37.43	1.26	103.4	7,794	1,281	12.97	78.88	0.49	68.6
December	849,611	44,441	1.92	36.66	1.25	107.1	7,721	1,288	13.56	81.34	0.49	69.8
Year 2020												
January	815,873	43,036	1.94	36.84	1.25	114.0	5,340	895	13.87	82.79	0.53	48.4
February	692,242	36,724	1.91	35.98	1.27	111.4	6,581	1,090	13.06	78.84	0.49	71.6
March	659,206	34,712	1.94	36.78	1.33	116.3	6,734	1,115	10.48	63.27	0.51	77.0
April	562,898	30,023	1.93	36.18	1.25	122.9	4,196	709	8.50	50.35	0.52	56.4
May	536,562	28,899	1.90	35.23	1.15	104.6	6,466	1,090	6.57	38.96	0.50	78.4
June	621,590	32,837	1.91	36.14	1.29	87.6	6,759	1,123	7.24	43.61	0.48	66.9
July	710,655	37,428	1.94	36.76	1.30	74.0	7,035	1,166	8.14	49.14	0.48	62.5
Year to Date												
2018	6,377,881	333,693	2.05	39.24	1.31	89.9	89,370	14,853	14.01	84.41	0.41	70.2
2019	6,236,114	323,409	2.06	39.78	1.35	99.1	50,943	8,443	13.76	83.01	0.48	63.5
2020	4,599,027	243,660	1.92	36.32	1.26	101.3	43,112	7,187	9.63	57.75	0.50	65.3
Rolling 12 Months Ending in July												
2019	11,229,350	585,932	2.06	39.54	1.33	96.8	95,641	15,880	14.43	86.92	0.46	68.0
2020	9,031,501	475,273	1.94	36.93	1.27	102.1	78,552	13,063	11.30	67.95	0.50	64.0

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 and 2020 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), 2010 - July 2020 (continued)

Period	Petroleum Coke						Natural Gas					All Fossil Fuels	
	Receipts		Average Cost			Average Sulfur Percent by Weight	Percentage of Consumption	Receipts		Average Cost		Percentage of Consumption	Average Cost
	(Billion Btu)	(Thousand Tons)	(Dollars per MMBtu)	(Dollars per Ton)	(Billion Btu)			(Thousand Mcf)	(Dollars per MMBtu)	(Dollars per Mcf)	(Dollars per MMBtu)		
Annual Totals													
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	
2019	56,294	1,969	1.91	54.59	5.51	53.6	11,149,544	10,786,472	2.89	2.99	84.3	2.49	
Year 2018													
January	7,009	248	2.38	67.41	5.31	53.2	836,690	809,817	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	88.7	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	1,243,191	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	1,057,918	3.12	3.22	91.9	2.65	
October	5,892	208	2.48	70.32	5.77	68.1	951,711	921,416	3.43	3.55	91.4	2.76	
November	6,696	235	2.21	63.10	5.87	68.6	817,552	791,716	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	89.4	3.29	
Year 2019													
January	5,447	192	2.08	59.13	5.93	47.6	861,144	833,540	4.01	4.14	85.6	2.99	
February	4,486	155	2.27	65.75	5.78	44.6	786,847	759,097	3.64	3.77	84.9	2.85	
March	3,725	130	2.43	69.63	6.15	37.9	805,916	780,542	3.45	3.56	84.8	2.79	
April	3,159	111	2.71	76.93	5.65	43.2	735,837	713,039	2.89	2.99	83.7	2.49	
May	4,631	162	2.24	63.78	5.41	43.2	841,017	815,717	2.77	2.85	85.8	2.43	
June	3,740	130	2.18	62.61	5.15	44.7	972,337	942,226	2.59	2.67	84.7	2.36	
July	5,768	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	1,219,083	1,177,729	2.41	2.50	83.3	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	58.9	930,821	900,234	2.49	2.58	83.3	2.27	
November	6,654	232	1.46	41.78	5.38	128.0	828,647	801,068	2.96	3.06	84.6	2.48	
December	5,236	183	1.14	32.50	5.44	77.3	912,977	882,456	2.92	3.02	85.6	2.46	
Year 2020													
January	8,421	295	1.53	43.68	5.34	81.3	935,177	903,553	2.62	2.72	84.8	2.33	
February	6,913	244	1.47	41.75	4.99	109.8	887,032	857,646	2.40	2.48	85.2	2.22	
March	4,942	174	1.36	38.61	5.46	55.4	875,795	846,496	2.14	2.22	84.2	2.09	
April	5,150	180	1.38	39.50	5.35	68.3	773,646	746,039	2.10	2.18	84.8	2.04	
May	5,495	195	1.61	45.35	5.30	62.5	835,885	810,417	2.17	2.24	85.3	2.08	
June	5,648	199	1.46	41.45	6.01	49.4	1,015,633	986,138	2.01	2.07	84.5	1.99	
July	5,610	201	1.62	45.31	5.57	48.2	1,276,779	1,239,293	2.03	2.09	82.5	2.02	
Year to Date													
2018	49,215	1,743	2.55	71.94	5.72	65.2	6,316,575	6,116,086	3.46	3.57	90.1	2.80	
2019	30,954	1,081	2.24	64.02	5.60	44.8	6,204,956	6,006,388	3.08	3.18	84.6	2.60	
2020	42,179	1,487	1.50	42.41	5.41	64.8	6,599,946	6,389,583	2.20	2.28	84.4	2.11	
Rolling 12 Months Ending in July													
2019	66,861	2,349	2.39	68.06	5.69	54.7	11,132,539	10,776,066	3.34	3.45	87.2	2.72	
2020	67,518	2,375	1.50	42.67	5.41	66.8	11,544,535	11,169,667	2.39	2.48	84.2	2.22	

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NM = Not meaningful due to large relative standard error or excessive percentage change.

W = Withheld to avoid disclosure of individual company data.

Notes:

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

PETROLEUM COKE - includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.

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

- Values for 2018 and prior years are final. Values for 2019 and 2020 are preliminary.

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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 4.2. Receipts, Average Cost, and Quality of Fossil Fuels: Electric Utilities, 2010 - July 2020

Period	Coal						Petroleum Liquids					
	Receipts		Average Cost				Receipts		Average Cost			
	(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												
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	436,964	2.11	40.35	1.18	91.6	84,050	13,896	14.39	87.09	0.37	75.3
2019	7,919,245	410,810	2.08	40.13	1.18	102.5	65,388	10,768	13.37	81.21	0.46	71.8
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	5,865	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	6,630	1,082	13.01	79.70	0.46	106.0
March	585,096	29,813	2.14	42.07	1.37	93.5	6,135	1,012	14.34	86.90	0.42	94.1
April	643,745	33,151	2.13	41.45	1.21	134.6	5,352	882	14.71	89.24	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	13.29	80.35	0.47	63.9
July	718,111	37,394	2.09	40.05	1.16	88.2	4,389	728	13.28	79.99	0.46	56.4
August	741,452	38,602	2.07	39.71	1.14	96.9	3,843	643	13.64	81.54	0.48	44.2
Sept	671,570	34,833	2.02	38.89	1.17	98.1	6,701	1,097	12.38	75.64	0.45	86.7
October	638,658	33,211	2.01	38.71	1.14	122.3	4,848	796	13.25	80.69	0.47	62.8
November	619,671	32,460	2.02	38.53	1.14	106.5	6,088	992	12.79	78.49	0.48	84.0
December	630,043	32,948	1.96	37.44	1.13	110.4	5,261	868	13.61	82.47	0.47	69.4
Year 2020												
January	601,630	31,626	1.98	37.67	1.12	115.6	4,454	744	13.67	81.86	0.48	53.5
February	511,753	27,042	1.95	36.81	1.12	113.9	5,670	937	12.88	77.92	0.46	83.7
March	490,792	25,781	1.97	37.47	1.14	118.6	5,191	855	10.36	62.92	0.47	90.0
April	430,845	22,438	1.98	37.97	1.18	131.8	2,574	432	8.46	50.40	0.47	49.2
May	400,318	21,157	1.93	36.48	1.08	106.4	4,012	671	6.76	40.39	0.48	69.7
June	464,257	24,345	1.96	37.30	1.13	87.5	4,152	685	6.62	40.13	0.47	58.8
July	547,051	28,639	1.98	37.91	1.15	74.8	5,546	911	7.80	47.48	0.47	71.7
Year to Date												
2018	4,705,093	245,133	2.10	40.26	1.18	90.2	54,825	9,069	13.96	84.44	0.36	76.4
2019	4,617,851	238,757	2.13	41.16	1.21	100.3	38,648	6,372	13.59	82.45	0.45	74.3
2020	3,446,646	181,028	1.96	37.40	1.13	103.0	31,600	5,235	9.72	58.70	0.47	67.7
Rolling 12 Months Ending in July												
2019	8,263,793	429,587	2.12	40.86	1.20	97.2	67,879	11,199	14.28	86.57	0.43	73.9
2020	6,748,039	353,082	1.99	38.03	1.14	104.3	58,340	9,631	11.25	68.15	0.47	68.0

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Notes:

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

COAL - includes anthracite, bituminous, subbituminous, lignite, waste coal, and coal-derived synthesis gas. Prior to 2011, synthesis gas was included in the category of Other Gases.

PETROLEUM LIQUIDS - includes distillate fuel oil and residual fuel oil. Prior to 2013, petroleum liquids included distillate fuel oil, residual fuel oil, kerosene, jet fuel, waste oil, and, beginning in 2011, propane.

Prior to 2011, propane was included in the category of Other Gases.

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Table 4.2. Receipts, Average Cost, and Quality of Fossil Fuels: Electric Utilities, 2010 - July 2020 (continued)

Period	Petroleum Coke						Natural Gas					All Fossil Fuels	
	Receipts		Average Cost			Average Sulfur Percent by Weight	Percentage of Consumption	Receipts		Average Cost		Percentage of Consumption	Average Cost
	(Billion Btu)	(Thousand Tons)	(Dollars per MMBtu)	(Dollars per Ton)	(Billion Btu)			(Thousand Mcf)	(Dollars per MMBtu)	(Dollars per Mcf)	(Dollars per MMBtu)		
Annual Totals													
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	2.87	
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	2.88	
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	
2019	54,266	1,896	1.92	54.88	5.50	91.0	5,436,200	5,262,798	3.06	3.16	87.6	2.53	
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	632,132	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	536,618	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	394,288	4.19	4.32	90.4	2.93	
February	4,486	155	2.27	65.75	5.78	69.4	379,192	364,901	3.79	3.94	89.0	2.82	
March	3,725	130	2.43	69.63	6.15	66.9	386,643	374,986	3.66	3.77	89.5	2.81	
April	3,159	111	2.71	76.93	5.65	101.5	359,063	348,044	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	491,914	476,866	2.76	2.84	88.1	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	604,271	584,200	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	3.16	3.26	89.3	2.51	
December	5,236	183	1.14	32.50	5.44	132.2	424,532	411,022	3.16	3.27	90.2	2.49	
Year 2020													
January	8,421	295	1.53	43.68	5.34	144.1	445,637	431,393	2.87	2.97	88.3	2.40	
February	6,913	244	1.47	41.75	4.99	164.5	436,651	422,625	2.66	2.74	89.0	2.33	
March	4,942	174	1.36	38.61	5.46	82.4	439,598	425,006	2.36	2.44	88.7	2.19	
April	5,150	180	1.38	39.50	5.35	98.8	388,483	374,198	2.34	2.43	89.1	2.17	
May	5,495	195	1.61	45.35	5.30	104.2	425,641	412,855	2.43	2.51	89.5	2.21	
June	5,648	199	1.46	41.45	6.01	77.0	504,731	490,892	2.26	2.32	87.2	2.13	
July	5,104	183	1.62	45.13	5.52	67.5	623,294	605,922	2.21	2.27	83.9	2.13	
Year to Date													
2018	49,055	1,737	2.55	72.04	5.72	107.1	3,168,994	3,069,689	3.61	3.73	95.9	2.78	
2019	30,912	1,080	2.24	64.04	5.60	77.8	3,039,356	2,943,334	3.24	3.34	88.3	2.62	
2020	41,673	1,469	1.49	42.35	5.40	100.5	3,264,035	3,162,889	2.43	2.51	87.6	2.22	
Rolling 12 Months Ending In July													
2019	65,068	2,283	2.41	68.65	5.69	90.6	5,423,920	5,253,104	3.47	3.59	91.7	2.71	
2020	65,027	2,285	1.49	42.50	5.39	106.0	5,660,880	5,482,353	2.60	2.69	87.3	2.31	

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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.

- Values for 2018 and prior years are final. Values for 2019 and 2020 are preliminary.

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Table 4.3. Receipts, Average Cost, and Quality of Fossil Fuels: Independent Power Producers, 2010 - July 2020

Period	Coal						Petroleum Liquids						
	Receipts		Average Cost				Receipts		Average Cost				
	(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													
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	
2019	2,601,613	137,047	1.81	34.33	1.74	98.9	19,311	3,276	14.33	84.50	0.50	64.8	
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	236,760	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	236,579	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	114.9	1,581	270	15.62	91.40	0.49	69.6	
June	209,895	11,090	1.76	33.36	1.83	103.5	1,476	250	15.09	89.05	0.48	67.8	
July	208,969	11,154	1.79	33.51	1.69	81.4	1,384	236	15.49	90.86	0.48	48.3	
August	227,149	11,923	1.78	33.87	1.68	93.5	1,160	199	16.40	95.66	0.49	50.1	
Sept	206,975	11,060	1.75	32.81	1.58	92.7	1,301	222	13.76	80.79	0.57	62.1	
October	217,837	11,469	1.78	33.77	1.69	110.9	1,671	285	15.02	88.05	0.52	71.7	
November	212,346	11,312	1.78	33.36	1.61	98.6	1,569	267	13.59	79.96	0.50	68.7	
December	206,894	10,881	1.75	33.26	1.66	102.2	2,319	396	13.47	78.85	0.50	97.8	
Year 2020													
January	201,589	10,795	1.80	33.57	1.64	115.4	725	124	15.12	88.14	0.56	44.3	
February	169,190	9,124	1.76	32.72	1.74	110.7	722	123	14.71	86.54	0.57	50.3	
March	155,393	8,311	1.78	33.26	1.92	115.8	1,351	229	10.89	64.15	0.52	65.9	
April	122,399	7,115	1.71	29.49	1.46	108.1	1,507	258	8.39	49.06	0.53	102.9	
May	126,481	7,262	1.76	30.61	1.37	104.3	2,325	398	6.16	36.02	0.50	152.5	
June	147,445	8,001	1.73	31.85	1.80	89.7	2,512	422	8.21	48.86	0.48	126.6	
July	153,536	8,300	1.73	31.98	1.84	72.3	1,364	234	9.42	54.83	0.48	56.6	
Year to Date													
2018	1,569,612	83,598	1.89	35.50	1.71	91.3	33,170	5,564	14.15	84.52	0.45	74.6	
2019	1,530,413	80,403	1.83	34.96	1.81	98.8	11,290	1,907	14.37	85.03	0.49	61.3	
2020	1,076,033	58,908	1.75	32.08	1.69	100.3	10,506	1,788	9.21	54.14	0.51	83.9	
Rolling 12 Months Ending in July													
2019	2,809,863	148,820	1.86	35.11	1.75	98.4	25,819	4,366	14.89	87.96	0.45	79.7	
2020	2,147,233	115,553	1.76	32.74	1.67	99.7	18,526	3,157	11.41	66.94	0.51	77.4	

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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.

- Values for 2018 and prior years are final. Values for 2019 and 2020 are preliminary.

- See Glossary for definitions.

- Starting in January 2013, there may have been a shift in the continuity of Chapter 4 tables due to changes in the sample design of Form EIA-923 and the imputation process.

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- 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, 2010 - July 2020 (continued)

Period	Petroleum Coke						Natural Gas					All Fossil Fuels
	Receipts		Average Cost				Receipts		Average Cost			Average Cost
	(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												
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	94.6	2.84
2019	0	0	--	--	--	0.0	4,907,917	4,742,079	2.68	2.77	89.4	2.37
Year 2018												
January	0	0	--	--	--	0.0	343,077	331,644	5.21	5.39	93.1	3.99
February	0	0	--	--	--	0.0	312,835	302,657	3.38	3.49	93.7	2.80
March	0	0	--	--	--	0.0	346,290	334,497	2.87	2.97	93.6	2.46
April	0	0	--	--	--	0.0	319,774	309,352	2.96	3.06	94.1	2.51
May	0	0	--	--	--	0.0	377,388	365,397	2.79	2.89	94.8	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	94.1	3.19
December	0	0	--	--	--	0.0	366,993	354,294	4.49	4.65	95.0	3.39
Year 2019												
January	0	0	--	--	--	0.0	381,402	368,347	3.83	3.97	91.1	3.01
February	0	0	--	--	--	0.0	342,971	331,583	3.47	3.60	90.6	2.83
March	0	0	--	--	--	0.0	352,850	341,038	3.25	3.37	90.0	2.70
April	0	0	--	--	--	0.0	312,158	302,172	2.63	2.72	88.9	2.31
May	0	0	--	--	--	0.0	351,935	340,689	2.51	2.60	90.1	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	88.7	2.07
November	0	0	--	--	--	0.0	368,029	354,954	2.74	2.85	90.0	2.38
December	0	0	--	--	--	0.0	417,005	402,138	2.68	2.78	91.2	2.38
Year 2020												
January	0	0	--	--	--	0.0	417,189	402,001	2.36	2.45	91.1	2.17
February	0	0	--	--	--	0.0	384,463	371,044	2.09	2.17	91.0	2.00
March	0	0	--	--	--	0.0	369,642	356,790	1.87	1.93	88.9	1.86
April	0	0	--	--	--	0.0	322,578	311,096	1.79	1.86	90.4	1.79
May	0	0	--	--	--	0.0	345,359	334,474	1.80	1.87	90.1	1.81
June	0	0	--	--	--	0.0	445,819	431,962	1.70	1.75	89.3	1.74
July	0	0	--	--	--	0.0	586,268	567,914	1.83	1.89	87.1	1.82
Year to Date												
2018	0	0	--	--	--	0.0	2,692,383	2,604,237	3.31	3.42	94.4	2.80
2019	0	0	--	--	--	0.0	2,698,079	2,609,074	2.88	2.98	89.5	2.49
2020	0	0	--	--	--	0.0	2,871,317	2,775,280	1.92	1.99	89.5	1.89
Rolling 12 Months Ending in July												
2019	0	0	--	--	--	0.0	4,894,908	4,732,529	3.16	3.27	91.9	2.67
2020	0	0	--	--	--	0.0	5,081,156	4,908,286	2.14	2.21	89.4	2.04

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W = Withheld to avoid disclosure of individual company data.

Notes:

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

PETROLEUM COKE - includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.

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

- Values for 2018 and prior years are final. Values for 2019 and 2020 are preliminary.

- See Glossary for definitions.

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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, 2010 - July 2020

Period	Coal						Petroleum Liquids						
	Receipts		Average Cost				Receipts		Average Cost				
	(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													
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	
2019	193	8	2.92	66.55	3.01	1.6	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	3.2	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	
December	21	1	2.96	67.34	2.91	2.0	0	0	--	--	--	0.0	
Year 2020													
January	26	1	2.96	67.40	2.94	2.8	0	0	--	--	--	0.0	
February	58	3	2.96	67.58	2.96	5.2	0	0	--	--	--	0.0	
March	0	0	--	--	--	0.0	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	
Year to Date													
2018	130	6	2.92	66.44	3.13	1.6	0	0	--	--	--	0.0	
2019	119	5	2.90	65.77	2.96	1.7	0	0	--	--	--	0.0	
2020	84	4	2.96	67.52	2.95	1.4	0	0	--	--	--	0.0	
Rolling 12 Months Ending in July													
2019	278	12	2.93	66.24	2.96	2.3	0	0	--	--	--	0.0	
2020	159	7	2.96	67.66	3.02	1.5	0	0	--	--	--	0.0	

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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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- See the Technical Notes for fuel conversion factors.

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

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Table 4.4. Receipts, Average Cost, and Quality of Fossil Fuels: Commercial Sector, 2010 - July 2020 (continued)

Period	Petroleum Coke							Natural Gas					All Fossil Fuels
	Receipts		Average Cost			Average Sulfur Percent by Weight	Percentage of Consumption	Receipts		Average Cost		Percentage of Consumption	Average Cost
	(Billion Btu)	(Thousand Tons)	(Dollars per MMBtu)	(Dollars per Ton)	(Billion Btu)			(Thousand Mcf)	(Dollars per MMBtu)	(Dollars per Mcf)	(Dollars per MMBtu)		
Annual Totals													
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	
2019	0	0	--	--	--	0.0	9,429	9,087	3.26	3.39	6.8	3.26	
Year 2018													
January	0	0	--	--	--	0.0	844	818	3.63	3.74	7.1	3.66	
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	6.8	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	
December	0	0	--	--	--	0.0	832	801	3.26	3.39	6.7	3.25	
Year 2020													
January	0	0	--	--	--	0.0	795	763	3.09	3.22	6.3	3.09	
February	0	0	--	--	--	0.0	693	663	3.12	3.26	6.0	3.11	
March	0	0	--	--	--	0.0	751	722	3.10	3.22	6.7	3.10	
April	0	0	--	--	--	0.0	661	638	3.09	3.20	6.7	3.09	
May	0	0	--	--	--	0.0	657	631	3.09	3.22	6.5	3.09	
June	0	0	--	--	--	0.0	626	599	3.09	3.23	5.8	3.09	
July	0	0	--	--	--	0.0	624	599	3.11	3.24	5.1	3.11	
Year to Date													
2018	0	0	--	--	--	0.0	5,290	5,134	3.55	3.66	6.6	3.53	
2019	0	0	--	--	--	0.0	5,503	5,314	3.30	3.41	6.9	3.29	
2020	0	0	--	--	--	0.0	4,806	4,615	3.10	3.23	6.2	3.10	
Rolling 12 Months Ending in July													
2019	0	0	--	--	--	0.0	9,303	9,003	3.34	3.45	6.7	3.32	
2020	0	0	--	--	--	0.0	8,731	8,388	3.15	3.28	6.4	3.15	

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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:

PETROLEUM COKE - includes petroleum coke-derived synthesis gas. Prior to 2011, petroleum coke-derived synthesis gas was included in Other Gases.

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

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- See the Technical Notes for fuel conversion factors.

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

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

Table 4.5. Receipts, Average Cost, and Quality of Fossil Fuels: Industrial Sector, 2010 - July 2020

Period	Coal						Petroleum Liquids					
	Receipts		Average Cost				Receipts		Average Cost			
	(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												
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
2019	147,537	7,156	2.55	52.62	1.18	63.6	1,684	275	13.19	80.82	1.47	13.6
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	57.4	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	68.3	92	15	14.12	86.68	1.48	9.4
June	11,705	567	2.49	51.38	1.22	64.3	131	21	13.04	79.96	1.55	14.7
July	11,385	551	2.45	50.57	1.32	63.5	80	13	11.99	74.33	1.41	11.8
August	10,876	530	2.39	49.14	1.23	59.9	112	18	12.56	77.49	1.66	12.4
Sept	11,131	539	2.48	51.28	1.24	63.8	154	25	13.15	80.17	1.58	18.0
October	11,889	586	2.59	52.47	1.21	61.0	136	22	13.01	79.34	1.42	17.6
November	13,255	645	2.59	53.19	1.05	66.4	137	22	13.67	83.44	1.46	9.2
December	12,654	612	2.67	55.16	1.07	63.4	141	23	13.33	81.47	1.25	16.2
Year 2020												
January	12,628	614	2.51	51.68	1.13	62.3	162	27	13.84	83.92	1.71	20.1
February	11,241	555	2.42	48.89	1.12	59.1	188	31	12.36	76.04	0.93	23.3
March	13,022	621	2.63	55.19	1.27	70.0	192	31	10.77	66.35	1.35	26.9
April	9,654	471	2.53	51.78	1.21	59.5	115	19	10.75	65.79	1.36	18.0
May	9,763	480	2.46	50.12	1.15	63.7	129	21	7.84	48.89	0.84	16.8
June	9,888	491	2.39	48.11	1.21	69.7	95	16	8.89	53.81	1.06	11.1
July	10,067	488	2.44	50.24	1.19	64.3	125	20	9.45	57.95	1.22	15.6
Year to Date												
2018	103,045	4,956	2.48	51.61	1.28	67.5	1,375	221	12.98	80.94	1.32	15.3
2019	87,732	4,245	2.55	52.80	1.21	64.1	1,005	164	13.21	81.03	1.48	13.4
2020	76,264	3,720	2.49	51.00	1.18	63.9	1,006	164	10.84	66.51	1.20	18.7
Rolling 12 Months Ending in July												
2019	155,416	7,512	2.52	52.03	1.26	65.3	1,949	315	13.67	84.56	1.44	14.9
2020	136,070	6,631	2.52	51.60	1.17	63.5	1,686	275	11.78	72.16	1.32	16.4

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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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Table 4.5. Receipts, Average Cost, and Quality of Fossil Fuels: Industrial Sector, 2010 - July 2020 (continued)

Period	Petroleum Coke						Natural Gas					All Fossil Fuels	
	Receipts		Average Cost			Average Sulfur Percent by Weight	Percentage of Consumption	Receipts		Average Cost		Percentage of Consumption	Average Cost
	(Billion Btu)	(Thousand Tons)	(Dollars per MMBtu)	(Dollars per Ton)	(Billion Btu)			(Thousand Mcf)	(Dollars per MMBtu)	(Dollars per Mcf)	(Dollars per MMBtu)		
Annual Totals													
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	
2019	2,028	73	1.69	46.99	5.81	7.8	795,998	772,508	2.83	2.91	57.3	2.80	
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	57.8	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	32.6	63,390	61,514	2.46	2.54	55.6	2.49	
November	0	0	--	--	--	0.0	67,713	65,714	2.77	2.86	56.8	2.76	
December	0	0	--	--	--	0.0	70,607	68,496	2.62	2.70	56.2	2.65	
Year 2020													
January	0	0	--	--	--	0.0	71,557	69,397	2.36	2.44	56.1	2.41	
February	0	0	--	--	--	0.0	65,225	63,315	2.12	2.19	56.4	2.19	
March	0	0	--	--	--	0.0	65,805	63,979	2.00	2.05	56.0	2.12	
April	0	0	--	--	--	0.0	61,924	60,107	1.87	1.92	56.7	1.97	
May	0	0	--	--	--	0.0	64,228	62,457	1.97	2.02	58.1	2.04	
June	0	0	--	--	--	0.0	64,457	62,685	1.83	1.88	57.1	1.91	
July	506	19	1.72	47.01	6.06	23.6	66,592	64,859	1.84	1.89	55.9	1.93	
Year to Date													
2018	160	6	1.70	45.10	5.83	1.0	449,908	437,026	3.14	3.23	58.2	3.04	
2019	43	2	1.71	46.96	5.81	0.3	462,019	448,666	3.02	3.11	57.8	2.96	
2020	506	19	1.72	47.01	6.06	4.4	459,789	446,799	2.00	2.06	56.6	2.09	
Rolling 12 Months Ending in July													
2019	1,794	66	1.76	47.67	5.73	6.9	804,408	781,430	3.32	3.42	58.3	3.21	
2020	2,491	90	1.70	47.00	5.87	11.2	793,768	770,641	2.24	2.31	56.6	2.29	

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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.

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**Table 4.6.A. Receipts of Coal Delivered for Electricity Generation by State, July 2020 and 2019
(Thousand Tons)**

Census Division and State	Electric Power Sector										
	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
New England	3	3	-2.2%	0	0	3	3	0	0	0	0
Connecticut	0	0	--	0	0	0	0	0	0	0	0
Maine	3	3	-2.2%	0	0	3	3	0	0	0	0
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	0	0	--	0	0	0	0	0	0	0	0
Rhode Island	0	0	--	0	0	0	0	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	1,053	1,183	-11.0%	0	0	1,042	1,172	0	0	11	11
New Jersey	51	43	17.0%	0	0	51	43	0	0	0	0
New York	0	0	--	0	0	0	0	0	0	0	0
Pennsylvania	1,002	1,140	-12.0%	0	0	991	1,129	0	0	11	11
East North Central	7,932	10,743	-26.0%	5,154	6,714	2,628	3,886	0	0	151	144
Illinois	1,569	2,786	-44.0%	225	631	1,193	2,012	0	0	151	143
Indiana	2,036	2,500	-19.0%	1,837	2,364	200	135	0	0	0	0
Michigan	1,543	2,143	-28.0%	1,517	2,125	27	18	0	0	0	1
Ohio	1,402	1,929	-27.0%	194	208	1,208	1,721	0	0	0	0
Wisconsin	1,381	1,386	-0.4%	1,381	1,386	0	0	0	0	0	0
West North Central	8,542	9,438	-9.5%	8,347	9,188	0	0	0	0	195	250
Iowa	1,025	1,481	-31.0%	862	1,293	0	0	0	0	164	188
Kansas	1,277	664	92.0%	1,277	664	0	0	0	0	0	0
Minnesota	597	1,239	-52.0%	597	1,239	0	0	0	0	0	0
Missouri	2,440	2,656	-8.2%	2,440	2,656	0	0	0	0	0	0
Nebraska	1,190	1,144	4.0%	1,158	1,082	0	0	0	0	32	62
North Dakota	1,985	2,112	-6.0%	1,985	2,112	0	0	0	0	0	0
South Dakota	28	142	-80.0%	28	142	0	0	0	0	0	0
South Atlantic	4,036	6,331	-36.0%	3,562	5,654	436	618	0	0	38	58
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	528	668	-21.0%	528	659	0	0	0	0	0	9
Georgia	353	1,394	-75.0%	349	1,383	0	0	0	0	5	11
Maryland	98	185	-47.0%	0	0	98	185	0	0	0	0
North Carolina	644	1,143	-44.0%	626	1,112	2	13	0	0	16	18
South Carolina	258	672	-62.0%	245	668	12	0	0	0	0	4
Virginia	171	295	-42.0%	154	258	0	21	0	0	17	16
West Virginia	1,984	1,972	0.6%	1,661	1,574	323	398	0	0	0	0
East South Central	3,672	5,002	-27.0%	3,394	4,695	245	259	0	0	34	48
Alabama	1,049	1,324	-21.0%	1,049	1,324	0	0	0	0	0	0
Kentucky	1,943	2,537	-23.0%	1,943	2,537	0	0	0	0	0	0
Mississippi	348	374	-6.8%	104	115	245	259	0	0	0	0
Tennessee	332	768	-57.0%	298	720	0	0	0	0	34	48
West South Central	6,366	8,403	-24.0%	3,242	4,456	3,119	3,929	0	0	5	19
Arkansas	932	1,385	-33.0%	746	1,249	181	132	0	0	5	4
Louisiana	226	555	-59.0%	62	490	164	65	0	0	0	0
Oklahoma	469	420	11.0%	469	347	0	59	0	0	0	15
Texas	4,739	6,042	-22.0%	1,965	2,370	2,774	3,673	0	0	0	0
Mountain	5,499	7,435	-26.0%	4,925	6,502	574	933	0	0	0	0
Arizona	876	1,285	-32.0%	876	1,285	0	0	0	0	0	0
Colorado	587	1,100	-47.0%	587	1,100	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	467	830	-44.0%	19	26	448	804	0	0	0	0
Nevada	106	155	-32.0%	61	109	45	46	0	0	0	0
New Mexico	797	903	-12.0%	797	903	0	0	0	0	0	0
Utah	1,085	1,143	-5.0%	1,052	1,107	33	35	0	0	0	0
Wyoming	1,580	2,021	-22.0%	1,533	1,973	47	47	0	0	0	0
Pacific Contiguous	248	529	-53.0%	0	154	193	353	0	0	55	22
California	55	22	153.0%	0	0	0	0	0	0	55	22
Oregon	0	154	-100.0%	0	154	0	0	0	0	0	0
Washington	193	353	-45.0%	0	0	193	353	0	0	0	0
Pacific Noncontiguous	78	32	148.0%	17	32	62	0	0	0	0	0
Alaska	17	32	-48.0%	17	32	0	0	0	0	0	0
Hawaii	62	0	--	0	0	62	0	0	0	0	0
U.S. Total	37,428	49,099	-24.0%	28,639	37,394	8,300	11,154	0	0	488	551

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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) July 2020 and 2019
(Thousand Tons)**

Census Division and State	Electric Power Sector										
	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	104	87	19.0%	72	49	32	39	0	0	0	0
Connecticut	0	0	--	0	0	0	0	0	0	0	0
Maine	32	39	-18.0%	0	0	32	39	0	0	0	0
Massachusetts	0	0	--	0	0	0	0	0	0	0	0
New Hampshire	72	49	49.0%	72	49	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	5,680	11,253	-50.0%	37	0	5,600	11,209	0	0	43	43
New Jersey	284	345	-18.0%	0	0	284	345	0	0	0	0
New York	0	69	-100.0%	0	0	0	69	0	0	0	0
Pennsylvania	5,396	10,839	-50.0%	37	0	5,316	10,796	0	0	43	43
East North Central	50,826	72,808	-30.0%	29,344	42,332	20,405	29,421	0	0	1,077	1,056
Illinois	13,767	21,118	-35.0%	2,376	4,119	10,328	15,972	0	0	1,063	1,027
Indiana	12,915	17,312	-25.0%	11,494	16,146	1,421	1,166	0	0	0	0
Michigan	7,121	12,090	-41.0%	6,990	11,996	131	94	0	0	0	1
Ohio	9,679	13,677	-29.0%	1,153	1,489	8,525	12,188	0	0	0	0
Wisconsin	7,343	8,610	-15.0%	7,330	8,582	0	0	0	0	13	28
West North Central	55,186	59,174	-6.7%	53,588	57,365	0	0	4	5	1,594	1,804
Iowa	8,193	8,915	-8.1%	6,999	7,627	0	0	0	0	1,194	1,288
Kansas	6,325	6,083	4.0%	6,325	6,083	0	0	0	0	0	0
Minnesota	3,632	7,059	-49.0%	3,632	6,991	0	0	0	0	0	68
Missouri	17,146	16,436	4.3%	17,142	16,431	0	0	4	5	0	0
Nebraska	7,257	7,285	-0.4%	6,857	6,838	0	0	0	0	400	447
North Dakota	12,133	12,418	-2.3%	12,133	12,418	0	0	0	0	0	0
South Dakota	501	978	-49.0%	501	978	0	0	0	0	0	0
South Atlantic	25,858	45,411	-43.0%	23,252	40,388	2,313	4,538	0	0	293	486
Delaware	0	71	-100.0%	0	0	0	71	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	3,286	5,344	-39.0%	3,275	5,311	0	0	0	0	11	33
Georgia	3,280	8,916	-63.0%	3,233	8,834	0	0	0	0	47	83
Maryland	665	1,678	-60.0%	0	0	665	1,586	0	0	0	92
North Carolina	4,248	7,499	-43.0%	4,083	7,348	36	35	0	0	128	117
South Carolina	2,700	4,842	-44.0%	2,649	4,827	48	0	0	0	3	15
Virginia	771	1,737	-56.0%	668	1,395	0	196	0	0	103	146
West Virginia	10,909	15,324	-29.0%	9,345	12,674	1,565	2,650	0	0	0	0
East South Central	22,967	31,978	-28.0%	20,868	29,854	1,792	1,757	0	0	307	367
Alabama	6,219	7,953	-22.0%	6,219	7,953	0	0	0	0	0	0
Kentucky	12,285	17,721	-31.0%	12,285	17,721	0	0	0	0	0	0
Mississippi	2,227	2,566	-13.0%	435	809	1,792	1,757	0	0	0	0
Tennessee	2,235	3,739	-40.0%	1,929	3,371	0	0	0	0	307	367
West South Central	42,550	52,990	-20.0%	19,622	27,960	22,868	24,901	0	0	60	128
Arkansas	5,856	7,978	-27.0%	4,508	6,758	1,319	1,181	0	0	30	38
Louisiana	2,254	3,621	-38.0%	1,564	2,838	689	783	0	0	0	0
Oklahoma	1,805	3,020	-40.0%	1,711	2,728	63	201	0	0	30	90
Texas	32,636	38,371	-15.0%	11,839	15,635	20,797	22,736	0	0	0	0
Mountain	37,368	45,247	-17.0%	33,531	39,731	3,837	5,516	0	0	0	0
Arizona	4,599	8,435	-45.0%	4,599	8,435	0	0	0	0	0	0
Colorado	6,506	8,152	-20.0%	6,506	8,152	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	3,175	4,786	-34.0%	129	162	3,046	4,624	0	0	0	0
Nevada	682	1,091	-37.0%	351	747	332	344	0	0	0	0
New Mexico	4,256	4,810	-12.0%	4,256	4,810	0	0	0	0	0	0
Utah	7,213	6,341	14.0%	7,055	6,098	158	244	0	0	0	0
Wyoming	10,937	11,631	-6.0%	10,635	11,327	301	304	0	0	0	0
Pacific Contiguous	2,513	3,910	-36.0%	525	889	1,641	2,661	0	0	347	361
California	347	361	-3.8%	0	0	0	0	0	0	347	361
Oregon	525	889	-41.0%	525	889	0	0	0	0	0	0
Washington	1,641	2,661	-38.0%	0	0	1,641	2,661	0	0	0	0
Pacific Noncontiguous	607	550	10.0%	187	189	420	361	0	0	0	0
Alaska	187	189	-1.0%	187	189	0	0	0	0	0	0
Hawaii	420	361	16.0%	0	0	420	361	0	0	0	0
U.S. Total	243,660	323,409	-25.0%	181,028	238,757	58,908	80,403	4	5	3,720	4,245

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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 4.7.A. Receipts of Petroleum Liquids Delivered for Electricity Generation by State, July 2020 and 2019
(Thousand Barrels)**

Census Division and State	Electric Power Sector										
	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
New England	1	2	-45.0%	0	0	1	2	0	0	0	0
Connecticut	0	0	-100.0%	0	0	0	0	0	0	0	0
Maine	1	2	-57.0%	0	0	1	2	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	22	19	17.0%	0	0	16	12	0	0	6	6
New Jersey	0	1	-100.0%	0	0	0	1	0	0	0	0
New York	0	2	-81.0%	0	0	0	2	0	0	0	0
Pennsylvania	22	16	34.0%	0	0	16	10	0	0	6	6
East North Central	85	68	24.0%	48	46	36	21	0	0	1	1
Illinois	7	5	61.0%	1	0	7	5	0	0	0	0
Indiana	21	28	-25.0%	21	28	0	0	0	0	0	0
Michigan	25	15	61.0%	24	14	0	0	0	0	1	1
Ohio	30	18	68.0%	1	1	29	17	0	0	0	0
Wisconsin	1	2	-41.0%	1	2	0	0	0	0	0	0
West North Central	31	24	32.0%	31	24	0	0	0	0	0	0
Iowa	13	7	87.0%	13	7	0	0	0	0	0	0
Kansas	4	5	-27.0%	4	5	0	0	0	0	0	0
Minnesota	3	1	151.0%	3	1	0	0	0	0	0	0
Missouri	11	10	10.0%	11	10	0	0	0	0	0	0
Nebraska	0	0	--	0	0	0	0	0	0	0	0
North Dakota	0	1	-14.0%	0	1	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	145	109	33.0%	109	93	22	11	0	0	13	5
Delaware	4	2	102.0%	0	0	4	2	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	15	38	-61.0%	12	37	0	0	0	0	3	1
Georgia	16	9	73.0%	13	7	0	0	0	0	3	2
Maryland	18	8	115.0%	0	0	18	8	0	0	0	0
North Carolina	14	15	-11.0%	9	14	0	0	0	0	5	2
South Carolina	6	7	-12.0%	6	7	0	0	0	0	0	0
Virginia	21	5	356.0%	18	4	1	0	0	0	3	0
West Virginia	51	24	109.0%	51	24	0	0	0	0	0	0
East South Central	32	23	39.0%	31	23	0	0	0	0	1	0
Alabama	1	3	-75.0%	1	3	0	0	0	0	0	0
Kentucky	11	9	28.0%	11	9	0	0	0	0	0	0
Mississippi	1	2	-37.0%	1	2	0	0	0	0	0	0
Tennessee	19	10	97.0%	18	10	0	0	0	0	1	0
West South Central	9	12	-26.0%	8	7	1	5	0	0	0	0
Arkansas	6	4	56.0%	6	0	0	4	0	0	0	0
Louisiana	0	1	-100.0%	0	1	0	0	0	0	0	0
Oklahoma	0	1	-100.0%	0	1	0	0	0	0	0	0
Texas	3	6	-52.0%	2	5	1	1	0	0	0	0
Mountain	17	18	-6.1%	16	17	1	1	0	0	0	0
Arizona	3	2	47.0%	3	2	0	0	0	0	0	0
Colorado	0	0	--	0	0	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	1	0	--	0	0	1	0	0	0	0	0
Nevada	1	3	-59.0%	1	2	0	1	0	0	0	0
New Mexico	3	4	-34.0%	3	4	0	0	0	0	0	0
Utah	4	2	112.0%	4	2	0	0	0	0	0	0
Wyoming	5	7	-27.0%	5	7	0	0	0	0	0	0
Pacific Contiguous	2	3	-25.0%	0	0	2	3	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	2	3	-25.0%	0	0	2	3	0	0	0	0
Pacific Noncontiguous	821	699	17.0%	667	518	155	182	0	0	0	0
Alaska	0	3	-87.0%	0	3	0	0	0	0	0	0
Hawaii	821	696	18.0%	666	514	155	182	0	0	0	0
U.S. Total	1,166	977	19.0%	911	728	234	236	0	0	20	13

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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 4.7.B. Receipts of Petroleum Liquids Delivered for Electricity Generation by State, (Year-to-Date) July 2020 and 2019
(Thousand Barrels)

Census Division and State	Electric Power Sector										
	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	363	193	88.0%	7	8	356	185	0	0	0	0
Connecticut	98	6	NM	0	0	98	6	0	0	0	0
Maine	149	128	16.0%	0	0	149	128	0	0	0	0
Massachusetts	102	51	102.0%	5	0	97	51	0	0	0	0
New Hampshire	14	8	64.0%	2	8	12	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	235	700	-66.0%	15	345	181	315	0	0	39	40
New Jersey	67	23	193.0%	0	0	67	23	0	0	0	0
New York	25	431	-94.0%	15	345	10	86	0	0	0	0
Pennsylvania	143	246	-42.0%	0	0	104	206	0	0	39	40
East North Central	474	551	-14.0%	296	315	169	213	0	0	9	23
Illinois	33	53	-37.0%	2	2	31	51	0	0	0	0
Indiana	170	137	25.0%	170	137	0	0	0	0	0	0
Michigan	100	84	19.0%	96	75	0	0	0	0	4	9
Ohio	146	253	-43.0%	10	84	131	155	0	0	5	15
Wisconsin	25	25	0.2%	18	17	7	8	0	0	0	0
West North Central	314	295	6.5%	314	295	0	0	0	0	0	0
Iowa	63	71	-11.0%	63	71	0	0	0	0	0	0
Kansas	76	54	41.0%	76	54	0	0	0	0	0	0
Minnesota	16	21	-22.0%	16	21	0	0	0	0	0	0
Missouri	90	93	-2.8%	90	93	0	0	0	0	0	0
Nebraska	1	11	-89.0%	1	11	0	0	0	0	0	0
North Dakota	61	45	35.0%	61	45	0	0	0	0	0	0
South Dakota	5	0	--	5	0	0	0	0	0	0	0
South Atlantic	808	950	-15.0%	564	763	136	91	0	0	107	97
Delaware	20	3	633.0%	0	0	20	3	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	146	269	-46.0%	126	248	0	0	0	0	20	21
Georgia	110	123	-10.0%	87	71	1	1	0	0	23	50
Maryland	104	75	39.0%	0	0	104	75	0	0	0	0
North Carolina	128	166	-23.0%	98	155	0	0	0	0	30	12
South Carolina	69	62	11.0%	54	57	0	0	0	0	15	5
Virginia	62	112	-44.0%	30	91	12	12	0	0	20	9
West Virginia	170	141	21.0%	170	141	0	0	0	0	0	0
East South Central	151	181	-16.0%	143	170	0	8	0	0	9	3
Alabama	5	20	-74.0%	5	12	0	8	0	0	0	0
Kentucky	83	84	-1.6%	83	84	0	0	0	0	0	0
Mississippi	8	17	-52.0%	8	17	0	0	0	0	0	0
Tennessee	55	60	-7.4%	47	56	0	0	0	0	9	3
West South Central	153	139	10.0%	122	101	31	37	0	0	0	0
Arkansas	47	42	10.0%	36	25	11	17	0	0	0	0
Louisiana	6	7	-13.0%	6	7	0	0	0	0	0	0
Oklahoma	47	22	115.0%	47	22	0	0	0	0	0	0
Texas	53	67	-21.0%	33	47	20	20	0	0	0	0
Mountain	230	239	-3.6%	219	222	11	17	0	0	0	0
Arizona	53	83	-36.0%	53	83	0	0	0	0	0	0
Colorado	2	2	-27.0%	2	2	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	8	13	-38.0%	0	0	8	13	0	0	0	0
Nevada	9	17	-47.0%	8	14	1	3	0	0	0	0
New Mexico	31	29	6.1%	31	29	0	0	0	0	0	0
Utah	65	57	13.0%	63	57	2	0	0	0	0	0
Wyoming	63	37	71.0%	63	37	0	0	0	0	0	0
Pacific Contiguous	6	17	-62.0%	0	6	6	10	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	6	17	-62.0%	0	6	6	10	0	0	0	0
Pacific Noncontiguous	4,451	5,179	-14.0%	3,554	4,148	897	1,031	0	0	0	0
Alaska	16	13	18.0%	16	13	0	0	0	0	0	0
Hawaii	4,436	5,165	-14.0%	3,539	4,134	897	1,031	0	0	0	0
U.S. Total	7,187	8,443	-15.0%	5,235	6,372	1,788	1,907	0	0	164	164

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

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

**Table 4.8.A. Receipts of Petroleum Coke Delivered for Electricity Generation by State, July 2020 and 2019
(Thousand Tons)**

Census Division and State	Electric Power Sector										
	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
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	52	47	11.0%	52	47	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	49	44	12.0%	49	44	0	0	0	0	0	0
Ohio	0	0	--	0	0	0	0	0	0	0	0
Wisconsin	2	3	-12.0%	2	3	0	0	0	0	0	0
West North Central	19	2	NM	0	0	0	0	0	0	19	2
Iowa	19	2	NM	0	0	0	0	0	0	19	2
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	75	37	103.0%	75	37	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	75	37	103.0%	75	37	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	56	115	-52.0%	56	115	0	0	0	0	0	0
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	56	115	-52.0%	56	115	0	0	0	0	0	0
Oklahoma	0	0	--	0	0	0	0	0	0	0	0
Texas	0	0	--	0	0	0	0	0	0	0	0
Mountain	0	0	--	0	0	0	0	0	0	0	0
Arizona	0	0	--	0	0	0	0	0	0	0	0
Colorado	0	0	--	0	0	0	0	0	0	0	0
Idaho	0	0	--	0	0	0	0	0	0	0	0
Montana	0	0	--	0	0	0	0	0	0	0	0
Nevada	0	0	--	0	0	0	0	0	0	0	0
New Mexico	0	0	--	0	0	0	0	0	0	0	0
Utah	0	0	--	0	0	0	0	0	0	0	0
Wyoming	0	0	--	0	0	0	0	0	0	0	0
Pacific Contiguous	0	0	--	0	0	0	0	0	0	0	0
California	0	0	--	0	0	0	0	0	0	0	0
Oregon	0	0	--	0	0	0	0	0	0	0	0
Washington	0	0	--	0	0	0	0	0	0	0	0
Pacific Noncontiguous	0	0	--	0	0	0	0	0	0	0	0
Alaska	0	0	--	0	0	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	201	201	0.2%	183	199	0	0	0	0	19	2

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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) July 2020 and 2019
(Thousand Tons)**

Census Division and State	Electric Power Sector										
	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 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	250	176	42.0%	250	176	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	217	153	42.0%	217	153	0	0	0	0	0	0
Ohio	0	0	--	0	0	0	0	0	0	0	0
Wisconsin	33	23	41.0%	33	23	0	0	0	0	0	0
West North Central	19	2	NM	0	0	0	0	0	0	19	2
Iowa	19	2	NM	0	0	0	0	0	0	19	2
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	375	266	41.0%	375	266	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	375	266	41.0%	375	266	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	844	638	32.0%	844	638	0	0	0	0	0	0
Arkansas	0	0	--	0	0	0	0	0	0	0	0
Louisiana	844	638	32.0%	844	638	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	1,487	1,081	38.0%	1,469	1,080	0	0	0	0	19	2

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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 4.9.A. Receipts of Natural Gas Delivered for Electricity Generation by State, July 2020 and 2019
(Million Cubic Feet)

Census Division and State	Electric Power Sector										
	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
New England	40,995	37,488	9.4%	569	284	40,426	37,204	0	0	0	0
Connecticut	16,474	15,024	9.7%	0	0	16,474	15,024	0	0	0	0
Maine	1,251	865	45.0%	0	0	1,251	865	0	0	0	0
Massachusetts	14,967	13,489	11.0%	429	255	14,539	13,234	0	0	0	0
New Hampshire	4,506	4,249	6.0%	140	30	4,366	4,220	0	0	0	0
Rhode Island	3,796	3,862	-1.7%	0	0	3,796	3,862	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	173,284	149,154	16.0%	14,656	14,216	157,868	134,091	0	0	760	847
New Jersey	27,718	29,729	-6.8%	0	0	27,718	29,729	0	0	0	0
New York	52,957	47,486	12.0%	14,656	14,216	37,708	32,630	0	0	592	641
Pennsylvania	92,609	71,939	29.0%	0	0	92,442	71,733	0	0	167	206
East North Central	114,846	104,556	9.8%	42,484	36,931	70,900	66,141	425	524	1,038	961
Illinois	18,781	14,518	29.0%	2,196	1,818	16,580	12,697	0	0	5	3
Indiana	20,807	19,091	9.0%	9,840	8,746	10,967	10,345	0	0	0	0
Michigan	31,629	28,555	19.0%	13,864	9,694	16,898	15,976	425	524	442	361
Ohio	31,661	31,321	1.1%	5,891	5,984	25,305	24,970	0	0	465	366
Wisconsin	11,969	13,072	-8.4%	10,693	10,688	1,150	2,153	0	0	126	231
West North Central	20,038	20,897	-4.1%	16,959	17,935	2,637	2,397	175	177	267	389
Iowa	6,673	7,520	-11.0%	6,406	7,135	0	0	0	0	267	385
Kansas	2,300	2,413	-4.7%	2,300	2,413	0	0	0	0	0	0
Minnesota	4,296	4,720	-9.0%	3,570	4,464	723	251	2	2	0	4
Missouri	6,068	5,562	9.1%	3,982	3,241	1,914	2,146	172	175	0	0
Nebraska	364	488	-26.0%	364	488	0	0	0	0	0	0
North Dakota	338	194	75.0%	338	194	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	288,010	272,090	5.9%	235,065	223,083	49,773	46,023	0	0	3,172	2,984
Delaware	4,293	4,447	-3.5%	0	0	4,293	4,447	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	133,004	125,612	5.9%	128,041	120,362	4,613	4,824	0	0	351	426
Georgia	37,485	35,904	4.4%	28,194	26,358	8,553	8,885	0	0	738	661
Maryland	11,423	10,834	5.4%	3,091	3,598	8,332	7,236	0	0	0	0
North Carolina	31,906	29,050	9.8%	26,411	23,111	5,216	5,680	0	0	279	259
South Carolina	20,415	19,467	4.9%	19,331	19,183	801	187	0	0	282	96
Virginia	46,156	44,371	4.0%	29,611	30,079	15,625	13,439	0	0	921	853
West Virginia	3,328	2,404	38.0%	386	392	2,341	1,324	0	0	601	689
East South Central	110,897	102,798	7.9%	75,883	69,427	32,699	31,176	0	0	2,315	2,196
Alabama	44,537	41,694	6.8%	14,222	15,130	30,315	26,564	0	0	0	0
Kentucky	13,627	10,686	28.0%	11,260	9,680	2,368	1,006	0	0	0	0
Mississippi	38,230	37,384	2.3%	38,214	33,778	16	3,605	0	0	0	0
Tennessee	14,502	13,034	11.0%	12,187	10,838	0	0	0	0	2,315	2,196
West South Central	326,722	312,630	4.5%	112,881	104,949	158,894	151,040	0	0	54,947	56,642
Arkansas	12,862	14,116	-8.9%	11,540	12,768	1,105	1,139	0	0	218	210
Louisiana	56,919	55,039	3.4%	34,861	31,388	4,336	5,259	0	0	17,722	18,392
Oklahoma	40,773	37,450	8.9%	27,407	22,767	12,784	14,138	0	0	582	545
Texas	216,169	206,025	4.9%	39,075	38,026	140,669	130,504	0	0	36,425	37,495
Mountain	97,030	92,573	4.8%	83,162	79,194	13,843	13,345	0	0	25	34
Arizona	44,057	40,439	8.9%	35,203	30,465	8,854	9,973	0	0	0	0
Colorado	14,093	13,964	0.9%	11,933	11,779	2,160	2,186	0	0	0	0
Idaho	1,212	1,383	-12.0%	1,212	1,383	0	0	0	0	0	0
Montana	201	262	-23.0%	201	262	0	0	0	0	0	0
Nevada	20,023	20,014	0.0%	20,023	20,014	0	0	0	0	0	0
New Mexico	10,134	9,333	8.6%	7,305	8,147	2,829	1,186	0	0	0	0
Utah	6,658	6,834	-2.6%	6,632	6,800	0	0	0	0	25	34
Wyoming	654	343	90.0%	653	343	0	0	0	0	0	0
Pacific Contiguous	67,446	69,957	-3.6%	24,238	27,377	40,873	40,646	0	0	2,335	1,934
California	56,928	50,622	12.0%	19,298	17,935	35,295	30,752	0	0	2,335	1,934
Oregon	6,945	11,383	-39.0%	2,758	4,414	4,187	6,969	0	0	0	0
Washington	3,573	7,953	-55.0%	2,181	5,028	1,392	2,925	0	0	0	0
Pacific Noncontiguous	24	83	-71.0%	24	83	0	0	0	0	0	0
Alaska	24	83	-71.0%	24	83	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	1,239,293	1,162,227	6.6%	605,922	573,479	567,914	522,062	599	701	64,859	65,986

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

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

**Table 4.9.B. Receipts of Natural Gas Delivered for Electricity Generation by State, (Year-to-Date) July 2020 and 2019
(Million Cubic Feet)**

Census Division and State	Electric Power Sector										
	All Sectors			Electric Utilities		Independent Power Producers		Commercial Sector		Industrial Sector	
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	179,061	172,326	3.9%	736	339	178,325	171,987	0	0	0	0
Connecticut	87,987	77,271	14.0%	0	0	87,987	77,271	0	0	0	0
Maine	4,636	4,142	12.0%	0	0	4,636	4,142	0	0	0	0
Massachusetts	50,694	60,291	-16.0%	573	293	50,121	59,998	0	0	0	0
New Hampshire	14,952	12,322	21.0%	163	46	14,790	12,275	0	0	0	0
Rhode Island	20,792	18,300	14.0%	0	0	20,792	18,300	0	0	0	0
Vermont	0	0	--	0	0	0	0	0	0	0	0
Middle Atlantic	778,252	702,040	11.0%	54,148	52,990	718,055	643,233	0	0	6,050	5,816
New Jersey	120,129	153,399	-22.0%	0	0	120,129	153,399	0	0	0	0
New York	207,121	194,913	6.3%	54,148	52,990	148,717	137,580	0	0	4,257	4,343
Pennsylvania	451,002	353,728	27.0%	0	0	449,210	352,254	0	0	1,792	1,474
East North Central	634,579	564,135	12.0%	225,500	189,223	397,165	362,431	3,399	4,096	8,514	8,385
Illinois	69,227	48,364	43.0%	11,459	5,002	57,749	43,346	0	0	18	17
Indiana	122,623	108,250	13.0%	54,963	45,318	67,661	62,931	0	0	0	0
Michigan	160,659	137,502	17.0%	50,305	35,283	103,548	94,596	3,399	4,096	3,406	3,526
Ohio	198,961	193,847	2.6%	33,586	35,497	161,923	154,932	0	0	3,452	3,418
Wisconsin	83,109	76,173	9.1%	75,187	68,123	6,285	6,626	0	0	1,637	1,424
West North Central	95,151	103,747	-8.3%	78,873	89,393	12,572	10,557	1,216	1,217	2,490	2,579
Iowa	31,921	36,307	-12.0%	29,431	33,783	0	0	0	0	2,490	2,524
Kansas	9,950	11,072	-10.0%	9,950	11,072	0	0	0	0	0	0
Minnesota	21,959	25,960	-15.0%	20,344	25,359	1,610	543	5	4	0	54
Missouri	27,906	27,463	1.6%	15,733	16,236	10,962	10,014	1,211	1,213	0	0
Nebraska	1,278	1,814	-30.0%	1,278	1,814	0	0	0	0	0	0
North Dakota	2,137	1,130	89.0%	2,137	1,130	0	0	0	0	0	0
South Dakota	0	0	--	0	0	0	0	0	0	0	0
South Atlantic	1,599,689	1,498,378	6.8%	1,322,891	1,252,268	254,730	225,395	0	0	22,069	20,715
Delaware	14,814	14,431	2.7%	0	0	14,814	14,431	0	0	0	0
District of Columbia	0	0	--	0	0	0	0	0	0	0	0
Florida	759,224	718,434	5.7%	731,214	694,425	25,714	21,386	0	0	2,296	2,622
Georgia	212,455	203,497	4.4%	158,754	153,697	48,605	44,998	0	0	5,095	4,802
Maryland	55,564	58,281	-4.7%	13,052	17,927	42,511	39,203	0	0	0	1,151
North Carolina	175,924	169,073	4.1%	143,444	136,607	30,520	30,980	0	0	1,960	1,486
South Carolina	108,825	100,418	8.4%	106,155	97,968	1,370	1,828	0	0	1,301	622
Virginia	258,701	225,365	15.0%	169,685	150,444	81,824	68,843	0	0	7,191	6,079
West Virginia	14,183	8,879	60.0%	586	1,201	9,371	3,726	0	0	4,226	3,953
East South Central	564,891	544,198	3.8%	396,984	363,684	151,508	164,657	0	0	16,399	15,857
Alabama	212,168	218,925	-3.1%	69,023	76,906	143,145	142,018	0	0	0	0
Kentucky	56,399	55,116	2.3%	51,920	52,675	4,479	2,441	0	0	0	0
Mississippi	222,285	193,431	15.0%	218,401	173,233	3,884	20,198	0	0	0	0
Tennessee	74,039	76,727	-3.5%	57,640	60,870	0	0	0	0	16,399	15,857
West South Central	1,703,979	1,641,310	3.8%	542,689	493,891	787,331	767,729	0	0	373,959	379,689
Arkansas	60,857	72,183	-16.0%	51,463	62,747	7,841	7,831	0	0	1,553	1,604
Louisiana	322,252	314,695	2.4%	182,237	163,090	19,487	23,254	0	0	120,528	128,351
Oklahoma	191,359	167,237	14.0%	120,365	101,894	67,416	62,415	0	0	3,577	2,928
Texas	1,129,512	1,087,195	3.9%	188,624	166,160	692,586	674,229	0	0	248,301	246,807
Mountain	479,254	440,492	8.8%	405,848	375,667	73,157	64,713	0	0	249	111
Arizona	209,025	183,789	14.0%	162,643	140,669	46,382	43,119	0	0	0	0
Colorado	76,582	69,332	10.0%	66,173	60,023	10,409	9,310	0	0	0	0
Idaho	5,214	5,212	0.0%	5,214	5,212	0	0	0	0	0	0
Montana	1,312	1,486	-12.0%	1,312	1,486	0	0	0	0	0	0
Nevada	100,778	94,263	6.9%	100,778	94,263	0	0	0	0	0	0
New Mexico	51,858	48,861	6.1%	35,502	36,586	16,356	12,274	0	0	0	0
Utah	32,275	36,110	-11.0%	32,026	35,998	0	0	0	0	249	111
Wyoming	2,209	1,439	54.0%	2,200	1,429	9	10	0	0	0	0
Pacific Contiguous	354,541	339,382	4.5%	135,035	125,498	202,437	198,371	0	0	17,068	15,514
California	275,364	252,382	9.1%	95,899	87,091	162,397	149,776	0	0	17,068	15,514
Oregon	52,092	58,945	-12.0%	19,663	21,504	32,428	37,442	0	0	0	0
Washington	27,085	28,055	-3.5%	19,473	16,903	7,612	11,152	0	0	0	0
Pacific Noncontiguous	186	381	-51.0%	186	381	0	0	0	0	0	0
Alaska	186	381	-51.0%	186	381	0	0	0	0	0	0
Hawaii	0	0	--	0	0	0	0	0	0	0	0
U.S. Total	6,389,583	6,006,388	6.4%	3,162,889	2,943,334	2,775,280	2,609,074	4,615	5,314	446,799	448,666

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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, July 2020 and 2019
(Dollars per MMBtu)**

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019
New England	W	W	W	--	--	W	W
Connecticut	--	--	--	--	--	--	--
Maine	W	W	W	--	--	W	W
Massachusetts	--	--	--	--	--	--	--
New Hampshire	--	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--
Middle Atlantic	1.79	1.93	-7.3%	--	--	1.79	1.93
New Jersey	W	W	W	--	--	W	W
New York	--	--	--	--	--	--	--
Pennsylvania	W	W	W	--	--	W	W
East North Central	1.88	2.00	-6.0%	1.96	2.12	1.73	1.81
Illinois	W	W	W	1.55	1.96	W	W
Indiana	W	W	W	2.04	2.16	W	W
Michigan	W	W	W	2.02	2.08	W	W
Ohio	1.78	1.79	-0.6%	1.86	1.77	1.77	1.79
Wisconsin	1.85	2.26	-18.0%	1.85	2.26	--	--
West North Central	1.54	1.62	-4.9%	1.54	1.62	--	--
Iowa	1.50	1.54	-2.6%	1.50	1.54	--	--
Kansas	1.57	1.57	0.0%	1.57	1.57	--	--
Minnesota	1.89	2.00	-5.5%	1.89	2.00	--	--
Missouri	1.54	1.65	-6.7%	1.54	1.65	--	--
Nebraska	1.20	1.24	-3.2%	1.20	1.24	--	--
North Dakota	1.62	1.58	2.5%	1.62	1.58	--	--
South Dakota	1.88	1.92	-2.1%	1.88	1.92	--	--
South Atlantic	2.35	2.58	-8.9%	2.42	2.60	1.84	2.43
Delaware	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--
Florida	2.54	2.82	-9.9%	2.54	2.82	--	--
Georgia	2.70	2.73	-1.1%	2.70	2.73	--	--
Maryland	2.73	2.61	4.6%	--	--	2.73	2.61
North Carolina	W	W	W	2.62	2.68	W	W
South Carolina	W	3.16	W	3.33	3.16	W	--
Virginia	2.34	W	W	2.34	2.64	--	W
West Virginia	W	W	W	2.14	2.12	W	W
East South Central	W	W	W	1.99	2.06	W	W
Alabama	2.18	2.34	-6.8%	2.18	2.34	--	--
Kentucky	1.85	1.89	-2.1%	1.85	1.89	--	--
Mississippi	W	W	W	2.87	3.10	W	W
Tennessee	2.05	2.03	1.0%	2.05	2.03	--	--
West South Central	1.92	1.85	3.8%	2.23	2.10	1.57	1.55
Arkansas	W	W	W	1.81	1.86	W	W
Louisiana	W	W	W	18.23	3.49	W	W
Oklahoma	1.53	W	W	1.53	1.63	--	W
Texas	W	1.70	W	2.08	2.01	W	1.49
Mountain	W	W	W	2.13	2.07	W	W
Arizona	2.18	2.59	-16.0%	2.18	2.59	--	--
Colorado	1.83	1.78	2.8%	1.83	1.78	--	--
Idaho	--	--	--	--	--	--	--
Montana	W	W	W	2.14	1.92	W	W
Nevada	W	W	W	2.26	2.86	W	W
New Mexico	2.61	2.49	4.8%	2.61	2.49	--	--
Utah	2.05	1.99	3.0%	2.05	1.99	--	--
Wyoming	W	W	W	2.02	1.67	W	W
Pacific Contiguous	W	W	W	--	2.43	W	W
California	--	--	--	--	--	--	--
Oregon	--	2.43	--	--	2.43	--	--
Washington	W	W	W	--	--	W	W
Pacific Noncontiguous	W	3.55	W	3.25	3.55	W	--
Alaska	3.25	3.55	-8.5%	3.25	3.55	--	--
Hawaii	W	--	W	--	--	W	--
U.S. Total	1.93	2.02	-4.5%	1.98	2.09	1.73	1.79

Displayed values of zero may represent small values that round to zero.

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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 4.10.B. Average Cost of Coal Delivered for Electricity Generation by State, (Year-to-Date) July 2020 and 2019
(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	W	W	W	3.12	3.54	W	W
Connecticut	--	--	--	--	--	--	--
Maine	W	W	W	--	--	W	W
Massachusetts	--	--	--	--	--	--	--
New Hampshire	3.12	3.54	-12.0%	3.12	3.54	--	--
Rhode Island	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--
Middle Atlantic	1.84	1.97	-6.6%	2.99	--	1.83	1.97
New Jersey	W	W	W	--	--	W	W
New York	--	--	--	--	--	--	W
Pennsylvania	W	1.91	W	2.99	--	W	1.91
East North Central	1.90	1.99	-4.5%	2.02	2.12	1.74	1.81
Illinois	W	W	W	1.61	1.97	W	W
Indiana	W	W	W	2.09	2.15	W	W
Michigan	W	W	W	2.04	2.08	W	W
Ohio	1.78	1.81	-1.7%	1.87	1.83	1.77	1.80
Wisconsin	2.01	2.25	-11.0%	2.01	2.25	--	--
West North Central	1.56	1.63	-4.3%	1.56	1.63	--	--
Iowa	1.51	1.55	-2.6%	1.51	1.55	--	--
Kansas	1.61	1.63	-1.2%	1.61	1.63	--	--
Minnesota	1.96	2.03	-3.4%	1.96	2.03	--	--
Missouri	1.56	1.68	-7.1%	1.56	1.68	--	--
Nebraska	1.23	1.22	0.8%	1.23	1.22	--	--
North Dakota	1.64	1.60	2.5%	1.64	1.60	--	--
South Dakota	1.89	1.83	3.3%	1.89	1.83	--	--
South Atlantic	2.43	2.62	-7.3%	2.48	2.64	1.98	2.36
Delaware	--	W	W	--	--	--	W
District of Columbia	--	--	--	--	--	--	--
Florida	2.55	2.89	-12.0%	2.55	2.89	--	--
Georgia	2.73	2.73	0.0%	2.73	2.73	--	--
Maryland	W	2.69	W	--	--	W	2.69
North Carolina	W	W	W	2.59	2.93	W	W
South Carolina	W	3.25	W	3.17	3.25	W	--
Virginia	2.48	W	W	2.48	2.75	--	W
West Virginia	W	W	W	2.14	2.11	W	W
East South Central	W	W	W	1.96	2.09	W	W
Alabama	2.07	2.37	-13.0%	2.07	2.37	--	--
Kentucky	1.89	1.93	-2.1%	1.89	1.93	--	--
Mississippi	W	W	W	2.88	3.14	W	W
Tennessee	1.94	2.18	-11.0%	1.94	2.18	--	--
West South Central	1.82	1.90	-4.2%	2.07	2.14	1.61	1.61
Arkansas	W	W	W	1.87	2.01	W	W
Louisiana	W	W	W	3.82	3.29	W	W
Oklahoma	W	W	W	1.55	1.75	W	W
Texas	W	1.77	W	1.98	2.06	W	1.56
Mountain	W	W	W	1.96	2.12	W	W
Arizona	2.17	2.65	-18.0%	2.17	2.65	--	--
Colorado	1.71	1.79	-4.5%	1.71	1.79	--	--
Idaho	--	--	--	--	--	--	--
Montana	W	W	W	2.24	1.98	W	W
Nevada	W	W	W	2.40	2.82	W	W
New Mexico	2.53	2.48	2.0%	2.53	2.48	--	--
Utah	2.06	1.98	4.0%	2.06	1.98	--	--
Wyoming	W	W	W	1.70	1.80	W	W
Pacific Contiguous	W	W	W	2.18	2.23	W	W
California	--	--	--	--	--	--	--
Oregon	2.18	2.23	-2.2%	2.18	2.23	--	--
Washington	W	W	W	--	--	W	W
Pacific Noncontiguous	W	W	W	3.63	3.45	W	W
Alaska	3.63	3.45	5.2%	3.63	3.45	--	--
Hawaii	W	W	W	--	--	W	W
U.S. Total	1.91	2.06	-7.3%	1.96	2.13	1.75	1.83

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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, July 2020 and 2019
(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019
New England	W	W	W	--	--	W	W
Connecticut	--	W	W	--	--	--	W
Maine	W	W	W	--	--	W	W
Massachusetts	W	--	W	--	--	W	--
New Hampshire	--	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--
Middle Atlantic	9.58	14.51	-34.0%	--	--	9.58	14.51
New Jersey	--	W	W	--	--	--	W
New York	W	W	W	--	--	W	W
Pennsylvania	W	14.73	W	--	--	W	14.73
East North Central	9.87	14.68	-33.0%	9.76	14.26	10.02	15.57
Illinois	W	W	W	9.79	--	W	W
Indiana	10.28	14.42	-29.0%	10.28	14.42	--	--
Michigan	9.28	13.87	-33.0%	9.28	13.87	--	--
Ohio	W	W	W	10.31	14.67	W	W
Wisconsin	9.76	14.58	-33.0%	9.76	14.58	--	--
West North Central	9.60	14.67	-35.0%	9.60	14.67	--	--
Iowa	9.46	14.29	-34.0%	9.46	14.29	--	--
Kansas	9.77	14.75	-34.0%	9.77	14.75	--	--
Minnesota	9.58	18.92	-49.0%	9.58	18.92	--	--
Missouri	9.72	14.32	-32.0%	9.72	14.32	--	--
Nebraska	--	--	--	--	--	--	--
North Dakota	9.76	14.81	-34.0%	9.76	14.81	--	--
South Dakota	--	--	--	--	--	--	--
South Atlantic	12.26	15.05	-19.0%	12.75	15.06	9.84	14.88
Delaware	W	W	W	--	--	W	W
District of Columbia	--	--	--	--	--	--	--
Florida	10.04	15.10	-34.0%	10.04	15.10	--	--
Georgia	9.86	15.23	-35.0%	9.86	15.23	--	--
Maryland	W	W	W	--	--	W	W
North Carolina	9.56	14.51	-34.0%	9.56	14.51	--	--
South Carolina	10.03	14.77	-32.0%	10.03	14.77	--	--
Virginia	W	W	W	14.57	15.14	W	W
West Virginia	14.41	15.35	-6.1%	14.41	15.35	--	--
East South Central	9.62	14.16	-32.0%	9.62	14.16	--	--
Alabama	10.06	15.14	-34.0%	10.06	15.14	--	--
Kentucky	10.11	14.14	-29.0%	10.11	14.14	--	--
Mississippi	10.66	14.10	-24.0%	10.66	14.10	--	--
Tennessee	9.24	13.90	-34.0%	9.24	13.90	--	--
West South Central	W	W	W	9.60	14.93	W	W
Arkansas	9.62	W	W	9.62	26.89	--	W
Louisiana	--	14.05	--	--	14.05	--	--
Oklahoma	--	15.63	--	--	15.63	--	--
Texas	W	W	W	9.52	14.69	W	W
Mountain	W	W	W	10.98	16.39	W	W
Arizona	11.47	16.91	-32.0%	11.47	16.91	--	--
Colorado	--	--	--	--	--	--	--
Idaho	--	--	--	--	--	--	--
Montana	W	W	W	--	--	W	--
Nevada	W	W	W	11.43	17.44	W	W
New Mexico	12.28	19.28	-36.0%	12.28	19.28	--	--
Utah	10.37	14.31	-28.0%	10.37	14.31	--	--
Wyoming	10.43	14.88	-30.0%	10.43	14.88	--	--
Pacific Contiguous	W	W	W	--	--	W	W
California	--	--	--	--	--	--	--
Oregon	--	--	--	--	--	--	--
Washington	W	W	W	--	--	W	W
Pacific Noncontiguous	W	W	W	6.65	12.67	W	W
Alaska	10.44	15.64	-33.0%	10.44	15.64	--	--
Hawaii	W	W	W	6.65	12.65	W	W
U.S. Total	8.12	13.81	-41.0%	7.80	13.28	9.42	15.49

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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 4.11.B. Average Cost of Petroleum Liquids Delivered for Electricity Generation by State, (Year-to-Date) July 2020 and 2019
(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	W	10.36	W	10.22	17.48	W	10.06
Connecticut	W	W	W	--	--	W	W
Maine	W	W	W	--	--	W	W
Massachusetts	W	W	W	7.37	--	W	W
New Hampshire	W	17.48	W	17.38	17.48	W	--
Rhode Island	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--
Middle Atlantic	W	12.96	W	5.22	12.15	W	13.87
New Jersey	W	W	W	--	--	W	W
New York	7.62	12.70	-40.0%	5.22	12.15	11.14	14.94
Pennsylvania	8.97	W	W	--	--	8.97	W
East North Central	10.31	W	W	10.05	14.77	10.75	W
Illinois	W	16.73	W	10.99	15.63	W	16.78
Indiana	10.32	14.78	-30.0%	10.32	14.78	--	--
Michigan	9.72	13.86	-30.0%	9.72	13.86	--	--
Ohio	10.54	W	W	10.37	15.56	10.55	W
Wisconsin	W	W	W	9.06	14.77	W	W
West North Central	9.63	14.71	-35.0%	9.63	14.71	--	--
Iowa	9.51	14.65	-35.0%	9.51	14.65	--	--
Kansas	9.87	15.04	-34.0%	9.87	15.04	--	--
Minnesota	9.59	15.47	-38.0%	9.59	15.47	--	--
Missouri	8.86	14.53	-39.0%	8.86	14.53	--	--
Nebraska	11.52	14.91	-23.0%	11.52	14.91	--	--
North Dakota	10.64	14.36	-26.0%	10.64	14.36	--	--
South Dakota	8.82	--	--	8.82	--	--	--
South Atlantic	10.70	15.02	-29.0%	11.24	15.12	8.24	14.11
Delaware	W	W	W	--	--	W	W
District of Columbia	--	--	--	--	--	--	--
Florida	8.92	15.67	-43.0%	8.92	15.67	--	--
Georgia	W	W	W	11.17	14.86	W	W
Maryland	8.03	14.33	-44.0%	--	--	8.03	14.33
North Carolina	10.95	14.72	-26.0%	10.95	14.72	--	--
South Carolina	W	15.23	W	11.63	15.23	W	--
Virginia	W	W	W	14.54	14.05	W	W
West Virginia	12.46	15.39	-19.0%	12.46	15.39	--	--
East South Central	10.33	W	W	10.33	14.54	--	W
Alabama	9.55	W	W	9.55	15.12	--	W
Kentucky	10.34	14.60	-29.0%	10.34	14.60	--	--
Mississippi	10.22	14.40	-29.0%	10.22	14.40	--	--
Tennessee	10.40	14.37	-28.0%	10.40	14.37	--	--
West South Central	9.49	W	W	9.36	14.82	10.03	W
Arkansas	W	W	W	9.70	15.04	W	W
Louisiana	10.82	14.64	-26.0%	10.82	14.64	--	--
Oklahoma	7.74	15.56	-50.0%	7.74	15.56	--	--
Texas	W	W	W	11.04	14.39	W	W
Mountain	13.01	W	W	13.04	16.81	12.40	W
Arizona	13.44	16.89	-20.0%	13.44	16.89	--	--
Colorado	12.13	17.36	-30.0%	12.13	17.36	--	--
Idaho	--	--	--	--	--	--	--
Montana	W	W	W	--	--	W	W
Nevada	W	W	W	14.65	15.77	W	W
New Mexico	12.97	18.53	-30.0%	12.97	18.53	--	--
Utah	W	16.71	W	12.94	16.71	W	--
Wyoming	12.65	15.82	-20.0%	12.65	15.82	--	--
Pacific Contiguous	W	W	W	--	16.52	W	W
California	--	--	--	--	--	--	--
Oregon	--	--	--	--	--	--	--
Washington	W	W	W	--	16.52	W	W
Pacific Noncontiguous	W	W	W	9.29	13.05	W	W
Alaska	11.92	15.58	-23.0%	11.92	15.58	--	--
Hawaii	W	W	W	9.28	13.05	W	W
U.S. Total	9.60	13.77	-30.0%	9.72	13.59	9.21	14.37

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W = Withheld to avoid disclosure of individual company data.

Notes:

See Glossary for definitions. Values are preliminary.

See Technical Notes for a discussion of the sample design for the Form EIA-923.

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

Petroleum Liquids includes distillate and residual fuel oils.

See the Technical Notes for fuel conversion factors.

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

Table 4.12.A. Average Cost of Petroleum Coke Delivered for Electricity Generation by State, July 2020 and 2019
(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019
New England	--	--	--	--	--	--	--
Connecticut	--	--	--	--	--	--	--
Maine	--	--	--	--	--	--	--
Massachusetts	--	--	--	--	--	--	--
New Hampshire	--	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--
Middle Atlantic	--	--	--	--	--	--	--
New Jersey	--	--	--	--	--	--	--
New York	--	--	--	--	--	--	--
Pennsylvania	--	--	--	--	--	--	--
East North Central	1.08	1.55	-30.0%	1.08	1.55	--	--
Illinois	--	--	--	--	--	--	--
Indiana	--	--	--	--	--	--	--
Michigan	1.04	1.53	-32.0%	1.04	1.53	--	--
Ohio	--	--	--	--	--	--	--
Wisconsin	1.94	1.83	6.0%	1.94	1.83	--	--
West North Central	--	--	--	--	--	--	--
Iowa	--	--	--	--	--	--	--
Kansas	--	--	--	--	--	--	--
Minnesota	--	--	--	--	--	--	--
Missouri	--	--	--	--	--	--	--
Nebraska	--	--	--	--	--	--	--
North Dakota	--	--	--	--	--	--	--
South Dakota	--	--	--	--	--	--	--
South Atlantic	1.99	2.71	-27.0%	1.99	2.71	--	--
Delaware	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--
Florida	1.99	2.71	-27.0%	1.99	2.71	--	--
Georgia	--	--	--	--	--	--	--
Maryland	--	--	--	--	--	--	--
North Carolina	--	--	--	--	--	--	--
South Carolina	--	--	--	--	--	--	--
Virginia	--	--	--	--	--	--	--
West Virginia	--	--	--	--	--	--	--
East South Central	--	--	--	--	--	--	--
Alabama	--	--	--	--	--	--	--
Kentucky	--	--	--	--	--	--	--
Mississippi	--	--	--	--	--	--	--
Tennessee	--	--	--	--	--	--	--
West South Central	1.58	1.97	-20.0%	1.58	1.97	--	--
Arkansas	--	--	--	--	--	--	--
Louisiana	1.58	1.97	-20.0%	1.58	1.97	--	--
Oklahoma	--	--	--	--	--	--	--
Texas	--	--	--	--	--	--	--
Mountain	--	--	--	--	--	--	--
Arizona	--	--	--	--	--	--	--
Colorado	--	--	--	--	--	--	--
Idaho	--	--	--	--	--	--	--
Montana	--	--	--	--	--	--	--
Nevada	--	--	--	--	--	--	--
New Mexico	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--
Wyoming	--	--	--	--	--	--	--
Pacific Contiguous	--	--	--	--	--	--	--
California	--	--	--	--	--	--	--
Oregon	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--
Pacific Noncontiguous	--	--	--	--	--	--	--
Alaska	--	--	--	--	--	--	--
Hawaii	--	--	--	--	--	--	--
U.S. Total	1.62	2.01	-19.0%	1.62	2.01	--	--

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NM = Not meaningful due to large relative standard error or excessive percentage change.

W = Withheld to avoid disclosure of individual company data.

Notes:

See Glossary for definitions. Values 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.

Petroleum Coke includes petroleum coke-derived synthesis gas.

See the Technical Notes for fuel conversion factors.

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

Table 4.12.B. Average Cost of Petroleum Coke Delivered for Electricity Generation by State, (Year-to-Date) July 2020 and 2019
(Dollars per MMBtu)

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	--	--	--	--	--	--	--
Connecticut	--	--	--	--	--	--	--
Maine	--	--	--	--	--	--	--
Massachusetts	--	--	--	--	--	--	--
New Hampshire	--	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--
Middle Atlantic	--	--	--	--	--	--	--
New Jersey	--	--	--	--	--	--	--
New York	--	--	--	--	--	--	--
Pennsylvania	--	--	--	--	--	--	--
East North Central	1.26	1.58	-20.0%	1.26	1.58	--	--
Illinois	--	--	--	--	--	--	--
Indiana	--	--	--	--	--	--	--
Michigan	1.17	1.54	-24.0%	1.17	1.54	--	--
Ohio	--	--	--	--	--	--	--
Wisconsin	1.88	1.88	0.0%	1.88	1.88	--	--
West North Central	--	--	--	--	--	--	--
Iowa	--	--	--	--	--	--	--
Kansas	--	--	--	--	--	--	--
Minnesota	--	--	--	--	--	--	--
Missouri	--	--	--	--	--	--	--
Nebraska	--	--	--	--	--	--	--
North Dakota	--	--	--	--	--	--	--
South Dakota	--	--	--	--	--	--	--
South Atlantic	1.92	2.75	-30.0%	1.92	2.75	--	--
Delaware	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--
Florida	1.92	2.75	-30.0%	1.92	2.75	--	--
Georgia	--	--	--	--	--	--	--
Maryland	--	--	--	--	--	--	--
North Carolina	--	--	--	--	--	--	--
South Carolina	--	--	--	--	--	--	--
Virginia	--	--	--	--	--	--	--
West Virginia	--	--	--	--	--	--	--
East South Central	--	--	--	--	--	--	--
Alabama	--	--	--	--	--	--	--
Kentucky	--	--	--	--	--	--	--
Mississippi	--	--	--	--	--	--	--
Tennessee	--	--	--	--	--	--	--
West South Central	1.37	2.20	-38.0%	1.37	2.20	--	--
Arkansas	--	--	--	--	--	--	--
Louisiana	1.37	2.20	-38.0%	1.37	2.20	--	--
Oklahoma	--	--	--	--	--	--	--
Texas	--	--	--	--	--	--	--
Mountain	--	--	--	--	--	--	--
Arizona	--	--	--	--	--	--	--
Colorado	--	--	--	--	--	--	--
Idaho	--	--	--	--	--	--	--
Montana	--	--	--	--	--	--	--
Nevada	--	--	--	--	--	--	--
New Mexico	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--
Wyoming	--	--	--	--	--	--	--
Pacific Contiguous	--	--	--	--	--	--	--
California	--	--	--	--	--	--	--
Oregon	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--
Pacific Noncontiguous	--	--	--	--	--	--	--
Alaska	--	--	--	--	--	--	--
Hawaii	--	--	--	--	--	--	--
U.S. Total	1.49	2.24	-33.0%	1.49	2.24	--	--

Displayed values of zero may represent small values that round to zero.

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W = Withheld to avoid disclosure of individual company data.

Notes:

See Glossary for definitions. Values are preliminary.

See Technical Notes for a discussion of the sample design for the Form EIA-923.

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

Petroleum Coke includes petroleum coke-derived synthesis gas.

See the Technical Notes for fuel conversion factors.

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

**Table 4.13.A. Average Cost of Natural Gas Delivered for Electricity Generation by State, July 2020 and 2019
(Dollars per MMBtu)**

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	July 2020	July 2019	Percentage Change	July 2020	July 2019	July 2020	July 2019
New England	W	W	W	2.08	2.63	W	W
Connecticut	1.76	2.40	-27.0%	--	--	1.76	2.40
Maine	W	W	W	--	--	W	W
Massachusetts	2.80	3.20	-13.0%	1.86	2.47	2.84	3.22
New Hampshire	W	W	W	2.77	4.07	W	W
Rhode Island	W	W	W	--	--	W	W
Vermont	--	--	--	--	--	--	--
Middle Atlantic	1.66	2.29	-28.0%	1.80	2.35	1.64	2.28
New Jersey	1.66	2.50	-34.0%	--	--	1.66	2.50
New York	1.77	2.32	-24.0%	1.80	2.35	1.76	2.30
Pennsylvania	1.59	2.18	-27.0%	--	--	1.59	2.18
East North Central	1.85	2.34	-21.0%	2.00	2.46	1.76	2.27
Illinois	1.86	W	W	1.90	2.32	1.85	W
Indiana	W	2.35	W	1.96	2.45	W	2.27
Michigan	1.90	2.42	-21.0%	2.02	2.56	1.81	2.34
Ohio	1.65	2.19	-25.0%	1.72	2.28	1.64	2.17
Wisconsin	W	W	W	2.18	2.52	W	W
West North Central	W	W	W	2.01	2.26	W	W
Iowa	1.72	2.07	-17.0%	1.72	2.07	--	--
Kansas	2.49	2.44	2.0%	2.49	2.44	--	--
Minnesota	W	W	W	2.34	2.46	W	W
Missouri	W	W	W	1.84	2.18	W	W
Nebraska	2.32	2.61	-11.0%	2.32	2.61	--	--
North Dakota	2.57	3.40	-24.0%	2.57	3.40	--	--
South Dakota	--	--	--	--	--	--	--
South Atlantic	2.37	3.06	-23.0%	2.46	3.14	1.79	2.53
Delaware	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--
Florida	W	W	W	2.60	3.39	W	W
Georgia	W	W	W	1.98	2.62	W	W
Maryland	2.08	2.61	-20.0%	2.17	2.52	2.05	2.66
North Carolina	W	W	W	2.77	3.38	W	W
South Carolina	2.37	2.88	-18.0%	2.37	2.88	--	--
Virginia	1.94	2.60	-25.0%	2.13	2.68	1.45	2.33
West Virginia	W	W	W	1.82	2.23	W	W
East South Central	2.01	2.57	-22.0%	2.06	2.60	1.86	2.47
Alabama	W	W	W	2.05	2.62	W	W
Kentucky	W	W	W	2.33	2.88	W	W
Mississippi	W	W	W	1.98	2.49	W	W
Tennessee	2.05	2.63	-22.0%	2.05	2.63	--	--
West South Central	1.92	2.22	-14.0%	1.94	2.19	1.89	2.25
Arkansas	W	W	W	1.82	2.31	W	W
Louisiana	W	W	W	1.97	2.48	W	W
Oklahoma	W	W	W	2.13	2.14	W	W
Texas	1.87	2.16	-13.0%	1.83	1.94	1.89	2.24
Mountain	2.11	2.13	-0.9%	2.10	2.04	2.21	2.81
Arizona	W	W	W	2.15	1.85	W	W
Colorado	W	W	W	2.41	2.54	W	W
Idaho	1.91	2.22	-14.0%	1.91	2.22	--	--
Montana	1.58	1.13	40.0%	1.58	1.13	--	--
Nevada	2.10	2.42	-13.0%	2.10	2.42	--	--
New Mexico	1.62	0.82	98.0%	1.62	0.82	--	--
Utah	1.88	2.22	-15.0%	1.88	2.22	--	--
Wyoming	W	2.04	W	1.98	2.04	W	--
Pacific Contiguous	2.40	2.91	-18.0%	2.56	3.04	2.26	2.80
California	2.45	3.27	-25.0%	2.75	3.60	2.22	3.01
Oregon	W	W	W	1.62	1.61	W	W
Washington	W	W	W	2.35	2.59	W	W
Pacific Noncontiguous	7.86	7.87	-0.1%	7.86	7.87	--	--
Alaska	7.86	7.87	-0.1%	7.86	7.87	--	--
Hawaii	--	--	--	--	--	--	--
U.S. Total	2.04	2.53	-19.0%	2.21	2.65	1.83	2.37

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

**Table 4.13.B. Average Cost of Natural Gas Delivered for Electricity Generation by State, (Year-to-Date) July 2020 and 2019
(Dollars per MMBtu)**

Census Division and State	Electric Power Sector			Electric Utilities		Independent Power Producers	
	July 2020 YTD	July 2019 YTD	Percentage Change	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	W	W	W	2.04	3.31	W	W
Connecticut	2.27	3.63	-37.0%	--	--	2.27	3.63
Maine	W	W	W	--	--	W	W
Massachusetts	3.78	5.18	-27.0%	1.79	2.89	3.81	5.19
New Hampshire	W	W	W	2.91	5.96	W	W
Rhode Island	W	W	W	--	--	W	W
Vermont	--	--	--	--	--	--	--
Middle Atlantic	1.80	2.90	-38.0%	2.36	3.57	1.75	2.83
New Jersey	1.89	3.08	-39.0%	--	--	1.89	3.08
New York	2.04	3.29	-38.0%	2.36	3.57	1.91	3.16
Pennsylvania	1.65	2.62	-37.0%	--	--	1.65	2.62
East North Central	1.87	2.73	-32.0%	2.03	2.89	1.79	2.65
Illinois	W	W	W	1.88	2.72	W	W
Indiana	1.91	2.77	-31.0%	2.02	2.91	1.82	2.67
Michigan	1.92	2.77	-31.0%	2.05	2.90	1.86	2.72
Ohio	1.72	2.60	-34.0%	1.73	2.73	1.72	2.57
Wisconsin	W	W	W	2.18	2.97	W	W
West North Central	W	W	W	2.09	2.79	W	W
Iowa	1.79	2.55	-30.0%	1.79	2.55	--	--
Kansas	2.44	2.99	-18.0%	2.44	2.99	--	--
Minnesota	W	W	W	2.38	3.15	W	W
Missouri	W	W	W	1.90	2.54	W	W
Nebraska	3.42	2.98	15.0%	3.42	2.98	--	--
North Dakota	2.48	3.93	-37.0%	2.48	3.93	--	--
South Dakota	--	--	--	--	--	--	--
South Atlantic	2.72	3.63	-25.0%	2.84	3.73	1.94	2.95
Delaware	W	--	W	--	--	W	--
District of Columbia	--	--	--	--	--	--	--
Florida	W	W	W	2.97	3.90	W	W
Georgia	W	W	W	2.18	3.12	W	W
Maryland	2.23	3.27	-32.0%	2.40	3.57	2.17	3.14
North Carolina	W	W	W	3.26	3.92	W	W
South Carolina	2.57	3.28	-22.0%	2.57	3.28	--	--
Virginia	2.46	3.47	-29.0%	2.74	3.68	1.64	2.77
West Virginia	W	W	W	1.82	2.64	W	W
East South Central	2.20	2.98	-26.0%	2.25	3.02	2.03	2.86
Alabama	W	W	W	2.25	3.00	W	W
Kentucky	W	W	W	2.81	3.48	W	W
Mississippi	W	W	W	2.11	2.90	W	W
Tennessee	2.30	2.99	-23.0%	2.30	2.99	--	--
West South Central	1.87	2.56	-27.0%	1.91	2.56	1.84	2.57
Arkansas	W	W	W	1.90	2.69	W	W
Louisiana	W	W	W	2.01	2.81	W	W
Oklahoma	W	W	W	1.99	2.60	W	W
Texas	1.82	2.50	-27.0%	1.75	2.23	1.85	2.58
Mountain	2.21	2.67	-17.0%	2.19	2.63	2.42	3.02
Arizona	W	W	W	2.06	2.00	W	W
Colorado	W	W	W	2.60	3.19	W	W
Idaho	2.27	5.58	-59.0%	2.27	5.58	--	--
Montana	1.52	1.71	-11.0%	1.52	1.71	--	--
Nevada	2.41	3.28	-27.0%	2.41	3.28	--	--
New Mexico	1.32	1.04	27.0%	1.32	1.04	--	--
Utah	2.27	3.33	-32.0%	2.27	3.33	--	--
Wyoming	W	W	W	1.87	2.66	W	W
Pacific Contiguous	2.57	3.98	-35.0%	2.72	4.17	2.42	3.81
California	W	4.17	W	2.92	4.61	W	3.82
Oregon	W	W	W	1.90	2.70	W	W
Washington	W	W	W	2.72	4.05	W	W
Pacific Noncontiguous	7.86	7.80	0.8%	7.86	7.80	--	--
Alaska	7.86	7.80	0.8%	7.86	7.80	--	--
Hawaii	--	--	--	--	--	--	--
U.S. Total	2.22	3.09	-28.0%	2.43	3.24	1.92	2.88

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

Table 4.14. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Total (All Sectors) by State, July 2020

Census Division and State	Bituminous			Subbituminous			Lignite		
	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight
New England	3	0.58	6.7	0	--	--	0	--	--
Connecticut	0	--	--	0	--	--	0	--	--
Maine	3	0.58	6.7	0	--	--	0	--	--
Massachusetts	0	--	--	0	--	--	0	--	--
New Hampshire	0	--	--	0	--	--	0	--	--
Rhode Island	0	--	--	0	--	--	0	--	--
Vermont	0	--	--	0	--	--	0	--	--
Middle Atlantic	720	2.73	10.2	0	--	--	0	--	--
New Jersey	51	1.78	7.9	0	--	--	0	--	--
New York	0	--	--	0	--	--	0	--	--
Pennsylvania	670	2.80	10.4	0	--	--	0	--	--
East North Central	4,311	3.21	10.6	3,620	0.23	4.6	0	--	--
Illinois	753	3.53	21.0	816	0.20	4.6	0	--	--
Indiana	1,912	2.97	9.1	125	0.25	4.5	0	--	--
Michigan	213	2.27	7.7	1,331	0.26	4.7	0	--	--
Ohio	1,387	3.55	8.9	16	0.27	4.4	0	--	--
Wisconsin	47	2.48	7.9	1,334	0.22	4.6	0	--	--
West North Central	83	2.91	9.3	6,474	0.26	4.9	1,985	0.76	9.9
Iowa	16	2.70	9.5	1,010	0.22	4.7	0	--	--
Kansas	10	2.87	11.8	1,267	0.30	5.0	0	--	--
Minnesota	0	--	--	597	0.33	6.0	0	--	--
Missouri	57	2.97	8.7	2,383	0.23	4.7	0	--	--
Nebraska	0	--	--	1,190	0.25	4.8	0	--	--
North Dakota	0	--	--	0	--	--	1,985	0.76	9.9
South Dakota	0	--	--	28	0.32	5.3	0	--	--
South Atlantic	3,829	2.51	10.0	207	0.32	5.1	0	--	--
Delaware	0	--	--	0	--	--	0	--	--
District of Columbia	0	--	--	0	--	--	0	--	--
Florida	528	2.48	8.5	0	--	--	0	--	--
Georgia	147	2.58	8.6	207	0.32	5.1	0	--	--
Maryland	98	2.59	10.9	0	--	--	0	--	--
North Carolina	644	1.61	9.6	0	--	--	0	--	--
South Carolina	258	1.27	9.2	0	--	--	0	--	--
Virginia	171	1.15	24.0	0	--	--	0	--	--
West Virginia	1,984	3.04	9.7	0	--	--	0	--	--
East South Central	2,115	2.71	9.4	1,312	0.27	5.2	245	0.47	13.4
Alabama	217	0.96	11.4	832	0.28	5.3	0	--	--
Kentucky	1,572	3.01	9.3	371	0.25	5.1	0	--	--
Mississippi	24	0.46	7.4	80	0.32	4.9	245	0.47	13.4
Tennessee	302	2.50	8.4	29	0.23	5.6	0	--	--
West South Central	18	1.96	13.3	4,529	0.28	5.0	1,818	0.98	17.3
Arkansas	5	0.44	9.6	927	0.22	4.6	0	--	--
Louisiana	10	3.00	8.8	181	0.26	4.6	36	0.54	14.9
Oklahoma	4	0.44	61.6	465	0.20	4.6	0	--	--
Texas	0	--	--	2,956	0.32	5.2	1,782	0.99	17.3
Mountain	1,425	0.58	14.2	4,022	0.55	9.7	19	0.64	8.4
Arizona	0	--	--	876	0.60	10.0	0	--	--
Colorado	81	0.46	10.7	506	0.40	6.4	0	--	--
Idaho	0	--	--	0	--	--	0	--	--
Montana	0	--	--	448	0.72	9.2	19	0.64	8.4
Nevada	61	0.39	11.6	45	0.26	4.8	0	--	--
New Mexico	292	0.91	24.8	505	0.70	21.1	0	--	--
Utah	990	0.51	12.0	62	0.96	8.2	0	--	--
Wyoming	0	--	--	1,580	0.48	7.3	0	--	--
Pacific Contiguous	55	0.40	8.2	192	0.39	9.0	0	--	--
California	55	0.40	8.2	0	--	--	0	--	--
Oregon	0	--	--	0	--	--	0	--	--
Washington	0	--	--	192	0.39	9.0	0	--	--
Pacific Noncontiguous	0	--	--	62	0.15	4.2	8	0.17	10.7
Alaska	0	--	--	0	--	--	8	0.17	10.7
Hawaii	0	--	--	62	0.15	4.2	0	--	--
U.S. Total	12,561	2.58	10.5	20,418	0.32	5.9	4,075	0.84	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 and 2020 are preliminary. See Technical Notes for a discussion of the sample design for the Form EIA-923.

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

Table 4.15. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Electric Utilities by State, July 2020

Census Division and State	Bituminous			Subbituminous			Lignite		
	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight
New England	0	--	--	0	--	--	0	--	--
Connecticut	0	--	--	0	--	--	0	--	--
Maine	0	--	--	0	--	--	0	--	--
Massachusetts	0	--	--	0	--	--	0	--	--
New Hampshire	0	--	--	0	--	--	0	--	--
Rhode Island	0	--	--	0	--	--	0	--	--
Vermont	0	--	--	0	--	--	0	--	--
Middle Atlantic	0	--	--	0	--	--	0	--	--
New Jersey	0	--	--	0	--	--	0	--	--
New York	0	--	--	0	--	--	0	--	--
Pennsylvania	0	--	--	0	--	--	0	--	--
East North Central	2,243	2.93	9.0	2,911	0.24	4.6	0	--	--
Illinois	103	2.98	9.9	122	0.20	4.6	0	--	--
Indiana	1,712	2.94	9.1	125	0.25	4.5	0	--	--
Michigan	186	2.40	7.7	1,331	0.26	4.7	0	--	--
Ohio	194	3.47	8.8	0	--	--	0	--	--
Wisconsin	47	2.48	7.9	1,334	0.22	4.6	0	--	--
West North Central	67	2.95	9.2	6,294	0.26	4.9	1,985	0.76	9.9
Iowa	0	--	--	862	0.23	4.7	0	--	--
Kansas	10	2.87	11.8	1,267	0.30	5.0	0	--	--
Minnesota	0	--	--	597	0.33	6.0	0	--	--
Missouri	57	2.97	8.7	2,383	0.23	4.7	0	--	--
Nebraska	0	--	--	1,158	0.25	4.8	0	--	--
North Dakota	0	--	--	0	--	--	1,985	0.76	9.9
South Dakota	0	--	--	28	0.32	5.3	0	--	--
South Atlantic	3,356	2.43	10.1	207	0.32	5.1	0	--	--
Delaware	0	--	--	0	--	--	0	--	--
District of Columbia	0	--	--	0	--	--	0	--	--
Florida	528	2.48	8.5	0	--	--	0	--	--
Georgia	142	2.65	8.5	207	0.32	5.1	0	--	--
Maryland	0	--	--	0	--	--	0	--	--
North Carolina	626	1.64	9.7	0	--	--	0	--	--
South Carolina	245	1.27	9.2	0	--	--	0	--	--
Virginia	154	1.21	26.7	0	--	--	0	--	--
West Virginia	1,661	2.95	9.9	0	--	--	0	--	--
East South Central	2,082	2.74	9.4	1,312	0.27	5.2	0	--	--
Alabama	217	0.96	11.4	832	0.28	5.3	0	--	--
Kentucky	1,572	3.01	9.3	371	0.25	5.1	0	--	--
Mississippi	24	0.46	7.4	80	0.32	4.9	0	--	--
Tennessee	269	2.72	8.6	29	0.23	5.6	0	--	--
West South Central	13	2.70	15.0	2,717	0.24	4.8	512	1.36	21.4
Arkansas	0	--	--	746	0.21	4.5	0	--	--
Louisiana	10	3.00	8.8	16	0.18	4.5	36	0.54	14.9
Oklahoma	4	0.44	61.6	465	0.20	4.6	0	--	--
Texas	0	--	--	1,489	0.26	5.0	475	1.44	21.9
Mountain	1,425	0.58	14.2	3,481	0.54	9.9	19	0.64	8.4
Arizona	0	--	--	876	0.60	10.0	0	--	--
Colorado	81	0.46	10.7	506	0.40	6.4	0	--	--
Idaho	0	--	--	0	--	--	0	--	--
Montana	0	--	--	0	--	--	19	0.64	8.4
Nevada	61	0.39	11.6	0	--	--	0	--	--
New Mexico	292	0.91	24.8	505	0.70	21.1	0	--	--
Utah	990	0.51	12.0	62	0.96	8.2	0	--	--
Wyoming	0	--	--	1,533	0.48	7.3	0	--	--
Pacific Contiguous	0	--	--	0	--	--	0	--	--
California	0	--	--	0	--	--	0	--	--
Oregon	0	--	--	0	--	--	0	--	--
Washington	0	--	--	0	--	--	0	--	--
Pacific Noncontiguous	0	--	--	0	--	--	8	0.17	10.7
Alaska	0	--	--	0	--	--	8	0.17	10.7
Hawaii	0	--	--	0	--	--	0	--	--
U.S. Total	9,185	2.36	10.3	16,922	0.31	5.9	2,524	0.86	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 and 2020 are preliminary. See Technical Notes for a discussion of the sample design for the Form EIA-923.

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

Table 4.16. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Independent Power Producers by State, July 2020

Census Division and State	Bituminous			Subbituminous			Lignite		
	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight
New England	3	0.58	6.7	0	--	--	0	--	--
Connecticut	0	--	--	0	--	--	0	--	--
Maine	3	0.58	6.7	0	--	--	0	--	--
Massachusetts	0	--	--	0	--	--	0	--	--
New Hampshire	0	--	--	0	--	--	0	--	--
Rhode Island	0	--	--	0	--	--	0	--	--
Vermont	0	--	--	0	--	--	0	--	--
Middle Atlantic	709	2.73	10.2	0	--	--	0	--	--
New Jersey	51	1.78	7.9	0	--	--	0	--	--
New York	0	--	--	0	--	--	0	--	--
Pennsylvania	659	2.80	10.4	0	--	--	0	--	--
East North Central	1,972	3.52	12.6	655	0.21	4.5	0	--	--
Illinois	553	3.66	26.3	640	0.20	4.5	0	--	--
Indiana	200	3.22	9.0	0	--	--	0	--	--
Michigan	27	1.27	7.3	0	--	--	0	--	--
Ohio	1,192	3.56	8.9	16	0.27	4.4	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	436	3.20	9.2	0	--	--	0	--	--
Delaware	0	--	--	0	--	--	0	--	--
District of Columbia	0	--	--	0	--	--	0	--	--
Florida	0	--	--	0	--	--	0	--	--
Georgia	0	--	--	0	--	--	0	--	--
Maryland	98	2.59	10.9	0	--	--	0	--	--
North Carolina	2	0.69	5.8	0	--	--	0	--	--
South Carolina	12	1.14	9.4	0	--	--	0	--	--
Virginia	0	--	--	0	--	--	0	--	--
West Virginia	323	3.48	8.8	0	--	--	0	--	--
East South Central	0	--	--	0	--	--	245	0.47	13.4
Alabama	0	--	--	0	--	--	0	--	--
Kentucky	0	--	--	0	--	--	0	--	--
Mississippi	0	--	--	0	--	--	245	0.47	13.4
Tennessee	0	--	--	0	--	--	0	--	--
West South Central	0	--	--	1,812	0.35	5.4	1,307	0.85	15.9
Arkansas	0	--	--	181	0.24	4.9	0	--	--
Louisiana	0	--	--	164	0.27	4.6	0	--	--
Oklahoma	0	--	--	0	--	--	0	--	--
Texas	0	--	--	1,467	0.38	5.5	1,307	0.85	15.9
Mountain	0	--	--	541	0.65	8.5	0	--	--
Arizona	0	--	--	0	--	--	0	--	--
Colorado	0	--	--	0	--	--	0	--	--
Idaho	0	--	--	0	--	--	0	--	--
Montana	0	--	--	448	0.72	9.2	0	--	--
Nevada	0	--	--	45	0.26	4.8	0	--	--
New Mexico	0	--	--	0	--	--	0	--	--
Utah	0	--	--	0	--	--	0	--	--
Wyoming	0	--	--	47	0.36	5.2	0	--	--
Pacific Contiguous	0	--	--	192	0.39	9.0	0	--	--
California	0	--	--	0	--	--	0	--	--
Oregon	0	--	--	0	--	--	0	--	--
Washington	0	--	--	192	0.39	9.0	0	--	--
Pacific Noncontiguous	0	--	--	62	0.15	4.2	0	--	--
Alaska	0	--	--	0	--	--	0	--	--
Hawaii	0	--	--	62	0.15	4.2	0	--	--
U.S. Total	3,121	3.28	11.5	3,282	0.37	5.9	1,552	0.80	15.6

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 and 2020 are preliminary. See Technical Notes for a discussion of the sample design for the Form EIA-923.

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

Table 4.17. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Commercial Sector by State, July 2020

Census Division and State	Bituminous			Subbituminous			Lignite		
	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight
New England	0	--	--	0	--	--	0	--	--
Connecticut	0	--	--	0	--	--	0	--	--
Maine	0	--	--	0	--	--	0	--	--
Massachusetts	0	--	--	0	--	--	0	--	--
New Hampshire	0	--	--	0	--	--	0	--	--
Rhode Island	0	--	--	0	--	--	0	--	--
Vermont	0	--	--	0	--	--	0	--	--
Middle Atlantic	0	--	--	0	--	--	0	--	--
New Jersey	0	--	--	0	--	--	0	--	--
New York	0	--	--	0	--	--	0	--	--
Pennsylvania	0	--	--	0	--	--	0	--	--
East North Central	0	--	--	0	--	--	0	--	--
Illinois	0	--	--	0	--	--	0	--	--
Indiana	0	--	--	0	--	--	0	--	--
Michigan	0	--	--	0	--	--	0	--	--
Ohio	0	--	--	0	--	--	0	--	--
Wisconsin	0	--	--	0	--	--	0	--	--
West North Central	0	--	--	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	0	--	--	0	--	--	0	--	--
Delaware	0	--	--	0	--	--	0	--	--
District of Columbia	0	--	--	0	--	--	0	--	--
Florida	0	--	--	0	--	--	0	--	--
Georgia	0	--	--	0	--	--	0	--	--
Maryland	0	--	--	0	--	--	0	--	--
North Carolina	0	--	--	0	--	--	0	--	--
South Carolina	0	--	--	0	--	--	0	--	--
Virginia	0	--	--	0	--	--	0	--	--
West Virginia	0	--	--	0	--	--	0	--	--
East South Central	0	--	--	0	--	--	0	--	--
Alabama	0	--	--	0	--	--	0	--	--
Kentucky	0	--	--	0	--	--	0	--	--
Mississippi	0	--	--	0	--	--	0	--	--
Tennessee	0	--	--	0	--	--	0	--	--
West South Central	0	--	--	0	--	--	0	--	--
Arkansas	0	--	--	0	--	--	0	--	--
Louisiana	0	--	--	0	--	--	0	--	--
Oklahoma	0	--	--	0	--	--	0	--	--
Texas	0	--	--	0	--	--	0	--	--
Mountain	0	--	--	0	--	--	0	--	--
Arizona	0	--	--	0	--	--	0	--	--
Colorado	0	--	--	0	--	--	0	--	--
Idaho	0	--	--	0	--	--	0	--	--
Montana	0	--	--	0	--	--	0	--	--
Nevada	0	--	--	0	--	--	0	--	--
New Mexico	0	--	--	0	--	--	0	--	--
Utah	0	--	--	0	--	--	0	--	--
Wyoming	0	--	--	0	--	--	0	--	--
Pacific Contiguous	0	--	--	0	--	--	0	--	--
California	0	--	--	0	--	--	0	--	--
Oregon	0	--	--	0	--	--	0	--	--
Washington	0	--	--	0	--	--	0	--	--
Pacific Noncontiguous	0	--	--	0	--	--	0	--	--
Alaska	0	--	--	0	--	--	0	--	--
Hawaii	0	--	--	0	--	--	0	--	--
U.S. Total	0	--	--	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 and 2020 are preliminary. See Technical Notes for a discussion of the sample design for the Form EIA-923.

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

Table 4.18. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Industrial Sector by State, July 2020

Census Division and State	Bituminous			Subbituminous			Lignite		
	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight	Receipts (Thousand Tons)	Average Sulfur Percent by Weight	Average Ash Percent by Weight
New England	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	2.57	8.3	0	--	--	0	--	--
New Jersey	0	--	--	0	--	--	0	--	--
New York	0	--	--	0	--	--	0	--	--
Pennsylvania	11	2.57	8.3	0	--	--	0	--	--
East North Central	97	3.50	8.8	54	0.22	5.7	0	--	--
Illinois	97	3.50	8.8	54	0.22	5.7	0	--	--
Indiana	0	--	--	0	--	--	0	--	--
Michigan	0	--	--	0	--	--	0	--	--
Ohio	0	--	--	0	--	--	0	--	--
Wisconsin	0	--	--	0	--	--	0	--	--
West North Central	16	2.70	9.5	179	0.21	4.4	0	--	--
Iowa	16	2.70	9.5	148	0.21	4.4	0	--	--
Kansas	0	--	--	0	--	--	0	--	--
Minnesota	0	--	--	0	--	--	0	--	--
Missouri	0	--	--	0	--	--	0	--	--
Nebraska	0	--	--	32	0.21	4.4	0	--	--
North Dakota	0	--	--	0	--	--	0	--	--
South Dakota	0	--	--	0	--	--	0	--	--
South Atlantic	38	0.76	7.6	0	--	--	0	--	--
Delaware	0	--	--	0	--	--	0	--	--
District of Columbia	0	--	--	0	--	--	0	--	--
Florida	0	--	--	0	--	--	0	--	--
Georgia	5	0.80	10.2	0	--	--	0	--	--
Maryland	0	--	--	0	--	--	0	--	--
North Carolina	16	0.75	7.4	0	--	--	0	--	--
South Carolina	0	--	--	0	--	--	0	--	--
Virginia	17	0.75	7.1	0	--	--	0	--	--
West Virginia	0	--	--	0	--	--	0	--	--
East South Central	34	0.92	6.6	0	--	--	0	--	--
Alabama	0	--	--	0	--	--	0	--	--
Kentucky	0	--	--	0	--	--	0	--	--
Mississippi	0	--	--	0	--	--	0	--	--
Tennessee	34	0.92	6.6	0	--	--	0	--	--
West South Central	5	0.44	9.6	0	--	--	0	--	--
Arkansas	5	0.44	9.6	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	55	0.40	8.2	0	--	--	0	--	--
California	55	0.40	8.2	0	--	--	0	--	--
Oregon	0	--	--	0	--	--	0	--	--
Washington	0	--	--	0	--	--	0	--	--
Pacific Noncontiguous	0	--	--	0	--	--	0	--	--
Alaska	0	--	--	0	--	--	0	--	--
Hawaii	0	--	--	0	--	--	0	--	--
U.S. Total	255	1.86	8.2	234	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 and 2020 are preliminary. See Technical Notes for a discussion of the sample design for the Form EIA-923.

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

Chapter 5

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

**Table 5.1. Sales of Electricity to Ultimate Customers:
Total by End-Use Sector, 2010 - July 2020 (Thousand Megawatthours)**

Period	Residential	Commercial	Industrial	Transportation	All Sectors
Annual Totals					
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	1,469,093	1,381,755	1,000,673	7,665	3,859,185
2019	1,435,147	1,354,545	952,149	7,697	3,749,538
Year 2018					
January	148,917	114,925	79,890	745	344,478
February	113,751	102,685	75,661	634	292,732
March	107,218	108,108	81,053	620	296,999
April	95,454	103,331	79,083	599	278,468
May	103,848	113,175	85,638	587	303,248
June	129,913	122,011	85,536	623	338,083
July	153,566	131,522	89,301	634	375,023
August	153,496	134,848	92,106	680	381,131
Sept	128,910	122,033	85,679	640	337,263
October	107,049	116,133	85,301	631	309,114
November	103,790	104,983	81,118	616	290,507
December	123,180	107,998	80,306	655	312,140
Year 2019					
January	133,011	111,433	78,390	673	323,507
February	116,249	101,547	72,568	702	291,066
March	112,140	106,889	77,198	689	296,916
April	89,864	101,960	76,413	614	268,851
May	99,810	110,889	80,657	611	291,967
June	119,519	115,338	80,618	612	316,087
July	153,141	130,429	86,057	646	370,272
August	149,549	130,101	86,345	657	366,651
Sept	131,123	121,318	81,767	681	334,890
October	107,636	114,372	79,939	546	302,493
November	102,167	102,810	75,869	618	281,464
December	120,938	107,459	76,327	650	305,373
Year 2020					
January	123,731	107,715	77,384	714	309,544
February	111,963	102,038	75,626	621	290,248
March	103,973	102,933	77,509	604	285,019
April	97,440	90,587	69,480	451	257,958
May	105,345	93,332	71,195	452	270,325
June	131,248	108,654	75,225	481	315,608
July	166,773	126,048	81,314	555	374,690
Year to Date					
2018	852,668	795,759	576,163	4,443	2,229,032
2019	823,734	778,485	551,901	4,546	2,158,667
2020	840,472	731,307	527,733	3,879	2,103,391
Rolling 12 Months Ending in July					
2019	1,440,160	1,364,481	976,411	7,768	3,788,820
2020	1,451,885	1,307,367	927,980	7,029	3,694,262

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 2020 and 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, 2010 - July 2020 (Million Dollars)**

Period	Residential	Commercial	Industrial	Transportation	All Sectors
Annual Totals					
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	147,425	69,218	744	406,420
2019	187,102	144,452	65,033	749	397,337
Year 2018					
January	18,193	12,053	5,543	70	35,859
February	14,364	10,936	5,128	62	30,490
March	13,905	11,365	5,373	58	30,701
April	12,290	10,806	5,194	57	28,347
May	13,625	11,890	5,819	55	31,388
June	16,922	13,223	6,136	64	36,344
July	20,156	14,466	6,540	64	41,226
August	20,351	14,874	6,673	65	41,963
Sept	16,775	13,085	6,038	64	35,962
October	13,751	12,506	5,864	62	32,182
November	13,389	11,069	5,557	60	30,074
December	15,311	11,155	5,353	64	31,883
Year 2019					
January	16,603	11,479	5,155	66	33,303
February	14,803	10,701	4,852	72	30,428
March	14,420	11,174	5,191	64	30,849
April	11,939	10,712	4,984	58	27,693
May	13,316	11,658	5,401	58	30,434
June	15,967	12,553	5,569	62	34,151
July	20,346	14,355	6,186	64	40,950
August	19,931	14,327	6,433	64	40,755
Sept	17,288	13,313	5,808	67	36,476
October	13,818	12,285	5,485	53	31,642
November	13,324	10,813	5,106	59	29,302
December	15,348	11,084	4,863	62	31,356
Year 2020					
January	15,824	11,069	4,902	67	31,862
February	14,384	10,572	4,855	58	29,869
March	13,602	10,715	4,961	59	29,337
April	12,939	9,438	4,457	44	26,877
May	13,842	9,746	4,615	42	28,245
June	17,425	11,904	5,228	50	34,607
July	22,111	13,722	5,828	56	41,719
Year to Date					
2018	109,456	84,737	39,734	430	234,356
2019	107,394	82,631	37,338	444	227,806
2020	110,126	77,166	34,846	377	222,515
Rolling 12 Months Ending in July					
2019	186,971	145,319	66,823	758	399,871
2020	189,835	138,988	62,541	682	392,045

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 2020 and 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, 2010 - July 2020 (Cents per Kilowatthour)**

Period	Residential	Commercial	Industrial	Transportation	All Sectors
Annual Totals					
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
2019	13.04	10.66	6.83	9.73	10.60
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	6.79	9.39	10.35
June	13.03	10.84	7.17	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	6.87	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	12.48	10.30	6.58	9.86	10.29
February	12.73	10.54	6.69	10.29	10.45
March	12.86	10.45	6.72	9.28	10.39
April	13.29	10.51	6.52	9.48	10.30
May	13.34	10.51	6.70	9.49	10.42
June	13.36	10.88	6.91	10.06	10.80
July	13.29	11.01	7.19	9.88	11.06
August	13.33	11.01	7.45	9.72	11.12
Sept	13.18	10.97	7.10	9.84	10.89
October	12.84	10.74	6.86	9.75	10.46
November	13.04	10.52	6.73	9.56	10.41
December	12.69	10.31	6.37	9.52	10.27
Year 2020					
January	12.79	10.28	6.33	9.35	10.29
February	12.85	10.36	6.42	9.42	10.29
March	13.08	10.41	6.40	9.77	10.29
April	13.28	10.42	6.41	9.69	10.42
May	13.14	10.44	6.48	9.29	10.45
June	13.28	10.96	6.95	10.44	10.97
July	13.26	10.89	7.17	10.16	11.13
Year to Date					
2018	12.84	10.65	6.90	9.67	10.51
2019	13.04	10.61	6.77	9.77	10.55
2020	13.10	10.55	6.60	9.71	10.58
Rolling 12 Months Ending in July					
2019	12.98	10.65	6.84	9.76	10.55
2020	13.08	10.63	6.74	9.70	10.61

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 2020 and 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 5.4.A. Sales of Electricity to Ultimate Customers by End-Use Sector, by State, July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	Residential		Commercial		Industrial		Transportation		All Sectors	
	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
New England	5,436	4,964	4,555	4,987	1,340	1,482	39	45	11,370	11,478
Connecticut	1,590	1,501	1,141	1,232	271	280	11	16	3,013	3,028
Maine	452	395	354	365	207	296	0	0	1,013	1,057
Massachusetts	2,268	2,068	2,141	2,407	522	535	27	28	4,958	5,038
New Hampshire	519	463	397	421	163	176	0	0	1,079	1,059
Rhode Island	395	351	347	375	62	69	1	2	805	798
Vermont	212	185	175	188	115	125	0	0	502	498
Middle Atlantic	16,517	14,914	13,606	14,337	6,287	6,744	287	313	36,697	36,306
New Jersey	4,333	3,990	3,505	3,808	568	586	23	26	8,428	8,409
New York	6,104	5,486	6,634	7,121	1,389	1,627	226	239	14,353	14,472
Pennsylvania	6,081	5,439	3,467	3,408	4,331	4,531	39	48	13,917	13,425
East North Central	22,837	21,191	16,871	17,783	14,989	16,160	40	50	54,736	55,184
Illinois	5,977	5,605	4,459	4,791	3,614	3,802	35	45	14,085	14,243
Indiana	3,655	3,461	2,230	2,302	3,317	3,611	1	2	9,203	9,377
Michigan	4,466	3,953	3,594	3,745	2,284	2,463	0	1	10,345	10,162
Ohio	6,117	5,811	4,402	4,681	3,787	4,165	2	2	14,309	14,660
Wisconsin	2,622	2,361	2,186	2,264	1,986	2,118	0	0	6,794	6,742
West North Central	11,676	10,607	9,262	9,587	7,651	7,891	3	4	28,592	28,089
Iowa	1,540	1,472	1,094	1,132	2,058	2,065	0	0	4,691	4,670
Kansas	1,715	1,585	1,491	1,478	930	1,006	0	0	4,136	4,069
Minnesota	2,401	2,082	2,019	2,108	1,507	1,790	2	2	5,928	5,982
Missouri	4,035	3,678	2,860	3,007	1,008	994	1	2	7,904	7,681
Nebraska	1,148	1,042	855	871	1,109	1,006	0	0	3,111	2,919
North Dakota	383	343	505	546	790	781	0	0	1,678	1,670
South Dakota	454	404	439	446	250	248	0	0	1,143	1,099
South Atlantic	42,038	39,251	29,926	30,641	11,737	12,252	101	124	83,802	82,269
Delaware	572	529	419	457	175	164	0	0	1,167	1,150
District of Columbia	304	300	672	780	15	17	23	37	1,014	1,134
Florida	14,099	13,175	8,592	9,028	1,434	1,400	6	7	24,131	23,610
Georgia	6,887	6,438	4,667	4,608	2,613	2,747	11	15	14,179	13,808
Maryland	3,255	3,005	2,728	2,881	310	331	47	52	6,340	6,268
North Carolina	6,758	6,277	4,724	4,870	2,309	2,515	2	2	13,793	13,664
South Carolina	3,661	3,434	2,155	2,238	2,180	2,394	0	0	7,996	8,066
Virginia	5,413	5,063	5,263	5,047	1,531	1,405	12	12	12,219	11,527
West Virginia	1,088	1,030	705	732	1,169	1,279	0	0	2,962	3,040
East South Central	13,234	12,493	8,656	9,021	7,683	8,198	0	0	29,573	29,712
Alabama	3,588	3,429	2,108	2,218	2,545	2,859	0	0	8,240	8,505
Kentucky	2,976	2,790	1,826	1,916	2,215	2,340	0	0	7,018	7,046
Mississippi	2,102	1,997	1,284	1,359	1,317	1,438	0	0	4,704	4,794
Tennessee	4,568	4,277	3,438	3,529	1,606	1,561	0	0	9,612	9,367
West South Central	26,913	24,800	19,131	19,248	15,889	16,894	16	17	61,949	60,960
Arkansas	1,989	1,841	1,113	1,157	1,421	1,537	0	0	4,523	4,535
Louisiana	3,523	3,436	2,234	2,408	2,728	2,977	1	1	8,485	8,821
Oklahoma	2,908	2,713	1,912	1,945	1,737	1,813	0	0	6,557	6,470
Texas	18,493	16,810	13,872	13,739	10,003	10,568	15	16	42,384	41,133
Mountain	12,939	11,729	9,290	9,622	7,785	8,073	13	16	30,026	29,440
Arizona	5,231	4,713	3,056	3,102	1,231	1,267	1	1	9,518	9,083
Colorado	2,248	2,010	1,857	1,925	1,439	1,500	7	9	5,550	5,445
Idaho	787	734	562	580	1,211	1,252	0	0	2,561	2,566
Montana	399	363	392	415	399	439	0	0	1,190	1,217
Nevada	1,979	1,792	1,249	1,289	1,107	1,113	0	1	4,335	4,195
New Mexico	856	763	828	883	803	805	0	0	2,487	2,451
Utah	1,209	1,132	1,057	1,109	865	854	4	4	3,135	3,099
Wyoming	231	221	290	319	731	845	0	0	1,251	1,385
Pacific Contiguous	14,793	12,791	14,324	14,714	7,568	7,933	57	76	36,741	35,514
California	10,464	8,922	10,653	10,871	4,731	4,669	46	65	25,894	24,527
Oregon	1,585	1,416	1,405	1,428	1,109	1,134	2	2	4,100	3,980
Washington	2,744	2,453	2,266	2,415	1,729	2,130	8	9	6,747	7,008
Pacific Noncontiguous	390	403	427	488	385	430	0	0	1,202	1,321
Alaska	145	141	197	221	109	100	0	0	450	462
Hawaii	245	263	231	267	276	329	0	0	752	859
U.S. Total	166,773	153,141	126,048	130,429	81,314	86,057	555	646	374,690	370,272

See Technical notes for additional information on the Commercial, Industrial, and Transportation sectors.

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

Notes: - See Glossary for definitions. - Values are preliminary estimates based on a cutoff model sample.

See Technical Notes for a discussion of the sample design for the Form EIA-826.

Utilities and energy service providers may classify commercial and industrial customers based on either NAICS codes or demands or usage falling within specified limits by rate schedule.

Changes from year to year in consumer counts, sales and revenues, particularly involving the commercial and industrial consumer sectors, may result from respondent implementation of changes in the definitions of consumers, and reclassifications.

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

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

Table 5.4.B. Sales of Electricity to Ultimate Customers by End-Use Sector, by State, Year-to-Date through July 2020 and 2019 (Thousand Megawatthours)

Census Division and State	Residential		Commercial		Industrial		Transportation		All Sectors	
	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	28,053	27,067	27,278	29,799	8,584	9,060	279	320	64,193	66,246
Connecticut	7,675	7,437	6,464	7,064	1,629	1,724	76	102	15,844	16,328
Maine	2,891	2,846	2,200	2,475	1,474	1,634	0	0	6,565	6,955
Massachusetts	11,611	11,160	13,293	14,495	3,278	3,388	191	202	28,372	29,245
New Hampshire	2,821	2,662	2,282	2,501	1,058	1,106	0	0	6,161	6,269
Rhode Island	1,792	1,735	1,984	2,121	376	406	12	16	4,164	4,277
Vermont	1,263	1,227	1,054	1,143	770	801	0	0	3,087	3,171
Middle Atlantic	79,220	77,875	80,560	89,198	40,472	41,922	1,865	2,269	202,117	211,265
New Jersey	17,289	16,775	20,062	22,026	3,669	3,871	157	180	41,177	42,852
New York	29,677	28,881	39,963	43,022	9,049	9,702	1,473	1,690	80,162	83,294
Pennsylvania	32,254	32,219	20,535	24,151	27,754	28,350	235	399	80,778	85,119
East North Central	112,951	109,360	98,277	105,400	96,680	106,380	355	395	308,263	321,535
Illinois	27,544	26,578	26,657	28,781	22,858	24,254	319	355	77,378	79,968
Indiana	19,223	19,162	12,800	13,730	21,902	24,027	11	12	53,935	56,931
Michigan	21,278	19,755	20,591	22,116	14,074	16,887	3	4	55,946	58,762
Ohio	31,255	30,792	25,270	27,068	24,970	27,413	22	24	81,517	85,297
Wisconsin	13,650	13,073	12,960	13,704	12,876	13,799	1	1	39,487	40,577
West North Central	63,001	62,116	55,594	59,364	49,690	50,969	24	29	168,309	172,478
Iowa	8,620	8,546	6,729	7,104	13,641	13,588	0	0	28,990	29,238
Kansas	7,957	7,807	8,326	8,882	5,823	6,331	0	0	22,106	23,019
Minnesota	13,503	13,050	12,359	13,185	10,642	11,857	11	15	36,515	38,108
Missouri	20,719	20,558	16,443	17,809	6,354	6,518	13	14	43,529	44,899
Nebraska	6,195	6,128	5,209	5,515	6,132	5,857	0	0	17,536	17,501
North Dakota	3,022	3,029	3,753	3,943	5,548	5,248	0	0	12,323	12,221
South Dakota	2,986	2,997	2,775	2,926	1,550	1,570	0	0	7,311	7,493
South Atlantic	212,041	211,988	171,292	182,092	75,748	80,053	706	796	459,787	474,929
Delaware	2,869	2,918	2,389	2,568	1,075	1,071	0	0	6,333	6,557
District of Columbia	1,426	1,605	3,989	4,638	121	116	175	195	5,711	6,454
Florida	73,057	70,635	51,915	54,792	9,328	9,403	45	51	134,344	134,881
Georgia	33,714	33,717	25,472	27,089	16,965	18,284	84	97	76,235	79,187
Maryland	16,103	16,446	15,345	16,826	1,954	2,152	295	332	33,697	35,756
North Carolina	34,035	34,579	26,517	28,312	14,497	15,529	9	11	75,058	78,431
South Carolina	17,934	17,953	11,802	12,603	14,330	15,572	0	0	44,066	46,128
Virginia	26,418	27,626	29,831	30,842	9,284	9,499	99	110	65,632	68,077
West Virginia	6,485	6,609	4,034	4,422	8,193	8,427	0	0	18,712	19,458
East South Central	68,316	68,968	48,743	52,559	52,397	55,520	0	0	169,456	177,047
Alabama	18,187	18,438	11,929	12,891	17,679	19,098	0	0	47,795	50,427
Kentucky	15,438	15,543	10,435	11,204	15,099	15,999	0	0	40,972	42,746
Mississippi	10,562	10,624	7,192	7,733	9,187	9,554	0	0	26,942	27,911
Tennessee	24,129	24,363	19,186	20,731	10,431	10,869	0	0	53,746	55,963
West South Central	128,283	125,447	107,553	110,010	107,016	109,461	106	112	342,958	345,030
Arkansas	10,406	10,527	6,202	6,682	9,384	9,897	0	0	25,993	27,107
Louisiana	17,549	17,421	13,044	13,892	19,761	20,088	6	7	50,360	51,409
Oklahoma	13,781	13,604	10,430	11,228	11,594	11,563	0	0	35,805	36,395
Texas	86,547	83,894	77,877	78,208	66,276	67,913	100	104	230,800	230,120
Mountain	61,157	56,866	53,901	56,149	48,051	48,432	96	108	163,205	161,554
Arizona	21,561	19,503	16,311	16,725	7,848	7,818	7	6	45,727	44,052
Colorado	11,744	10,929	11,254	11,842	9,296	9,195	58	67	32,351	32,033
Idaho	5,129	5,015	3,551	3,676	5,388	5,232	0	0	14,067	13,923
Montana	3,126	3,148	2,721	2,895	2,633	2,761	0	0	8,480	8,804
Nevada	7,905	7,260	6,853	6,905	6,847	7,199	3	5	21,608	21,369
New Mexico	4,225	3,896	4,975	5,237	5,237	4,955	0	0	14,437	14,088
Utah	5,755	5,399	6,257	6,728	5,462	5,287	29	30	17,503	17,444
Wyoming	1,713	1,717	1,979	2,140	5,341	5,984	0	0	9,033	9,841
Pacific Contiguous	84,655	81,394	85,128	90,674	46,490	47,390	448	516	216,720	219,974
California	51,253	48,378	60,388	64,136	26,709	26,249	374	445	138,724	139,208
Oregon	11,453	11,314	9,054	9,524	6,933	6,959	15	16	27,455	27,813
Washington	21,949	21,702	15,686	17,015	12,848	14,182	58	55	50,541	52,953
Pacific Noncontiguous	2,794	2,655	2,982	3,241	2,606	2,713	0	0	8,382	8,609
Alaska	1,228	1,148	1,493	1,563	735	692	0	0	3,455	3,403
Hawaii	1,566	1,507	1,490	1,678	1,871	2,021	0	0	4,927	5,206
U.S. Total	840,472	823,734	731,307	778,485	527,733	551,901	3,879	4,546	2,103,391	2,158,667

See Technical notes for additional information on the Commercial, Industrial, and Transportation sectors.

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Notes: - See Glossary for definitions. - Values are preliminary estimates based on a cutoff model sample.

See Technical Notes for a discussion of the sample design for the Form EIA-826.

Utilities and energy service providers may classify commercial and industrial customers based on either NAICS codes or demands or usage falling within specified limits by rate schedule.

Changes from year to year in consumer counts, sales and revenues, particularly involving the commercial and industrial consumer sectors, may result from respondent implementation of changes in the definitions of consumers, and reclassifications.

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

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

Table 5.5.A. Revenue from Sales of Electricity to Ultimate Customers by End-Use Sector, by State, July 2020 and 2019 (Million Dollars)

Census Division and State	Residential		Commercial		Industrial		Transportation		All Sectors	
	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
New England	1,123	1,007	724	791	173	187	3	4	2,023	1,989
Connecticut	351	316	193	197	37	37	1	2	582	553
Maine	76	71	42	46	19	26	0	0	137	143
Massachusetts	484	433	350	397	74	77	2	2	909	909
New Hampshire	95	90	57	64	20	22	0	0	173	176
Rhode Island	77	66	54	56	10	10	0	0	140	132
Vermont	40	32	28	30	13	14	0	0	81	75
Middle Atlantic	2,671	2,417	1,794	1,873	405	441	34	36	4,904	4,767
New Jersey	719	643	458	483	62	65	2	2	1,241	1,193
New York	1,143	1,022	1,051	1,087	78	93	29	31	2,300	2,233
Pennsylvania	809	752	285	302	266	284	3	3	1,363	1,341
East North Central	3,014	2,802	1,687	1,799	1,027	1,116	3	4	5,731	5,722
Illinois	717	672	383	427	230	238	2	3	1,332	1,341
Indiana	447	423	239	247	227	262	0	0	913	933
Michigan	730	649	420	429	178	182	0	0	1,328	1,260
Ohio	739	718	400	439	222	260	0	0	1,361	1,417
Wisconsin	381	340	245	257	170	174	0	0	796	771
West North Central	1,522	1,388	970	1,015	622	644	0	0	3,114	3,047
Iowa	227	214	130	135	173	172	0	0	530	522
Kansas	221	204	156	156	67	71	0	0	444	430
Minnesota	332	292	221	238	134	147	0	0	687	677
Missouri	507	468	289	310	73	78	0	0	870	856
Nebraska	134	117	82	81	92	89	0	0	307	287
North Dakota	46	42	49	53	62	67	0	0	157	163
South Dakota	56	50	43	43	20	20	0	0	119	112
South Atlantic	5,030	4,755	2,696	2,874	777	835	8	10	8,512	8,474
Delaware	68	65	36	42	12	12	0	0	116	119
District of Columbia	36	37	77	93	1	1	2	3	116	134
Florida	1,651	1,578	783	853	107	110	0	1	2,542	2,542
Georgia	872	806	448	463	172	192	1	1	1,493	1,462
Maryland	398	376	254	273	24	26	4	4	679	679
North Carolina	760	722	418	444	154	167	0	0	1,332	1,333
South Carolina	452	437	217	236	138	152	0	0	807	825
Virginia	665	616	401	408	98	98	1	1	1,164	1,123
West Virginia	127	118	61	63	72	75	0	0	261	257
East South Central	1,490	1,435	915	968	440	492	0	0	2,845	2,896
Alabama	455	443	246	261	163	184	0	0	864	888
Kentucky	314	297	178	188	114	128	0	0	607	613
Mississippi	229	226	128	140	74	86	0	0	432	453
Tennessee	492	469	363	379	88	94	0	0	943	942
West South Central	3,023	2,807	1,468	1,540	823	941	1	1	5,315	5,288
Arkansas	214	187	97	102	91	99	0	0	402	388
Louisiana	329	334	187	210	131	161	0	0	647	706
Oklahoma	294	284	150	163	83	97	0	0	527	544
Texas	2,186	2,001	1,033	1,065	519	584	1	1	3,739	3,651
Mountain	1,578	1,441	945	973	537	546	1	1	3,061	2,962
Arizona	664	600	342	349	89	92	0	0	1,095	1,041
Colorado	289	256	202	208	109	113	1	1	600	578
Idaho	85	78	46	46	88	84	0	0	218	207
Montana	48	44	42	45	20	24	0	0	111	112
Nevada	212	213	95	104	78	78	0	0	385	395
New Mexico	118	99	96	93	48	45	0	0	262	236
Utah	134	126	94	98	54	54	0	0	283	278
Wyoming	27	26	28	31	51	57	0	0	106	114
Pacific Contiguous	2,554	2,177	2,423	2,399	942	882	6	7	5,924	5,465
California	2,104	1,781	2,098	2,064	779	708	5	6	4,986	4,559
Oregon	179	158	127	127	71	72	0	0	377	357
Washington	270	238	198	208	92	102	1	1	561	549
Pacific Noncontiguous	106	116	102	122	82	102	0	0	290	341
Alaska	35	34	40	44	19	18	0	0	94	96
Hawaii	71	83	62	78	63	84	0	0	196	244
U.S. Total	22,111	20,346	13,722	14,355	5,828	6,186	56	64	41,719	40,950

See Technical notes for additional information on the Commercial, Industrial, and Transportation sectors.

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Notes: - See Glossary for definitions. - Values are preliminary estimates based on a cutoff model sample.

See Technical Notes for a discussion of the sample design for the Form EIA-826.

Utilities and energy service providers may classify commercial and industrial customers based on either NAICS codes or demands or usage falling within specified limits by rate schedule.

Changes from year to year in consumer counts, sales and revenues, particularly involving the commercial and industrial consumer sectors, may result from respondent implementation of changes in the definitions of consumers, and reclassifications.

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

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

Table 5.5.B. Revenue from Sales of Electricity to Ultimate Customers by End-Use Sector, by State, Year-to-Date through July 2020 and 2019 (Million Dollars)

Census Division and State	Residential		Commercial		Industrial		Transportation		All Sectors	
	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	5,997	5,769	4,351	4,895	1,092	1,185	27	32	11,467	11,881
Connecticut	1,746	1,662	1,105	1,219	223	239	11	15	3,085	3,134
Maine	485	507	276	322	132	156	0	0	893	985
Massachusetts	2,589	2,480	2,130	2,412	458	492	14	13	5,191	5,397
New Hampshire	543	536	349	401	136	146	0	0	1,028	1,084
Rhode Island	388	374	318	360	59	65	2	3	767	802
Vermont	245	209	173	182	84	86	0	0	503	477
Middle Atlantic	12,521	12,220	9,882	10,754	2,575	2,771	210	255	25,187	26,000
New Jersey	2,763	2,706	2,499	2,736	371	404	14	16	5,647	5,862
New York	5,356	5,119	5,627	5,898	489	542	178	209	11,649	11,769
Pennsylvania	4,402	4,394	1,756	2,120	1,716	1,825	18	30	7,891	8,369
East North Central	15,093	14,553	9,949	10,748	6,448	7,373	24	29	31,515	32,703
Illinois	3,543	3,409	2,383	2,585	1,469	1,572	21	25	7,417	7,590
Indiana	2,357	2,368	1,386	1,485	1,493	1,772	1	1	5,238	5,626
Michigan	3,447	3,082	2,403	2,512	1,063	1,225	0	0	6,914	6,819
Ohio	3,733	3,790	2,347	2,656	1,433	1,740	1	2	7,513	8,188
Wisconsin	2,013	1,904	1,430	1,511	990	1,065	0	0	4,433	4,479
West North Central	7,541	7,351	5,398	5,741	3,614	3,761	2	3	16,556	16,855
Iowa	1,124	1,099	702	726	899	905	0	0	2,725	2,731
Kansas	1,013	985	862	903	415	461	0	0	2,290	2,349
Minnesota	1,794	1,736	1,298	1,392	848	933	1	1	3,942	4,063
Missouri	2,283	2,227	1,465	1,597	411	438	1	1	4,160	4,264
Nebraska	671	653	473	493	470	457	0	0	1,614	1,603
North Dakota	312	311	337	355	451	444	0	0	1,099	1,110
South Dakota	344	340	261	274	121	122	0	0	725	735
South Atlantic	25,092	25,362	15,619	17,114	4,628	5,073	56	64	45,395	47,613
Delaware	364	367	226	252	74	81	0	0	665	700
District of Columbia	178	196	477	565	10	10	17	20	682	791
Florida	8,333	8,410	4,682	5,220	658	726	3	4	13,677	14,360
Georgia	3,980	3,927	2,486	2,631	921	1,053	4	5	7,391	7,616
Maryland	2,103	2,181	1,506	1,711	151	168	22	25	3,783	4,085
North Carolina	3,902	3,987	2,314	2,489	884	953	1	1	7,100	7,430
South Carolina	2,249	2,261	1,204	1,294	830	920	0	0	4,284	4,475
Virginia	3,233	3,309	2,351	2,554	604	660	9	9	6,196	6,532
West Virginia	749	725	373	397	496	502	0	0	1,618	1,624
East South Central	7,768	7,862	5,239	5,629	2,886	3,206	0	0	15,893	16,697
Alabama	2,304	2,344	1,384	1,494	1,025	1,144	0	0	4,713	4,982
Kentucky	1,659	1,652	1,063	1,115	773	864	0	0	3,496	3,630
Mississippi	1,196	1,213	755	817	521	567	0	0	2,472	2,597
Tennessee	2,609	2,654	2,037	2,203	567	632	0	0	5,213	5,488
West South Central	14,414	14,061	8,429	8,851	5,376	5,814	7	7	28,226	28,734
Arkansas	1,076	1,034	533	583	526	588	0	0	2,136	2,205
Louisiana	1,626	1,656	1,119	1,228	921	1,057	1	1	3,667	3,942
Oklahoma	1,356	1,363	779	866	504	574	0	0	2,639	2,803
Texas	10,356	10,008	5,998	6,173	3,426	3,595	6	7	19,786	19,783
Mountain	7,254	6,784	5,138	5,377	2,931	3,047	9	10	15,333	15,218
Arizona	2,700	2,472	1,686	1,755	466	496	1	1	4,852	4,723
Colorado	1,443	1,340	1,149	1,207	666	672	5	6	3,263	3,224
Idaho	511	501	274	285	337	326	0	0	1,121	1,112
Montana	359	353	287	300	126	152	0	0	772	805
Nevada	904	871	515	541	369	414	0	0	1,789	1,826
New Mexico	542	491	506	519	285	272	0	0	1,333	1,281
Utah	606	566	530	563	319	317	3	3	1,458	1,448
Wyoming	190	191	191	208	364	398	0	0	745	797
Pacific Contiguous	13,678	12,675	12,423	12,704	4,703	4,457	42	45	30,845	29,881
California	10,295	9,362	10,213	10,369	3,661	3,341	35	38	24,203	23,110
Oregon	1,265	1,236	816	849	420	437	1	1	2,503	2,523
Washington	2,118	2,077	1,394	1,486	622	679	6	5	4,140	4,247
Pacific Noncontiguous	769	756	737	818	592	651	0	0	2,099	2,225
Alaska	280	260	296	313	123	119	0	0	699	692
Hawaii	489	496	440	506	470	532	0	0	1,400	1,534
U.S. Total	110,126	107,394	77,166	82,631	34,846	37,338	377	444	222,515	227,806

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

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

Table 5.6.A. Average Price of Electricity to Ultimate Customers by End-Use Sector, by State, July 2020 and 2019 (Cents per Kilowatthour)

Census Division and State	Residential		Commercial		Industrial		Transportation		All Sectors	
	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
New England	20.65	20.29	15.90	15.86	12.88	12.59	8.22	8.25	17.79	17.33
Connecticut	22.05	21.06	16.90	16.02	13.80	13.34	12.57	11.28	19.32	18.25
Maine	16.84	17.90	11.95	12.56	9.00	8.89	--	--	13.53	13.53
Massachusetts	21.32	20.94	16.34	16.51	14.16	14.43	5.84	5.78	18.33	18.05
New Hampshire	18.33	19.41	14.43	15.30	12.48	12.57	--	--	16.01	16.64
Rhode Island	19.52	18.64	15.45	15.04	15.39	14.41	25.16	18.47	17.45	16.58
Vermont	19.01	17.18	16.13	15.80	11.14	10.86	--	--	16.20	15.07
Middle Atlantic	16.17	16.21	13.18	13.06	6.45	6.54	11.83	11.64	13.36	13.13
New Jersey	16.60	16.11	13.06	12.69	10.92	11.04	9.93	9.17	14.73	14.19
New York	18.73	18.63	15.84	15.27	5.61	5.69	12.69	12.85	16.03	15.43
Pennsylvania	13.30	13.83	8.23	8.86	6.13	6.26	7.95	6.88	9.79	9.99
East North Central	13.20	13.22	10.00	10.12	6.85	6.91	6.61	7.34	10.47	10.37
Illinois	11.99	11.99	8.59	8.92	6.38	6.26	6.39	7.16	9.46	9.41
Indiana	12.23	12.22	10.71	10.75	6.83	7.27	10.06	10.60	9.92	9.95
Michigan	16.34	16.42	11.69	11.45	7.80	7.39	10.90	11.24	12.84	12.40
Ohio	12.09	12.36	9.08	9.39	5.86	6.23	6.99	7.02	9.51	9.67
Wisconsin	14.53	14.41	11.21	11.33	8.55	8.22	15.05	13.90	11.72	11.43
West North Central	13.04	13.08	10.47	10.59	8.13	8.16	10.12	10.67	10.89	10.85
Iowa	14.74	14.56	11.89	11.92	8.41	8.34	--	--	11.30	11.17
Kansas	12.88	12.86	10.48	10.54	7.20	7.04	--	--	10.74	10.58
Minnesota	13.82	14.04	10.96	11.29	8.90	8.21	9.25	10.24	11.59	11.33
Missouri	12.58	12.72	10.10	10.31	7.28	7.85	11.14	11.14	11.00	11.15
Nebraska	11.67	11.24	9.55	9.26	8.28	8.82	--	--	9.88	9.82
North Dakota	11.89	12.33	9.68	9.71	7.88	8.60	--	--	9.33	9.73
South Dakota	12.32	12.26	9.80	9.62	8.08	7.98	--	--	10.43	10.22
South Atlantic	11.97	12.11	9.01	9.38	6.62	6.81	8.23	7.95	10.16	10.30
Delaware	11.90	12.21	8.64	9.30	6.78	7.44	--	--	9.96	10.37
District of Columbia	11.81	12.17	11.43	11.88	7.97	8.00	9.82	9.19	11.45	11.81
Florida	11.71	11.98	9.11	9.45	7.49	7.88	7.63	8.34	10.53	10.77
Georgia	12.67	12.52	9.60	10.04	6.58	7.00	6.59	7.16	10.53	10.59
Maryland	12.24	12.53	9.29	9.48	7.77	7.73	7.64	7.16	10.72	10.83
North Carolina	11.25	11.51	8.85	9.12	6.65	6.63	7.35	8.11	9.66	9.76
South Carolina	12.36	12.72	10.08	10.53	6.32	6.37	--	--	10.10	10.23
Virginia	12.28	12.16	7.62	8.07	6.38	7.01	9.51	8.22	9.53	9.74
West Virginia	11.69	11.50	8.71	8.63	6.17	5.88	--	--	8.80	8.45
East South Central	11.26	11.49	10.57	10.73	5.73	6.00	--	--	9.62	9.75
Alabama	12.69	12.93	11.67	11.77	6.39	6.43	--	--	10.48	10.45
Kentucky	10.55	10.65	9.76	9.80	5.16	5.46	--	--	8.65	8.70
Mississippi	10.90	11.31	9.98	10.34	5.65	6.00	--	--	9.18	9.44
Tennessee	10.77	10.96	10.54	10.74	5.50	6.02	--	--	9.81	10.06
West South Central	11.23	11.32	7.67	8.00	5.18	5.57	5.65	6.64	8.58	8.68
Arkansas	10.74	10.18	8.73	8.80	6.39	6.42	15.02	12.38	8.88	8.55
Louisiana	9.34	9.73	8.37	8.72	4.80	5.42	9.12	9.00	7.63	8.00
Oklahoma	10.12	10.48	7.87	8.39	4.76	5.33	--	--	8.04	8.41
Texas	11.82	11.90	7.45	7.75	5.18	5.53	5.43	6.47	8.82	8.88
Mountain	12.20	12.28	10.17	10.11	6.90	6.77	9.31	9.49	10.19	10.06
Arizona	12.70	12.74	11.21	11.25	7.20	7.25	11.00	10.96	11.51	11.46
Colorado	12.84	12.72	10.87	10.80	7.60	7.56	8.35	8.76	10.82	10.61
Idaho	10.81	10.58	8.11	7.85	7.24	6.69	--	--	8.53	8.07
Montana	12.09	12.03	10.81	10.73	5.12	5.39	--	--	9.33	9.19
Nevada	10.72	11.86	7.57	8.05	7.06	7.03	8.64	9.63	8.88	9.41
New Mexico	13.83	12.93	11.54	10.56	5.98	5.53	--	--	10.53	9.65
Utah	11.09	11.13	8.90	8.82	6.23	6.34	10.65	10.64	9.01	8.98
Wyoming	11.89	11.90	9.74	9.76	6.96	6.75	--	--	8.51	8.26
Pacific Contiguous	17.26	17.02	16.91	16.30	12.45	11.11	10.46	9.28	16.12	15.39
California	20.11	19.96	19.70	18.99	16.46	15.16	10.61	9.26	19.26	18.59
Oregon	11.30	11.19	9.02	8.89	6.42	6.31	9.49	9.19	9.20	8.98
Washington	9.85	9.72	8.72	8.59	5.35	4.80	9.89	9.42	8.32	7.83
Pacific Noncontiguous	27.05	28.84	23.98	25.04	21.27	23.74	--	--	24.11	25.78
Alaska	23.99	24.02	20.34	20.07	17.44	18.12	--	--	20.82	20.85
Hawaii	28.87	31.42	27.08	29.17	22.78	25.44	--	--	26.09	28.43
U.S. Total	13.26	13.29	10.89	11.01	7.17	7.19	10.16	9.88	11.13	11.06

See Technical notes for additional information on the Commercial, Industrial, and Transportation sectors.

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

Notes: - See Glossary for definitions. - Values are preliminary estimates based on a cutoff model sample.

See Technical Notes for a discussion of the sample design for the Form EIA-826.

Utilities and energy service providers may classify commercial and industrial customers based on either NAICS codes or demands or usage falling within specified limits by rate schedule.

Changes from year to year in consumer counts, sales and revenues, particularly involving the commercial and industrial consumer sectors, may result from respondent implementation of changes in the definitions of consumers, and reclassifications.

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

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

Table 5.6.B. Average Price of Electricity to Ultimate Customers by End-Use Sector, by State, Year-to-Date through July 2020 and 2019 (Cents per Kilowatt-hour)

Census Division and State	Residential		Commercial		Industrial		Transportation		All Sectors	
	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD	July 2020 YTD	July 2019 YTD
New England	21.38	21.32	15.95	16.43	12.72	13.08	9.65	9.88	17.86	17.93
Connecticut	22.74	22.34	17.10	17.25	13.67	13.87	14.20	14.86	19.47	19.20
Maine	16.79	17.83	12.55	12.99	8.95	9.57	--	--	13.61	14.17
Massachusetts	22.30	22.22	16.03	16.64	13.97	14.52	7.12	6.65	18.29	18.46
New Hampshire	19.25	20.15	15.29	16.05	12.88	13.21	--	--	16.69	17.29
Rhode Island	21.66	21.58	16.01	16.97	15.57	15.98	21.25	18.93	18.41	18.75
Vermont	19.44	17.06	16.43	15.90	10.98	10.78	--	--	16.30	15.06
Middle Atlantic	15.81	15.69	12.27	12.06	6.36	6.61	11.24	11.22	12.46	12.31
New Jersey	15.98	16.13	12.46	12.42	10.10	10.44	8.94	8.85	13.71	13.68
New York	18.05	17.73	14.08	13.71	5.40	5.59	12.07	12.37	14.53	14.13
Pennsylvania	13.65	13.64	8.55	8.78	6.18	6.44	7.54	7.44	9.77	9.83
East North Central	13.36	13.31	10.12	10.20	6.67	6.93	6.82	7.27	10.22	10.17
Illinois	12.86	12.82	8.94	8.98	6.43	6.48	6.67	7.11	9.59	9.49
Indiana	12.26	12.36	10.83	10.81	6.82	7.38	10.44	11.01	9.71	9.88
Michigan	16.20	15.60	11.67	11.36	7.56	7.25	11.09	10.52	12.36	11.60
Ohio	11.94	12.31	9.29	9.81	5.74	6.35	6.42	7.13	9.22	9.60
Wisconsin	14.74	14.56	11.03	11.02	7.69	7.72	14.67	13.89	11.23	11.04
West North Central	11.97	11.83	9.71	9.67	7.27	7.38	8.35	8.75	9.84	9.77
Iowa	13.04	12.86	10.43	10.22	6.59	6.66	--	--	9.40	9.34
Kansas	12.73	12.62	10.35	10.16	7.12	7.28	--	--	10.36	10.20
Minnesota	13.29	13.30	10.50	10.56	7.97	7.87	9.27	9.81	10.79	10.66
Missouri	11.02	10.83	8.91	8.97	6.47	6.73	7.54	7.62	9.56	9.50
Nebraska	10.83	10.65	9.08	8.94	7.66	7.80	--	--	9.20	9.16
North Dakota	10.31	10.27	8.97	9.01	8.12	8.46	--	--	8.92	9.09
South Dakota	11.54	11.34	9.41	9.35	7.81	7.76	--	--	9.94	9.81
South Atlantic	11.83	11.96	9.12	9.40	6.11	6.34	7.96	8.02	9.87	10.03
Delaware	12.69	12.58	9.47	9.80	6.93	7.60	--	--	10.50	10.68
District of Columbia	12.50	13.04	11.95	12.18	8.12	8.31	9.72	10.14	11.94	12.25
Florida	11.41	11.91	9.02	9.53	7.06	7.72	7.63	8.26	10.18	10.65
Georgia	11.80	11.65	9.76	9.71	5.43	5.76	5.05	5.37	9.70	9.62
Maryland	13.06	13.26	9.82	10.17	7.72	7.71	7.53	7.44	11.23	11.42
North Carolina	11.46	11.53	8.73	8.79	6.10	6.14	7.85	8.23	9.46	9.47
South Carolina	12.54	12.59	10.20	10.27	5.80	5.91	--	--	9.72	9.70
Virginia	12.24	11.98	7.88	8.28	6.50	6.95	8.78	8.19	9.44	9.60
West Virginia	11.56	10.96	9.24	8.98	6.05	5.96	--	--	8.65	8.35
East South Central	11.37	11.40	10.75	10.71	5.51	5.77	--	--	9.38	9.43
Alabama	12.67	12.71	11.60	11.59	5.80	5.99	--	--	9.86	9.88
Kentucky	10.75	10.63	10.19	9.95	5.12	5.40	--	--	8.53	8.49
Mississippi	11.32	11.42	10.49	10.57	5.67	5.93	--	--	9.17	9.31
Tennessee	10.81	10.89	10.62	10.63	5.44	5.81	--	--	9.70	9.81
West South Central	11.24	11.21	7.84	8.05	5.02	5.31	6.57	6.68	8.23	8.33
Arkansas	10.34	9.82	8.60	8.73	5.60	5.94	11.75	11.88	8.21	8.14
Louisiana	9.27	9.51	8.58	8.84	4.66	5.26	8.58	9.27	7.28	7.67
Oklahoma	9.84	10.02	7.47	7.72	4.34	4.96	--	--	7.37	7.70
Texas	11.97	11.93	7.70	7.89	5.17	5.29	6.44	6.49	8.57	8.60
Mountain	11.86	11.93	9.53	9.58	6.10	6.29	9.27	9.41	9.39	9.42
Arizona	12.52	12.67	10.33	10.49	5.93	6.35	9.43	9.89	10.61	10.72
Colorado	12.29	12.26	10.21	10.19	7.16	7.30	8.55	8.93	10.09	10.07
Idaho	9.95	9.99	7.71	7.76	6.25	6.23	--	--	7.97	7.99
Montana	11.49	11.21	10.56	10.37	4.78	5.52	--	--	9.11	9.15
Nevada	11.43	11.99	7.52	7.84	5.39	5.75	8.32	8.08	8.28	8.55
New Mexico	12.83	12.59	10.17	9.90	5.45	5.49	--	--	9.23	9.09
Utah	10.53	10.48	8.47	8.37	5.83	5.99	10.77	10.59	8.33	8.30
Wyoming	11.07	11.13	9.66	9.70	6.82	6.65	--	--	8.25	8.09
Pacific Contiguous	16.16	15.57	14.59	14.01	10.12	9.41	9.34	8.71	14.23	13.58
California	20.09	19.35	16.91	16.17	13.71	12.73	9.25	8.60	17.45	16.60
Oregon	11.05	10.92	9.01	8.92	6.06	6.28	9.41	9.15	9.12	9.07
Washington	9.65	9.57	8.89	8.73	4.84	4.79	9.90	9.40	8.19	8.02
Pacific Noncontiguous	27.53	28.48	24.71	25.25	22.73	24.00	--	--	25.04	25.85
Alaska	22.78	22.63	19.86	19.99	16.70	17.23	--	--	20.23	20.32
Hawaii	31.25	32.93	29.57	30.15	25.10	26.31	--	--	28.41	29.47
U.S. Total	13.10	13.04	10.55	10.61	6.60	6.77	9.71	9.77	10.58	10.55

See Technical notes for additional information on the Commercial, Industrial, and Transportation sectors.

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

Notes: - See Glossary for definitions. - Values are preliminary estimates based on a cutoff model sample.

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:
2010 - July 2020**

Period	Residential	Commercial	Industrial	Transportation	All Sectors
Annual Totals					
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	133,893,321	18,605,393	840,321	83	153,339,118
2019	135,281,297	18,628,622	915,863	82	154,825,863
Year 2018					
January	133,302,446	18,552,003	838,797	82	152,693,328
February	132,923,513	18,440,673	811,940	82	152,176,208
March	133,852,602	18,574,947	822,275	82	153,249,906
April	133,417,773	18,526,543	824,075	82	152,768,473
May	134,121,801	18,613,438	851,023	82	153,586,344
June	133,935,311	18,615,355	858,759	83	153,409,508
July	133,883,159	18,623,955	860,910	83	153,368,107
August	134,433,813	18,686,099	866,859	83	153,986,854
Sept	133,791,062	18,594,023	844,187	83	153,229,355
October	134,377,594	18,717,481	844,839	83	153,939,997
November	134,155,451	18,636,211	823,868	83	153,615,613
December	134,524,109	18,682,871	835,705	83	154,042,768
Year 2019					
January	134,972,174	18,580,112	897,450	82	154,449,818
February	133,461,982	18,478,289	879,263	82	152,819,616
March	135,217,902	18,574,930	884,470	82	154,677,384
April	134,971,489	18,578,316	893,513	83	154,443,401
May	135,484,211	18,649,646	914,451	80	155,048,388
June	135,133,768	18,574,956	920,845	82	154,629,651
July	135,511,673	18,673,405	947,372	82	155,132,532
August	135,592,324	18,660,912	942,782	81	155,196,099
Sept	135,276,670	18,628,637	934,919	81	154,840,307
October	136,222,066	18,757,776	936,342	81	155,916,265
November	135,280,702	18,639,325	909,876	82	154,829,985
December	136,250,600	18,747,157	929,076	82	155,926,915
Year 2020					
January	136,144,897	18,680,499	935,087	82	155,760,565
February	135,425,123	18,619,364	919,229	82	154,963,798
March	136,675,134	18,790,316	936,499	82	156,402,031
April	136,648,590	18,747,305	942,664	82	156,338,641
May	136,518,264	18,708,151	942,835	83	156,169,333
June	137,060,642	18,779,952	964,619	83	156,805,296
July	137,767,461	18,831,898	977,659	82	157,577,100
Rolling 12 Months Ending in July					
2019	134,669,602	18,618,862	879,402	82	154,167,948
2020	136,238,539	18,715,941	939,299	82	155,893,861

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 2020 and 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:
July 2020 and 2019**

Census Division and State	Residential		Commercial		Industrial		Transportation		All Sectors	
	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019	July 2020	July 2019
New England	6,501,582	6,455,281	902,185	906,333	19,237	19,832	6	6	7,423,010	7,381,452
Connecticut	1,524,477	1,512,006	155,562	154,548	4,088	4,162	3	3	1,684,130	1,670,719
Maine	730,647	727,580	97,987	100,943	2,715	2,890	0	0	831,349	831,403
Massachusetts	2,859,623	2,824,659	420,939	423,071	7,523	7,721	2	2	3,288,087	3,255,453
New Hampshire	635,174	634,098	109,573	109,395	3,131	3,162	0	0	747,878	746,655
Rhode Island	432,204	439,027	58,508	60,519	1,638	1,767	1	1	492,351	501,314
Vermont	319,457	317,911	59,616	57,857	142	140	0	0	379,215	375,908
Middle Atlantic	16,339,568	16,270,060	2,386,839	2,364,380	32,858	33,115	19	20	18,759,284	18,667,575
New Jersey	3,622,576	3,610,793	522,570	521,945	11,367	11,741	6	7	4,156,519	4,144,486
New York	7,245,050	7,234,488	1,142,437	1,123,988	6,430	6,577	8	8	8,393,925	8,365,061
Pennsylvania	5,471,942	5,424,779	721,832	718,447	15,061	14,797	5	5	6,208,840	6,158,028
East North Central	20,611,776	20,378,031	2,545,289	2,523,986	47,450	46,896	11	10	23,204,526	22,948,923
Illinois	5,376,392	5,332,223	626,732	620,936	4,013	3,996	3	3	6,007,140	5,967,158
Indiana	2,936,078	2,884,121	362,742	358,996	15,914	15,209	1	1	3,314,735	3,258,327
Michigan	4,461,226	4,412,487	554,567	550,661	NM	NM	2	2	5,021,418	4,968,779
Ohio	5,061,767	5,003,201	636,646	632,696	16,917	17,015	3	2	5,715,333	5,652,914
Wisconsin	2,776,313	2,745,999	364,602	360,697	NM	NM	2	2	3,145,900	3,111,745
West North Central	9,771,208	9,650,128	1,491,005	1,479,835	117,689	117,066	3	3	11,379,905	11,247,032
Iowa	1,427,582	1,410,056	249,942	248,182	NM	NM	0	0	1,684,457	1,665,206
Kansas	1,304,726	1,290,041	237,974	236,250	25,637	26,053	0	0	1,568,337	1,562,344
Minnesota	2,472,523	2,443,615	297,165	295,145	NM	NM	1	1	2,778,287	2,747,276
Missouri	2,885,069	2,839,373	390,263	386,381	6,493	6,578	2	2	3,281,827	3,232,334
Nebraska	882,060	871,041	164,211	163,112	57,822	56,911	0	0	1,104,093	1,091,064
North Dakota	385,740	387,056	75,364	75,375	9,038	8,920	0	0	470,142	471,351
South Dakota	413,508	408,946	76,086	75,390	NM	NM	0	0	492,762	487,457
South Atlantic	28,878,760	28,336,833	3,866,984	3,827,484	79,194	79,591	13	13	32,824,951	32,243,921
Delaware	443,492	435,762	56,137	55,514	542	573	0	0	500,171	491,849
District of Columbia	291,118	282,666	26,711	26,479	1	1	3	3	317,833	309,149
Florida	9,684,953	9,476,389	1,259,164	1,243,218	20,667	20,669	2	2	10,964,786	10,740,278
Georgia	4,545,038	4,459,857	593,509	588,543	19,949	20,082	1	1	5,158,497	5,068,483
Maryland	2,382,855	2,355,045	256,351	255,696	8,823	8,802	5	5	2,648,034	2,619,548
North Carolina	4,743,323	4,650,278	713,938	706,131	9,785	9,858	1	1	5,467,047	5,366,268
South Carolina	2,396,405	2,344,843	377,664	373,628	4,255	4,276	0	0	2,778,324	2,722,747
Virginia	3,528,935	3,477,299	436,824	433,180	3,837	3,847	1	1	3,969,597	3,914,327
West Virginia	862,641	854,694	146,686	145,095	11,335	11,483	0	0	1,020,662	1,011,272
East South Central	8,784,395	8,569,552	1,436,775	1,417,143	21,551	21,851	0	0	10,242,721	10,008,546
Alabama	2,319,406	2,283,341	374,120	371,674	8,218	8,263	0	0	2,701,744	2,663,278
Kentucky	2,053,196	2,017,131	311,089	308,305	5,324	5,429	0	0	2,369,609	2,330,865
Mississippi	1,353,162	1,330,778	239,918	240,280	7,129	7,312	0	0	1,600,209	1,578,370
Tennessee	3,058,631	2,938,302	511,648	496,884	880	847	0	0	3,571,159	3,436,033
West South Central	16,740,151	16,418,244	2,246,925	2,241,166	351,668	323,566	6	6	19,338,750	18,982,982
Arkansas	1,431,651	1,409,631	195,297	194,014	40,837	40,885	2	2	1,667,787	1,644,532
Louisiana	2,150,646	2,129,315	297,863	296,329	18,671	18,804	1	1	2,467,181	2,444,449
Oklahoma	1,834,936	1,807,165	291,107	286,930	19,247	19,663	0	0	2,145,290	2,113,758
Texas	11,322,918	11,072,133	1,462,658	1,463,893	272,913	244,214	3	3	13,058,492	12,780,243
Mountain	10,145,761	9,970,296	1,427,899	1,413,449	92,645	93,005	5	5	11,666,310	11,476,755
Arizona	2,887,492	2,832,766	330,103	327,795	NM	NM	2	2	3,223,536	3,167,009
Colorado	2,400,743	2,366,316	373,036	368,912	NM	NM	1	1	2,788,780	2,750,163
Idaho	781,059	761,764	114,654	112,441	29,224	29,011	0	0	924,937	903,216
Montana	527,225	519,415	113,927	112,551	NM	NM	0	0	651,091	641,789
Nevada	1,227,361	1,204,957	168,341	166,075	NM	NM	1	1	1,399,195	1,374,561
New Mexico	921,262	911,031	140,721	140,486	NM	NM	0	0	1,070,387	1,060,238
Utah	1,120,814	1,097,231	127,672	125,779	10,701	10,592	1	1	1,259,188	1,233,603
Wyoming	279,805	276,816	59,445	59,410	9,946	9,950	0	0	349,196	346,176
Pacific Contiguous	19,259,866	18,733,750	2,412,767	2,384,729	213,112	210,203	19	19	21,885,764	21,328,701
California	14,282,308	13,824,506	1,760,394	1,739,255	156,251	153,608	12	12	16,198,965	15,717,381
Oregon	1,808,860	1,783,153	244,401	242,062	27,142	27,078	2	2	2,080,405	2,052,295
Washington	3,168,698	3,126,091	407,972	403,412	29,719	29,517	5	5	3,606,394	3,559,025
Pacific Noncontiguous	734,394	729,498	115,230	114,900	NM	NM	0	0	851,879	846,645
Alaska	293,838	291,436	55,385	54,946	NM	NM	0	0	350,662	347,815
Hawaii	440,556	438,062	59,845	59,954	816	814	0	0	501,217	498,830
U.S. Total	137,767,461	135,511,673	18,831,898	18,673,405	977,659	947,372	82	82	157,577,100	155,132,532

See Technical notes for additional information on the Commercial, Industrial, and Transportation sectors.

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

Notes: - See Glossary for definitions. - Values are preliminary estimates based on a cutoff model sample.

NM = Not Meaningful due to large relative standard error or excessive percentage change.

See Technical Notes for a discussion of the sample design for the Form EIA-826.

Utilities and energy service providers may classify commercial and industrial customers based on either NAICS codes or demands or usage falling within specified limits by rate schedule.

Changes from year to year in consumer counts, sales and revenues, particularly involving the commercial and industrial consumer sectors, may result from respondent implementation of changes in the definitions of consumers, and reclassifications.

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

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

Chapter 6

Capacity

Table 6.1. Electric Generating Summer Capacity Changes (MW) - June 2020 to July 2020

Technology	As of End of June 2020		Activity During July 2020 as Reported to EIA		As of End of July 2020		Net Change in Capacity - Current Month and Prior Periods				Changes in and Total Net Summer Capacity - Outlook Based on Reports to EIA				Capacity	
	Total In-Service Capacity	Capacity Additions	Actual Capacity Reductions	Actual Capacity Additions	Total In-Capacity	Current Month	Year to Date	Past 12 Months	Planned Capacity Additions		Reductions		Planned Net Change		At End of Next 12 Months	At End of Next 12 Months
									Next Month	Next 12 Months	Next Month	Next 12 Months	Next Month	Next 12 Months		
Onshore Wind (Summer Capacity)	107,643.5	222.4	1.8	107,864.1	220.6	4,308.9	9,506.1	860.7	20,989.2	0.0	860.7	20,989.2	106,744.8	128,863.3		
Offshore Wind (Summer Capacity)	29.3	0.0	0.0	29.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.3	41.3		
Wind (Summer Capacity)	107,672.8	222.4	1.8	107,893.4	220.6	4,308.9	9,506.1	860.7	21,001.2	0.0	860.7	21,001.2	106,774.1	128,894.6		
Wind Photovoltaic	39,704.3	432.4	55.0	40,081.7	377.4	4,510.5	8,027.8	664.9	13,562.0	0.0	664.9	13,562.0	40,746.6	53,432.7		
Solar Photovoltaic	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	1,352.5	1,352.5		
Solar Thermal without Energy Storage	405.6	0.0	0.0	405.6	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	405.6	405.6		
Solar Thermal with Energy Storage	41,482.4	432.4	55.0	41,838.8	377.4	4,510.7	8,028.0	664.9	13,562.0	0.0	664.9	13,562.0	42,504.7	55,401.8		
Conventional Hydroelectric	79,692.2	128.1	0.0	79,810.3	128.1	64.0	-70.2	241.9	0.0	3.4	0.0	238.5	79,810.3	80,488.8		
Wood/Wood Waste Biomass	8,372.3	10.7	0.0	8,383.0	10.7	-105.9	-129.2	0.0	0.0	20.0	0.0	-20.0	8,383.0	8,383.0		
Landfill Gas	1,912.3	0.0	0.0	1,912.3	0.0	-123.6	-137.7	3.4	0.0	0.0	0.0	0.0	1,912.3	1,915.7		
Municipal Solid Waste	623.8	0.0	0.0	623.8	-5.0	-110.2	-113.0	14.0	52.8	0.0	0.0	0.0	2,120.7	676.6		
Other Waste Biomass	2,125.7	0.0	0.0	2,125.7	-5.0	-110.2	-113.0	14.0	52.8	0.0	0.0	0.0	2,120.7	676.6		
Biomass Sources Subtotal	13,034.1	10.7	5.0	13,039.8	5.7	-408.3	-448.5	56.2	0.0	20.0	0.0	36.2	13,053.8	13,076.0		
Geothermal	2,555.4	0.0	0.0	2,555.4	0.0	96.3	96.3	0.0	0.0	0.0	0.0	0.0	2,555.4	2,555.4		
Renewable Sources Subtotal	244,066.9	793.6	61.8	245,138.7	711.8	8,571.6	17,111.7	1,599.6	34,861.3	0.0	23.4	1,599.6	34,837.9	246,698.3		
Natural Gas Fired Combined Cycle	275,079.3	14.1	59.9	275,834.1	-45.8	5,397.5	6,991.0	0.0	3,551.4	0.0	65.0	0.0	3,486.4	279,320.5		
Natural Gas Steam Turbine	128,023.8	221.7	31.0	128,275.8	190.7	337.0	251.2	0.0	1,749.3	0.0	43.0	0.0	1,706.3	129,214.6		
Natural Gas Internal Combustion Engine	70,738.6	33.2	34.0	70,738.6	-0.8	-1,216.5	-2,945.3	0.0	286.1	0.0	18.2	0.0	-277.9	70,457.9		
Natural Gas with Compressed Air Storage	5,192.2	0.0	0.0	5,192.2	0.0	218.9	244.8	3.0	90.6	0.0	20.0	0.0	70.6	5,220.8		
Other Natural Gas	1,100.0	0.0	0.0	1,100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,100.0	1,100.0		
Natural Gas Subtotal	235.7	0.2	2.6	233.3	-2.4	55.5	68.3	0.0	37.4	0.0	0.0	0.0	37.4	233.3		
Conventional Steam Coal	481,235.5	269.2	127.5	481,372.2	141.7	4,792.4	4,510.0	6.0	5,466.9	0.0	424.1	0.0	5,022.8	481,383.2		
Coal Integrated Gasification Combined Cycle	222,803.6	0.0	0.0	222,803.6	0.0	-5,681.8	-17,445.8	0.0	39.0	0.0	519.0	-5,954.4	222,284.6			
Coal Subtotal	223,559.6	0.0	0.0	223,559.6	0.0	-5,681.8	-17,445.8	0.0	39.0	0.0	519.0	-5,954.4	223,040.6			
Petroleum Coke	1,384.9	0.0	0.0	1,384.9	0.0	-80.3	-147.3	0.0	0.0	0.0	0.0	0.0	1,384.9			
Petroleum Liquids	29,765.7	6.7	1.8	29,765.7	4.9	-866.6	-889.5	0.0	5.4	0.0	832.7	0.0	-827.3	29,785.7		
Other Gases	2,522.0	0.0	14.8	2,507.2	-14.8	-41.7	-41.7	0.0	0.0	0.0	0.0	0.0	2,507.2			
Fossil Fuels Subtotal	738,462.8	275.9	144.1	738,894.6	131.8	-1,878.0	-8,014.3	6.0	5,491.3	0.0	7,500.2	-812.0	-17,588.9	738,081.6		
Hydroelectric Pumped Storage	22,700.3	95.0	0.0	22,795.3	95.0	-82.9	-82.9	0.0	280.3	0.0	280.3	0.0	22,795.3			
Hydroelectric	47.0	0.0	0.0	47.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0			
Batteries	1,059.4	256.3	0.0	1,315.7	256.3	300.5	338.3	18.3	2,352.1	0.0	18.3	2,352.1	1,334.0			
Energy Storage Subtotal	23,806.7	351.3	0.0	24,158.0	351.3	217.6	255.4	18.3	2,632.4	0.0	18.3	2,632.4	26,783.3			
Nuclear	97,120.9	0.0	0.0	97,120.9	0.0	-949.3	-1,752.1	0.0	20.0	0.0	1,639.3	0.0	-1,619.3	97,120.9		
All Other	1,544.6	0.0	0.0	1,544.6	0.0	49.1	97.0	0.0	0.0	0.0	0.0	0.0	1,544.6			
TOTAL	1,105,341.9	1,420.8	205.9	1,106,556.8	1,214.9	6,911.0	7,897.7	1,583.9	43,005.0	519.0	1,064.9	34,092.1	1,107,621.7			
Estimated Small Scale Solar Photovoltaic	25,191.9			25,603.3	411.4	2,392.5	4,130.0									
Estimated Total Solar Photovoltaic	64,896.2			65,885.0	788.8	6,903.2	12,157.8									
Estimated Total Solar	66,543.3			67,443.1	788.8	6,903.2	12,158.0									

NOTES:
 Planned Capacity Additions reflect plans to begin operating new units and plans to uprate existing units.
 Planned Capacity Reductions reflect plans to retire or decommission 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 de-commissions of 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-861M, 'Monthly Update to the Annual Electric Generator Report'.
 Estimated small scale solar photovoltaic capacity is based on data from Form EIA-861M, Form EIA-861, and from estimation methods described in the technical notes.

**Table 6.1.A. Estimated Net Summer Solar Photovoltaic Capacity From Utility and Small Scale Facilities (Megawatts)
2008 - July 2020**

Period	Utility Solar Photovoltaic	Estimated Small Scale Solar Photovoltaic	Estimated Total Solar Photovoltaic
Annual Totals			
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
2019	35,571.2	23,210.8	58,782.0
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	30,924.8	19,727.0	50,651.8
February	31,132.5	19,967.1	51,099.6
March	31,355.3	20,284.2	51,639.5
April	31,444.8	20,561.2	52,006.0
May	31,508.0	20,870.6	52,378.6
June	31,826.6	21,137.2	52,963.8
July	32,053.9	21,473.3	53,527.2
August	32,276.1	21,790.9	54,067.0
Sept	32,491.1	22,102.7	54,593.8
October	32,987.2	22,428.1	55,415.3
November	33,647.2	22,710.0	56,357.2
December	35,571.2	23,210.8	58,782.0
Year 2020			
January	36,613.2	23,582.8	60,196.0
February	37,110.1	23,919.3	61,029.4
March	37,438.5	24,258.8	61,697.3
April	37,916.7	24,581.0	62,497.7
May	38,405.6	24,807.4	63,213.0
June	39,704.3	25,191.9	64,896.2
July	40,081.7	25,603.3	65,685.0

Values are preliminary.

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

Estimated small scale solar photovoltaic capacity is based on data from Form EIA-861M, Form EIA-861, and from estimation methods described in the technical notes.

Table 6.1.B. Estimated Net Summer Solar Photovoltaic Capacity From Small Scale Facilities by Sector (Megawatts): 2014 - July 2020

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
2019	14,228.7	7,185.7	1,796.4	23,210.8
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	6,249.0	1,579.7	19,727.0
February	12,069.5	6,306.8	1,590.9	19,967.1
March	12,270.7	6,402.5	1,611.1	20,284.2
April	12,454.0	6,467.9	1,639.2	20,561.2
May	12,650.2	6,553.7	1,666.7	20,870.6
June	12,840.4	6,608.8	1,688.0	21,137.2
July	13,089.5	6,686.9	1,696.9	21,473.3
August	13,308.1	6,769.8	1,713.0	21,790.9
Sept	13,525.8	6,841.2	1,735.6	22,102.7
October	13,760.8	6,917.3	1,750.0	22,428.1
November	13,985.3	6,959.3	1,765.4	22,710.0
December	14,228.7	7,185.7	1,796.4	23,210.8
Year 2020				
January	14,491.2	7,270.6	1,821.0	23,582.8
February	14,746.6	7,326.0	1,846.7	23,919.3
March	14,963.4	7,428.8	1,866.6	24,258.8
April	15,182.6	7,528.9	1,869.5	24,581.0
May	15,379.5	7,537.0	1,890.8	24,807.4
June	15,581.7	7,678.9	1,931.3	25,191.9
July	15,850.8	7,792.9	1,959.7	25,603.3

Values are preliminary.

Improved renewable data reporting has resulted in realignment of the commercial and industrial sectors.

Estimated small scale solar photovoltaic capacity is based on data from Form EIA-861M, Form EIA-861, and from estimation methods described in the technical notes.

Table 6.3. New Utility Scale Generating Units by Operating Company, Plant, and Month, 2020

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source	Prime Mover Code
2020	1	61012	AES Distributed Energy	IPP	AES Torowanda Solar LLC	NY	63161	TNWDA	2.0	Solar Photovoltaic	SUN	PV
2020	1	61012	AES Distributed Energy	IPP	RT 52 Walden Solar 1, LLC Hybrid	NY	63000	BESS	4.0	Batteries	MWH	BA
2020	1	63119	AZ Solar 1, LLC	IPP	OE_AZ1	AZ	63349		32.5	Solar Photovoltaic	SUN	PV
2020	1	60281	Altus Power America Management, LLC	IPP	FaasSun 18 CSG	MN	63034	FS18	1.0	Solar Photovoltaic	SUN	PV
2020	1	60281	Altus Power America Management, LLC	IPP	FaasSun 5 CSG	MN	63045	FS5	1.0	Solar Photovoltaic	SUN	PV
2020	1	63049	Cannon Garden LLC	IPP	Cannon Garden Solar	MN	63252	CGS	20.0	Solar Photovoltaic	SUN	PV
2020	1	63468	Conductive Power	IPP	Ben Moreau Solar Farm	NJ	63766	BMSF	20.0	Solar Photovoltaic	SUN	PV
2020	1	56769	Consolidated Edison Development Inc.	IPP	PA Solar Park II	PA	63520	PASP2	10.0	Solar Photovoltaic	SUN	PV
2020	1	63120	Cubera Solar, LLC	IPP	Cubera Solar, LLC	NC	63346	PGR06	2.0	Solar Photovoltaic	SUN	PV
2020	1	62801	DG Linden New Jersey LLC	IPP	DG Infrunum	NJ	62958	INFNM	2.0	Solar Photovoltaic	SUN	PV
2020	1	30468	Duke Energy Progress - (NC)	Electric Utility	Ashville	NC	2706	C17	153.0	Natural Gas Fired Combined Cycle	NG	CT
2020	1	61785	EDP Renewables North America LLC	IPP	Sun Streams, LLC	AZ	60827	GEN01	160.0	Natural Gas Fired Combined Cycle	NG	CT
2020	1	60496	Enerparc Inc.	IPP	Brush Solar Center	OR	61844	BRUSH	2.8	Solar Photovoltaic	SUN	PV
2020	1	12689	Energy Mississippi LLC	Electric Utility	Hinds Energy Facility	MS	55218	H04BS	36.4	Natural Gas Fired Combustion Turbine	NG	GT
2020	1	6452	Florida Power & Light Co	Electric Utility	Babcock Preserve	FL	62634		74.5	Solar Photovoltaic	SUN	PV
2020	1	6452	Florida Power & Light Co	Electric Utility	Blue Heron Solar	FL	62631		74.5	Solar Photovoltaic	SUN	PV
2020	1	6452	Florida Power & Light Co	Electric Utility	Cattle Ranch	FL	62632		74.5	Solar Photovoltaic	SUN	PV
2020	1	6452	Florida Power & Light Co	Electric Utility	Northern Preserve Solar	FL	62645		74.5	Solar Photovoltaic	SUN	PV
2020	1	6452	Florida Power & Light Co	Electric Utility	Sweetbay Solar Center	FL	62394		74.5	Solar Photovoltaic	SUN	PV
2020	1	6452	Florida Power & Light Co	Electric Utility	Twin Lakes	FL	62633		74.5	Solar Photovoltaic	SUN	PV
2020	1	62656	Frontier Power, LLC	IPP	White CSG	MD	63085	15124	2.0	Solar Photovoltaic	SUN	PV
2020	1	61374	Foxtail Wind, LLC	IPP	Foxtail Wind, LLC	ND	61747		150.0	Onshore Wind Turbine	WND	WT
2020	1	63114	GA Solar 3, LLC	IPP	OE_GA3	GA	63350	GA3	57.5	Solar Photovoltaic	SUN	PV
2020	1	62062	GD Richmond Buttonwoods 1, LLC	IPP	GD Richmond Buttonwoods 1, LLC	RI	62567	GBUT1	1.3	Solar Photovoltaic	SUN	PV
2020	1	62061	GD West Greenwich Victory 1, LLC	IPP	GD West Greenwich Victory 1, LLC	RI	62568	GDVIC	1.8	Solar Photovoltaic	SUN	PV
2020	1	61194	Generate Capital	IPP	Kelly Bridge Road Community Solar Farm	NY	62154	12	2.0	Solar Photovoltaic	SUN	PV
2020	1	61194	Generate Capital	IPP	Sackett Lake Rd #1 Community Solar Farm	NY	62156	11	2.0	Solar Photovoltaic	SUN	PV
2020	1	61728	GuidePath Power Operations LLC	IPP	Prospect Storage	TX	62755	BESS	9.9	Batteries	MWH	BA
2020	1	60025	Greenbacker Renewable Energy Corporation	IPP	Platteville Solar CSG, LLC	CO	63753	218	1.3	Solar Photovoltaic	SUN	BA
2020	1	60025	Greenbacker Renewable Energy Corporation	IPP	Soi Phoenix	MD	62331	SOLPH	2.5	Solar Photovoltaic	SUN	PV
2020	1	54769	INEOS USA LLC	Industrial	Power Island	TX	10154	GEN2	50.0	Natural Gas Fired Combustion Turbine	NG	GT
2020	1	60968	Imperial Valley Solar 2, LLC	IPP	Mount Signal Solar Farm II	CA	61353	1VS2	153.5	Solar Photovoltaic	SUN	PV
2020	1	9417	Inletsite Power and Light Co	Electric Utility	Whispering Willow North	IA	62079		201.3	Onshore Wind Turbine	WND	WT
2020	1	62838	LSE Dorado, LLC	IPP	Goose Pond Solar	MA	62892	GNOR	2.0	Solar Photovoltaic	SUN	PV
2020	1	62838	LSE Dorado, LLC	IPP	Goose Pond Solar	MA	62892	GNOR	2.0	Solar Photovoltaic	SUN	PV
2020	1	12341	MidAmerican Energy Co	Electric Utility	Palo Alto Wind Farm	IA	63053	PAWF	250.0	Onshore Wind Turbine	WND	WT
2020	1	61925	Middlesex-Yates Solar, LLC	IPP	Daum Solar	NY	62412	DAUM	4.0	Solar Photovoltaic	SUN	PV
2020	1	63048	Misee Lessee, LLC	IPP	Misee Solar	TX	62249	77777	240.0	Solar Photovoltaic	SUN	PV
2020	1	56960	NUR Clean Energy Ventures Corporation	IPP	Franklin Solar	NJ	63149	FRANK	8.8	Solar Photovoltaic	SUN	PV
2020	1	56960	NUR Clean Energy Ventures Corporation	IPP	Ponahcong Solar Farm	NJ	63150	POHAT	8.0	Solar Photovoltaic	SUN	PV
2020	1	63402	Oak Leaf Solar XXXVIII LLC (Lantz-Chaffey)	IPP	Oak Leaf Solar XXXVIII LLC (Lantz-Chaffey)	CO	63881	13	1.5	Solar Photovoltaic	SUN	PV
2020	1	63402	Oak Leaf Solar XXXVIII LLC (Lantz-Chaffey)	IPP	Oak Leaf Solar XXXVIII LLC (Lantz-Chaffey)	CO	63881	14	1.5	Solar Photovoltaic	SUN	PV
2020	1	63491	Partridgeville Road Solar 1, LLC	IPP	Partridgeville Hybrid CSG	MA	63804	PAR	3.3	Solar Photovoltaic	SUN	PV
2020	1	63491	Partridgeville Road Solar 1, LLC	IPP	Partridgeville Hybrid CSG	MA	63804	PRESS	2.0	Batteries	MWH	BA
2020	1	62798	Paulding Wind Farm IV LLC	IPP	Timber Road IV	OH	62944	TRIV	125.1	Onshore Wind Turbine	WND	WT
2020	1	62664	Prairie Community Solar LLC	IPP	Prairie Project CSG	MN	63176	TC3	1.0	Solar Photovoltaic	SUN	PV
2020	1	16191	Robbins Lumber Inc	Industrial	Robbins Lumber	ME	50230	WEG	8.5	Wood/Wood Waste Biomass	WDS	ST
2020	1	60975	SR Innovation, LLC	IPP	SR Innovation - NIKE PV	TX	61332	NIKE2	1.7	Solar Photovoltaic	SUN	PV
2020	1	62966	STAG St. Paul Community Solar LLC	IPP	STAG St. Paul Project CSG	MN	63178	TC3	1.0	Solar Photovoltaic	SUN	PV
2020	1	60531	Standard Solar	IPP	Mtn. Solar 3 CSG	CO	63379	X0134	1.5	Solar Photovoltaic	SUN	PV
2020	1	60531	Standard Solar	IPP	USS Cheyenne Solar LLC CSG	MN	63145	CHYME	1.0	Solar Photovoltaic	SUN	PV
2020	1	60531	Standard Solar	IPP	USS Greenhouse Solar LLC CSG	MN	63143	GRHSE	1.0	Solar Photovoltaic	SUN	PV
2020	1	60531	Standard Solar	IPP	USS Turkey Solar LLC CSG	MN	63148	TURRY	1.0	Solar Photovoltaic	SUN	PV
2020	1	62906	Synarcpha Questa I, LLC	IPP	Synarcpha Questa	NM	63125	SYNOU	1.6	Solar Photovoltaic	SUN	PV
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
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
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
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
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
2020	1	63188	West Deptford Distributed Solar, LLC	IPP	Solvay Solar	NJ	63452	SSP	6.5	Solar Photovoltaic	SUN	PV
2020	1	20854	Winnebago County	Electric CHP	Winnebago County Landfill Gas	WI	50368	EG2R	0.6	Landfill Gas	LFG	IC
2020	2	61669	AES Alamitos Energy, LLC	IPP	AES Alamitos Energy Center	CA	62115	1A	194.0	Natural Gas Fired Combined Cycle	NG	CT

Table 6.3. New Utility Scale Generating Units by Operating Company, Plant, and Month, 2020

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source	Prime Mover Code
2020	2	61669	AES Alamos Energy, LLC	IPP	AES Alamos Energy Center	CA	62115	1B	194.0	Natural Gas Fired Combined Cycle	NG	CT
2020	2	61669	AES Alamos Energy, LLC	IPP	AES Alamos Energy Center	CA	62115	1S	215.0	Natural Gas Fired Combined Cycle	NG	CA
2020	2	61670	AES Huntington Beach Energy, LLC	IPP	AES Huntington Beach Energy Project	CA	62116	1A	194.0	Natural Gas Fired Combined Cycle	NG	CA
2020	2	61670	AES Huntington Beach Energy, LLC	IPP	AES Huntington Beach Energy Project	CA	62116	1B	194.0	Natural Gas Fired Combined Cycle	NG	CA
2020	2	61670	AES Huntington Beach Energy, LLC	IPP	AES Huntington Beach Energy Project	CA	62116	1S	215.0	Natural Gas Fired Combined Cycle	NG	CA
2020	2	61608	Agilon Energy Holdings II, LLC	IPP	Victoria City Power LLC	TX	61241	VC-2	43.0	Natural Gas Fired Combustion Turbine	NG	GT
2020	2	61608	Agilon Energy Holdings II, LLC	IPP	Victoria City Power LLC	TX	61241	VC-2	43.0	Natural Gas Fired Combustion Turbine	NG	GT
2020	2	62627	Alchemy Renewable Energy	IPP	Dus Solar, LLC	OR	63630	ORDUS	10.0	Solar Photovoltaic	SUN	PV
2020	2	62627	Alchemy Renewable Energy	IPP	Dus Solar, LLC	OR	63630	ORDUS	10.0	Solar Photovoltaic	SUN	PV
2020	2	62627	Alchemy Renewable Energy	IPP	Dus Solar, LLC	OR	63630	ORDUS	10.0	Solar Photovoltaic	SUN	PV
2020	2	6873	City of Sebewaing - (M)	Electric Utility	Pine Street	MI	7806		4.4	Natural Gas Internal Combustion Engine	NG	IC
2020	2	5970	Ecoplexus, Inc	IPP	Grandy PV 1	OR	59518	GRAND	20.0	Solar Photovoltaic	SUN	PV
2020	2	60498	Eneparc Inc.	IPP	Baker City Solar	OR	61854	BAKER	15.0	Solar Photovoltaic	SUN	PV
2020	2	63143	Falls Creek Garden LLC	IPP	Falls Creek Garden	MN	63394	CGS	1.0	Solar Photovoltaic	SUN	PV
2020	2	62856	Forefront Power, LLC	IPP	Howell CSG	NY	63107	1725	2.0	Solar Photovoltaic	SUN	PV
2020	2	61194	Generate Capital	IPP	Boas Rd # Community Solar Farm	NY	62533	1023	2.0	Solar Photovoltaic	SUN	PV
2020	2	61194	Generate Capital	IPP	Burnt Rd Community Solar Farm	NY	62480	635	2.0	Solar Photovoltaic	SUN	PV
2020	2	61194	Generate Capital	IPP	Villa Roma Rd #1	NY	62526	40	2.0	Solar Photovoltaic	SUN	PV
2020	2	61194	Generate Capital	IPP	Villa Roma Rd #2	NY	62526	41	2.0	Solar Photovoltaic	SUN	PV
2020	2	61194	Generate Capital	IPP	Washington St Community Solar Farm #1	NY	62472	617	2.0	Solar Photovoltaic	SUN	PV
2020	2	61194	Generate Capital	IPP	Washington St Community Solar Farm #4	NY	62471	1034	2.5	Solar Photovoltaic	SUN	PV
2020	2	63228	Gorman Community Solar LLC	IPP	Gorman Community Solar (CSG)	MN	63484	GOHWN	1.1	Solar Photovoltaic	SUN	PV
2020	2	62106	Hidalgo Wind Farm II LLC	IPP	Hidalgo Wind Farm II	TX	62618	WT	50.4	Onshore Wind Turbine	WND	WT
2020	2	54769	INEOS USA LLC	Industrial	Power Island	TX	10154	GEN3	50.0	Natural Gas Fired Combustion Turbine	NG	GT
2020	2	61620	IOS II LLC	IPP	IOS ILAX9	CA	63414	IOSII	3.7	Solar Photovoltaic	SUN	PV
2020	2	9417	Interstate Power and Light Co	Electric Utility	Marshalltown Generating Station	IA	58236	PV1	2.6	Solar Photovoltaic	SUN	PV
2020	2	49893	Invenegy Services LLC	IPP	Camilla Solar Energy Project	GA	61765	CAMSR	171.4	Solar Photovoltaic	SUN	PV
2020	2	63213	Jenez Cuba LLC	IPP	Acadale Solar Array	NM	63477	SOLAR	2.4	Solar Photovoltaic	SUN	PV
2020	2	61957	Kearny Mesa Storage LLC	IPP	Kearny Mesa Storage LLC	CA	62441	UT1	1.0	Batteries	MWH	BA
2020	2	63158	Loon Garden LLC	IPP	Loon Garden	MN	63397	CGS	1.0	Solar Photovoltaic	SUN	PV
2020	2	62915	Madison Energy Holdings LLC	IPP	Goodhue Community Solar One LLC CSG	MN	63360	52829	1.0	Solar Photovoltaic	SUN	PV
2020	2	62915	Madison Energy Holdings LLC	IPP	Goodhue Community Solar Three LLC CSG	MN	63417	52831	1.0	Solar Photovoltaic	SUN	PV
2020	2	12341	MidAmerican Energy Co	Electric Utility	Astor Hill Wind Farm	IA	62132	1	60.0	Onshore Wind Turbine	WND	WT
2020	2	63462	NY- CSG- Livingston 4	IPP	NY- CSG- Livingston 4	NY	63781	LIV4	2.0	Solar Photovoltaic	SUN	PV
2020	2	62832	Novel Herber Solar LLC CSG	IPP	Novel Herber Solar CSG	MN	62966	HERB	1.0	Solar Photovoltaic	SUN	PV
2020	2	60531	Standard Solar	IPP	USS Midtown Solar LLC CSG	MN	63146	MDTWN	1.0	Solar Photovoltaic	SUN	PV
2020	2	63144	Star Garden LLC	IPP	Star Garden	MN	63395	CGS	1.0	Solar Photovoltaic	SUN	PV
2020	2	63131	Strandness Garden LLC	IPP	Strandness Garden	MN	63367	CGS	1.0	Solar Photovoltaic	SUN	PV
2020	2	18454	Tampa Electric Co	Electric Utility	Little Manatee River Solar	FL	62750	GEN1	74.5	Solar Photovoltaic	SUN	PV
2020	2	60947	Tesla Inc.	IPP	Walnut Unified School District Walnut HS Hybrid	CA	63510	PV1	1.8	Solar Photovoltaic	SUN	PV
2020	2	60947	Tesla Inc.	IPP	Walnut Unified School District Walnut HS Hybrid	CA	63510	ST1	0.5	Batteries	MWH	BA
2020	2	19511	University of Alaska	Commercial	University of Alaska Fairbanks	AK	50711	GEN5	17.0	Conventional Steam Coal	SUB	ST
2020	2	62701	Visa Solar, Inc.	IPP	Shelter Creek Condominiums Solar	CA	62806	SC001	2.4	Solar Photovoltaic	SUN	PV
2020	2	57354	X-Elo North America Inc	IPP	Lily Solar	SC	63548	1	70.0	Solar Photovoltaic	SUN	PV
2020	3	60571	AEP Onsite Partners	IPP	Galesburg Solar Array	IL	63399	GW401	14	Solar Photovoltaic	SUN	PV
2020	3	61012	AES Distributed Energy	IPP	Hubeau Solar Project Hybrid	MA	63468	BATT	1.3	Batteries	MWH	BA
2020	3	61012	AES Distributed Energy	IPP	Hubeau Solar Project Hybrid	MA	63468	HURTU	2.0	Solar Photovoltaic	SUN	PV
2020	3	60281	Altus Power America Management, LLC	IPP	FaStSun 10 CSG	MN	63038	FS10	1.0	Solar Photovoltaic	SUN	PV
2020	3	60281	Altus Power America Management, LLC	IPP	FaStSun 11 CSG	MN	63037	FS11	1.0	Solar Photovoltaic	SUN	PV
2020	3	60281	Altus Power America Management, LLC	IPP	FaStSun 9 CSG	MN	63040	FS9	1.0	Solar Photovoltaic	SUN	PV
2020	3	60148	Ameresco Federal Solutions	IPP	NASA Wallops Flight Facility Solar	VA	62948	CRPT5	0.1	Solar Photovoltaic	SUN	PV
2020	3	60148	Ameresco Federal Solutions	IPP	NASA Wallops Flight Facility Solar	VA	62948	CRPT6	0.1	Solar Photovoltaic	SUN	PV
2020	3	60148	Ameresco Federal Solutions	IPP	NASA Wallops Flight Facility Solar	VA	62948	CRPT7	0.1	Solar Photovoltaic	SUN	PV
2020	3	60148	Ameresco Federal Solutions	IPP	NASA Wallops Flight Facility Solar	VA	62948	TRCK1	4.0	Solar Photovoltaic	SUN	PV
2020	3	15399	Avangrid Renewables LLC	IPP	Oter Creek Wind Farm LLC	IL	61344	WT1	150.0	Onshore Wind Turbine	WND	WT
2020	3	69593	Bos Dairy, LLC	Industrial	Bos Dairy, LLC	IN	57625	BOSA	0.9	Natural Gas Internal Combustion Engine	NG	IC
2020	3	63157	Buffalo Garden LLC	IPP	Buffalo Garden	MN	63396	CGS	1.0	Solar Photovoltaic	SUN	PV
2020	3	59365	Capital Power Corporation	IPP	Cardinal Point LLC	IL	59902	GEN	150.0	Onshore Wind Turbine	WND	WT
2020	3	60656	Chestnut Solar LLC	IPP	Chestnut Solar	NC	61011	PV1	74.9	Solar Photovoltaic	SUN	PV
2020	3	63177	Chub Garden LLC	IPP	Chub Garden Solar	MN	63430	CGS	1.0	Solar Photovoltaic	SUN	PV
2020	3	16873	City of Sebewaing - (M)	Electric Utility	Pine Street	MI	7806		3.3	Natural Gas Internal Combustion Engine	NG	IC
2020	3	18488	City of Taunton	Electric Utility	Cleary Flood Hybrid	MA	16802	BS1	2.9	Batteries	MWH	BA
2020	3	56769	Consolidated Edison Development Inc.	IPP	Lakehurst Solar	NJ	63503	LAKHS	9.6	Solar Photovoltaic	SUN	PV
2020	3	63338	Crown Solar Center, LLC	IPP	Crown	SC	63635	CROWN	3.0	Solar Photovoltaic	SUN	PV

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Year	Month	Entity ID	Entity Name	Plant Producer	Plant Name	Plant Type	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source	Prime Mover Code
2020	3	63450	DG South Carolina Solar, LLC	IPP	Omanaka Solar	IPP	SC	63756	DGSC1	6.0	Solar Photovoltaic	SUN	PV
2020	3	6458	Duke Energy Florida, LLC	Electric Utility	Columbia Solar Power Plant	IPP	FL	61962	PV1	74.9	Solar Photovoltaic	SUN	PV
2020	3	56201	Engie North America	IPP	East Fork Wind Project, LLC	IPP	KS	62220	WTGS	195.8	Onshore Wind Turbine	WIND	WT
2020	3	56201	Engie North America	IPP	Jumbo Hill Wind Project	IPP	TX	62630	WTGS1	160.7	Onshore Wind Turbine	WIND	WT
2020	3	11241	Engie Louisiana LLC	Electric Utility	Lake Charles Power	IPP	LA	60927	1A	250.0	Natural Gas Fired Combined Cycle	NG	CT
2020	3	11241	Engie Louisiana LLC	Electric Utility	Lake Charles Power	IPP	LA	60927	1B	250.0	Natural Gas Fired Combined Cycle	NG	CT
2020	3	11241	Engie Louisiana LLC	Electric Utility	Lake Charles Power	IPP	LA	60927	1C	500.0	Natural Gas Fired Combined Cycle	NG	CA
2020	3	62856	Forefront Power, LLC	IPP	Fresno Bullard High School Hybrid	IPP	CA	63420	603	1.2	Solar Photovoltaic	SUN	PV
2020	3	62856	Forefront Power, LLC	IPP	Fresno Bullard High School Hybrid	IPP	CA	63420	BA003	0.4	Batteries	MWH	BA
2020	3	62856	Forefront Power, LLC	IPP	Fresno Hoover High School Hybrid	IPP	CA	63421	291	1.2	Solar Photovoltaic	SUN	PV
2020	3	62856	Forefront Power, LLC	IPP	Fresno Hoover High School Hybrid	IPP	CA	63421	BA291	0.2	Batteries	MWH	BA
2020	3	63339	Fort Rock Solar 1, LLC	IPP	Fort Rock 1	IPP	OR	63636	FRT1	9.9	Solar Photovoltaic	SUN	PV
2020	3	60025	Greenbacker Renewable Energy Corporation	IPP	Blue Star	IPP	MD	62332	BLUES	7.5	Solar Photovoltaic	SUN	PV
2020	3	60025	Greenbacker Renewable Energy Corporation	IPP	IGS CC, LLC	IPP	DC	63428	254	1.5	Solar Photovoltaic	SUN	PV
2020	3	60025	Greenbacker Renewable Energy Corporation	IPP	IGS FE Trenton, LLC	IPP	NJ	63626	229	1.5	Solar Photovoltaic	SUN	PV
2020	3	9417	Interstate Power and Light Co	Electric Utility	Golden Plains	IPP	IA	62081	1	199.8	Onshore Wind Turbine	WIND	WT
2020	3	62085	Mesquite Star, LLC	IPP	Mesquite Star	IPP	TX	62587	MESQ	418.9	Onshore Wind Turbine	WIND	WT
2020	3	63534	Middletown NY 1, LLC	IPP	Middletown NY 1	IPP	NY	63857	8176B	2.0	Solar Photovoltaic	SUN	PV
2020	3	63175	Mud Garden LLC	IPP	Mud Garden Solar	IPP	MN	63427	CGS	10.0	Solar Photovoltaic	SUN	PV
2020	3	63461	NY- CSG- Johnston 2	IPP	NY- CSG- Johnston 2	IPP	NY	63760	J0HN2	2.0	Solar Photovoltaic	SUN	PV
2020	3	63188	Neighborhood Power Corp.	IPP	St Louis Solar	IPP	OR	63456	W9519	2.2	Solar Photovoltaic	SUN	PV
2020	3	62837	Novel DeCook Solar LLC CSG	IPP	Novel DeCook Solar CSG	IPP	MN	62979	DECO	1.0	Solar Photovoltaic	SUN	PV
2020	3	61758	Prevailing Wind Park, LLC	IPP	Prevailing Wind Park	IPP	SD	62247	PWPSD	220.0	Onshore Wind Turbine	WIND	WT
2020	3	63187	Rush Springs Energy Storage	IPP	Rush Springs Energy Storage (BA)	IPP	OK	63458	RUSHE	10.0	Batteries	MWH	BA
2020	3	60163	Sollage LLC	IPP	Ace Solar	IPP	SC	61937	18	1.0	Solar Photovoltaic	SUN	PV
2020	3	62971	South Energy Investments LLC	IPP	South Windsor Fuel Cell	IPP	CT	63302	SWFCS	5.0	Other Natural Gas	NG	FC
2020	3	60631	Standard Solar	IPP	NY 26 Carriage CSG	IPP	NY	63224	X0140	5.0	Solar Photovoltaic	SUN	PV
2020	3	63171	Straight Garden LLC	IPP	Straight Garden Solar	IPP	MN	63424	CGS	1.0	Solar Photovoltaic	SUN	PV
2020	3	24211	Tucson Electric Power Co	Electric Utility	H Wilson Sundt Generating Station	IPP	AZ	126	RIC1	18.2	Natural Gas Internal Combustion Engine	NG	IC
2020	3	24211	Tucson Electric Power Co	Electric Utility	H Wilson Sundt Generating Station	IPP	AZ	126	RIC2	18.2	Natural Gas Internal Combustion Engine	NG	IC
2020	3	24211	Tucson Electric Power Co	Electric Utility	H Wilson Sundt Generating Station	IPP	AZ	126	RIC3	18.2	Natural Gas Internal Combustion Engine	NG	IC
2020	3	24211	Tucson Electric Power Co	Electric Utility	H Wilson Sundt Generating Station	IPP	AZ	126	RIC4	18.2	Natural Gas Internal Combustion Engine	NG	IC
2020	3	24211	Tucson Electric Power Co	Electric Utility	H Wilson Sundt Generating Station	IPP	AZ	126	RIC5	18.2	Natural Gas Internal Combustion Engine	NG	IC
2020	3	62103	Whitney Hill Wind Power LLC	IPP	Whitney Hill Wind Power LLC	IPP	IL	62606	WTHWP	65.0	Onshore Wind Turbine	WIND	WT
2020	4	59498	Allele Clean Energy	IPP	South Peak Wind	IPP	MT	62939	41001	80.0	Onshore Wind Turbine	WIND	WT
2020	4	60289	Blazing Star Wind Farm, LLC	IPP	Blazing Star Wind Farm 1	IPP	MN	60504	BLZG1	200.0	Onshore Wind Turbine	WIND	WT
2020	4	18445	City of Tallahassee - (FL)	Electric Utility	Aviah B Hopkins	IPP	FL	688	IC5	18.5	Natural Gas Internal Combustion Engine	NG	IC
2020	4	17568	Cooperative Energy	Electric Utility	Bennedale	IPP	MS	2068	BENU1	11.3	Natural Gas Internal Combustion Engine	NG	IC
2020	4	17568	Cooperative Energy	Electric Utility	Bennedale	IPP	MS	2068	BENU2	11.3	Natural Gas Internal Combustion Engine	NG	IC
2020	4	56534	Crocket Valley Energy Center LLC	IPP	Crocket Valley Energy	IPP	NY	57185	U001	143.3	Natural Gas Fired Combined Cycle	NG	CA
2020	4	56534	Crocket Valley Energy Center LLC	IPP	Crocket Valley Energy	IPP	NY	57185	U002	143.3	Natural Gas Fired Combined Cycle	NG	CA
2020	4	56534	Crocket Valley Energy Center LLC	IPP	Crocket Valley Energy	IPP	NY	57185	U003	143.3	Natural Gas Fired Combined Cycle	NG	CA
2020	4	56534	Crocket Valley Energy Center LLC	IPP	Crocket Valley Energy	IPP	NY	57185	U004	195.4	Natural Gas Fired Combined Cycle	NG	CT
2020	4	56534	Crocket Valley Energy Center LLC	IPP	Crocket Valley Energy	IPP	NY	57185	U005	195.4	Natural Gas Fired Combined Cycle	NG	CT
2020	4	56534	Crocket Valley Energy Center LLC	IPP	Crocket Valley Energy	IPP	NY	57185	U006	195.4	Natural Gas Fired Combined Cycle	NG	CT
2020	4	1080	Cypress Creek Renewables	IPP	Huntley	IPP	SC	63271	1295	75.0	Solar Photovoltaic	SUN	PV
2020	4	3046	Duke Energy Progress - (NC)	Electric Utility	Ashville	IPP	NC	2706	ST8	102.0	Natural Gas Fired Combined Cycle	NG	CA
2020	4	58139	Eco Energy LLC	IPP	Plainfield Solar 2	IPP	CT	63263	PLFD2	1.0	Solar Photovoltaic	SUN	PV
2020	4	63176	Erin Garden LLC	IPP	Erin Garden Solar	IPP	MN	63429	CSG	1.0	Solar Photovoltaic	SUN	PV
2020	4	6452	Florida Power & Light Co	Electric Utility	Echo River Solar	IPP	FL	62490	1	74.5	Solar Photovoltaic	SUN	PV
2020	4	6452	Florida Power & Light Co	Electric Utility	Hiscus Solar Energy Center	IPP	FL	62206	1	74.5	Solar Photovoltaic	SUN	PV
2020	4	6452	Florida Power & Light Co	Electric Utility	Okeechobee Solar	IPP	FL	62491	1	74.5	Solar Photovoltaic	SUN	PV
2020	4	6452	Florida Power & Light Co	Electric Utility	Southfork Solar	IPP	FL	62493	1	74.5	Solar Photovoltaic	SUN	PV
2020	4	61944	GSSRP	IPP	Chevron - Lost Hills Hybrid	IPP	CA	63545	GEN1	30.0	Solar Photovoltaic	SUN	PV
2020	4	61194	Generate Capital	IPP	Washington ST Community Solar Farm #3	IPP	NY	62473	1035	2.5	Solar Photovoltaic	SUN	PV
2020	4	7801	Gulf Power Co	Electric Utility	Gulf Power Blue Indigo Energy	IPP	FL	63754	SB01	74.5	Solar Photovoltaic	SUN	PV
2020	4	63399	Hertzberg Community Solar	IPP	Hertzberg Community (CSG)	IPP	MN	63680	HERTZ	1.0	Solar Photovoltaic	SUN	PV
2020	4	63399	Laurel Village Community Solar LLC	IPP	Laurel Village (CSG)	IPP	MN	63679	LAUR	1.0	Solar Photovoltaic	SUN	PV
2020	4	62842	Lightsources Renewable Energy Asset Management, LLC	IPP	Johnson Corner Solar 1	IPP	KS	62993	KSC1C1	20.0	Solar Photovoltaic	SUN	PV
2020	4	62915	Madison Energy Holdings LLC	IPP	Goodhue Community Solar Two LLC	IPP	MN	62830	MHW	1.0	Solar Photovoltaic	SUN	PV
2020	4	63442	Mount Hope Solar 2 LLC	IPP	Mount Hope West	IPP	NY	63748	BART	2.0	Solar Photovoltaic	SUN	PV
2020	4	62863	Novel Bartel Solar LLC CSG	IPP	Novel Bartel Solar CSG	IPP	MN	63004	MHW	1.0	Solar Photovoltaic	SUN	PV
2020	4	62833	Novel Heitckhoff Solar LLC CSG	IPP	Novel Heitckhoff Solar CSG	IPP	MN	62867	HERIC	1.0	Solar Photovoltaic	SUN	PV

Table 6.3. New Utility Scale Generating Units by Operating Company, Plant, and Month, 2020

Year	Month	Year	Month	Year	Month	Year	Month	Year	Month	Year	Month	Year	Month	Year	Month	Year	Month	Year	Month	Year	Month	Year	Month	Year	Month	Year	Month
2020	4	62009	Palmer Solar LLC	IPP	Plant Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source	Prime Mover														
2020	4	63397	Paulson Community Solar LLC	IPP	Palmer Solar	CO	62495	20181	60.0	Solar Photovoltaic	SUN	PV															
2020	4	16380	RTC Properties Inc	Commercial	Paulson Community (CSG)	MN	63678	PAUL	1.0	Solar Photovoltaic	SUN	PV															
2020	4	60389	Rabbit Hill Energy Storage Project	IPP	River Terminal Development Solar	NJ	60843	RTDB	0.2	Solar Photovoltaic	SUN	PV															
2020	4	63452	Ralph's Grocery Company	Industrial	Rabbit Hill Energy Storage Project	TX	60649	1	9.9	Batteries	MWH	BA															
2020	4	63357	Sheriff Rd Solar LLC	IPP	Kroger La Habra	CA	60358	KROLH	1.2	Solar Photovoltaic	SUN	PV															
2020	4	18454	Tampa Electric Co	Electric Utility	Sheriff Road	MD	63654	SHRFF	1.1	Solar Photovoltaic	SUN	PV															
2020	4	63173	Zumino Garden LLC	IPP	Wimauma Solar	FL	61667	1	74.5	Solar Photovoltaic	SUN	PV															
2020	5	61012	AES Distributed Energy	IPP	Zumino Solar Garden	MN	63428	CSG	10.0	Solar Photovoltaic	SUN	PV															
2020	5	58844	Blythe Solar III, LLC	IPP	Beals Medina Solar LLC CSG	NY	63130	BEALS	3.5	Solar Photovoltaic	SUN	PV															
2020	5	63205	Brush Creek Solar, LLC	IPP	Blythe Solar III, LLC Hybrid	CA	60094	BLSL3	136.8	Solar Photovoltaic	SUN	PV															
2020	5	62900	Caden Energix Rivers Road LLC	IPP	Brush Creek Solar	OR	63464	PGR19	2.2	Solar Photovoltaic	SUN	PV															
2020	5	62955	Clear Creek Wind, LLC	IPP	Caden Energix Rivers Road LLC	VA	63087	ENX01	19.7	Solar Photovoltaic	SUN	PV															
2020	5	62855	Clear Creek Wind, LLC	IPP	Clear Creek Wind	MO	63025	V110	22.0	Onshore Wind Turbine	WND	WT															
2020	5	58769	Consolidated Edison Development Inc.	IPP	Clear Creek Wind	MO	63025	V120	22.0	Onshore Wind Turbine	WND	WT															
2020	5	60370	DG AMP Solar, LLC	IPP	GED Mason City Wind	IA	63521	MCWT1	7.5	Onshore Wind Turbine	WND	WT															
2020	5	51059	DYE Electric Company	Electric Utility	DG AMP Riltman Rd	OH	62941	AWPRR	2.6	Solar Photovoltaic	SUN	PV															
2020	5	6455	Duke Energy Florida, LLC	IPP	Drift Creek Solar	OR	63466	PGR18	2.2	Solar Photovoltaic	SUN	PV															
2020	5	60498	Energarc Inc.	IPP	Debarry Solar Power Plant	FL	62542	PV1	74.5	Solar Photovoltaic	SUN	PV															
2020	5	60498	Energarc Inc.	IPP	Megan Solar Center	OR	61855	MGRCN	3.0	Solar Photovoltaic	SUN	PV															
2020	5	13478	Energy New Orleans, LLC	IPP	Oratio Solar Center	OR	61660	ONTRD	3.0	Solar Photovoltaic	SUN	PV															
2020	5	62759	Gerontimo Energy	IPP	New Orleans Power	LA	60928	1	250.0	Natural Gas Fired Combustion Turbine	NG	GT															
2020	5	60659	Hickory Run Energy, LLC	IPP	Hydra Community Solar Garden, LLC (CSG)	PA	61029	HYDRA	1.0	Solar Photovoltaic	SUN	PV															
2020	5	60659	Hickory Run Energy, LLC	IPP	Hickory Run Energy Station	PA	61028	CTG1	268.5	Natural Gas Fired Combined Cycle	NG	CT															
2020	5	60659	Hickory Run Energy, LLC	IPP	Hickory Run Energy Station	PA	61028	CTG2	268.5	Natural Gas Fired Combined Cycle	NG	CT															
2020	5	49693	Invenergy Services LLC	IPP	Hickory Run Energy Station	PA	61028	STG1	437.0	Natural Gas Fired Combined Cycle	NG	CA															
2020	5	63172	Leven Garden LLC	IPP	Beech Ridge II Wind Energy Center	WV	62482	GEN1	58.2	Onshore Wind Turbine	WND	WT															
2020	5	63174	Mason Garden LLC	IPP	Leven Garden Solar	MN	63425	CSG	1.0	Solar Photovoltaic	SUN	PV															
2020	5	12303	Merck & Co Inca-Vent Point	Industrial	Mason Garden Solar	MN	63434	CSG	1.0	Solar Photovoltaic	SUN	PV															
2020	5	56990	NJR Clean Energy Ventures Corporation	IPP	West Point (PA)	PA	62149	GEN16	1.1	Natural Gas Internal Combustion Engine	NG	IC															
2020	5	62849	Novel Byron Solar LLC CSG	IPP	Campus Drive Solar	PA	63334	CAMPS	3.7	Solar Photovoltaic	SUN	PV															
2020	5	63189	Oxy Renewable Energy, LLC	IPP	Novel Byron Solar CSG	MN	62985	BYRN	1.0	Solar Photovoltaic	SUN	PV															
2020	5	63074	Scout Clean Energy LLC	IPP	Oxy Renewable Energy - Goldsmith	TX	63388	SOLAR	16.8	Solar Photovoltaic	SUN	PV															
2020	5	17650	Southern Power Co	IPP	Rock County Wind Fuel, LLC	MN	63490	RCWF	5.0	Onshore Wind Turbine	WND	WT															
2020	5	60970	SunShare Management	IPP	Heart of Texas Wind Project	TX	61032	HTX	180.0	Onshore Wind Turbine	WND	WT															
2020	5	60970	SunShare Management	IPP	Sierra Pacific Industries (2042-RD)	CA	63416	GEN1	8.4	Solar Photovoltaic	SUN	PV															
2020	5	60970	SunShare Management	IPP	Reading Wind Project	KS	60999	READW	200.1	Onshore Wind Turbine	WND	WT															
2020	5	60970	SunShare Management	IPP	Linden 01 CSG	MN	63179	KANE1	1.0	Solar Photovoltaic	SUN	PV															
2020	5	62822	Syncepha Blandford, LLC	IPP	Linden 02 CSG	MN	63182	LIND2	1.0	Solar Photovoltaic	SUN	PV															
2020	5	62822	Syncepha Blandford, LLC	IPP	Linden 03 CSG	MN	63183	LIND3	1.0	Solar Photovoltaic	SUN	PV															
2020	5	62822	Syncepha Blandford, LLC	IPP	Syncepha Blandford Hybrid CSG	MA	62975	SYBLB	3.9	Batteries	MWH	BA															
2020	5	62822	Syncepha Blandford, LLC	IPP	Syncepha Taxes	NM	63123	SYNTA	3.1	Solar Photovoltaic	SUN	PV															
2020	5	20858	Wisconsin Power & Light Co	Electric Utility	TWE Bowman Solar Project	SC	62828	BOW	73.1	Solar Photovoltaic	SUN	PV															
2020	5	20858	Wisconsin Power & Light Co	Electric Utility	Riverside Energy Center	WI	55641	CTG3	225.0	Natural Gas Fired Combined Cycle	NG	CT															
2020	5	20858	Wisconsin Power & Light Co	Electric Utility	Riverside Energy Center	WI	55641	CTG4	225.0	Natural Gas Fired Combined Cycle	NG	CT															
2020	5	20858	Wisconsin Power & Light Co	Electric Utility	Riverside Energy Center	WI	55641	STG2	250.0	Natural Gas Fired Combined Cycle	NG	CA															
2020	6	61524	226HC 8me LLC	IPP	Holstein 1 Solar Farm	TX	61962	HSP01	200.0	Solar Photovoltaic	SUN	PV															
2020	6	61012	AES Distributed Energy	IPP	Borden Solar Farm	CA	59531	BRON	50.0	Solar Photovoltaic	SUN	PV															
2020	6	61012	AES Distributed Energy	IPP	Cornn Road Solar 1, LLC CSG Hybrid	MA	63011	CRON1	1.5	Solar Photovoltaic	SUN	PV															
2020	6	61012	AES Distributed Energy	IPP	Cyz Solar Project CSG Hybrid	MA	63472	BATT1	1.3	Batteries	MWH	BA															
2020	6	61012	AES Distributed Energy	IPP	Cyz Solar Project CSG Hybrid	MA	63472	CY2Z	2.0	Solar Photovoltaic	SUN	PV															
2020	6	61012	AES Distributed Energy	IPP	Partridge Solar Project CSG Hybrid	MA	63435	BATT1	1.3	Batteries	MWH	BA															
2020	6	61012	AES Distributed Energy	IPP	Partridge Solar Project CSG Hybrid	MA	63435	PRTDG	2.0	Solar Photovoltaic	SUN	PV															
2020	6	60281	Altus Power America Management, LLC	IPP	Alkali Solar, LLC	OR	63795	2	10.0	Solar Photovoltaic	SUN	PV															
2020	6	60281	Altus Power America Management, LLC	IPP	FastSun 2 CSG	MN	62696	FS2	110.0	Solar Photovoltaic	SUN	PV															
2020	6	10623	City of Lakeland - FLI	IPP	C.D. McIntosh Jr	FL	676	GT2	117.0	Natural Gas Fired Combustion Turbine	NG	GT															
2020	6	56769	Consolidated Edison Development Inc.	IPP	GED Crane Solar	TX	63519	CRN1	150.0	Solar Photovoltaic	SUN	PV															
2020	6	49846	Covantia Honolulu Resource Recovery	Commercial	H Power	HI	10334	PVMT	2.1	Solar Photovoltaic	SUN	PV															
2020	6	62800	DG Edison New Jersey LLC	IPP	DG Iron Mountain	NJ	62957	IRMNT	5.4	Solar Photovoltaic	SUN	PV															
2020	6	61420	DOMINION Energy Inc	Commercial	Myrtle Solar	VA	63746	MYSO	15.0	Solar Photovoltaic	SUN	PV															
2020	6	58135	Ecos Energy LLC	IPP	Pacific Union College BESS	CA	61795	12649	1.0	Batteries	MWH	BA															
2020	6	58135	Ecos Energy LLC	IPP	Dekinson Solar (CT)	CT	63245	DCKN	2.0	Solar Photovoltaic	SUN	PV															

Table 6.3. New Utility Scale Generating Units by Operating Company, Plant, and Month, 2020

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source	Prime Mover Code
2020	6	68135	Ecos Energy LLC	IPP	Sydney Solar	CT	63244	SYDN	2.0	Solar Photovoltaic	SUN	PV
2020	6	63693	Fort Rock Solar IV LLC	IPP	Fort Rock IV	OR	63276	FRV	10.0	Solar Photovoltaic	SUN	PV
2020	6	7140	Georgia Power Co	Electric Utility	Moody Air Force Base Solar	GA	62377	1	49.5	Solar Photovoltaic	SUN	PV
2020	6	63292	Harmony Florida Solar LLC	IPP	Harmony Solar	FL	63582	HFS	74.5	Solar Photovoltaic	SUN	PV
2020	6	63470	Illinois PV Fullon 1, LLC	IPP	Illinois PV Fullon 1 CSG	IL	63790	FULT	2.0	Solar Photovoltaic	SUN	PV
2020	6	9234	Indiana Municipal Power Agency	Electric Utility	Crawfordsville Solar Park 4	IN	62767	SCRA4	2.3	Solar Photovoltaic	SUN	PV
2020	6	61219	Longroad Energy Services LLC	IPP	Gas City Solar Park	IN	62767	SGASC	2.5	Solar Photovoltaic	SUN	PV
2020	6	62915	Madison Energy Holdings LLC	IPP	Prospero Solar	TX	62755	PROSP	300.0	Solar Photovoltaic	SUN	PV
2020	6	62915	Madison Energy Holdings LLC	IPP	Houston/Winona Community Solar One LLC	MN	63534	52827	1.0	Solar Photovoltaic	SUN	PV
2020	6	62915	Madison Energy Holdings LLC	IPP	Winona Community Solar One LLC	MN	63534	52837	1.0	Solar Photovoltaic	SUN	PV
2020	6	63529	Medusa NY 1, LLC	IPP	Medusa NY 1	NY	63854	8175C	2.0	Solar Photovoltaic	SUN	PV
2020	6	62864	Novel Haley Solar LLC CSG	IPP	Novel Haley Solar CSG	NY	63005	HALY	1.0	Solar Photovoltaic	SUN	PV
2020	6	63569	POET BioRefining, Shelbyville	Industrial	POET BioRefining - Shelbyville	IN	63921	1	5.5	Natural Gas Steam Turbine	NG	ST
2020	6	62653	Plum Creek Wind, LLC	IPP	Plum Creek Wind Project (NE)	NE	62711	PLUM	230.0	Onshore Wind Turbine	WND	WT
2020	6	61678	RE Rambler LLC	IPP	Rambler	TX	62741	RMBLR	200.0	Solar Photovoltaic	SUN	PV
2020	6	6215	RWE Renewables Americas LLC	IPP	Payton Creek Wind Farm LLC	TX	62417	WT1	220.0	Onshore Wind Turbine	WND	WT
2020	6	63460	Rock Garden, LLC	IPP	Rock Garden Solar, LLC	OR	63779	4	10.0	Solar Photovoltaic	SUN	PV
2020	6	62913	Roundhouse Renewable Energy, LLC	Industrial	Roundhouse Wind Energy Project	WY	63133	82059	124.0	Onshore Wind Turbine	WND	WT
2020	6	62913	Roundhouse Renewable Energy, LLC	Industrial	Roundhouse Wind Energy Project	WY	63133	82060	79.0	Onshore Wind Turbine	WND	WT
2020	6	62913	Roundhouse Renewable Energy, LLC	Industrial	Roundhouse Wind Energy Project	WY	63133	82061	23.0	Onshore Wind Turbine	WND	WT
2020	6	60531	Standard Solar	IPP	USS Maynew Solar LLC CSG	MN	63144	MAYHW	1.0	Solar Photovoltaic	SUN	PV
2020	6	60531	Standard Solar	IPP	USS Milkweed Solar LLC CSG	MN	63142	MLKWD	1.0	Solar Photovoltaic	SUN	PV
2020	6	60531	Standard Solar	IPP	USS Monarch Solar LLC CSG	MN	63147	MNRCH	1.0	Solar Photovoltaic	SUN	PV
2020	6	60531	Standard Solar	IPP	USS Sunrise Solar LLC CSG	MN	63141	SNRSE	1.0	Solar Photovoltaic	SUN	PV
2020	6	60531	Standard Solar	IPP	USS Western Solar LLC CSG	MN	63140	USSWS	1.0	Solar Photovoltaic	SUN	PV
2020	6	63290	Taylor Creek Solar LLC	IPP	Taylor Creek Solar	FL	63583	TCS	74.5	Solar Photovoltaic	SUN	PV
2020	6	63552	Walden NY 1, LLC	IPP	Walden NY 1	NY	63655	8179E	2.0	Solar Photovoltaic	SUN	PV
2020	6	63489	West Hines Solar 1, LLC	IPP	West Hines Solar 1, LLC	OR	63796	1	10.0	Solar Photovoltaic	SUN	PV
2020	7	61012	AES Distributed Energy	IPP	Allis Medina Solar LLC CSG	NY	63129	ALLIS	5.0	Solar Photovoltaic	SUN	PV
2020	7	61012	AES Distributed Energy	IPP	Partridge Hill Solar Hybrid	MA	63264	BAIT	1.3	Batteries	MWH	BA
2020	7	62834	Caden Energy Pampin LLC	IPP	Caden Energy Pampin LLC	VA	63083	ENX04	15.7	Solar Photovoltaic	SUN	PV
2020	7	7628	City of Greenfield - (A)	Electric Utility	Greenfield	IA	1144	1	2.5	Petroleum Liquids	DFO	IC
2020	7	7628	City of Greenfield - (A)	Electric Utility	Greenfield	IA	1144	2	2.5	Petroleum Liquids	DFO	IC
2020	7	6769	Consolidated Edison Development Inc.	IPP	CED Champaign Solar LLC	IL	62881	CSIL	1.6	Solar Photovoltaic	SUN	PV
2020	7	61060	Cypress Creek Renewables	IPP	Midlands	SC	63839	1113	72.1	Solar Photovoltaic	SUN	PV
2020	7	39347	East Texas Electric Coop. Inc	Electric Utility	RC Thomas Hydroelectric Project	TX	58645	RCT1	8.7	Conventional Hydroelectric	WAT	HY
2020	7	39347	East Texas Electric Coop. Inc	Electric Utility	RC Thomas Hydroelectric Project	TX	58645	RCT2	8.7	Conventional Hydroelectric	WAT	HY
2020	7	39347	East Texas Electric Coop. Inc	Electric Utility	RC Thomas Hydroelectric Project	TX	58645	RCT3	8.7	Conventional Hydroelectric	WAT	HY
2020	7	62856	Frontier Power, LLC	IPP	DGS Wasco State Prison	CA	63418	1122	2.3	Solar Photovoltaic	SUN	PV
2020	7	63572	Gateway Energy Storage, LLC	IPP	Gateway Energy Storage System	CA	63634	GTWAY	250.0	Batteries	MWH	BA
2020	7	60719	Harvest Ridge Wind Farm	IPP	Harvest Ridge Wind Farm	IL	61161	GEN01	202.0	Onshore Wind Turbine	WND	WT
2020	7	62638	Heien Solar LLC	IPP	Heien Solar CSG	MN	62706	SC	4.0	Solar Photovoltaic	SUN	PV
2020	7	9234	Indiana Municipal Power Agency	Electric Utility	Tell City Solar Park	IN	62790	STEL2	3.2	Solar Photovoltaic	SUN	PV
2020	7	10273	Kimberly-Clark Corp	Industrial	Chester Operations	PA	50410	6	14.1	Natural Gas Fired Combined Cycle	NG	CT
2020	7	62915	Madison Energy Holdings LLC	IPP	Nicollet Community Solar One LLC	MN	63120	52828	1.0	Solar Photovoltaic	SUN	PV
2020	7	11479	Madison Gas & Electric Co	Electric Utility	Middleton Airport Solar	WI	62731	1	5.0	Solar Photovoltaic	SUN	PV
2020	7	63471	NES Olympos	IPP	Lane II Solar, LLC	NC	63837	PV1	4.9	Solar Photovoltaic	SUN	PV
2020	7	56900	NUR Clean Energy Ventures Corporation	IPP	Monroe Solar Farm, LLC	NJ	63451	MONR1	13.1	Solar Photovoltaic	SUN	PV
2020	7	61156	NMRD Data Center, LLC	IPP	Encino Solar Energy Center	NM	63860	ESEC	55.0	Solar Photovoltaic	SUN	PV
2020	7	62640	Northfield Solar LLC	IPP	Northfield Solar CSG	MN	62708	SC	5.0	Solar Photovoltaic	SUN	PV
2020	7	62768	Oberon Solar IA	IPP	Oberon IA	TX	62933	OBRIA	150.0	Solar Photovoltaic	SUN	PV
2020	7	62789	Oberon Solar IB	IPP	Oberon IB	TX	62932	OBRIIB	30.0	Solar Photovoltaic	SUN	PV
2020	7	14063	Oklahoma Gas & Electric Co	Electric Utility	Chickasaw Nation Solar Farm	OK	63500	CVS1	5.0	Solar Photovoltaic	SUN	PV
2020	7	14063	Oklahoma Gas & Electric Co	Electric Utility	Choctaw Nation Solar Farm	OK	63499	CVS1	5.0	Solar Photovoltaic	SUN	PV
2020	7	63592	Riley Solar 1 LLC	IPP	Riley	OR	63925	RILEY	10.0	Solar Photovoltaic	SUN	PV
2020	7	61677	Sol Systems	IPP	Ruff Solar LLC	NC	62594	11625	5.0	Solar Photovoltaic	SUN	PV
2020	7	63459	Suntech Solar, LLC	IPP	Suntech Solar LLC	OR	63778	3	10.0	Solar Photovoltaic	SUN	PV
2020	7	62637	Walcott Solar LLC	IPP	Walcott Solar CSG	MN	62707	SC	4.0	Solar Photovoltaic	SUN	PV
2020	7	62841	Warsaw Solar LLC	IPP	Warsaw Solar CSG	MN	62709	SC	2.0	Solar Photovoltaic	SUN	PV
2020	7	20323	Wellhead Energy, LLC	IPP	Stanton Energy Reliability Center Hybrid	CA	60698	G11	45.9	Natural Gas Fired Combustion Turbine	NG	GT
2020	7	20323	Wellhead Energy, LLC	IPP	Stanton Energy Reliability Center Hybrid	CA	60698	G12	45.9	Natural Gas Fired Combustion Turbine	NG	GT
2020	7	63533	Westtown NY 2, LLC	IPP	Westtown NY 2	NY	63856	8175D	2.0	Solar Photovoltaic	SUN	PV

Table 6.3. New Utility Scale Generating Units by Operating Company, Plant, and Month, 2020

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
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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, 2020

Year	Month	Year	Entity ID	Entity Name	Plant Type	Plant Producer	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code
2020	1	3048	Duke Energy Progress - (NC)		Electric Utility	Ashville		NC	2706	1	183.0	Conventional Steam Coal	BIT	ST
2020	1	3048	Duke Energy Progress - (NC)		Electric Utility	Ashville		NC	2706	2	183.0	Conventional Steam Coal	BIT	ST
2020	1	9155	Inland Empire Energy Ctr LLC		IPP	Inland Empire Energy Center		CA	55853	1	343.0	Natural Gas Fired Combined Cycle	NG	CS
2020	1	9155	Inland Empire Energy Ctr LLC		IPP	Inland Empire Energy Center		CA	55853	2	343.0	Natural Gas Fired Combined Cycle	NG	CS
2020	1	12949	Morgantown Energy Associates		Electric CHP	Morgantown Energy Facility		WV	10743	1	50.0	Conventional Steam Coal	WC	ST
2020	1	15298	Talen Montana LLC		IPP	Calsrip		MT	6076	1	307.0	Conventional Steam Coal	SUB	ST
2020	1	15298	Talen Montana LLC		IPP	Calsrip		MT	6076	2	307.0	Conventional Steam Coal	SUB	ST
2020	1	18642	Tennessee Valley Authority		Electric Utility	Paradise		KY	1376	3	877.0	Conventional Steam Coal	BIT	ST
2020	1	2770	Terra-Gen Operating Co-Wind		IPP	Dwind Farms Ltd I		CA	54881	EXIS	7.3	Onshore Wind Turbine	WND	WT
2020	1	2770	Terra-Gen Operating Co-Wind		IPP	Dwind Farms Ltd II		CA	54882	EXIS	5.4	Onshore Wind Turbine	WND	WT
2020	1	2770	Terra-Gen Operating Co-Wind		IPP	Dwind Farms Ltd V		CA	54685	EXIS	11.6	Onshore Wind Turbine	WND	WT
2020	1	2770	Terra-Gen Operating Co-Wind		IPP	Terra-Gen 251 Wind LLC		CA	52161	WGENS	18.4	Onshore Wind Turbine	WND	WT
2020	1	2770	Terra-Gen Operating Co-Wind		IPP	Victory Garden Phase IV LLC		CA	52160	WGENS	22.0	Onshore Wind Turbine	WND	WT
2020	2	56653	Bos Dairy, LLC		Industrial	Bos Dairy, LLC		IN	57625	BOSS2	0.6	Natural Gas Internal Combustion Engine	NG	IC
2020	2	6526	FirstEnergy Generation Corp		IPP	FirstEnergy Esatake		OH	2837	6	24.0	Petroleum Liquids	DFO	GT
2020	2	57463	Kimberly-Clark Worldwide Inc		Industrial	Fullerton Mill CHP		CA	58083	STG1	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	CT
2020	2	2770	Terra-Gen Operating Co-Wind		IPP	Aleeth III		CA	50485	GEN2	21.7	Onshore Wind Turbine	WND	WT
2020	2	2770	Terra-Gen Operating Co-Wind		IPP	Aleeth III		CA	50485	GEN2	3.4	Onshore Wind Turbine	WND	WT
2020	2	2770	Terra-Gen Operating Co-Wind		IPP	Duct Wind Energy		CA	57301	DEC	8.0	Onshore Wind Turbine	WND	WT
2020	2	20541	Winnebago Environmental Systems		Electric CHP	Winnebago Frackville Energy		PA	50879	GEN1	42.5	Conventional Steam Coal	WC	ST
2020	3	4161	Constellation Power Source Gen		IPP	Notch Cliff		MD	1555	GTS	14.6	Natural Gas Fired Combined Cycle	NG	GT
2020	3	4161	Constellation Power Source Gen		IPP	Notch Cliff		MD	1555	GTS	15.6	Natural Gas Fired Combined Cycle	NG	GT
2020	3	4161	Constellation Power Source Gen		IPP	Notch Cliff		MD	1555	G71	14.5	Natural Gas Fired Combined Cycle	NG	GT
2020	3	4161	Constellation Power Source Gen		IPP	Notch Cliff		MD	1555	G18	16.0	Natural Gas Fired Combined Cycle	NG	GT
2020	3	3048	Duke Energy Progress - (NC)		Electric Utility	Darlington County		SC	3250	1	50.0	Natural Gas Fired Combined Cycle	NG	GT
2020	3	3048	Duke Energy Progress - (NC)		Electric Utility	Darlington County		SC	3250	10	49.0	Petroleum Liquids	DFO	GT
2020	3	3046	Duke Energy Progress - (NC)		Electric Utility	Darlington County		SC	3250	2	48.0	Petroleum Liquids	DFO	GT
2020	3	3046	Duke Energy Progress - (NC)		Electric Utility	Darlington County		SC	3250	3	50.0	Natural Gas Fired Combined Cycle	NG	GT
2020	3	3046	Duke Energy Progress - (NC)		Electric Utility	Darlington County		SC	3250	4	48.0	Petroleum Liquids	DFO	GT
2020	3	3046	Duke Energy Progress - (NC)		Electric Utility	Darlington County		SC	3250	6	43.0	Petroleum Liquids	DFO	GT
2020	3	3046	Duke Energy Progress - (NC)		Electric Utility	Darlington County		SC	3250	7	47.0	Natural Gas Fired Combined Cycle	NG	GT
2020	3	3046	Duke Energy Progress - (NC)		Electric Utility	Darlington County		SC	3250	8	44.0	Petroleum Liquids	DFO	GT
2020	3	5860	Empire District Electric Co		Electric Utility	Asbury		MO	2076	1	198.0	Conventional Steam Coal	SUB	ST
2020	3	7049	General Electric Aircraft Engines		Industrial	General Electric Aircraft Engines		MA	10029	GEN5	8.5	Natural Gas Steam Turbine	NG	ST
2020	3	7049	General Electric Aircraft Engines		Industrial	General Electric Aircraft Engines		MA	10029	GEN6	8.5	Natural Gas Steam Turbine	NG	ST
2020	3	7049	General Electric Aircraft Engines		Industrial	General Electric Aircraft Engines		MA	10029	GEN7	6.8	Natural Gas Steam Turbine	NG	ST
2020	3	56046	High Plains Wind Power LLC		IPP	High Plains		TX	56834	1	10.0	Onshore Wind Turbine	WND	WT
2020	3	16668	Sabine Cogen LP		Electric CHP	Sabine Cogen		TX	55104	CTG1	33.1	Natural Gas Fired Combined Cycle	NG	CT
2020	3	16668	Sabine Cogen LP		Electric CHP	Sabine Cogen		TX	55104	CTG2	33.6	Natural Gas Fired Combined Cycle	NG	CT
2020	3	22128	Somerset Operating Co LLC		IPP	Somerset Operating Co LLC		NY	6082	1	685.9	Conventional Steam Coal	BIT	ST
2020	3	2770	Terra-Gen Operating Co-Wind		IPP	Windland		CA	50386	WING	15.3	Onshore Wind Turbine	WND	WT
2020	4	6027	Energy Nuclear Indian Point 2		IPP	Indian Point 2		NY	2497	2	1,016.1	Nuclear	NUC	ST
2020	4	55970	JHP Pharmaceuticals LLC		Industrial	Par Sterile Products		MI	50318	38-1	2.8	Natural Gas Fired Combined Cycle	LFG	IC
2020	5	57173	AC Landfill Energy LLC		IPP	AC Landfill Energy LLC		NJ	57845	UNIT1	1.5	Landfill Gas	LFG	IC
2020	5	57173	AC Landfill Energy LLC		IPP	AC Landfill Energy LLC		NJ	57845	UNIT2	1.8	Landfill Gas	LFG	IC
2020	5	57175	BC Landfill Energy LLC		IPP	BC Landfill Energy LLC		NJ	57847	UNIT1	1.4	Landfill Gas	LFG	IC
2020	5	57175	BC Landfill Energy LLC		IPP	BC Landfill Energy LLC		NJ	57847	UNIT2	1.4	Landfill Gas	LFG	IC
2020	5	57175	BC Landfill Energy LLC		IPP	BC Landfill Energy LLC		NJ	57847	UNIT3	1.4	Landfill Gas	LFG	IC
2020	5	57175	BC Landfill Energy LLC		IPP	BC Landfill Energy LLC		NJ	57847	UNIT4	1.4	Landfill Gas	LFG	IC
2020	5	57175	BC Landfill Energy LLC		IPP	BC Landfill Energy LLC		NJ	57847	UNIT5	1.4	Landfill Gas	LFG	IC
2020	5	14268	City of Owensboro - (KY)		Electric Utility	Elmer Smith		KY	1374	1	137.0	Conventional Steam Coal	BIT	ST
2020	5	14268	City of Owensboro - (KY)		Electric Utility	Elmer Smith		KY	1374	2	262.8	Conventional Steam Coal	BIT	ST
2020	5	59678	Clean Fuel Partners Dane		Electric CHP	Clean Fuel Dane Community Digester		WI	59559	GEN#1	1.0	Other Waste Biomass	OBG	IC
2020	5	59678	Clean Fuel Partners Dane		Electric CHP	Clean Fuel Dane Community Digester		WI	59559	GEN#2	1.0	Other Waste Biomass	OBG	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	5	15174	Freeport McMoran Oil & Gas		Industrial	Gaviota Oil Plant		CA	50623	GENA	3.0	Natural Gas Fired Combined Cycle	NG	GT
2020	5	15174	Freeport McMoran Oil & Gas		Industrial	Gaviota Oil Plant		CA	50623	GENB	3.0	Natural Gas Fired Combined Cycle	NG	GT
2020	5	15174	Freeport McMoran Oil & Gas		Industrial	Gaviota Oil Plant		CA	50623	GENC	3.0	Natural Gas Fired Combined Cycle	NG	GT

Table 6.4. Retired Utility Scale Generating Units by Operating Company, Plant, and Month, 2020

Year	Month	Entity ID	Entity Name	Plant Producer Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source	Prime Mover Code
2020	5	15174	resport McMoran Oil & Gas	Industrial	Gaveta Oil Plant	CA	50623	GEND	3.0	Natural Gas Fired Combustion Turbine	NG	GT
2020	5	9379	Inter-Power/AltCon Partners, L.P.	IPP	Coker Power Project	PA	10743	COLV	110.0	Conventional Steam Coal	WC	ST
2020	5	57172	SC Landfill Energy LLC	IPP	SC Landfill Energy LLC	NJ	57843	GEN1	1.8	Landfill Gas	WFG	IC
2020	5	57174	SX Landfill Energy LLC	IPP	SX Landfill Energy LLC	NJ	57846	UNIT1	1.5	Landfill Gas	WFG	IC
2020	5	57174	SX Landfill Energy LLC	IPP	SX Landfill Energy LLC	NJ	57846	UNIT2	1.5	Landfill Gas	WFG	IC
2020	5	17698	Southwestern Electric Power Co	Electric Utility	Knox Lee	TX	3476	2	31.0	Natural Gas Steam Turbine	NG	ST
2020	5	17698	Southwestern Electric Power Co	Electric Utility	Knox Lee	TX	3476	3	25.0	Natural Gas Steam Turbine	NG	ST
2020	5	17698	Southwestern Electric Power Co	Electric Utility	Lieberman	LA	1417	2	26.0	Natural Gas Steam Turbine	NG	ST
2020	5	17698	Southwestern Electric Power Co	Electric Utility	Lone Star	TX	3477	1	50.0	Natural Gas Steam Turbine	NG	ST
2020	5	17897	St Mary's Hospital	Commercial	Saint Mary's Hospital Power Plant	MN	54262	6	2.7	Natural Gas Internal Combustion Engine	NG	IC
2020	6	58620	AEP Generation Resources Inc	IPP	Conesville	OH	2840	4	780.0	Conventional Steam Coal	BIT	ST
2020	6	61351	APTIM Environmental & Infrastructure	IPP	Keystone Recovery	PA	54934	NO 1	0.7	Landfill Gas	WFG	IC
2020	6	61351	APTIM Environmental & Infrastructure	IPP	Keystone Recovery	PA	54934	NO 2	0.7	Landfill Gas	WFG	IC
2020	6	61351	APTIM Environmental & Infrastructure	IPP	Keystone Recovery	PA	54934	NO 3	0.7	Landfill Gas	WFG	IC
2020	6	61351	APTIM Environmental & Infrastructure	IPP	Keystone Recovery	PA	54934	NO 4	0.7	Landfill Gas	WFG	IC
2020	6	61351	APTIM Environmental & Infrastructure	IPP	Keystone Recovery	PA	54934	NO 5	0.7	Landfill Gas	WFG	IC
2020	6	61351	APTIM Environmental & Infrastructure	IPP	Keystone Recovery	PA	54934	NO 6	0.7	Landfill Gas	WFG	IC
2020	6	61351	APTIM Environmental & Infrastructure	IPP	Keystone Recovery	PA	54934	NO 7	0.7	Landfill Gas	WFG	IC
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	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	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	WFG	ST
2020	6	6035	Exelon Power	IPP	Fairless Hills	PA	7701	B	30.0	Landfill Gas	WFG	ST
2020	6	60422	H.A. Wagner LLC	IPP	Herbert A. Wagner	MD	1554	2	118.0	Conventional Steam Coal	RC	ST
2020	6	20856	Wisconsin Power & Light Co	Electric Utility	Rock River	WI	4057	3	21.5	Natural Gas Fired Combustion Turbine	NG	GT
2020	6	20856	Wisconsin Power & Light Co	Electric Utility	Rock River	WI	4057	4	14.3	Natural Gas Fired Combustion Turbine	NG	GT
2020	6	20856	Wisconsin Power & Light Co	Electric Utility	Rock River	WI	4057	5	45.1	Natural Gas Fired Combustion Turbine	NG	GT
2020	6	20856	Wisconsin Power & Light Co	Electric Utility	Rock River	WI	4057	6	33.7	Natural Gas Fired Combustion Turbine	NG	GT
2020	6	20856	Wisconsin Power & Light Co	Electric Utility	Sheepskin	WI	4059	1	27.2	Natural Gas Fired Combustion Turbine	NG	GT
2020	7	13758	Northern Indiana Pub. Serv Co	Electric Utility	Baily	IN	995	10	31.0	Natural Gas Fired Combustion Turbine	NG	GT
2020	7	20737	Wilmar Municipal Utilities	Electric Utility	Wilmar	MN	2022	3	16.8	Natural Gas Steam Turbine	NG	ST
2020	7	20737	Wilmar Municipal Utilities	Electric Utility	Wilmar	MN	2022	ST2	6.5	Natural Gas Steam Turbine	NG	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

Table with columns: Year, Month, Entity ID, Entity Name, Plant Type, Plant Name, Plant State, Plant ID, Generator ID, Technology, Energy Source Code, Prime Mover Code, Status, and Nameplate Capacity (MW). The table lists various power generation projects across the United States, including solar, wind, hydro, and combined cycle plants, with their respective statuses and capacities.

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	Prime Mover Code
2020	8	12653	GenOn Mid-Atlantic LLC	IPP	Dickerson	MD	1572	2	173.0	Conventional Steam Coal	BIT	ST
2020	8	12653	GenOn Mid-Atlantic LLC	IPP	Dickerson	MD	1572	3	173.0	Conventional Steam Coal	BIT	ST
2020	8	12653	GenOn Mid-Atlantic LLC	IPP	Dickerson	MD	1572	ST1	173.0	Conventional Steam Coal	BIT	ST
2020	9	2848	California Institute-Technology	Commercial	California Institute of Technology	CA	10262	GEN6	9.0	Natural Gas Fired Combined Cycle	NG	CT
2020	9	11713	City of Marshall - (M)	Electric Utility	Marshall (M)	MI	1844	IC2	0.9	Natural Gas Internal Combustion Engine	NG	IC
2020	9	11713	City of Marshall - (M)	Electric Utility	Marshall (M)	MI	1844	IC4	0.7	Petroleum Liquids	DFO	IC
2020	9	6458	Duke Energy Florida, LLC	Electric Utility	Avon Park	FL	624	P1	24.0	Natural Gas Fired Combustion Turbine	NG	GT
2020	9	6458	Duke Energy Florida, LLC	Electric Utility	Avon Park	FL	624	P2	24.0	Petroleum Liquids	DFO	GT
2020	9	15474	Public Service Co of Oklahoma	Electric Utility	Oklahoma	TX	127		650.0	Conventional Steam Coal	SUB	ST
2020	10	4385	Anderson Power Products	Industrial	Anderson Power Products Division	MA	10553	3622	0.1	Petroleum Liquids	DFO	IC
2020	10	4385	Anderson Power Products	Industrial	Anderson Power Products Division	MA	10553	6033	0.3	Petroleum Liquids	DFO	IC
2020	10	4385	Anderson Power Products	Industrial	Anderson Power Products Division	MA	10553	6035	0.3	Petroleum Liquids	DFO	IC
2020	10	4385	Anderson Power Products	Industrial	Anderson Power Products Division	MA	10553	6046	0.3	Petroleum Liquids	DFO	IC
2020	10	1759	Bioia University	Commercial	Bioia University Hybrid	CA	54296	EG2	0.6	Natural Gas Internal Combustion Engine	NG	IC
2020	10	1759	Bioia University	Commercial	Bioia University Hybrid	CA	54296	EG3	0.6	Natural Gas Internal Combustion Engine	NG	IC
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	189	PowerSouth Energy Cooperative	Electric Utility	Charles R Lowman	AL	56	1	76.0	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	10	16857	San Jose/Santa Clara Water P C	Commercial	SJSC WPCP	CA	56080	EG1	2.8	Natural Gas Internal Combustion Engine	NG	IC
2020	10	16857	San Jose/Santa Clara Water P C	Commercial	SJSC WPCP	CA	56080	EG2	2.8	Natural Gas Internal Combustion Engine	NG	IC
2020	10	16857	San Jose/Santa Clara Water P C	Commercial	SJSC WPCP	CA	56080	EG3	2.8	Natural Gas Internal Combustion Engine	NG	IC
2020	12	803	Arizona Public Service Co	Electric Utility	Cholla	AZ	113	4	380.0	Conventional Steam Coal	SUB	ST
2020	12	17633	City Utilities of Springfield - (MO)	Electric Utility	James River Power Station	MO	2161	4	56.0	Natural Gas Steam Turbine	NG	ST
2020	12	17633	City Utilities of Springfield - (MO)	Electric Utility	James River Power Station	MO	2161	5	97.0	Natural Gas Steam Turbine	NG	ST
2020	12	17628	City of Springfield - (IL)	Electric Utility	Dalman	IL	963	1	73.0	Conventional Steam Coal	BIT	ST
2020	12	17628	City of Springfield - (IL)	Electric Utility	Dalman	IL	963	2	70.5	Conventional Steam Coal	BIT	ST
2020	12	6452	Florida Power & Light Co	Electric Utility	Indowdown Cogeneration LP	FL	50976	GEN1	330.0	Conventional Steam Coal	BIT	ST
2020	12	7490	Grand River Dam Authority	Electric Utility	GREC	OK	165	1	40.0	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	12119	McGrath Light & Power Co	Electric Utility	McGrath	AK	6555	7	0.6	Petroleum Liquids	DFO	IC
2020	12	58341	McKinley Paper Co. - Washington Mill	Industrial	McKinley Paper Co. - Washington Mill	WA	58352	G-11	20.0	Wood/Wood Waste Biomass	WDS	ST
2020	12	55269	NextEra Energy Duane Arnold LLC	IPP	Duane Arnold Energy Center	IA	1060	1	607.4	Nuclear	NUC	ST
2020	12	14328	Pacific Gas & Electric Co.	Electric Utility	Cow Creek	CA	229	1	0.9	Conventional Hydroelectric	WAT	HY
2020	12	14328	Pacific Gas & Electric Co.	Electric Utility	Cow Creek	CA	229	2	0.9	Conventional Hydroelectric	WAT	HY
2020	12	19099	TransAlta Centralia Gen LLC	IPP	TransAlta Centralia Generation	WA	3845	1	670.0	Conventional Steam Coal	RC	ST
2020	12	30151	Tri-State S & T Assn, Inc	Electric Utility	Escalante	NM	87	1	253.0	Conventional Steam Coal	SUB	ST
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	14328	Pacific Gas & Electric Co.	Electric Utility	Kiarc	CA	253	1	1.6	Conventional Hydroelectric	WAT	HY
2021	1	15248	Portland General Electric Co	Electric Utility	Boardman	OR	6106	1	585.0	Conventional Steam Coal	SUB	ST
2021	1	61854	Veeva Energy Operating Service	Electric CHP	Snuance Operating Services LLC	VA	54081	GEN1	52.5	Conventional Steam Coal	BIT	ST
2021	1	61854	Veeva Energy Operating Service	Electric CHP	Snuance Operating Services LLC	VA	54081	GEN2	52.5	Conventional Steam Coal	BIT	ST
2021	2	11624	Massachusetts Inst of Tech	Commercial	Mass Inst Tech Criff Utilities/Cogan Pit	MA	54907	CTGT	19.0	Natural Gas Fired Combustion Turbine	NG	GT
2021	2	12119	McGrath Light & Power Co	Electric Utility	McGrath	AK	6555	3A	0.5	Petroleum Liquids	DFO	IC
2021	2	12119	McGrath Light & Power Co	Electric Utility	McGrath	AK	6555	4A	0.5	Petroleum Liquids	DFO	IC
2021	2	12119	McGrath Light & Power Co	Electric Utility	McGrath	AK	6555	6	0.6	Petroleum Liquids	DFO	IC
2021	3	12199	Montana-Dakota Utilities Co	Electric Utility	Lewis & Clark	MT	6089	1	53.1	Conventional Steam Coal	UG	ST
2021	4	6028	Energy Nuclear Indian Point 3	IPP	Indian Point 3	NY	8807	3	1,037.9	Nuclear	NUC	ST
2021	5	9273	Indianapolis Power & Light Co	Electric Utility	AES Petersburg	IN	594	ST1	222.5	Conventional Steam Coal	BIT	ST
2021	5	54899	NAES Corporation - (DE)	IPP	McKee Run	DE	599	3	103.1	Natural Gas Steam Turbine	NG	ST
2021	5	19876	Virginie Electric & Power Co	Electric Utility	Possum Point	VA	3904	5	786.0	Petroleum Liquids	RFO	IC
2021	6	6526	FirstEnergy Generation Corp	IPP	FirstEnergy W H Sammis	OH	2866	A1	3.0	Petroleum Liquids	DFO	IC
2021	6	6526	FirstEnergy Generation Corp	IPP	FirstEnergy W H Sammis	OH	2866	B1	3.0	Petroleum Liquids	DFO	IC

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

Year	Month	Entity ID	Entity Name	Plant Producer	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source	Prime Mover Code
2021	6	6528	FirstEnergy Generation Corp	IPP	FirstEnergy W H Sammis	OH	2866	B3	3.0	Petroleum Liquids	DFO	IC
2021	6	6528	FirstEnergy Generation Corp	IPP	FirstEnergy W H Sammis	OH	2866	B3	2.0	Petroleum Liquids	DFO	IC
2021	6	6528	FirstEnergy Generation Corp	IPP	FirstEnergy W H Sammis	OH	2866	B4	2.0	Petroleum Liquids	DFO	IC
2021	6	6909	Gainesville Regional Utilities	Electric Utility	John R Kelly	FL	664	8	36.0	Natural Gas Fired Combined Cycle	NG	CA
2021	6	12628	GenOn Chalk Point, LLC	IPP	Chalk Point LLC	MD	1571	ST1	333.1	Conventional Steam Coal	BIT	ST
2021	6	12628	GenOn Chalk Point, LLC	IPP	Chalk Point LLC	MD	1571	ST2	336.9	Conventional Steam Coal	BIT	ST
2021	6	14232	Other Tail Power Co	Electric Utility	Hoot Lake	MN	1943	2	56.0	Conventional Steam Coal	SUB	ST
2021	6	14232	Other Tail Power Co	Electric Utility	Hoot Lake	MN	1943	3	80.0	Conventional Steam Coal	SUB	ST
2021	6	14232	Other Tail Power Co	Electric Utility	Hoot Lake	MN	1943	D1	0.2	Petroleum Liquids	DFO	IC
2021	6	14232	Other 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	20719	Snowbird Corporation	Commercial	Snowbird Power Plant	UT	10215	1367	0.6	Natural Gas Internal Combustion Engine	NG	IC
2021	6	20719	Snowbird Corporation	Commercial	Snowbird Power Plant	UT	10215	1391	0.6	Natural Gas Internal Combustion Engine	NG	IC
2021	6	20719	Snowbird Corporation	Commercial	Snowbird Power Plant	UT	10215	1392	0.6	Natural Gas Internal Combustion Engine	NG	IC
2021	7	18301	City of Summer - (A)	Electric Utility	Summer	IA	1191	1	2.8	Petroleum Liquids	DFO	IC
2021	7	18301	City of Summer - (A)	Electric Utility	Summer	IA	1191	2	1.1	Petroleum Liquids	DFO	IC
2021	7	18301	City of Summer - (A)	Electric Utility	Summer	IA	1191	6	1.8	Petroleum Liquids	DFO	IC
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	55951	Exelon Nuclear	IPP	Byron Generating Station	IL	6023	1	1,164.0	Nuclear	NUC	ST
2021	9	55951	Exelon Nuclear	IPP	Byron Generating Station	IL	6023	2	1,136.0	Nuclear	NUC	ST
2021	9	17166	Sierra Pacific Power Co	Electric Utility	Fort Churchill	NV	2330	2	113.0	Natural Gas Steam Turbine	NG	ST
2021	11	55951	Exelon Nuclear	IPP	Dresden Generating Station	IL	869	2	902.0	Nuclear	NUC	ST
2021	11	55951	Exelon Nuclear	IPP	Dresden Generating Station	IL	869	3	895.0	Nuclear	NUC	ST
2021	11	18454	Tampa Electric Co	Electric Utility	Big Bend	FL	645	ST2	385.0	Conventional Steam Coal	BIT	ST
2021	11	60538	Vitro Architectural Glass	Industrial	Works 4	TX	54364	L3G	2.0	Petroleum Liquids	DFO	IC
2021	12	4716	Dairyland Power Corp	Electric Utility	Gamba	WI	4143	ST3	307.5	Conventional Steam Coal	SUB	ST
2021	12	9417	Interstate Power and Light Co	Electric Utility	Burlington (IA)	IA	1104	1	205.3	Conventional Steam Coal	SUB	ST
2021	12	11479	Madison Gas & Electric Co	Electric Utility	Fitchburg	WI	3991	1	16.6	Natural Gas Fired Combustion Turbine	NG	GT
2021	12	11479	Madison Gas & Electric Co	Electric Utility	Fitchburg	WI	3991	2	15.8	Natural Gas Fired Combustion Turbine	NG	GT
2021	12	11479	Madison Gas & Electric Co	Electric Utility	Fitchburg	WI	9674	GT1	12.5	Natural Gas Fired Combustion Turbine	NG	GT
2021	12	11479	Madison Gas & Electric Co	Electric Utility	Sycamore (WI)	WI	3993	1	11.4	Natural Gas Fired Combustion Turbine	NG	GT
2021	12	11479	Madison Gas & Electric Co	Electric Utility	Sycamore (WI)	WI	3993	2	16.9	Natural Gas Fired Combustion Turbine	NG	GT
2021	12	60558	Rock County Energy Center, LLC	IPP	Minwind 3-9	MN	56123	1	11.6	Onshore Wind Turbine	WND	WT
2021	12	16534	Sacramento Municipal Utili Dist	Electric Utility	White Rock/Stab Creek	CA	435	H4	0.5	Conventional Hydroelectric	WAT	HY
2021	12	17166	Sierra Pacific Power Co	Electric Utility	North Valley	NV	8224	1	254.0	Conventional Steam Coal	SUB	ST
2021	12	59409	Eco Services Corp.	Industrial	Houston Plant	TX	52065	GEN2	1.5	All Other	WH	ST
2022	3	12198	Montana-Dakota Utilities Co	Electric Utility	R M Heskett	ND	2790	1	29.5	Conventional Steam Coal	LIG	ST
2022	3	12198	Montana-Dakota Utilities Co	Electric Utility	R M Heskett	ND	2790	2	74.8	Conventional Steam Coal	LIG	ST
2022	3	60538	Vitro Architectural Glass	Industrial	Works 4	TX	54364	L1G	2.0	Petroleum Liquids	DFO	IC
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	River Rouge	MI	1740	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	5	61013	Northern Westchester Hospital	Commercial	Northern Westchester Hospital	NY	61378	4	0.8	Petroleum Liquids	DFO	IC
2022	5	61013	Northern Westchester Hospital	Commercial	Northern Westchester Hospital	NY	61378	5	0.8	Petroleum Liquids	DFO	IC
2022	6	23278	Allegheny Energy Supply Co LLC	IPP	FirstEnergy Pleasant Power Station	WV	6004	1	644.0	Conventional Steam Coal	RC	ST
2022	6	23278	Allegheny Energy Supply Co LLC	IPP	FirstEnergy Pleasant Power Station	WV	6004	2	644.0	Conventional Steam Coal	RC	ST
2022	6	11241	Entergy Louisiana LLC	Electric Utility	Stirlington	LA	1404	7A	47.0	Natural Gas Fired Combustion Turbine	NG	GT
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	211.6	Natural Gas Steam Turbine	NG	ST
2022	6	9210	International Paper Co-Riegelwood	Industrial	International Paper Riegelwood Mill	NC	54556	NO 1	7.8	Wood/Wood Waste Biomass	BLO	ST
2022	6	14584	Pawucket Power Associates LP	IPP	Pawucket Power Associates	RI	54056	GEN1	33.0	Natural Gas Fired Combined Cycle	NG	CT
2022	6	15473	Public Service Co of NM	Electric Utility	San Juan	NM	2451	1	340.0	Conventional Steam Coal	RC	ST
2022	6	15473	Public Service Co of NM	Electric Utility	San Juan	NM	2451	4	507.0	Conventional Steam Coal	RC	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	9	17718	Southwestern Public Service Co	Electric Utility	Plant X	TX	3485	2	90.0	Natural Gas Steam Turbine	NG	ST

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

Year	Month	Entity ID	Entity Name	Plant Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code
2022	10	7570	Great River Energy	Electric Utility	Coal Creek	ND	6030	1	565.7	Conventional Steam Coal	RC	ST
2022	10	7570	Great River Energy	Electric Utility	Coal Creek	ND	6030	2	380.5	Conventional Steam Coal	RC	ST
2022	10	7570	Great River Energy	Electric Utility	Coal Creek	ND	6030	4	3.0	Petroleum Liquids	DFO	IC
2022	10	7570	Great River Energy	Electric Utility	Coal Creek	ND	6030	5	3.0	Petroleum Liquids	DFO	IC
2022	12	3989	City of Colorado Springs - (CO)	Electric Utility	Marlin Drake	CO	492	6	77.0	Conventional Steam Coal	SUB	ST
2022	12	3989	City of Colorado Springs - (CO)	Electric Utility	Marlin Drake	CO	492	7	131.0	Conventional Steam Coal	SUB	ST
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	76.0	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	Ro Grande	NM	2444	6	45.0	Natural Gas Steam Turbine	NG	ST
2022	12	5701	El Paso Electric Co	Electric Utility	Ro Grande	NM	2444	7	46.0	Natural Gas Steam Turbine	NG	ST
2022	12	6909	Gainesville Regional Utilities	Electric Utility	Dierhaven Generating Station	FL	663	3	75.0	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	15468	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	19438	Union Electric Co - (MO)	Electric Utility	Meramec	MO	2104	1	118.0	Natural Gas Steam Turbine	NG	ST
2022	12	19438	Union Electric Co - (MO)	Electric Utility	Meramec	MO	2104	2	118.0	Natural Gas Steam Turbine	NG	ST
2022	12	19438	Union Electric Co - (MO)	Electric Utility	Meramec	MO	2104	3	260.0	Conventional Steam Coal	SUB	ST
2022	12	19438	Union Electric Co - (MO)	Electric Utility	Meramec	MO	2104	4	334.0	Conventional Steam Coal	SUB	ST
2022	12	20856	Wisconsin Power & Light Co	Electric Utility	Edgewater	WI	4050	5	413.6	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	67301	Orchard Mesa Irrigation District	Electric Utility	Grand Valley Project Power Plant	CO	473	1	1.5	Conventional Hydroelectric	WAT	HY
2023	1	61958	South Nassau Communities Hospital	Commercial	Mount Sinai South Nassau	NY	62447	1	1.1	Petroleum Liquids	DFO	IC
2023	1	61958	South Nassau Communities Hospital	Commercial	Mount Sinai South Nassau	NY	62447	2	0.8	Petroleum Liquids	DFO	IC
2023	1	61958	South Nassau Communities Hospital	Commercial	Mount Sinai South Nassau	NY	62447	3	1.0	Petroleum Liquids	DFO	IC
2023	1	19876	Virginia Electric & Power Co	Electric Utility	Chesfield	VA	3797	5	336.0	Conventional Steam Coal	BIT	ST
2023	1	19876	Virginia Electric & Power Co	Electric Utility	Chesfield	VA	3797	6	670.0	Conventional Steam Coal	BIT	ST
2023	1	19876	Virginia Electric & Power Co	Electric Utility	Yorktown	VA	3809	3	790.0	Petroleum Liquids	RFO	ST
2023	3	50129	Georgia-Pacific Ops Op LLC Port Hudson	Industrial	Georgia-Pacific Port Hudson	LA	10812	GEN2	60.0	Natural Gas Steam Turbine	NG	ST
2023	3	13399	Nevada Cogeneration Assoc # 1	Electric CHP	Nevada Cogen Assoc#1 GameVly	NV	54350	G1A	20.5	Natural Gas Fired Combined Cycle	NG	CT
2023	3	13399	Nevada Cogeneration Assoc # 1	Electric CHP	Nevada Cogen Assoc#1 GameVly	NV	54350	G1B	20.5	Natural Gas Fired Combined Cycle	NG	CT
2023	3	13399	Nevada Cogeneration Assoc # 1	Electric CHP	Nevada Cogen Assoc#1 GameVly	NV	54350	G1C	20.5	Natural Gas Fired Combined Cycle	NG	CT
2023	3	13399	Nevada Cogeneration Assoc # 1	Electric CHP	Nevada Cogen Assoc#1 GameVly	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	G1A	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	G1B	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	G1C	21.7	Natural Gas Fired Combined Cycle	NG	CT
2023	5	4254	Consumers Energy Co	Electric Utility	Dan E Kam	MI	1702	1A	127.5	Conventional Steam Coal	SUB	ST
2023	5	4254	Consumers Energy Co	Electric Utility	Dan E Kam	MI	1702	1B	127.5	Conventional Steam Coal	SUB	ST
2023	5	4254	Consumers Energy Co	Electric Utility	Dan E Kam	MI	1702	2A	126.5	Conventional Steam Coal	SUB	ST
2023	5	4254	Consumers Energy Co	Electric Utility	Dan E Kam	MI	1702	2B	126.5	Conventional Steam Coal	SUB	ST
2023	5	9267	Hoosier Energy R E C, Inc	Electric Utility	Marom	IN	6213	1	497.0	Conventional Steam Coal	BIT	ST
2023	5	9273	Indianapolis Power & Light Co	Electric Utility	AES Petersburg	IN	694	2	494.0	Conventional Steam Coal	BIT	ST
2023	5	13582	NRG Astoria Gas Turbine Operations Inc	IPP	Astoria Gas Turbines	NY	55243	ST12	421.8	Conventional Steam Coal	BIT	ST
2023	5	13582	NRG Astoria Gas Turbine Operations Inc	IPP	Astoria Gas Turbines	NY	55243	2-1	35.6	Natural Gas Fired Combustion Turbine	NG	GT
2023	5	13582	NRG Astoria Gas Turbine Operations Inc	IPP	Astoria Gas Turbines	NY	55243	2-2	34.2	Natural Gas Fired Combustion Turbine	NG	GT
2023	5	13582	NRG Astoria Gas Turbine Operations Inc	IPP	Astoria Gas Turbines	NY	55243	2-3	36.9	Natural Gas Fired Combustion Turbine	NG	GT
2023	5	13582	NRG Astoria Gas Turbine Operations Inc	IPP	Astoria Gas Turbines	NY	55243	3-1	35.1	Natural Gas Fired Combustion Turbine	NG	GT
2023	5	13582	NRG Astoria Gas Turbine Operations Inc	IPP	Astoria Gas Turbines	NY	55243	3-2	34.6	Natural Gas Fired Combustion Turbine	NG	GT
2023	5	13582	NRG Astoria Gas Turbine Operations Inc	IPP	Astoria Gas Turbines	NY	55243	3-3	35.2	Natural Gas Fired Combustion Turbine	NG	GT
2023	5	13582	NRG Astoria Gas Turbine Operations Inc	IPP	Astoria Gas Turbines	NY	55243	3-4	34.9	Natural Gas Fired Combustion Turbine	NG	GT
2023	5	13582	NRG Astoria Gas Turbine Operations Inc	IPP	Astoria Gas Turbines	NY	55243	3-5	36.1	Natural Gas Fired Combustion Turbine	NG	GT
2023	5	13582	NRG Astoria Gas Turbine Operations Inc	IPP	Astoria Gas Turbines	NY	55243	4-1	31.9	Natural Gas Fired Combustion Turbine	NG	GT
2023	5	13582	NRG Astoria Gas Turbine Operations Inc	IPP	Astoria Gas Turbines	NY	55243	4-2	33.5	Natural Gas Fired Combustion Turbine	NG	GT
2023	5	13582	NRG Astoria Gas Turbine Operations Inc	IPP	Astoria Gas Turbines	NY	55243	4-3	34.1	Natural Gas Fired Combustion Turbine	NG	GT
2023	5	13582	NRG Astoria Gas Turbine Operations Inc	IPP	Astoria Gas Turbines	NY	55243	4-4	33.3	Natural Gas Fired Combustion Turbine	NG	GT
2023	6	18488	City of Taunton	Electric Utility	Chevy Flood Hybrid	MA	1682	8	26.0	Petroleum Liquids	RFO	ST

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

Year	Month	Entity ID	Entity Name	Plant Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source	Prime Mover Code
2023	6	12653	Energy Mississippi LLC	Electric Utility	Baker Wilson	MS	2050	1	494.3	Natural Gas Steam Turbine	NG	ST
2023	6	13756	Northern Indiana Pub. Serv Co	Electric Utility	R M Schaffner	IN	6085	14	472.0	Conventional Steam Coal	SUB	ST
2023	6	13756	Northern Indiana Pub. Serv Co	Electric Utility	R M Schaffner	IN	6085	15	432.0	Conventional Steam Coal	SUB	ST
2023	6	13756	Northern Indiana Pub. Serv Co	Electric Utility	R M Schaffner	IN	6085	17	361.0	Conventional Steam Coal	BIT	ST
2023	6	13756	Northern Indiana Pub. Serv Co	Electric Utility	R M Schaffner	IN	6085	18	361.0	Conventional Steam Coal	BIT	ST
2023	9	17168	Sierra Pacific Power Co.	Electric Utility	Brunswick	NV	6510	2	2.0	Petroleum Liquids	DFO	IC
2023	9	17168	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	17628	City of Springfield - (IL)	Electric Utility	Dallman	IL	963	3	177.7	Conventional Steam Coal	BIT	ST
2023	12	15908	GenOn California South, LP	IPP	Elwood	CA	8076	01	54.0	Natural Gas Fired Combustion Turbine	NG	ST
2023	12	15908	GenOn California South, LP	IPP	Ormond Beach	CA	350	1	741.0	Natural Gas Steam Turbine	NG	ST
2023	12	15908	GenOn California South, LP	IPP	Ormond Beach	CA	350	2	750.0	Natural Gas Steam Turbine	NG	ST
2023	12	13781	Northern States Power Co. - Minnesota	Electric Utility	Blue Lake	MN	8027	1	35.0	Petroleum Liquids	DFO	GT
2023	12	13781	Northern States Power Co. - Minnesota	Electric Utility	Blue Lake	MN	8027	2	35.0	Petroleum Liquids	DFO	GT
2023	12	13781	Northern States Power Co. - Minnesota	Electric Utility	Blue Lake	MN	8027	3	35.0	Petroleum Liquids	DFO	GT
2023	12	13781	Northern States Power Co. - Minnesota	Electric Utility	Blue Lake	MN	8027	4	35.0	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	Laveme 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 Cullley	IN	1012	2	90.0	Conventional Steam Coal	BIT	ST
2023	12	17718	Southern Public Service Co	Electric Utility	Nichols	TX	3484	2	106.0	Natural Gas Steam Turbine	NG	ST
2024	1	335	Air Liquide Large Industries U.S., LP	Industrial	Gesmar Cogen	LA	56787	GTG	72.5	Natural Gas Fired Combustion Turbine	NG	GT
2024	1	11843	Mau Electric Co Ltd	Electric Utility	Kahului	HI	6056	1	4.7	Petroleum Liquids	RFO	ST
2024	1	11843	Mau Electric Co Ltd	Electric Utility	Kahului	HI	6056	2	4.8	Petroleum Liquids	RFO	ST
2024	1	11843	Mau Electric Co Ltd	Electric Utility	Kahului	HI	6056	3	11.0	Petroleum Liquids	RFO	ST
2024	1	11843	Mau Electric Co Ltd	Electric Utility	Kahului	HI	6056	4	11.9	Petroleum Liquids	RFO	ST
2024	1	54888	NRG Texas Power LLC	IPP	Greens Bayou	TX	3464	73	54.0	Natural Gas Fired Combustion Turbine	NG	GT
2024	1	54888	NRG Texas Power LLC	IPP	Greens Bayou	TX	3464	74	54.0	Natural Gas Fired Combustion Turbine	NG	GT
2024	1	54888	NRG Texas Power LLC	IPP	Greens Bayou	TX	3464	81	54.0	Natural Gas Fired Combustion Turbine	NG	GT
2024	1	54888	NRG Texas Power LLC	IPP	Greens Bayou	TX	3464	82	50.0	Natural Gas Fired Combustion Turbine	NG	GT
2024	1	54888	NRG Texas Power LLC	IPP	Greens Bayou	TX	3464	83	64.0	Natural Gas Fired Combustion Turbine	NG	GT
2024	1	54888	NRG Texas Power LLC	IPP	Greens Bayou	TX	3464	84	54.0	Natural Gas Fired Combustion Turbine	NG	GT
2024	6	11241	Entergy Louisiana LLC	Electric Utility	Waterford 1 & 2	LA	8056	1	870.0	Conventional Steam Coal	BIT	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	16904	City of San Antonio - (TX)	Electric Utility	J T Deely	TX	6181	1	420.0	Conventional Steam Coal	SUB	ST
2024	12	16904	City of San Antonio - (TX)	Electric Utility	J T Deely	TX	6181	2	420.0	Conventional Steam Coal	SUB	ST
2024	12	16904	City of San Antonio - (TX)	Electric Utility	V H Brauning	TX	3612	1	230.0	Natural Gas Steam Turbine	NG	ST
2024	12	16904	City of San Antonio - (TX)	Electric Utility	V H Brauning	TX	3612	2	230.0	Natural Gas Steam Turbine	NG	ST
2024	12	16904	City of San Antonio - (TX)	Electric Utility	V H Brauning	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	256.0	Conventional Steam Coal	BIT	ST
2024	12	5416	Duke Energy Carolinas, LLC	Electric Utility	G G Allen	NC	2718	4	257.0	Conventional Steam Coal	BIT	ST
2024	12	5416	Duke Energy Carolinas, LLC	Electric Utility	G G Allen	NC	2718	5	259.0	Conventional Steam Coal	BIT	ST
2024	12	56211	Energy Missouri West	Electric Utility	Kansas City International	MO	6144	1	16.7	Natural Gas Fired Combustion Turbine	NG	GT
2024	12	56211	Energy Missouri West	Electric Utility	Kansas City International	MO	6144	2	16.9	Natural Gas Fired Combustion Turbine	NG	GT
2024	12	56211	Energy Missouri West	Electric Utility	Lake Road (MO)	MO	2098	4	97.1	Natural Gas Steam Turbine	NG	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 Generators 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

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

Year	Month	Entity ID	Entity Name	Plant Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code
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	2	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	2	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	17118	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	Messile	MS	2070	3	55.0	Natural Gas Steam Turbine	NG	ST
2025	1	54888	NRG Texas Power LLC	IPP	W A Parish	TX	3470	1	169.0	Natural Gas Steam Turbine	NG	ST
2025	1	54888	NRG Texas Power LLC	IPP	W A Parish	TX	3470	2	169.0	Natural Gas Steam Turbine	NG	ST
2025	1	54888	NRG Texas Power LLC	IPP	W A Parish	TX	3470	3	273.0	Natural Gas Steam Turbine	NG	ST
2025	4	7801	Gulf Power Co	Electric Utility	Pea Ridge	FL	7715	1	4.0	Natural Gas Fired Combustion Turbine	NG	GT
2025	4	7801	Gulf Power Co	Electric Utility	Pea Ridge	FL	7715	2	4.0	Natural Gas Fired Combustion Turbine	NG	GT
2025	4	7801	Gulf Power Co	Electric Utility	Pea Ridge	FL	7715	3	4.0	Natural Gas Fired Combustion Turbine	NG	GT
2025	5	58435	Collinwood BioEnergy	Industrial	Collinwood BioEnergy Facility	OH	58439	CBE01	1.0	Other Waste Biomass	OBG	IC
2025	5	10451	Kotzebue Electric Assn Inc	Electric Utility	Kotzebue Hybrid	AK	6304	10W1	0.1	Onshore Wind Turbine	WND	WT
2025	5	10451	Kotzebue Electric Assn Inc	Electric Utility	Kotzebue Hybrid	AK	6304	11W1	0.1	Onshore Wind Turbine	WND	WT
2025	5	10451	Kotzebue Electric Assn Inc	Electric Utility	Kotzebue Hybrid	AK	6304	12W1	0.1	Onshore Wind Turbine	WND	WT
2025	5	10451	Kotzebue Electric Assn Inc	Electric Utility	Kotzebue Hybrid	AK	6304	13W1	0.1	Onshore Wind Turbine	WND	WT
2025	5	10451	Kotzebue Electric Assn Inc	Electric Utility	Kotzebue Hybrid	AK	6304	14W1	0.1	Onshore Wind Turbine	WND	WT
2025	5	10451	Kotzebue Electric Assn Inc	Electric Utility	Kotzebue Hybrid	AK	6304	15W1	0.1	Onshore Wind Turbine	WND	WT
2025	5	10451	Kotzebue Electric Assn Inc	Electric Utility	Kotzebue Hybrid	AK	6304	16W1	0.1	Onshore Wind Turbine	WND	WT
2025	5	10451	Kotzebue Electric Assn Inc	Electric Utility	Kotzebue Hybrid	AK	6304	17W1	0.1	Onshore Wind Turbine	WND	WT
2025	5	10451	Kotzebue Electric Assn Inc	Electric Utility	Kotzebue Hybrid	AK	6304	18W1	0.1	Onshore Wind Turbine	WND	WT
2025	5	10451	Kotzebue Electric Assn Inc	Electric Utility	Kotzebue Hybrid	AK	6304	19W1	0.1	Onshore Wind Turbine	WND	WT
2025	5	10451	Kotzebue Electric Assn Inc	Electric Utility	Kotzebue Hybrid	AK	6304	20W1	0.1	Onshore Wind Turbine	WND	WT
2025	5	10451	Kotzebue Electric Assn Inc	Electric Utility	Kotzebue Hybrid	AK	6304	21W1	0.2	Onshore Wind Turbine	WND	WT
2025	5	10451	Kotzebue Electric Assn Inc	Electric Utility	Kotzebue Hybrid	AK	6304	22W1	0.5	Onshore Wind Turbine	WND	WT
2025	5	10451	Kotzebue Electric Assn Inc	Electric Utility	Kotzebue Hybrid	AK	6304	23W1	0.1	Onshore Wind Turbine	WND	WT
2025	5	10451	Kotzebue Electric Assn Inc	Electric Utility	Kotzebue Hybrid	AK	6304	24W1	0.1	Onshore Wind Turbine	WND	WT
2025	5	10451	Kotzebue Electric Assn Inc	Electric Utility	Kotzebue Hybrid	AK	6304	25W1	0.1	Onshore Wind Turbine	WND	WT
2025	5	10451	Kotzebue Electric Assn Inc	Electric Utility	Kotzebue Hybrid	AK	6304	26W1	0.1	Onshore Wind Turbine	WND	WT
2025	5	10451	Kotzebue Electric Assn Inc	Electric Utility	Kotzebue Hybrid	AK	6304	27W1	0.1	Onshore Wind Turbine	WND	WT
2025	5	10451	Kotzebue Electric Assn Inc	Electric Utility	Kotzebue Hybrid	AK	6304	28W1	0.1	Onshore Wind Turbine	WND	WT
2025	5	10451	Kotzebue Electric Assn Inc	Electric Utility	Kotzebue Hybrid	AK	6304	29W1	0.1	Onshore Wind Turbine	WND	WT
2025	5	10451	Kotzebue Electric Assn Inc	Electric Utility	Kotzebue Hybrid	AK	6304	30W1	0.1	Onshore Wind Turbine	WND	WT
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	Diable Canyon	CA	6099	2	1,118.0	Nuclear	NUC	ST
2025	9	17168	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	Innerslate Power and Light Co	Electric Utility	Prairie Creek	IA	1073	1	2.9	Conventional Steam Coal	SUB	ST
2025	12	9417	Innerslate Power and Light Co	Electric Utility	Prairie Creek	IA	1073	3	25.8	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	6	48.0	Petroleum Liquids	DFO	GT
2025	12	15468	Public Service Co of Colorado	Electric Utility	Comanche (CO)	CO	470	2	335.0	Conventional Steam Coal	SUB	ST
2025	12	17168	Southwestern Electric Power Co	Electric Utility	North Vainny	NV	8224	2	265.0	Conventional Steam Coal	SUB	ST
2025	12	17698	Southwestern Electric Power Co	Electric Utility	Arsenal Hill	LA	1416	5	110.0	Natural Gas Steam Turbine	NG	ST
2025	12	17718	Southwestern Public Service Co	Electric Utility	Cummingham	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	19689	TransAlta Centennial Gen LLC	IPP	TransAlta Centennial 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	6	11241	Entergy Louisiana LLC	Electric Utility	Little Gypsy	LA	1402	2	415.0	Natural Gas Steam Turbine	NG	ST
2026	6	55837	Entergy Texas Inc.	Electric Utility	Sabine	TX	3459	3	359.0	Natural Gas Steam Turbine	NG	ST
2026	6	55837	Entergy Texas Inc.	Electric Utility	Sabine	TX	3459	4	512.5	Natural Gas Steam Turbine	NG	ST
2026	6	9417	Innerslate Power and Light Co	Electric Utility	Burlington (IA)	IA	1104	GT1	14.0	Natural Gas Fired Combustion Turbine	NG	GT

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

Year	Month	Entity ID	Entity Name	Plant Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source	Prime Mover Code
2026	6	8417	Interstate Power and Light Co	Electric Utility	Burlington (IA)	IA	1104	G12	12.7	Natural Gas Fired Combined Cycle	NG	GT
2026	6	9417	Interstate Power and Light Co	Electric Utility	Burlington (IA)	IA	1104	G13	13.7	Natural Gas Fired Combined Cycle	NG	GT
2026	10	6909	Gainesville Regional Utilities	Electric Utility	Deerhaven Generating Station	FL	663	G11	5.0	Natural Gas Fired Combined Cycle	NG	GT
2026	10	6909	Gainesville Regional Utilities	Electric Utility	Deerhaven Generating Station	FL	663	G12	17.5	Natural Gas Fired Combined Cycle	NG	GT
2026	12	16604	City of San Antonio - TX	Electric Utility	OW Sommers	TX	3611		420.0	Natural Gas Steam Turbine	NG	ST
2026	12	5416	Duke Energy Carolinas, LLC	Electric Utility	James E. Rogers Energy Complex	NC	2721	5	544.0	Conventional Steam Coal	MSW	ST
2026	12	5701	El Paso Electric Co	Electric Utility	Newman	TX	3456	3	95.0	Natural Gas Steam Turbine	NG	ST
2026	12	5701	El Paso Electric Co	Electric Utility	Newman	TX	3456	4	89.0	Natural Gas Fired Combined Cycle	NG	CA
2026	12	5701	El Paso Electric Co	Electric Utility	Newman	TX	3456	C11	69.0	Natural Gas Fired Combined Cycle	NG	CT
2026	12	5701	El Paso Electric Co	Electric Utility	Newman	TX	3456	C12	69.0	Natural Gas Fired Combined Cycle	NG	CT
2026	12	5860	Empire District Electric Co	Electric Utility	Empire Energy Center	MO	6223	1	78.0	Natural Gas Fired Combined Cycle	NG	GT
2026	12	5860	Empire District Electric Co	Electric Utility	Empire Energy Center	MO	6223	2	78.0	Natural Gas Fired Combined Cycle	NG	GT
2026	12	56997	Marina Energy LLC	IPP	L'Oréal Piscataway	NJ	57669	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 Combined Cycle	NG	GT
2026	12	13781	Northern States Power Co. - Minnesota	Electric Utility	Inver Hills	MN	1913	2	47.0	Natural Gas Fired Combined Cycle	NG	GT
2026	12	13781	Northern States Power Co. - Minnesota	Electric Utility	Inver Hills	MN	1913	3	47.0	Natural Gas Fired Combined Cycle	NG	GT
2026	12	13781	Northern States Power Co. - Minnesota	Electric Utility	Inver Hills	MN	1913	4	47.0	Natural Gas Fired Combined Cycle	NG	GT
2026	12	13781	Northern States Power Co. - Minnesota	Electric Utility	Inver Hills	MN	1913	5	47.0	Natural Gas Fired Combined Cycle	NG	GT
2026	12	13781	Northern States Power Co. - Minnesota	Electric Utility	Inver Hills	MN	1913	6	47.0	Natural Gas Fired Combined Cycle	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	15468	Public Service Co of Colorado	Electric Utility	Alamosa	CO	464	C11	13.0	Natural Gas Fired Combined Cycle	NG	GT
2026	12	15468	Public Service Co of Colorado	Electric Utility	Alamosa	CO	464	C12	14.0	Natural Gas Fired Combined Cycle	NG	GT
2026	12	15468	Public Service Co of Colorado	Electric Utility	Fort Lupton	CO	8067	1	44.0	Natural Gas Fired Combined Cycle	NG	GT
2026	12	15468	Public Service Co of Colorado	Electric Utility	Fort Lupton	CO	8067	2	44.0	Natural Gas Fired Combined Cycle	NG	GT
2026	12	15468	Public Service Co of Colorado	Electric Utility	Frulla	CO	471	1	14.0	Natural Gas Fired Combined Cycle	NG	GT
2026	12	15468	Public Service Co of Colorado	Electric Utility	Vainmont	CO	477	6	220.0	Conventional Steam Coal	NG	ST
2027	1	14354	PacifiCorp	Electric Utility	Dave Johnson	WY	4158	3	0.5	Solar Photovoltaic	SUN	PV
2027	2	56997	Marina Energy LLC	IPP	Helier Industrial Parks	NJ	57669	HH	0.4	Solar Photovoltaic	SUN	PV
2027	2	56997	Marina Energy LLC	IPP	Helier Industrial Parks	NJ	57669	HI	0.4	Solar Photovoltaic	SUN	PV
2027	2	56997	Marina Energy LLC	IPP	Helier Industrial Parks	NJ	57669	HJC	0.2	Solar Photovoltaic	SUN	PV
2027	2	56997	Marina Energy LLC	IPP	Helier Industrial Parks	NJ	57669	UNIT1	2.7	Solar Photovoltaic	SUN	PV
2027	4	5695	Desert Star Energy Center SDG&E	Electric Utility	Desert Star Energy Center	NV	55077	ED01	150.0	Natural Gas Fired Combined Cycle	NG	CT
2027	4	5695	Desert Star Energy Center SDG&E	Electric Utility	Desert Star Energy Center	NV	55077	ED02	150.0	Natural Gas Fired Combined Cycle	NG	CT
2027	4	5695	Desert Star Energy Center SDG&E	Electric Utility	Desert Star Energy Center	NV	55077	ED03	150.0	Natural Gas Fired Combined Cycle	NG	CT
2027	6	11208	Los Angeles Department of Water & Power	Electric Utility	Intermountain Power Project	UT	6481	1	900.0	Conventional Steam Coal	BIT	ST
2027	6	11208	Los Angeles Department of Water & Power	Electric Utility	Intermountain Power Project	UT	6481	2	900.0	Conventional Steam Coal	BIT	ST
2027	12	13781	Northern States Power Co. - Minnesota	Electric Utility	Red Wing	MN	1926	1	9.0	Municipal Solid Waste	MSW	ST
2027	12	13781	Northern States Power Co. - Minnesota	Electric Utility	Red Wing	MN	1926	2	9.0	Municipal Solid Waste	MSW	ST
2027	12	13781	Northern States Power Co. - Minnesota	Electric Utility	St Croix Falls	WI	4011	1	1.8	Conventional Hydroelectric	WAT	HY
2027	12	13781	Northern States Power Co. - Minnesota	Electric Utility	St Croix Falls	WI	4011	2	1.8	Conventional Hydroelectric	WAT	HY
2027	12	13781	Northern States Power Co. - Minnesota	Electric Utility	St Croix Falls	WI	4011	3	1.9	Conventional Hydroelectric	WAT	HY
2027	12	13781	Northern States Power Co. - Minnesota	Electric Utility	St Croix Falls	WI	4011	4	1.9	Conventional Hydroelectric	WAT	HY
2027	12	13781	Northern States Power Co. - Minnesota	Electric Utility	St Croix Falls	WI	4011	5	2.0	Conventional Hydroelectric	WAT	HY
2027	12	13781	Northern States Power Co. - Minnesota	Electric Utility	St Croix Falls	WI	4011	6	1.9	Conventional Hydroelectric	WAT	HY
2027	12	13781	Northern States Power Co. - Minnesota	Electric Utility	St Croix Falls	WI	4011	7	2.0	Conventional Hydroelectric	WAT	HY
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	Winmarth	MN	1934	1	9.0	Municipal Solid Waste	MSW	ST
2027	12	13781	Northern States Power Co. - Minnesota	Electric Utility	Winmarth	MN	1934	2	9.0	Municipal Solid Waste	MSW	ST
2027	12	15468	Public Service Co of Colorado	Electric Utility	Cherokee	CO	469	4	31.0	Natural Gas Steam Turbine	NG	ST
2027	12	15468	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	VA	60759	PV1	1.5	Solar Photovoltaic	SUN	PV
2028	1	19876	Virginia Electric & Power Co	Electric Utility	Alavista Power Station	VA	10773	1	51.0	Wood/Wood Waste Biomass	WDS	ST
2028	1	19876	Virginia Electric & Power Co	Electric Utility	Hopewell Power Station	VA	10771	1	51.0	Wood/Wood Waste Biomass	WDS	ST
2028	1	19876	Virginia Electric & Power Co	Electric Utility	Southampton Power Station	VA	10774	1	51.0	Wood/Wood Waste Biomass	WDS	ST
2028	5	56997	Marina Energy LLC	IPP	Helier 400M	NJ	62438	A	0.8	Solar Photovoltaic	SUN	PV
2028	5	56997	Marina Energy LLC	IPP	Helier 400M	NJ	62438	B	0.2	Solar Photovoltaic	SUN	PV
2028	5	56997	Marina Energy LLC	IPP	Helier 400M	NJ	62438	C	0.2	Solar Photovoltaic	SUN	PV
2028	5	56997	Marina Energy LLC	IPP	Helier Industrial Parks	NJ	57669	HM	0.8	Solar Photovoltaic	SUN	PV
2028	5	13756	Northern Indiana Pub. Serv Co	Electric Utility	Michigan City	IN	997	12	455.0	Conventional Steam Coal	SUB	ST
2028	9	30151	Tri-State G. & T. Assn, Inc	Electric Utility	Craig (CO)	CO	6021	2	410.0	Conventional Steam Coal	SUB	ST

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

Year	Month	Entity ID	Entity Name	Plant Type	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source	Prime Mover Code
2028	12	18604	City of San Antonio - (TX)	Electric Utility	O W Sommers	TX	3811	2	410.0	Natural Gas Steam Turbine	NG	ST
2028	12	61944	GSRP	IPP	ACCOC Mays Landing	NJ	60802	PV1	1.4	Solar Photovoltaic	SUN	PV
2028	12	61944	GSRP	IPP	IFF Hazlet	NJ	60709	GRND	3.0	Solar Photovoltaic	SUN	PV
2028	12	9324	Indiana Michigan Power Co	Electric Utility	Rockport	IN	6166	1	1,300.0	Conventional Steam Coal	NG	ST
2028	12	17718	Southwestern Public Service Co	Electric Utility	Maddox	NM	2446	1	112.0	Natural Gas Steam Turbine	SUB	ST
2029	5	5109	DTE Electric Company	Electric Utility	Belle River	MI	6034	ST11	635.0	Conventional Steam Coal	RC	ST
2029	6	11241	Entergy Louisiana LLC	Electric Utility	Little Gypsy	LA	1402	3	517.4	Natural Gas Steam Turbine	NG	ST
2029	10	56867	Loraine Windpower Project	IPP	Loraine Windpark Project LLC	TX	57303	LWG1	73.5	Onshore Wind Turbine	WIND	WT
2029	12	3898	City of Colorado Springs - (CO)	Electric Utility	Ray D Nixon	CO	8219	1	208.0	Conventional Steam Coal	SUB	ST
2030		30151	Tri-State G & T Ashn, Inc	Electric Utility	Craig (CO)	CO	6021	3	448.0	Conventional Steam Coal	SUB	ST
2030	1	54888	NRG Texas Power LLC	IPP	Limestone	TX	298	1	831.0	Conventional Steam Coal	SUB	ST
2030	1	54888	NRG Texas Power LLC	IPP	Limestone	TX	298	2	858.0	Conventional Steam Coal	SUB	ST
2030	1	54888	NRG Texas Power LLC	IPP	T H Wharton	TX	3469	3	104.0	Natural Gas Fired Combined Cycle	NG	CA
2030	1	54888	NRG Texas Power LLC	IPP	T H Wharton	TX	3469	31	57.0	Natural Gas Fired Combined Cycle	NG	CT
2030	1	54888	NRG Texas Power LLC	IPP	T H Wharton	TX	3469	32	57.0	Natural Gas Fired Combined Cycle	NG	CT
2030	1	54888	NRG Texas Power LLC	IPP	T H Wharton	TX	3469	33	57.0	Natural Gas Fired Combined Cycle	NG	CT
2030	1	54888	NRG Texas Power LLC	IPP	T H Wharton	TX	3469	34	57.0	Natural Gas Fired Combined Cycle	NG	CT
2030	1	54888	NRG Texas Power LLC	IPP	T H Wharton	TX	3469	41	104.0	Natural Gas Fired Combined Cycle	NG	CA
2030	1	54888	NRG Texas Power LLC	IPP	T H Wharton	TX	3469	42	57.0	Natural Gas Fired Combined Cycle	NG	CT
2030	1	54888	NRG Texas Power LLC	IPP	T H Wharton	TX	3469	43	57.0	Natural Gas Fired Combined Cycle	NG	CT
2030	1	54888	NRG Texas Power LLC	IPP	T H Wharton	TX	3469	44	57.0	Natural Gas Fired Combined Cycle	NG	CT
2030	1	54888	NRG Texas Power LLC	IPP	T H Wharton	TX	3469	51	58.0	Natural Gas Fired Combustion Turbine	NG	GT
2030	1	54888	NRG Texas Power LLC	IPP	T H Wharton	TX	3469	52	58.0	Natural Gas Fired Combustion Turbine	NG	GT
2030	1	54888	NRG Texas Power LLC	IPP	T H Wharton	TX	3469	53	58.0	Natural Gas Fired Combustion Turbine	NG	GT
2030	1	54888	NRG Texas Power LLC	IPP	T H Wharton	TX	3469	54	58.0	Natural Gas Fired Combustion Turbine	NG	GT
2030	1	54888	NRG Texas Power LLC	IPP	T H Wharton	TX	3469	55	58.0	Natural Gas Fired Combustion Turbine	NG	GT
2030	1	54888	NRG Texas Power LLC	IPP	T H Wharton	TX	3469	56	58.0	Natural Gas Fired Combustion Turbine	NG	GT
2030	1	54888	NRG Texas Power LLC	IPP	T H Wharton	TX	3469	57	13.0	Natural Gas Fired Combustion Turbine	NG	GT
2030	5	5109	DTE Electric Company	Electric Utility	Belle River	MI	6034	ST12	635.0	Conventional Steam Coal	RC	ST
2030	12	40230	Deseret Generation & Tran Coop	Electric Utility	Bohanza	UT	7190	1	458.0	Conventional Steam Coal	BIT	ST
2030	12	15143	Platte River Power Authority	Electric Utility	Rawhide	CO	6761	1	280.0	Conventional Steam Coal	SUB	ST
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)	729.5	Natural Gas Steam Turbine	NG	ST
2031	12	803	Arizona Public Service Co	Electric Utility	Four Corners	NM	2442	4	770.0	Conventional Steam Coal	SUB	ST
2031	12	17718	Southwestern Public Service Co	Electric Utility	Jones	TX	3482	1	243.0	Natural Gas Steam Turbine	NG	ST
2032	1	54888	NRG Texas Power LLC	IPP	San Jacinto Steam Electric Station	TX	7325	1	81.0	Natural Gas Fired Combustion Turbine	NG	GT
2032	1	54888	NRG Texas Power LLC	IPP	San Jacinto Steam Electric Station	TX	7325	2	81.0	Natural Gas Fired Combustion Turbine	NG	GT
2032	12	16572	Salt River Project	Electric Utility	Coronado	AZ	6177	CO1	380.0	Conventional Steam Coal	RC	ST
2032	12	16572	Salt River Project	Electric Utility	Coronado	AZ	6177	CO2	382.0	Conventional Steam Coal	RC	ST
2033	6	11241	Entergy Louisiana LLC	Electric Utility	Nine Mile Point	LA	1403	5	743.8	Natural Gas Steam Turbine	NG	ST
2034	6	55837	Entergy Texas Inc	Electric Utility	Lewis Creek	TX	3457	1	249.0	Natural Gas Steam Turbine	NG	ST
2034	6	55837	Entergy Texas Inc	Electric Utility	Lewis Creek	TX	3457	2	254.0	Natural Gas Steam Turbine	NG	ST
2034	12	5418	Duke Energy Carolinas, LLC	Electric Utility	Marshall (NC)	NC	2727	1	370.0	Conventional Steam Coal	BIT	ST
2034	12	5418	Duke Energy Carolinas, LLC	Electric Utility	Marshall (NC)	NC	2727	2	370.0	Conventional Steam Coal	BIT	ST
2034	12	13781	Northern States Power Co - Minnesota	Electric Utility	Shelburne County	MN	6060	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
2034	6	12685	Entergy Mississippi LLC	Electric Utility	Gerard Andrus	MS	8054	1	727.5	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	11	54888	NRG Texas Power LLC	IPP	NRG Elbow Creek Energy Storage Project	TX	61362	ECBS	2.0	Batteries	MWH	BA

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

Year	Month	Entity ID	Entity Name	Plant Type	Plant Producer	Plant Name	Plant State	Plant ID	Generator ID	Net Summer Capacity (MW)	Technology	Energy Source Code	Prime Mover Code
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	335.0	Conventional Steam Coal	SUB	ST	
2039	7	56020	NRG Cedar Bayou Development Company LLC	IPP	Cedar Bayou 4	TX	56806	41	172.0	Natural Gas Fired Combined Cycle	NG	CA	
2039	7	56020	NRG Cedar Bayou Development Company LLC	IPP	Cedar Bayou 4	TX	56806	42	165.0	Natural Gas Fired Combined Cycle	NG	CT	
2040	12	17718	Southwestern Public Service Co	Electric Utility	Cunningham	NM	2454	3	106.0	Natural Gas Fired Combined Cycle	NG	GT	
2040	12	17718	Southwestern Public Service Co	Electric Utility	Cunningham	NM	2454	4	103.0	Natural Gas Fired Combined Cycle	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	WIND	WT	
2045	1	54888	NRG Texas Power LLC	IPP	W A Parish	TX	3470	5	664.0	Conventional Steam Coal	SUB	ST	
2045	1	54888	NRG Texas Power LLC	IPP	W A Parish	TX	3470	6	663.0	Conventional Steam Coal	SUB	ST	
2045	1	54888	NRG Texas Power LLC	IPP	W A Parish	TX	3470	7	577.0	Conventional Steam Coal	SUB	ST	
2045	1	54888	NRG Texas Power LLC	IPP	W A Parish	TX	3470	8	610.0	Conventional Steam Coal	SUB	ST	
2045	1	54888	NRG Texas Power LLC	IPP	W A Parish	TX	3470	GT1	13.0	Natural Gas Fired Combined Cycle	NG	GT	
2045	1	58365	Petra Nova Power LLC	IPP	W.A. Parish Carbon Capture Plant	TX	58378	GT1	74.0	Natural Gas Fired Combined Cycle	NG	GT	
2047	7	60455	PVN Milliken, LLC	IPP	PVN Milliken, LLC	CA	60790	PV	3.0	Solar Photovoltaic	SUN	PV	
2049	4	61612	Panda Solar NC 1, LLC	IPP	Panda Solar NC 1, LLC	NC	62089	20002	1.0	Solar Photovoltaic	SUN	PV	
2049	4	61655	Panda Solar NC 2, LLC	IPP	Panda Solar NC 2, LLC	NC	62120	20003	2.0	Solar Photovoltaic	SUN	PV	
2049	6	61665	Panda Solar NC 10, LLC	IPP	Panda Solar NC 10, LLC	NC	62128	20031	2.0	Solar Photovoltaic	SUN	PV	
2049	6	61684	Panda Solar NC 11, LLC	IPP	Panda Solar NC 11, LLC	NC	62129	20032	2.0	Solar Photovoltaic	SUN	PV	
2049	6	61656	Panda Solar NC 3, LLC	IPP	Panda Solar NC 3, LLC	NC	62121	20011	2.0	Solar Photovoltaic	SUN	PV	
2049	6	61658	Panda Solar NC 5, LLC	IPP	Panda Solar NC 5, LLC	NC	62123	20007	1.0	Solar Photovoltaic	SUN	PV	
2049	6	61660	Panda Solar NC 6, LLC	IPP	Panda Solar NC 6, LLC	NC	62124	20028	1.0	Solar Photovoltaic	SUN	PV	
2049	6	61662	Panda Solar NC 9, LLC	IPP	Panda Solar NC 9, LLC	NC	62127	20023	2.0	Solar Photovoltaic	SUN	PV	
2049	9	61667	Panda Solar NC 8, LLC	IPP	Panda Solar NC 8, LLC	NC	62126	20062	2.0	Solar Photovoltaic	SUN	PV	
2066	12	17718	Southwestern Public Service Co	Electric Utility	Jones	TX	3482	3	165.0	Natural Gas Fired Combined Cycle	NG	GT	
2068	12	17718	Southwestern Public Service Co	Electric Utility	Jones	TX	3482	4	165.0	Natural Gas Fired Combined Cycle	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							
	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														
2010	313,393.9	67.1%	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%	119,144.1	7.9%	78,898.6	11.7%	2,822.5	8.4%	26,883.0	12.6%	18,397.7	1.3%	4,986.0	2.2%
2012	304,974.9	56.2%	119,319.4	8.9%	74,200.2	13.3%	2,968.8	7.3%	22,463.7	13.7%	17,773.5	1.3%	4,942.5	2.0%
2013	292,604.4	59.4%	123,025.6	8.8%	75,870.5	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%	124,736.9	8.3%	76,049.1	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%	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%	125,143.4	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	258,930.2	53.1%	124,539.1	51.2%	124,539.1	10.7%	4,225.5	11.6%	13,260.9	13.7%	14,275.3	1.0%	5,153.3	2.1%
2018	246,866.8	53.6%	126,763.4	55.0%	76,177.8	12.6%	4,446.3	13.0%	13,300.1	14.2%	14,234.9	1.3%	5,289.7	1.9%
2019	235,534.1	47.5%	128,460.5	11.8%	73,591.7	14.3%	4,844.3	13.9%	11,712.2	12.7%	14,192.6	1.1%	5,250.4	2.2%
Year 2018														
January	251,730.8	64.0%	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%	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%	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%	126,338.5	10.5%	77,369.9	8.5%	4,372.4	12.0%	13,440.4	12.9%	14,336.6	1.0%	5,317.8	2.0%
May	248,603.8	46.7%	126,690.5	49.8%	76,369.3	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%	126,881.1	12.4%	75,662.4	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%	126,876.6	69.8%	75,668.1	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%	127,267.4	69.3%	75,668.1	20.3%	4,594.6	16.9%	13,440.4	15.6%	14,166.6	1.3%	5,277.8	2.1%
September	245,113.4	55.3%	127,146.3	63.2%	75,660.6	15.6%	4,584.3	13.8%	13,440.4	16.9%	14,166.6	1.3%	5,274.0	2.0%
October	244,837.5	48.5%	126,836.7	52.9%	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%	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%	127,106.3	48.9%	73,841.6	6.3%	4,613.6	11.0%	11,786.4	12.6%	14,154.6	1.0%	5,237.9	1.7%
Year 2019														
January	242,491.4	56.5%	127,776.9	54.0%	73,634.6	8.0%	4,631.1	10.0%	11,786.4	12.8%	14,214.1	0.7%	5,248.6	2.0%
February	239,557.9	50.4%	127,776.9	8.5%	74,619.1	8.0%	4,703.6	12.3%	11,786.4	12.8%	14,214.1	0.6%	5,250.6	1.7%
March	238,326.9	45.0%	127,780.0	50.0%	74,010.1	9.0%	4,703.6	10.9%	11,855.4	12.2%	14,195.1	0.5%	5,247.8	1.6%
April	236,645.3	35.9%	127,693.2	45.0%	74,005.8	11.0%	4,822.5	10.0%	11,709.4	11.1%	14,195.1	0.8%	5,245.4	1.8%
May	236,095.5	41.7%	128,385.3	48.6%	74,005.8	13.8%	4,882.5	10.5%	11,709.4	15.8%	14,195.1	1.0%	5,254.2	2.1%
June	235,987.9	47.0%	128,502.4	49.6%	73,711.1	16.4%	4,883.4	12.7%	11,709.4	15.0%	14,184.8	1.1%	5,254.2	2.3%
July	235,005.4	58.4%	128,862.6	69.8%	73,661.1	24.7%	4,905.4	21.1%	11,709.4	16.7%	14,184.8	2.3%	5,255.9	3.0%
August	235,005.4	54.6%	128,962.6	70.8%	73,661.1	25.3%	4,905.4	22.0%	11,709.4	16.4%	14,179.1	2.4%	5,247.6	3.2%
September	234,817.4	51.6%	128,922.6	63.9%	73,661.1	19.9%	4,905.4	17.6%	11,642.4	15.1%	14,192.6	1.6%	5,251.6	2.7%
October	233,595.4	39.2%	129,000.1	54.8%	73,196.1	15.9%	4,905.4	14.5%	11,642.4	8.9%	14,192.6	1.5%	5,251.6	2.4%
November	229,673.4	46.0%	128,866.1	10.7%	73,023.1	9.2%	4,905.4	13.6%	11,642.4	7.5%	14,192.6	0.6%	5,251.6	2.1%
December	229,241.4	43.2%	128,876.8	8.8%	71,962.3	8.6%	4,910.3	11.1%	11,642.4	7.9%	14,172.6	0.5%	5,245.2	1.8%
Year 2020														
January	227,611.7	39.1%	128,783.4	58.5%	71,503.5	9.0%	4,927.8	10.2%	11,610.7	11.1%	14,082.8	0.9%	5,228.9	1.8%
February	227,178.5	36.4%	128,899.7	58.8%	70,137.2	9.9%	5,024.8	11.3%	11,597.9	8.2%	14,097.4	0.7%	5,254.9	1.8%
March	225,799.1	30.9%	128,842.1	9.7%	70,547.7	11.1%	5,028.6	12.7%	11,601.8	13.4%	13,836.1	0.7%	5,271.6	1.6%
April	225,819.2	25.5%	128,823.6	47.3%	70,431.8	10.5%	5,117.5	10.5%	11,594.3	12.9%	13,943.9	0.6%	5,267.1	1.5%
May	224,525.1	28.4%	129,014.3	9.3%	70,265.4	12.4%	5,157.5	11.1%	11,594.3	11.6%	13,770.4	0.8%	5,268.1	1.4%
June	223,559.6	41.4%	128,906.1	13.7%	70,736.6	18.1%	5,160.2	14.6%	11,134.1	16.5%	13,706.5	1.5%	5,267.8	1.7%
July	223,559.6	55.1%	129,122.0	22.4%	70,736.6	28.5%	5,150.2	20.7%	11,134.1	16.8%	13,706.5	3.2%	5,267.7	2.3%

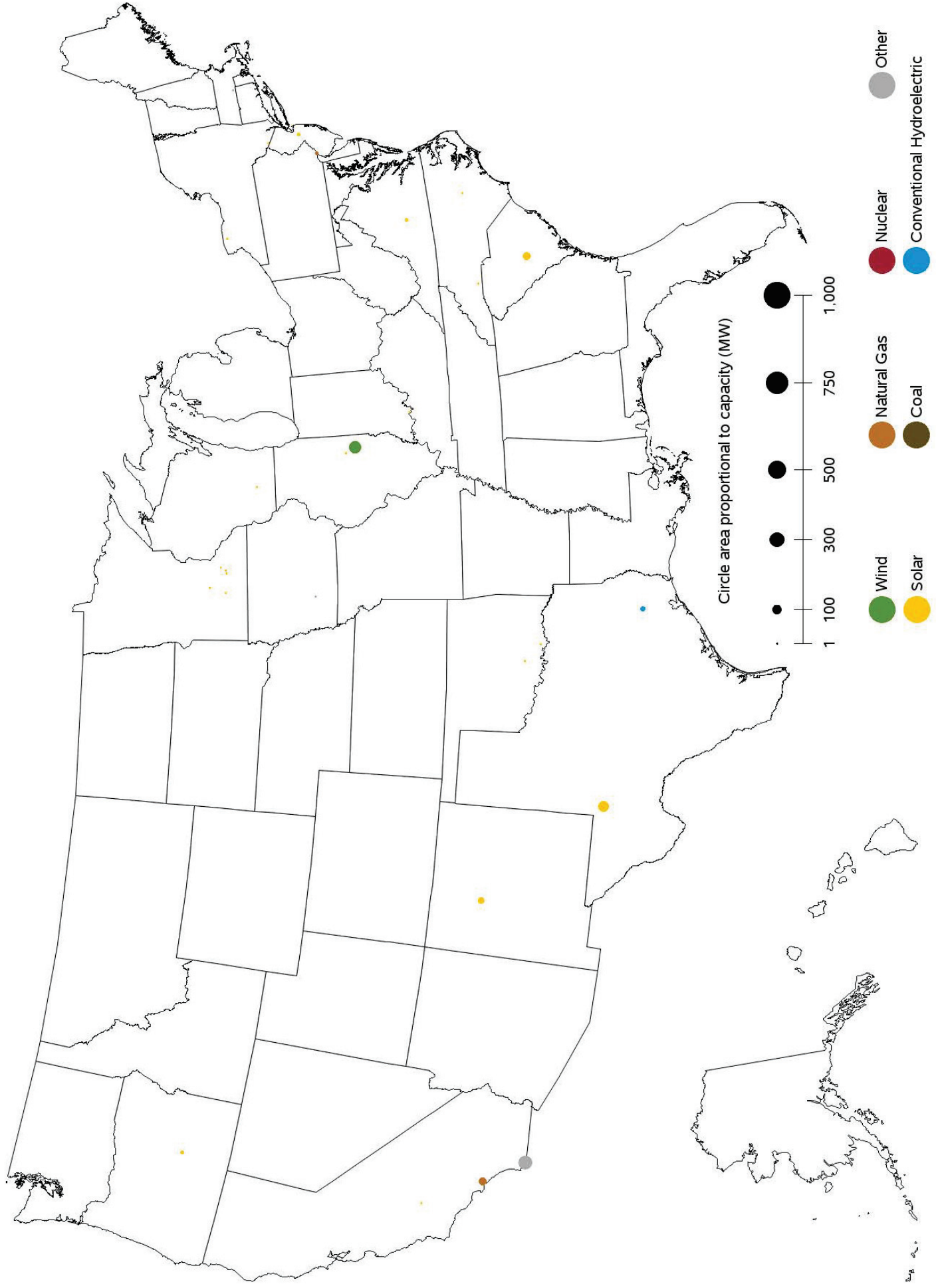
Values for 2018 and prior years are final. Values for 2019 and 2020 are preliminary.
 Time adjusted capacity for month rows is the summer capacity of generators in operation for the entire month; units that began operation during the month or that retired during the month are excluded. Time adjusted 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

Year/Month	Battery		Pumped Storage	
	Time Adjusted Capacity/Usage Factor	Time Adjusted Capacity/Usage Factor	Time Adjusted Capacity/Usage Factor	Time Adjusted Capacity/Usage Factor
Annual Data				
2013	126.7	0.7%	22,280.3	9.8%
2014	155.1	1.0%	22,277.8	9.8%
2015	205.0	1.6%	22,669.0	10.2%
2016	423.0	3.8%	22,762.7	11.2%
2017	632.8	6.8%	22,691.7	11.4%
2018	713.6	5.2%	22,815.4	10.8%
2019	952.3	4.0%	22,848.2	10.4%
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	861.3	3.8%	22,799.2	9.3%
February	873.0	4.2%	22,799.2	9.1%
March	888.4	5.2%	22,799.2	8.3%
April	927.3	4.9%	22,821.2	10.1%
May	943.5	4.9%	22,821.2	11.8%
June	948.0	3.7%	22,821.2	15.0%
July	977.6	3.6%	22,818.2	13.6%
August	998.4	4.6%	22,818.2	12.3%
October	1,094.3	3.4%	22,818.2	8.2%
November	1,068.6	3.7%	22,818.2	7.1%
December	1,013.6	3.9%	22,818.2	7.8%
Year 2020				
January	1,013.4	4.0%	22,890.9	9.0%
February	1,013.7	4.6%	22,890.9	9.1%
March	1,021.2	4.9%	22,882.1	7.9%
April	1,036.0	4.2%	22,800.1	8.2%
May	1,045.9	3.9%	22,888.9	10.8%
June	1,055.8	4.1%	22,700.3	13.3%
July	1,064.4	4.0%	22,795.3	16.0%

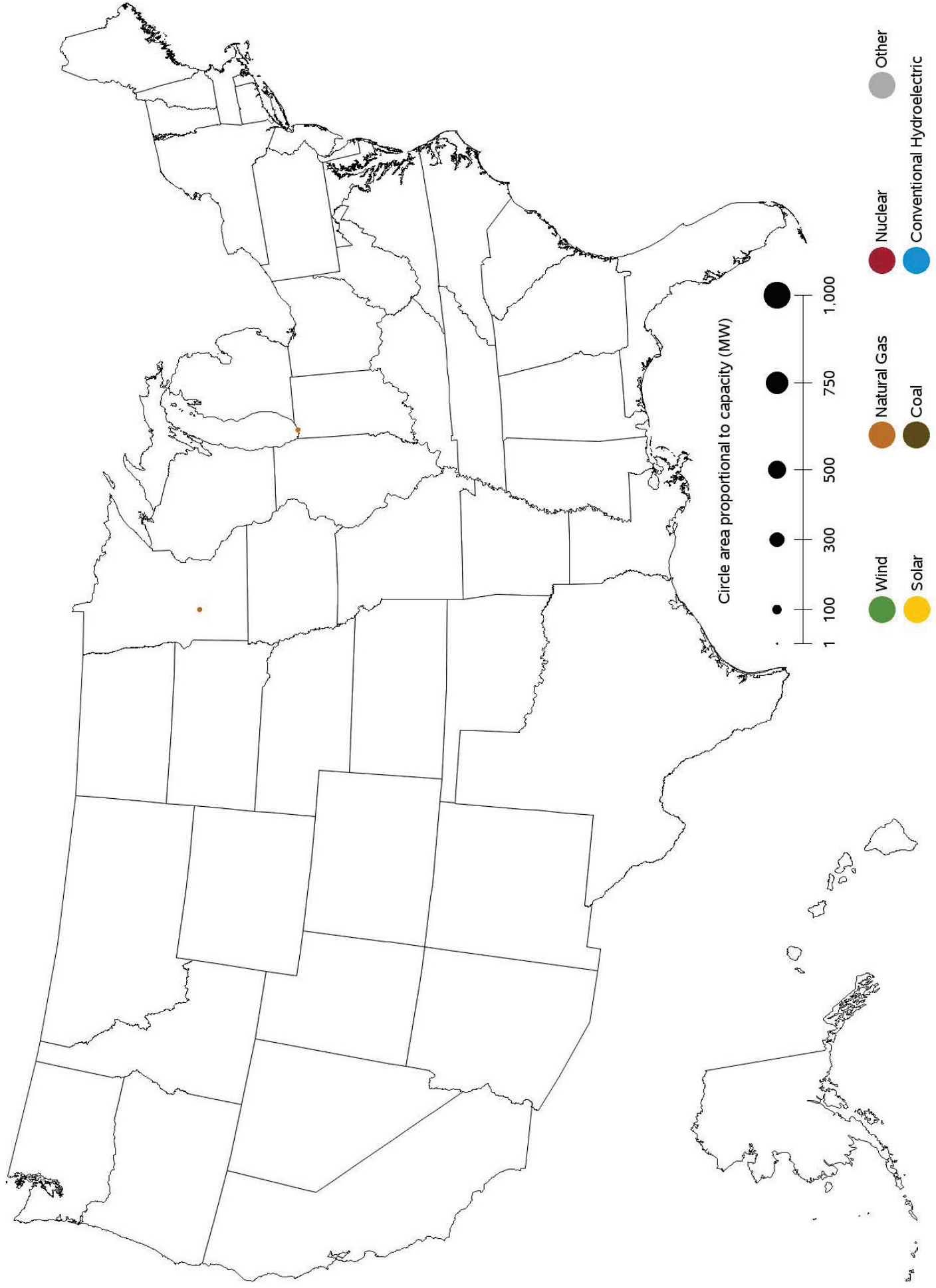
Values for 2018 and prior years are final. Values for 2019 and 2020 are preliminary. Time adjusted capacity for month rows is the summer capacity of generators in operation for the entire month, units that began operation during the month or that were retired during the month. Time adjusted capacity 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-960, Annual Electric Generator Report; and Form EIA-960M, Monthly Update to the Annual Electric Generator Report.

Figure 6.1.A. Utility-Scale Generating Units Added in July 2020



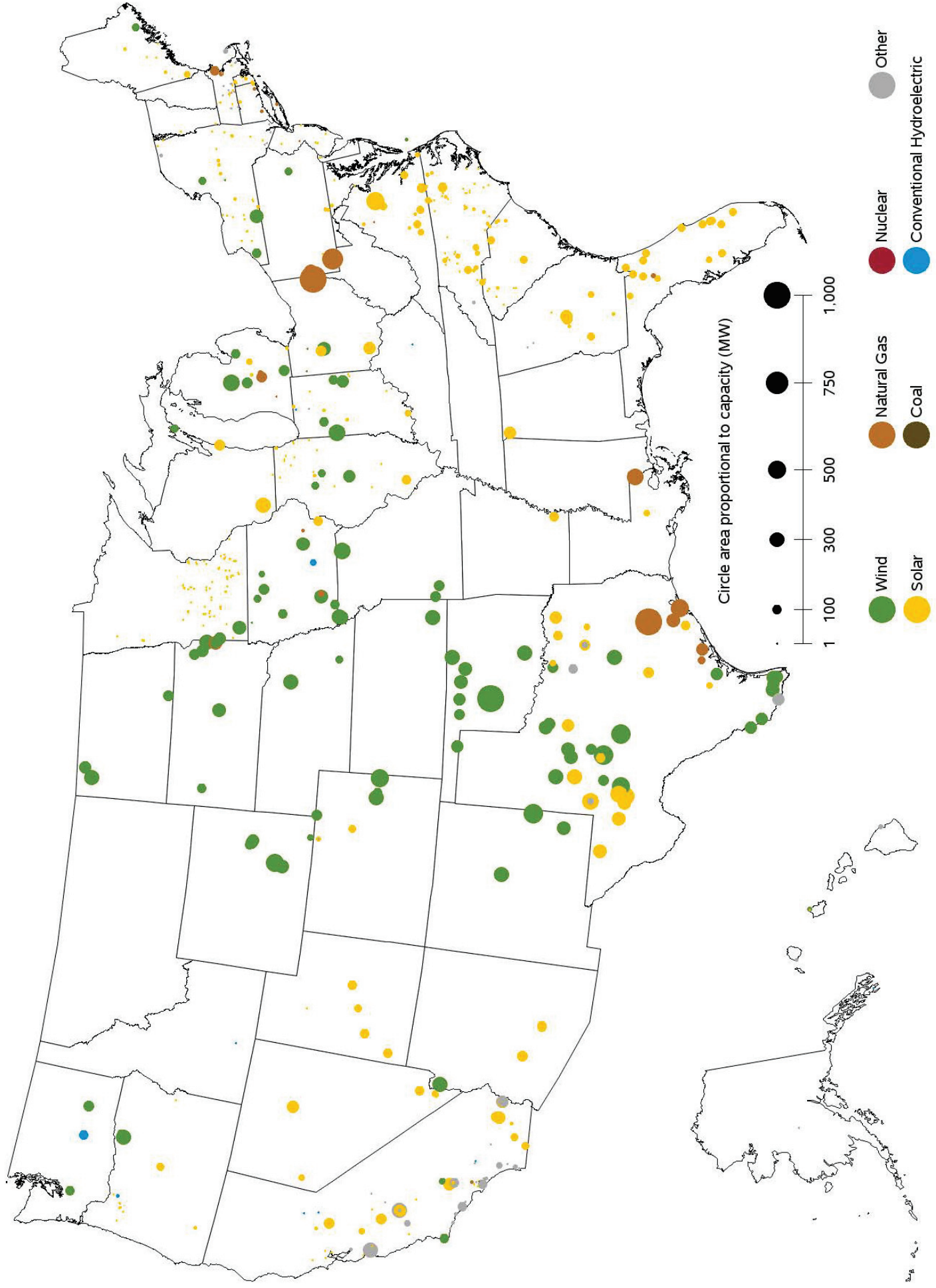
Sources: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report' and Form EIA-860M, 'Monthly Update to the Annual Electric Generator Report.'

Figure 6.1.B. Utility-Scale Generating Units Retired in July 2020



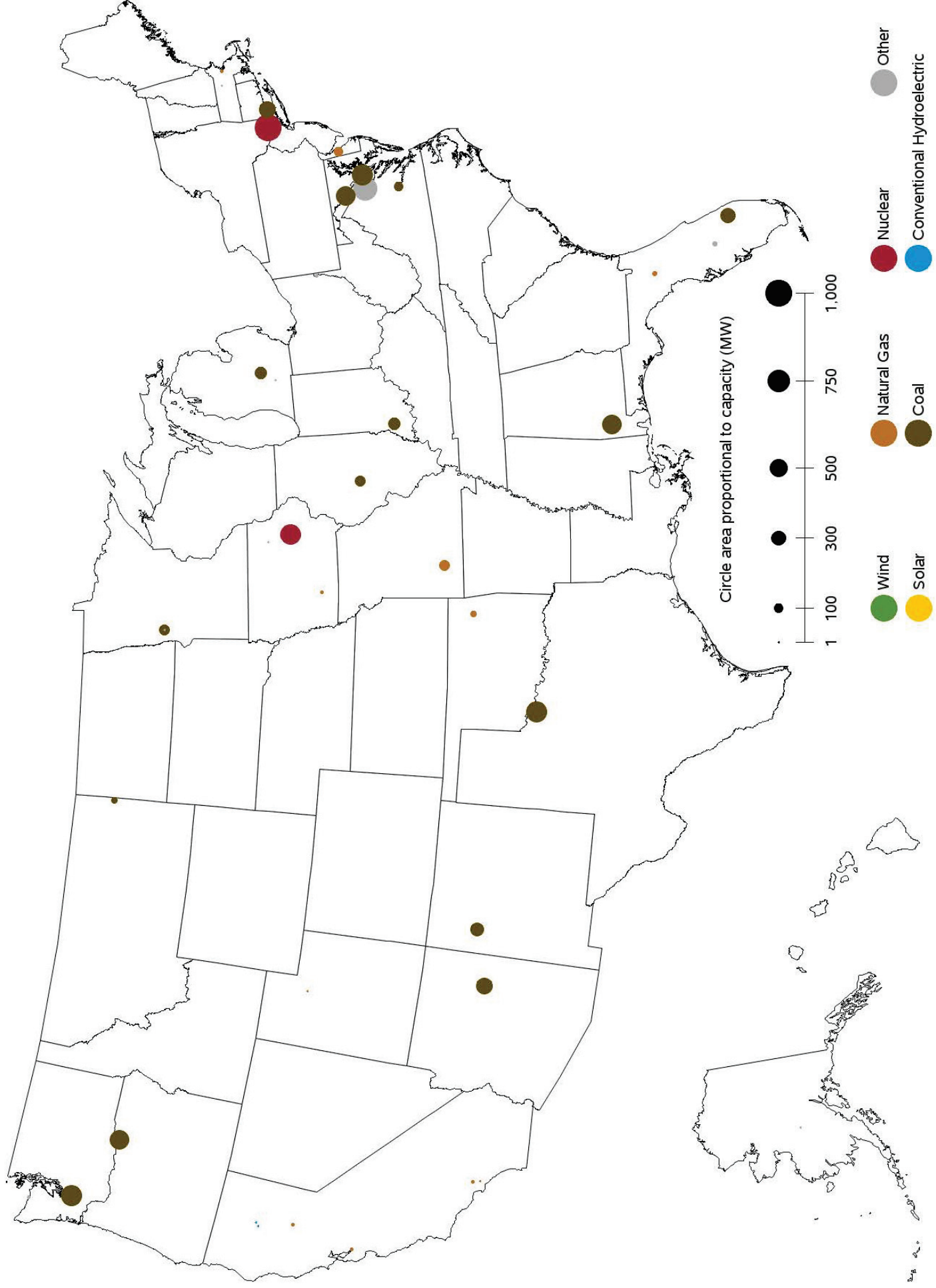
Sources: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report' and Form EIA-860M, 'Monthly Update to the Annual Electric Generator Report.'

Figure 6.1.C. Utility-Scale Generating Units Planned to Come Online from August 2020 to July 2021



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

Figure 6.1.D. Utility-Scale Generating Units Planned to Retire from August 2020 to July 2021



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)

Period	Canada		Mexico		U.S. Total		
	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
2019	52,309,254	13,532,067	6,743,207	6,475,965	59,052,461	20,008,032	39,044,429
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
October	3,179,364	1,041,990	481,831	422,942	3,661,195	1,464,932	2,196,263
November	4,299,127	875,191	540,154	368,755	4,839,281	1,243,946	3,595,335
December	4,742,394	802,651	469,156	372,025	5,211,550	1,174,676	4,036,874
Year 2020							
January	4,227,127	1,275,526	380,376	149,763	4,607,503	1,425,289	3,182,214
February	4,145,482	1,328,868	341,262	326,366	4,486,744	1,655,234	2,831,510
March	4,731,546	898,868	363,374	418,438	5,094,920	1,317,306	3,777,614
April	4,433,870	1,112,187	253,564	363,057	4,687,434	1,475,244	3,212,190
May	4,958,324	1,043,022	217,749	472,500	5,176,073	1,515,522	3,660,551
June	4,915,670	867,147	286,111	434,614	5,201,781	1,301,761	3,900,020

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, 2010 - July 2020 (Thousand Megawatthours)**

Period	Residential	Commercial	Industrial	Transportation	All Sectors
Annual Totals					
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 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
December	509	655	165	0	1,328
Year 2020					
January	475	601	137	0	1,213
February	373	540	120	0	1,033
March	488	691	184	0	1,364
April	510	476	138	0	1,124
May	651	500	160	0	1,311
June	642	623	173	0	1,438
July	704	692	172	0	1,567
Year to Date					
2018	3,350	4,709	1,207	0	9,266
2019	3,425	4,425	1,185	0	9,035
2020	3,842	4,124	1,085	0	9,051
Rolling 12 Months Ending in July					
2019	6,178	7,919	2,106	0	16,203
2020	6,622	7,599	1,948	0	16,169

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, 2010 - July 2020 (Million Dollars)**

Period	Residential	Commercial	Industrial	Transportation	All Sectors
Annual Totals					
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 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
December	118	165	37	0	320
Year 2020					
January	122	180	36	0	338
February	99	161	32	0	292
March	87	143	34	0	264
April	85	79	22	0	186
May	151	118	37	0	307
June	109	119	29	0	257
July	141	145	33	0	319
Year to Date					
2018	690	1,104	232	0	2,026
2019	734	1,004	242	0	1,980
2020	795	945	223	0	1,962
Rolling 12 Months Ending in July					
2019	1,309	1,794	415	0	3,518
2020	1,391	1,750	401	0	3,541

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, 2010 - July 2020**

Period	Residential	Commercial	Industrial	Transportation	All Sectors
Annual Totals					
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 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
December	1,341,424	124,911	588	0	1,466,923
Year 2020					
January	1,340,652	124,815	588	0	1,466,055
February	1,340,005	124,751	586	0	1,465,342
March	1,339,508	124,615	584	0	1,464,707
April	1,339,991	124,604	585	0	1,465,180
May	1,340,943	124,631	585	0	1,466,159
June	1,341,826	124,641	586	0	1,467,053
July	1,343,139	124,665	587	0	1,468,391
Rolling 12 Months Ending in July					
2019	1,347,644	126,142	598	0	1,474,383
2020	1,341,360	124,765	588	0	1,466,712

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, 2010 - July 2020 (Cents per Kilowatthour)**

Period	Residential	Commercial	Industrial	Transportation	All Sectors
Annual Totals					
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 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
December	23.13	25.19	22.62	--	24.09
Year 2020					
January	25.72	29.96	26.04	--	27.86
February	26.63	29.78	26.48	--	28.26
March	17.80	20.68	18.38	--	19.34
April	16.75	16.58	15.81	--	16.56
May	23.24	23.63	23.21	--	23.38
June	16.99	19.03	16.89	--	17.86
July	20.06	20.93	19.14	--	20.35
Year to Date					
2018	20.61	23.44	19.20	--	21.87
2019	21.42	22.70	20.42	--	21.92
2020	20.69	22.90	20.52	--	21.68
Rolling 12 Months Ending in July					
2019	21.18	22.65	19.72	--	21.71
2020	21.01	23.02	20.57	--	21.90

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

Table 8.5. Net Summer Capacity (MW) of Existing Utility Scale Units by Technology for Puerto Rico, 2007-July 2020

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	3,605	145	99	5,782
2018	454	98	1,346	35	3,607	145	99	5,784
2019	454	98	1,346	35	3,607	149	99	5,788
Year 2020								
January	454	98	1,346	33	3,606	145	99	5,780
February	454	98	1,346	33	3,606	155	99	5,790
March	454	98	1,346	33	3,606	155	99	5,790
April	454	98	1,346	33	3,607	155	99	5,791
May	454	98	1,346	33	3,607	155	99	5,791
June	454	98	1,346	33	3,607	155	99	5,791
July	454	98	1,346	33	3,607	155	99	5,791

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

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

Appendices

**Table A.1.A. Relative Standard Error (Percent) for Net Generation by Fuel Type:
Total (All Sectors) by Census Division and State, July 2020**

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	22	22	0	3	0	0	18
Connecticut	0	42	0	3	0	0	47
Maine	34	45	0	17	0	0	20
Massachusetts	0	23	0	4	0	0	33
New Hampshire	0	49	0	0	0	0	43
Rhode Island	0	200	0	11	0	0	0
Vermont	0	90	0	0	0	0	32
Middle Atlantic	2	11	0	1	62	0	4
New Jersey	0	67	0	3	0	0	0
New York	0	13	0	2	0	0	3
Pennsylvania	2	17	0	1	132	0	18
East North Central	1	6	10	2	25	0	12
Illinois	0	11	0	7	0	0	49
Indiana	1	2	0	4	29	0	85
Michigan	2	7	0	3	0	0	19
Ohio	1	9	19	3	106	0	77
Wisconsin	0	59	0	6	0	0	15
West North Central	1	13	0	7	0	0	7
Iowa	0	17	0	8	0	0	24
Kansas	0	17	0	20	0	0	0
Minnesota	3	67	0	11	0	0	23
Missouri	0	14	0	11	0	0	62
Nebraska	4	134	0	27	0	0	20
North Dakota	0	14	0	28	0	0	13
South Dakota	0	126	0	27	0	0	9
South Atlantic	0	5	4	1	0	0	16
Delaware	0	55	0	8	0	0	0
District of Columbia	0	0	0	0	0	0	0
Florida	0	4	0	1	0	0	74
Georgia	0	14	40	3	0	0	27
Maryland	0	5	0	4	0	0	9
North Carolina	0	20	0	2	0	0	14
South Carolina	0	22	0	2	0	0	35
Virginia	0	8	0	2	0	0	28
West Virginia	1	0	0	11	0	0	25
East South Central	0	2	0	1	108	0	9
Alabama	0	39	0	2	309	0	12
Kentucky	0	1	0	4	0	0	12
Mississippi	0	4	0	2	0	0	0
Tennessee	0	1	0	5	0	0	12
West South Central	2	6	7	1	8	0	23
Arkansas	0	0	0	6	0	0	30
Louisiana	37	91	7	2	14	0	31
Oklahoma	0	2	0	2	0	0	28
Texas	0	9	34	1	6	0	54
Mountain	1	8	0	1	0	0	4
Arizona	0	5	0	1	0	0	4
Colorado	0	93	0	2	0	0	18
Idaho	150	0	0	14	0	0	8
Montana	8	128	0	46	0	0	7
Nevada	0	0	0	1	0	0	2
New Mexico	0	31	0	3	0	0	68
Utah	0	4	0	2	0	0	26
Wyoming	3	3	0	14	0	0	25
Pacific Contiguous	0	15	0	1	2	0	1
California	0	18	0	1	3	0	5
Oregon	0	0	0	6	0	0	4
Washington	0	32	0	8	0	0	1
Pacific Noncontiguous	15	1	0	22	0	0	19
Alaska	52	5	0	22	0	0	19
Hawaii	0	1	0	0	0	0	75
U.S. Total	0	2	5	1	7	0	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.1.A. Relative Standard Error (Percent) for Net Generation by Fuel Type:

Total (All Sectors) by Census Division and State, July 2020 (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	6	7	0	1	2
Connecticut	0	0	0	18	17	0	0	2
Maine	0	0	0	70	11	0	0	9
Massachusetts	0	0	0	7	7	0	1	4
New Hampshire	0	0	0	0	30	0	0	3
Rhode Island	0	0	0	26	15	0	0	11
Vermont	0	0	0	20	19	0	0	18
Middle Atlantic	0	0	0	6	5	0	1	1
New Jersey	0	0	0	7	5	0	0	2
New York	0	0	0	10	7	0	2	1
Pennsylvania	0	0	0	25	9	0	0	1
East North Central	0	0	0	8	5	0	2	1
Illinois	0	0	0	24	7	0	0	2
Indiana	0	0	0	13	10	0	0	2
Michigan	0	0	0	18	9	0	17	1
Ohio	0	0	0	12	7	0	0	2
Wisconsin	0	0	0	33	12	0	15	2
West North Central	0	0	0	6	3	0	6	1
Iowa	0	0	0	61	6	0	0	2
Kansas	0	0	0	20	3	0	0	2
Minnesota	0	0	0	7	7	0	4	3
Missouri	0	0	0	24	9	0	0	2
Nebraska	0	0	0	39	6	0	0	3
North Dakota	0	0	0	0	7	0	33	2
South Dakota	0	0	0	174	10	0	0	7
South Atlantic	0	0	0	1	2	0	0	0
Delaware	0	0	0	33	23	0	0	7
District of Columbia	0	0	0	81	26	0	0	14
Florida	0	0	0	1	2	0	1	1
Georgia	0	0	0	3	3	0	0	2
Maryland	0	0	0	10	11	0	0	2
North Carolina	0	0	0	2	2	0	0	1
South Carolina	0	0	0	4	5	0	0	1
Virginia	0	0	0	6	7	0	0	1
West Virginia	0	0	0	0	21	0	0	1
East South Central	0	0	0	6	3	0	6	1
Alabama	0	0	0	11	5	0	0	1
Kentucky	0	0	0	27	17	0	0	1
Mississippi	0	0	0	4	4	0	0	1
Tennessee	0	0	0	13	9	0	55	1
West South Central	0	0	0	1	1	0	3	1
Arkansas	0	0	0	5	8	0	0	2
Louisiana	0	0	0	183	8	0	0	2
Oklahoma	0	0	0	32	3	0	0	2
Texas	0	0	0	1	1	0	5	1
Mountain	0	5	0	2	2	0	4	1
Arizona	0	0	0	2	3	0	0	0
Colorado	0	0	0	6	3	0	0	1
Idaho	0	22	0	8	13	0	0	6
Montana	0	0	0	41	17	0	0	5
Nevada	0	5	0	2	2	0	0	1
New Mexico	0	0	0	6	4	0	0	1
Utah	0	10	0	5	4	0	35	1
Wyoming	0	0	0	0	13	0	0	3
Pacific Contiguous	0	2	0	1	2	0	2	1
California	0	2	0	1	2	0	2	1
Oregon	0	16	0	8	5	0	0	3
Washington	0	0	0	54	8	0	0	1
Pacific Noncontiguous	0	21	0	10	11	0	0	6
Alaska	0	0	0	0	57	0	0	13
Hawaii	0	21	0	10	10	0	0	2
U.S. Total	0	2	0	1	1	0	0	0

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

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

Total (All Sectors) by Census Division and State, Year-to-Date through July 2020

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	22	22	0	3	0	0	18
Connecticut	0	42	0	3	0	0	47
Maine	34	45	0	17	0	0	20
Massachusetts	0	23	0	4	0	0	33
New Hampshire	0	49	0	0	0	0	43
Rhode Island	0	200	0	11	0	0	0
Vermont	0	90	0	0	0	0	32
Middle Atlantic	2	11	0	1	62	0	4
New Jersey	0	67	0	3	0	0	0
New York	0	13	0	2	0	0	3
Pennsylvania	2	17	0	1	132	0	18
East North Central	1	6	10	2	25	0	12
Illinois	0	11	0	7	0	0	49
Indiana	1	2	0	4	29	0	85
Michigan	2	7	0	3	0	0	19
Ohio	1	9	19	3	106	0	77
Wisconsin	0	59	0	6	0	0	15
West North Central	1	13	0	7	0	0	7
Iowa	0	17	0	8	0	0	24
Kansas	0	17	0	20	0	0	0
Minnesota	3	67	0	11	0	0	23
Missouri	0	14	0	11	0	0	62
Nebraska	4	134	0	27	0	0	20
North Dakota	0	14	0	28	0	0	13
South Dakota	0	126	0	27	0	0	9
South Atlantic	0	5	4	1	0	0	16
Delaware	0	55	0	8	0	0	0
District of Columbia	0	0	0	0	0	0	0
Florida	0	4	0	1	0	0	74
Georgia	0	14	40	3	0	0	27
Maryland	0	5	0	4	0	0	9
North Carolina	0	20	0	2	0	0	14
South Carolina	0	22	0	2	0	0	35
Virginia	0	8	0	2	0	0	28
West Virginia	1	0	0	11	0	0	25
East South Central	0	2	0	1	108	0	9
Alabama	0	39	0	2	309	0	12
Kentucky	0	1	0	4	0	0	12
Mississippi	0	4	0	2	0	0	0
Tennessee	0	1	0	5	0	0	12
West South Central	2	6	7	1	8	0	23
Arkansas	0	0	0	6	0	0	30
Louisiana	37	91	7	2	14	0	31
Oklahoma	0	2	0	2	0	0	28
Texas	0	9	34	1	6	0	54
Mountain	1	8	0	1	0	0	4
Arizona	0	5	0	1	0	0	4
Colorado	0	93	0	2	0	0	18
Idaho	150	0	0	14	0	0	8
Montana	8	128	0	46	0	0	7
Nevada	0	0	0	1	0	0	2
New Mexico	0	31	0	3	0	0	68
Utah	0	4	0	2	0	0	26
Wyoming	3	3	0	14	0	0	25
Pacific Contiguous	0	15	0	1	2	0	1
California	0	18	0	1	3	0	5
Oregon	0	0	0	6	0	0	4
Washington	0	32	0	8	0	0	1
Pacific Noncontiguous	15	1	0	22	0	0	19
Alaska	52	5	0	22	0	0	19
Hawaii	0	1	0	0	0	0	75
U.S. Total	0	2	5	1	7	0	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.1.B. Relative Standard Error (Percent) for Net Generation by Fuel Type:

Total (All Sectors) by Census Division and State, Year-to-Date through July 2020 (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	6	7	0	1	2
Connecticut	0	0	0	18	17	0	0	2
Maine	0	0	0	70	11	0	0	9
Massachusetts	0	0	0	7	7	0	1	4
New Hampshire	0	0	0	0	30	0	0	3
Rhode Island	0	0	0	26	15	0	0	11
Vermont	0	0	0	20	19	0	0	18
Middle Atlantic	0	0	0	6	5	0	1	1
New Jersey	0	0	0	7	5	0	0	2
New York	0	0	0	10	7	0	2	1
Pennsylvania	0	0	0	25	9	0	0	1
East North Central	0	0	0	8	5	0	2	1
Illinois	0	0	0	24	7	0	0	2
Indiana	0	0	0	13	10	0	0	2
Michigan	0	0	0	18	9	0	17	1
Ohio	0	0	0	12	7	0	0	2
Wisconsin	0	0	0	33	12	0	15	2
West North Central	0	0	0	6	3	0	6	1
Iowa	0	0	0	61	6	0	0	2
Kansas	0	0	0	20	3	0	0	2
Minnesota	0	0	0	7	7	0	4	3
Missouri	0	0	0	24	9	0	0	2
Nebraska	0	0	0	39	6	0	0	3
North Dakota	0	0	0	0	7	0	33	2
South Dakota	0	0	0	174	10	0	0	7
South Atlantic	0	0	0	1	2	0	0	0
Delaware	0	0	0	33	23	0	0	7
District of Columbia	0	0	0	81	26	0	0	14
Florida	0	0	0	1	2	0	1	1
Georgia	0	0	0	3	3	0	0	2
Maryland	0	0	0	10	11	0	0	2
North Carolina	0	0	0	2	2	0	0	1
South Carolina	0	0	0	4	5	0	0	1
Virginia	0	0	0	6	7	0	0	1
West Virginia	0	0	0	0	21	0	0	1
East South Central	0	0	0	6	3	0	6	1
Alabama	0	0	0	11	5	0	0	1
Kentucky	0	0	0	27	17	0	0	1
Mississippi	0	0	0	4	4	0	0	1
Tennessee	0	0	0	13	9	0	55	1
West South Central	0	0	0	1	1	0	3	1
Arkansas	0	0	0	5	8	0	0	2
Louisiana	0	0	0	183	8	0	0	2
Oklahoma	0	0	0	32	3	0	0	2
Texas	0	0	0	1	1	0	5	1
Mountain	0	5	0	2	2	0	4	1
Arizona	0	0	0	2	3	0	0	0
Colorado	0	0	0	6	3	0	0	1
Idaho	0	22	0	8	13	0	0	6
Montana	0	0	0	41	17	0	0	5
Nevada	0	5	0	2	2	0	0	1
New Mexico	0	0	0	6	4	0	0	1
Utah	0	10	0	5	4	0	35	1
Wyoming	0	0	0	0	13	0	0	3
Pacific Contiguous	0	2	0	1	2	0	2	1
California	0	2	0	1	2	0	2	1
Oregon	0	16	0	8	5	0	0	3
Washington	0	0	0	54	8	0	0	1
Pacific Noncontiguous	0	21	0	10	11	0	0	6
Alaska	0	0	0	0	57	0	0	13
Hawaii	0	21	0	10	10	0	0	2
U.S. Total	0	2	0	1	1	0	0	0

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Table A.1.C. Relative Standard Error (Percent) for Small Scale Solar Generation and Capacity by Sector, Census Division and State, July 2020

Census Region and State	Residential	Commercial	Industrial	Transportation	Total
New England	0	1	1	.	0
Connecticut	0	0	0	.	0
Maine	1	2	0	.	1
Massachusetts	0	1	2	.	0
New Hampshire	1	0	0	.	0
Rhode Island	0	0	0	.	0
Vermont	3	10	75	.	4
Middle Atlantic	0	1	2	.	0
New Jersey	0	1	3	.	0
New York	0	0	1	.	0
Pennsylvania	1	3	1	.	1
East North Central	6	4	7	.	3
Illinois	8	6	0	.	5
Indiana	17	4	0	.	8
Michigan	10	23	91	.	10
Ohio	15	5	9	.	6
Wisconsin	26	23	12	.	16
West North Central	1	1	5	.	1
Iowa	3	1	24	.	1
Kansas	5	3	0	.	3
Minnesota	2	3	4	.	2
Missouri	1	1	6	.	1
Nebraska	7	17	32	.	7
North Dakota	0	0	0	.	0
South Dakota	0	0	0	.	0
South Atlantic	2	2	2	.	2
Delaware	9	5	21	.	7
District of Columbia	0	0	0	.	0
Florida	5	6	2	.	4
Georgia	240	43	0	.	134
Maryland	2	2	3	.	1
North Carolina	9	3	0	.	7
South Carolina	8	7	0	.	6
Virginia	12	5	5	.	8
West Virginia	0	0	0	.	0
East South Central	9	4	0	.	6
Alabama	0	0	0	.	0
Kentucky	10	5	0	.	8
Mississippi	22	10	0	.	13
Tennessee	0	0	0	.	0
West South Central	4	5	5	.	3
Arkansas	18	16	0	.	12
Louisiana	5	8	0	.	5
Oklahoma	23	16	0	.	18
Texas	5	7	0	.	5
Mountain	0	0	1	.	0
Arizona	0	0	0	.	0
Colorado	3	1	28	.	2
Idaho	2	2	0	.	2
Montana	9	2	0	.	7
Nevada	0	0	0	.	0
New Mexico	3	1	52	.	2
Utah	1	1	0	.	1
Wyoming	15	14	0	.	12
Pacific Contiguous	0	0	0	.	0
California	0	0	0	.	0
Oregon	1	1	8	.	1
Washington	2	3	33	.	1
Pacific Noncontiguous	0	0	0	.	0
Alaska	3	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, July 2020**

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	0	44	0	38	0	0	34
Connecticut	0	51	0	0	0	0	124
Maine	0	0	0	0	0	0	541
Massachusetts	0	76	0	44	0	0	70
New Hampshire	0	26	0	0	0	0	54
Rhode Island	0	0	0	0	0	0	0
Vermont	0	101	0	0	0	0	57
Middle Atlantic	0	11	0	5	0	0	1
New Jersey	0	0	0	73	0	0	0
New York	0	11	0	5	0	0	1
Pennsylvania	0	0	0	0	0	0	0
East North Central	1	7	0	4	0	0	12
Illinois	0	57	0	17	0	0	67
Indiana	1	2	0	8	0	0	85
Michigan	2	7	0	5	0	0	20
Ohio	12	43	0	9	0	0	76
Wisconsin	0	62	0	6	0	0	16
West North Central	1	13	0	7	0	0	7
Iowa	0	17	0	8	0	0	24
Kansas	0	17	0	21	0	0	0
Minnesota	3	75	0	12	0	0	28
Missouri	0	14	0	14	0	0	62
Nebraska	4	134	0	27	0	0	20
North Dakota	0	14	0	29	0	0	13
South Dakota	0	126	0	27	0	0	9
South Atlantic	0	5	0	1	0	0	17
Delaware	0	0	0	0	0	0	0
Florida	0	4	0	1	0	0	74
Georgia	0	10	0	3	0	0	27
Maryland	0	76	0	0	0	0	0
North Carolina	0	21	0	2	0	0	14
South Carolina	0	28	0	2	0	0	32
Virginia	0	11	0	3	0	0	26
West Virginia	0	0	0	0	0	0	42
East South Central	0	1	0	2	0	0	9
Alabama	0	0	0	5	0	0	12
Kentucky	0	1	0	5	0	0	11
Mississippi	0	6	0	2	0	0	0
Tennessee	0	1	0	5	0	0	12
West South Central	3	7	7	2	0	0	28
Arkansas	0	0	0	6	0	0	31
Louisiana	38	91	7	3	0	0	0
Oklahoma	0	2	0	3	0	0	28
Texas	0	11	0	4	0	0	56
Mountain	1	9	0	1	0	0	4
Arizona	0	5	0	1	0	0	4
Colorado	0	93	0	2	0	0	19
Idaho	0	0	0	16	0	0	8
Montana	0	588	0	49	0	0	7
Nevada	0	0	0	1	0	0	0
New Mexico	0	31	0	4	0	0	68
Utah	0	4	0	2	0	0	26
Wyoming	3	3	0	21	0	0	25
Pacific Contiguous	0	19	0	3	0	0	1
California	0	22	0	2	0	0	5
Oregon	0	0	0	10	0	0	3
Washington	0	216	0	11	0	0	1
Pacific Noncontiguous	90	1	0	22	0	0	20
Alaska	90	5	0	22	0	0	20
Hawaii	0	1	0	0	0	0	0
U.S. Total	0	2	4	1	0	0	2

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

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

Electric Utilities by Census Division and State, July 2020 (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	16	0	0	20
Connecticut	0	0	0	0	0	0	0	15
Maine	0	0	0	0	0	0	0	541
Massachusetts	0	0	0	30	36	0	0	33
New Hampshire	0	0	0	0	0	0	0	40
Rhode Island	0	0	0	0	0	0	0	0
Vermont	0	0	0	35	17	0	0	22
Middle Atlantic	0	0	0	26	26	0	0	2
New Jersey	0	0	0	26	26	0	0	24
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	14	12	0	31	1
Illinois	0	0	0	52	24	0	0	12
Indiana	0	0	0	20	12	0	0	2
Michigan	0	0	0	14	16	0	0	2
Ohio	0	0	0	86	143	0	0	7
Wisconsin	0	0	0	105	21	0	33	2
West North Central	0	0	0	45	5	0	9	1
Iowa	0	0	0	81	5	0	0	2
Kansas	0	0	0	174	10	0	0	3
Minnesota	0	0	0	132	17	0	0	3
Missouri	0	0	0	53	35	0	0	2
Nebraska	0	0	0	121	40	0	0	4
North Dakota	0	0	0	0	13	0	33	2
South Dakota	0	0	0	0	36	0	0	8
South Atlantic	0	0	0	1	3	0	0	0
Delaware	0	0	0	92	92	0	0	6
Florida	0	0	0	0	0	0	0	1
Georgia	0	0	0	8	8	0	0	1
Maryland	0	0	0	80	80	0	0	0
North Carolina	0	0	0	8	8	0	0	1
South Carolina	0	0	0	109	25	0	0	1
Virginia	0	0	0	8	15	0	0	1
West Virginia	0	0	0	0	0	0	0	0
East South Central	0	0	0	24	17	0	0	1
Alabama	0	0	0	42	42	0	0	2
Kentucky	0	0	0	27	18	0	0	1
Mississippi	0	0	0	0	0	0	0	2
Tennessee	0	0	0	186	186	0	0	1
West South Central	0	0	0	29	12	0	0	2
Arkansas	0	0	0	186	186	0	0	2
Louisiana	0	0	0	183	183	0	0	3
Oklahoma	0	0	0	32	12	0	0	3
Texas	0	0	0	70	37	0	0	2
Mountain	0	15	0	7	6	0	24	1
Arizona	0	0	0	9	9	0	0	0
Colorado	0	0	0	97	4	0	0	1
Idaho	0	0	0	0	70	0	0	7
Montana	0	0	0	0	65	0	0	7
Nevada	0	0	0	8	8	0	0	1
New Mexico	0	0	0	14	14	0	0	2
Utah	0	15	0	0	15	0	35	1
Wyoming	0	0	0	0	22	0	0	3
Pacific Contiguous	0	0	0	10	5	0	0	1
California	0	0	0	11	4	0	0	2
Oregon	0	0	0	94	6	0	0	3
Washington	0	0	0	0	11	0	0	1
Pacific Noncontiguous	0	0	0	29	38	0	0	8
Alaska	0	0	0	0	95	0	0	14
Hawaii	0	0	0	29	23	0	0	1
U.S. Total	0	3	0	2	3	0	5	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 July 2020

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	0	44	0	38	0	0	34
Connecticut	0	51	0	0	0	0	124
Maine	0	0	0	0	0	0	541
Massachusetts	0	76	0	44	0	0	70
New Hampshire	0	26	0	0	0	0	54
Rhode Island	0	0	0	0	0	0	0
Vermont	0	101	0	0	0	0	57
Middle Atlantic	0	11	0	5	0	0	1
New Jersey	0	0	0	73	0	0	0
New York	0	11	0	5	0	0	1
Pennsylvania	0	0	0	0	0	0	0
East North Central	1	7	0	4	0	0	12
Illinois	0	57	0	17	0	0	67
Indiana	1	2	0	8	0	0	85
Michigan	2	7	0	5	0	0	20
Ohio	12	43	0	9	0	0	76
Wisconsin	0	62	0	6	0	0	16
West North Central	1	13	0	7	0	0	7
Iowa	0	17	0	8	0	0	24
Kansas	0	17	0	21	0	0	0
Minnesota	3	75	0	12	0	0	28
Missouri	0	14	0	14	0	0	62
Nebraska	4	134	0	27	0	0	20
North Dakota	0	14	0	29	0	0	13
South Dakota	0	126	0	27	0	0	9
South Atlantic	0	5	0	1	0	0	17
Delaware	0	0	0	0	0	0	0
Florida	0	4	0	1	0	0	74
Georgia	0	10	0	3	0	0	27
Maryland	0	76	0	0	0	0	0
North Carolina	0	21	0	2	0	0	14
South Carolina	0	28	0	2	0	0	32
Virginia	0	11	0	3	0	0	26
West Virginia	0	0	0	0	0	0	42
East South Central	0	1	0	2	0	0	9
Alabama	0	0	0	5	0	0	12
Kentucky	0	1	0	5	0	0	11
Mississippi	0	6	0	2	0	0	0
Tennessee	0	1	0	5	0	0	12
West South Central	3	7	7	2	0	0	28
Arkansas	0	0	0	6	0	0	31
Louisiana	38	91	7	3	0	0	0
Oklahoma	0	2	0	3	0	0	28
Texas	0	11	0	4	0	0	56
Mountain	1	9	0	1	0	0	4
Arizona	0	5	0	1	0	0	4
Colorado	0	93	0	2	0	0	19
Idaho	0	0	0	16	0	0	8
Montana	0	588	0	49	0	0	7
Nevada	0	0	0	1	0	0	0
New Mexico	0	31	0	4	0	0	68
Utah	0	4	0	2	0	0	26
Wyoming	3	3	0	21	0	0	25
Pacific Contiguous	0	19	0	3	0	0	1
California	0	22	0	2	0	0	5
Oregon	0	0	0	10	0	0	3
Washington	0	216	0	11	0	0	1
Pacific Noncontiguous	90	1	0	22	0	0	20
Alaska	90	5	0	22	0	0	20
Hawaii	0	1	0	0	0	0	0
U.S. Total	0	2	4	1	0	0	2

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

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

Electric Utilities by Census Division and State, Year-to-Date through July 2020 (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	16	0	0	20
Connecticut	0	0	0	0	0	0	0	15
Maine	0	0	0	0	0	0	0	541
Massachusetts	0	0	0	30	36	0	0	33
New Hampshire	0	0	0	0	0	0	0	40
Rhode Island	0	0	0	0	0	0	0	0
Vermont	0	0	0	35	17	0	0	22
Middle Atlantic	0	0	0	26	26	0	0	2
New Jersey	0	0	0	26	26	0	0	24
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	14	12	0	31	1
Illinois	0	0	0	52	24	0	0	12
Indiana	0	0	0	20	12	0	0	2
Michigan	0	0	0	14	16	0	0	2
Ohio	0	0	0	86	143	0	0	7
Wisconsin	0	0	0	105	21	0	33	2
West North Central	0	0	0	45	5	0	9	1
Iowa	0	0	0	81	5	0	0	2
Kansas	0	0	0	174	10	0	0	3
Minnesota	0	0	0	132	17	0	0	3
Missouri	0	0	0	53	35	0	0	2
Nebraska	0	0	0	121	40	0	0	4
North Dakota	0	0	0	0	13	0	33	2
South Dakota	0	0	0	0	36	0	0	8
South Atlantic	0	0	0	1	3	0	0	0
Delaware	0	0	0	92	92	0	0	6
Florida	0	0	0	0	0	0	0	1
Georgia	0	0	0	8	8	0	0	1
Maryland	0	0	0	80	80	0	0	0
North Carolina	0	0	0	8	8	0	0	1
South Carolina	0	0	0	109	25	0	0	1
Virginia	0	0	0	8	15	0	0	1
West Virginia	0	0	0	0	0	0	0	0
East South Central	0	0	0	24	17	0	0	1
Alabama	0	0	0	42	42	0	0	2
Kentucky	0	0	0	27	18	0	0	1
Mississippi	0	0	0	0	0	0	0	2
Tennessee	0	0	0	186	186	0	0	1
West South Central	0	0	0	29	12	0	0	2
Arkansas	0	0	0	186	186	0	0	2
Louisiana	0	0	0	183	183	0	0	3
Oklahoma	0	0	0	32	12	0	0	3
Texas	0	0	0	70	37	0	0	2
Mountain	0	15	0	7	6	0	24	1
Arizona	0	0	0	9	9	0	0	0
Colorado	0	0	0	97	4	0	0	1
Idaho	0	0	0	0	70	0	0	7
Montana	0	0	0	0	65	0	0	7
Nevada	0	0	0	8	8	0	0	1
New Mexico	0	0	0	14	14	0	0	2
Utah	0	15	0	0	15	0	35	1
Wyoming	0	0	0	0	22	0	0	3
Pacific Contiguous	0	0	0	10	5	0	0	1
California	0	0	0	11	4	0	0	2
Oregon	0	0	0	94	6	0	0	3
Washington	0	0	0	0	11	0	0	1
Pacific Noncontiguous	0	0	0	29	38	0	0	8
Alaska	0	0	0	0	95	0	0	14
Hawaii	0	0	0	29	23	0	0	1
U.S. Total	0	3	0	2	3	0	5	0

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

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

Independent Power Producers by Census Division and State, July 2020

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	0	26	0	3	0	0	18
Connecticut	0	45	0	3	0	0	48
Maine	0	32	0	20	0	0	21
Massachusetts	0	25	0	4	0	0	37
New Hampshire	0	1,273	0	0	0	0	53
Rhode Island	0	201	0	12	0	0	0
Vermont	0	0	0	0	0	0	37
Middle Atlantic	2	17	0	1	0	0	17
New Jersey	0	68	0	3	0	0	0
New York	0	28	0	3	0	0	18
Pennsylvania	2	18	0	1	0	0	18
East North Central	0	8	19	2	120	0	40
Illinois	0	8	0	7	0	0	72
Indiana	0	0	0	0	0	0	0
Michigan	0	0	0	2	0	0	73
Ohio	0	9	19	3	243	0	0
Wisconsin	0	0	0	1	0	0	64
West North Central	0	196	0	10	0	0	41
Iowa	0	122	0	1,231	0	0	0
Kansas	0	0	0	0	0	0	0
Minnesota	0	381	0	20	0	0	49
Missouri	0	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0	0
South Atlantic	2	10	0	3	0	0	21
Delaware	0	55	0	9	0	0	0
Florida	0	58	0	8	0	0	0
Georgia	0	109	0	8	0	0	317
Maryland	0	5	0	5	0	0	9
North Carolina	0	104	0	8	0	0	115
South Carolina	0	0	0	11	0	0	129
Virginia	0	14	0	2	0	0	95
West Virginia	4	0	0	15	0	0	49
East South Central	0	170	0	0	0	0	330
Alabama	0	274	0	0	0	0	0
Kentucky	0	0	0	0	0	0	330
Mississippi	0	0	0	0	0	0	0
Tennessee	0	0	0	0	0	0	0
West South Central	0	18	0	1	0	0	29
Arkansas	0	0	0	0	0	0	59
Louisiana	0	0	0	9	0	0	31
Oklahoma	0	0	0	0	0	0	0
Texas	0	21	0	1	0	0	0
Mountain	6	33	0	3	0	0	21
Arizona	0	0	0	0	0	0	0
Colorado	0	0	0	8	0	0	47
Idaho	0	0	0	29	0	0	27
Montana	8	42	0	51	0	0	66
Nevada	0	0	0	0	0	0	63
New Mexico	0	0	0	4	0	0	0
Utah	0	0	0	0	0	0	0
Wyoming	0	0	0	0	0	0	0
Pacific Contiguous	0	10	0	1	0	0	21
California	0	0	0	1	0	0	27
Oregon	0	0	0	3	0	0	50
Washington	0	12	0	13	0	0	37
Pacific Noncontiguous	6	0	0	0	0	0	0
Alaska	54	0	0	0	0	0	0
Hawaii	0	0	0	0	0	0	0
U.S. Total	0	4	14	1	18	0	11

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

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

Independent Power Producers by Census Division and State, July 2020 (Continued)

Census Region and State	Wind	Geothermal	Biomass	Solar Thermal and Photovoltaic	Other Renewables	Hydroelectric Pumped Storage	Other Energy Sources	All Energy Sources
New England	0	0	0	7	9	0	1	2
Connecticut	0	0	0	18	17	0	0	2
Maine	0	0	0	70	16	0	0	11
Massachusetts	0	0	0	8	7	0	1	4
New Hampshire	0	0	0	0	31	0	0	3
Rhode Island	0	0	0	26	15	0	0	11
Vermont	0	0	0	25	35	0	0	26
Middle Atlantic	0	0	0	6	6	0	0	1
New Jersey	0	0	0	8	6	0	0	2
New York	0	0	0	10	7	0	0	2
Pennsylvania	0	0	0	26	10	0	0	1
East North Central	0	0	0	9	6	0	19	1
Illinois	0	0	0	25	7	0	0	1
Indiana	0	0	0	17	11	0	0	2
Michigan	0	0	0	37	13	0	29	2
Ohio	0	0	0	12	7	0	0	1
Wisconsin	0	0	0	36	13	0	0	1
West North Central	0	0	0	6	3	0	0	3
Iowa	0	0	0	83	11	0	0	6
Kansas	0	0	0	20	3	0	0	3
Minnesota	0	0	0	7	7	0	0	7
Missouri	0	0	0	27	10	0	0	4
Nebraska	0	0	0	40	6	0	0	6
North Dakota	0	0	0	0	8	0	0	8
South Dakota	0	0	0	174	9	0	0	9
South Atlantic	0	0	0	2	2	0	0	1
Delaware	0	0	0	36	26	0	0	8
District of Columbia	0	0	0	81	81	0	0	81
Florida	0	0	0	5	4	0	1	5
Georgia	0	0	0	3	3	0	0	6
Maryland	0	0	0	10	12	0	0	2
North Carolina	0	0	0	3	2	0	0	4
South Carolina	0	0	0	4	7	0	0	6
Virginia	0	0	0	8	9	0	0	2
West Virginia	0	0	0	0	21	0	0	4
East South Central	0	0	0	6	6	0	0	0
Alabama	0	0	0	12	11	0	0	0
Kentucky	0	0	0	180	51	0	0	1
Mississippi	0	0	0	4	4	0	0	1
Tennessee	0	0	0	13	14	0	0	14
West South Central	0	0	0	1	1	0	0	1
Arkansas	0	0	0	6	7	0	0	1
Louisiana	0	0	0	0	24	0	0	9
Oklahoma	0	0	0	0	3	0	0	2
Texas	0	0	0	1	1	0	0	1
Mountain	0	5	0	2	2	0	0	2
Arizona	0	0	0	2	4	0	0	1
Colorado	0	0	0	6	3	0	0	3
Idaho	0	22	0	8	14	0	0	13
Montana	0	0	0	41	18	0	0	7
Nevada	0	5	0	2	3	0	0	2
New Mexico	0	0	0	6	4	0	0	3
Utah	0	14	0	5	4	0	0	4
Wyoming	0	0	0	0	22	0	0	15
Pacific Contiguous	0	2	0	1	2	0	0	1
California	0	2	0	1	2	0	0	1
Oregon	0	16	0	8	7	0	0	4
Washington	0	0	0	54	16	0	0	7
Pacific Noncontiguous	0	21	0	10	13	0	0	5
Alaska	0	0	0	0	128	0	0	50
Hawaii	0	21	0	10	13	0	0	4
U.S. Total	0	3	0	1	1	0	0	0

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

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

Independent Power Producers by Census Division and State, Year-to-Date through July 2020

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	0	26	0	3	0	0	18
Connecticut	0	45	0	3	0	0	48
Maine	0	32	0	20	0	0	21
Massachusetts	0	25	0	4	0	0	37
New Hampshire	0	1,273	0	0	0	0	53
Rhode Island	0	201	0	12	0	0	0
Vermont	0	0	0	0	0	0	37
Middle Atlantic	2	17	0	1	0	0	17
New Jersey	0	68	0	3	0	0	0
New York	0	28	0	3	0	0	18
Pennsylvania	2	18	0	1	0	0	18
East North Central	0	8	19	2	120	0	40
Illinois	0	8	0	7	0	0	72
Indiana	0	0	0	0	0	0	0
Michigan	0	0	0	2	0	0	73
Ohio	0	9	19	3	243	0	0
Wisconsin	0	0	0	1	0	0	64
West North Central	0	196	0	10	0	0	41
Iowa	0	122	0	1,231	0	0	0
Kansas	0	0	0	0	0	0	0
Minnesota	0	381	0	20	0	0	49
Missouri	0	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0	0
South Atlantic	2	10	0	3	0	0	21
Delaware	0	55	0	9	0	0	0
Florida	0	58	0	8	0	0	0
Georgia	0	109	0	8	0	0	317
Maryland	0	5	0	5	0	0	9
North Carolina	0	104	0	8	0	0	115
South Carolina	0	0	0	11	0	0	129
Virginia	0	14	0	2	0	0	95
West Virginia	4	0	0	15	0	0	49
East South Central	0	170	0	0	0	0	330
Alabama	0	274	0	0	0	0	0
Kentucky	0	0	0	0	0	0	330
Mississippi	0	0	0	0	0	0	0
Tennessee	0	0	0	0	0	0	0
West South Central	0	18	0	1	0	0	29
Arkansas	0	0	0	0	0	0	59
Louisiana	0	0	0	9	0	0	31
Oklahoma	0	0	0	0	0	0	0
Texas	0	21	0	1	0	0	0
Mountain	6	33	0	3	0	0	21
Arizona	0	0	0	0	0	0	0
Colorado	0	0	0	8	0	0	47
Idaho	0	0	0	29	0	0	27
Montana	8	42	0	51	0	0	66
Nevada	0	0	0	0	0	0	63
New Mexico	0	0	0	4	0	0	0
Utah	0	0	0	0	0	0	0
Wyoming	0	0	0	0	0	0	0
Pacific Contiguous	0	10	0	1	0	0	21
California	0	0	0	1	0	0	27
Oregon	0	0	0	3	0	0	50
Washington	0	12	0	13	0	0	37
Pacific Noncontiguous	6	0	0	0	0	0	0
Alaska	54	0	0	0	0	0	0
Hawaii	0	0	0	0	0	0	0
U.S. Total	0	4	14	1	18	0	11

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

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

Independent Power Producers by Census Division and State, Year-to-Date through July 2020 (Continued)

Census Region and State	Wind	Geothermal	Biomass	Solar Thermal and Photovoltaic	Other Renewables	Hydroelectric Pumped Storage	Other Energy Sources	All Energy Sources
New England	0	0	0	7	9	0	1	2
Connecticut	0	0	0	18	17	0	0	2
Maine	0	0	0	70	16	0	0	11
Massachusetts	0	0	0	8	7	0	1	4
New Hampshire	0	0	0	0	31	0	0	3
Rhode Island	0	0	0	26	15	0	0	11
Vermont	0	0	0	25	35	0	0	26
Middle Atlantic	0	0	0	6	6	0	0	1
New Jersey	0	0	0	8	6	0	0	2
New York	0	0	0	10	7	0	0	2
Pennsylvania	0	0	0	26	10	0	0	1
East North Central	0	0	0	9	6	0	19	1
Illinois	0	0	0	25	7	0	0	1
Indiana	0	0	0	17	11	0	0	2
Michigan	0	0	0	37	13	0	29	2
Ohio	0	0	0	12	7	0	0	1
Wisconsin	0	0	0	36	13	0	0	1
West North Central	0	0	0	6	3	0	0	3
Iowa	0	0	0	83	11	0	0	6
Kansas	0	0	0	20	3	0	0	3
Minnesota	0	0	0	7	7	0	0	7
Missouri	0	0	0	27	10	0	0	4
Nebraska	0	0	0	40	6	0	0	6
North Dakota	0	0	0	0	8	0	0	8
South Dakota	0	0	0	174	9	0	0	9
South Atlantic	0	0	0	2	2	0	0	1
Delaware	0	0	0	36	26	0	0	8
District of Columbia	0	0	0	81	81	0	0	81
Florida	0	0	0	5	4	0	1	5
Georgia	0	0	0	3	3	0	0	6
Maryland	0	0	0	10	12	0	0	2
North Carolina	0	0	0	3	2	0	0	4
South Carolina	0	0	0	4	7	0	0	6
Virginia	0	0	0	8	9	0	0	2
West Virginia	0	0	0	0	21	0	0	4
East South Central	0	0	0	6	6	0	0	0
Alabama	0	0	0	12	11	0	0	0
Kentucky	0	0	0	180	51	0	0	1
Mississippi	0	0	0	4	4	0	0	1
Tennessee	0	0	0	13	14	0	0	14
West South Central	0	0	0	1	1	0	0	1
Arkansas	0	0	0	6	7	0	0	1
Louisiana	0	0	0	0	24	0	0	9
Oklahoma	0	0	0	0	3	0	0	2
Texas	0	0	0	1	1	0	0	1
Mountain	0	5	0	2	2	0	0	2
Arizona	0	0	0	2	4	0	0	1
Colorado	0	0	0	6	3	0	0	3
Idaho	0	22	0	8	14	0	0	13
Montana	0	0	0	41	18	0	0	7
Nevada	0	5	0	2	3	0	0	2
New Mexico	0	0	0	6	4	0	0	3
Utah	0	14	0	5	4	0	0	4
Wyoming	0	0	0	0	22	0	0	15
Pacific Contiguous	0	2	0	1	2	0	0	1
California	0	2	0	1	2	0	0	1
Oregon	0	16	0	8	7	0	0	4
Washington	0	0	0	54	16	0	0	7
Pacific Noncontiguous	0	21	0	10	13	0	0	5
Alaska	0	0	0	0	128	0	0	50
Hawaii	0	21	0	10	13	0	0	4
U.S. Total	0	3	0	1	1	0	0	0

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

**Table A.4.A. Relative Standard Error for Net Generation by Fuel Type:
Commercial Sector by Census Division and State, July 2020**

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	0	51	0	11	0	0	0
Connecticut	0	823	0	17	0	0	0
Maine	0	0	0	0	0	0	0
Massachusetts	0	70	0	16	0	0	0
New Hampshire	0	11	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	64	0	12	0	0	0
New Jersey	0	0	0	27	0	0	0
New York	0	177	0	14	0	0	0
Pennsylvania	0	0	0	0	0	0	0
East North Central	17	57	0	7	0	0	0
Illinois	26	36	0	18	0	0	0
Indiana	0	0	0	0	0	0	0
Michigan	0	548	0	13	0	0	0
Ohio	0	0	0	3	0	0	0
Wisconsin	0	1,303	0	24	0	0	0
West North Central	0	30	0	9	0	0	0
Iowa	0	0	0	17	0	0	0
Minnesota	0	30	0	24	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	2,211	0	0	0	0	0
South Atlantic	0	5	0	8	0	0	0
District of Columbia	0	0	0	0	0	0	0
Florida	0	0	0	0	0	0	0
Georgia	0	37	0	0	0	0	0
Maryland	0	519	0	7	0	0	0
North Carolina	0	230	0	56	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	23	0	0	0
Mississippi	0	0	0	0	0	0	0
Tennessee	0	0	0	23	0	0	0
West South Central	0	0	0	17	0	0	0
Arkansas	0	0	0	109	0	0	0
Louisiana	0	0	0	26	0	0	0
Oklahoma	0	0	0	0	0	0	0
Texas	0	0	0	20	0	0	0
Mountain	0	1,725	0	11	0	0	0
Arizona	0	1,725	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	42	0	0	0
Utah	0	0	0	0	0	0	0
Pacific Contiguous	0	44	0	3	0	0	422
California	0	76	0	3	0	0	422
Oregon	0	0	0	40	0	0	0
Washington	0	0	0	0	0	0	0
Pacific Noncontiguous	70	6	0	0	0	0	56
Alaska	70	27	0	0	0	0	56
Hawaii	0	0	0	0	0	0	0
U.S. Total	22	12	0	4	0	0	45

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

**Table A.4.A. Relative Standard Error for Net Generation by Fuel Type:
Commercial Sector by Census Division and State, July 2020 (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	80	14	0	0	9
Connecticut	0	0	0	116	116	0	0	17
Maine	0	0	0	0	0	0	0	0
Massachusetts	0	0	0	108	35	0	0	15
New Hampshire	0	0	0	0	0	0	0	1
Rhode Island	0	0	0	0	0	0	0	0
Vermont	0	0	0	0	0	0	0	0
Middle Atlantic	0	0	0	19	6	0	3	6
New Jersey	0	0	0	20	11	0	0	8
New York	0	0	0	76	9	0	7	10
Pennsylvania	0	0	0	88	6	0	0	2
East North Central	0	0	0	63	25	0	0	6
Illinois	0	0	0	126	203	0	0	17
Indiana	0	0	0	192	31	0	0	3
Michigan	0	0	0	164	8	0	0	11
Ohio	0	0	0	123	58	0	0	4
Wisconsin	0	0	0	113	58	0	0	24
West North Central	0	0	0	0	17	0	41	8
Iowa	0	0	0	0	19	0	0	10
Kansas	0	0	0	0	175	0	0	175
Minnesota	0	0	0	0	32	0	41	17
Missouri	0	0	0	0	0	0	0	0
Nebraska	0	0	0	0	0	0	0	0
North Dakota	0	0	0	0	588	0	0	568
South Dakota	0	0	0	0	0	0	0	2,211
South Atlantic	0	0	0	21	9	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	97	29	0	0	20
Georgia	0	0	0	139	139	0	0	81
Maryland	0	0	0	65	35	0	0	7
North Carolina	0	0	0	23	22	0	0	22
South Carolina	0	0	0	0	0	0	0	0
Virginia	0	0	0	206	5	0	0	2
East South Central	0	0	0	105	105	0	0	22
Mississippi	0	0	0	0	0	0	0	0
Tennessee	0	0	0	105	105	0	0	22
West South Central	0	0	0	28	22	0	0	16
Arkansas	0	0	0	0	0	0	0	58
Louisiana	0	0	0	0	0	0	0	26
Oklahoma	0	0	0	0	0	0	0	0
Texas	0	0	0	156	35	0	0	19
Mountain	0	0	0	25	6	0	0	6
Arizona	0	0	0	68	68	0	0	7
Colorado	0	0	0	57	60	0	0	34
Idaho	0	0	0	0	0	0	0	0
Nevada	0	0	0	30	5	0	0	4
New Mexico	0	0	0	0	350	0	0	42
Utah	0	0	0	0	0	0	0	0
Pacific Contiguous	0	0	0	20	6	0	0	3
California	0	0	0	20	6	0	0	3
Oregon	0	0	0	0	24	0	0	26
Washington	0	0	0	0	49	0	0	23
Pacific Noncontiguous	0	0	0	0	0	0	0	16
Alaska	0	0	0	0	0	0	0	40
Hawaii	0	0	0	0	0	0	0	0
U.S. Total	0	0	0	10	3	0	2	3

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

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

Commercial Sector by Census Division and State, Year-to-Date through July 2020

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	0	51	0	11	0	0	0
Connecticut	0	823	0	17	0	0	0
Maine	0	0	0	0	0	0	0
Massachusetts	0	70	0	16	0	0	0
New Hampshire	0	11	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	64	0	12	0	0	0
New Jersey	0	0	0	27	0	0	0
New York	0	177	0	14	0	0	0
Pennsylvania	0	0	0	0	0	0	0
East North Central	17	57	0	7	0	0	0
Illinois	26	36	0	18	0	0	0
Indiana	0	0	0	0	0	0	0
Michigan	0	548	0	13	0	0	0
Ohio	0	0	0	3	0	0	0
Wisconsin	0	1,303	0	24	0	0	0
West North Central	0	30	0	9	0	0	0
Iowa	0	0	0	17	0	0	0
Minnesota	0	30	0	24	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	2,211	0	0	0	0	0
South Atlantic	0	5	0	8	0	0	0
District of Columbia	0	0	0	0	0	0	0
Florida	0	0	0	0	0	0	0
Georgia	0	37	0	0	0	0	0
Maryland	0	519	0	7	0	0	0
North Carolina	0	230	0	56	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	23	0	0	0
Mississippi	0	0	0	0	0	0	0
Tennessee	0	0	0	23	0	0	0
West South Central	0	0	0	17	0	0	0
Arkansas	0	0	0	109	0	0	0
Louisiana	0	0	0	26	0	0	0
Oklahoma	0	0	0	0	0	0	0
Texas	0	0	0	20	0	0	0
Mountain	0	1,725	0	11	0	0	0
Arizona	0	1,725	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	42	0	0	0
Utah	0	0	0	0	0	0	0
Pacific Contiguous	0	44	0	3	0	0	422
California	0	76	0	3	0	0	422
Oregon	0	0	0	40	0	0	0
Washington	0	0	0	0	0	0	0
Pacific Noncontiguous	70	6	0	0	0	0	56
Alaska	70	27	0	0	0	0	56
Hawaii	0	0	0	0	0	0	0
U.S. Total	22	12	0	4	0	0	45

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

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

Commercial Sector by Census Division and State, Year-to-Date through July 2020 (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	80	14	0	0	9
Connecticut	0	0	0	116	116	0	0	17
Maine	0	0	0	0	0	0	0	0
Massachusetts	0	0	0	108	35	0	0	15
New Hampshire	0	0	0	0	0	0	0	1
Rhode Island	0	0	0	0	0	0	0	0
Vermont	0	0	0	0	0	0	0	0
Middle Atlantic	0	0	0	19	6	0	3	6
New Jersey	0	0	0	20	11	0	0	8
New York	0	0	0	76	9	0	7	10
Pennsylvania	0	0	0	88	6	0	0	2
East North Central	0	0	0	63	25	0	0	6
Illinois	0	0	0	126	203	0	0	17
Indiana	0	0	0	192	31	0	0	3
Michigan	0	0	0	164	8	0	0	11
Ohio	0	0	0	123	58	0	0	4
Wisconsin	0	0	0	113	58	0	0	24
West North Central	0	0	0	0	17	0	41	8
Iowa	0	0	0	0	19	0	0	10
Kansas	0	0	0	0	175	0	0	175
Minnesota	0	0	0	0	32	0	41	17
Missouri	0	0	0	0	0	0	0	0
Nebraska	0	0	0	0	0	0	0	0
North Dakota	0	0	0	0	588	0	0	588
South Dakota	0	0	0	0	0	0	0	2,211
South Atlantic	0	0	0	21	9	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	97	29	0	0	20
Georgia	0	0	0	139	139	0	0	81
Maryland	0	0	0	65	35	0	0	7
North Carolina	0	0	0	23	22	0	0	22
South Carolina	0	0	0	0	0	0	0	0
Virginia	0	0	0	206	5	0	0	2
East South Central	0	0	0	105	105	0	0	22
Mississippi	0	0	0	0	0	0	0	0
Tennessee	0	0	0	105	105	0	0	22
West South Central	0	0	0	28	22	0	0	16
Arkansas	0	0	0	0	0	0	0	58
Louisiana	0	0	0	0	0	0	0	26
Oklahoma	0	0	0	0	0	0	0	0
Texas	0	0	0	156	35	0	0	19
Mountain	0	0	0	25	6	0	0	6
Arizona	0	0	0	68	68	0	0	7
Colorado	0	0	0	57	60	0	0	34
Idaho	0	0	0	0	0	0	0	0
Nevada	0	0	0	30	5	0	0	4
New Mexico	0	0	0	0	350	0	0	42
Utah	0	0	0	0	0	0	0	0
Pacific Contiguous	0	0	0	20	6	0	0	3
California	0	0	0	20	6	0	0	3
Oregon	0	0	0	0	24	0	0	26
Washington	0	0	0	0	49	0	0	23
Pacific Noncontiguous	0	0	0	0	0	0	0	16
Alaska	0	0	0	0	0	0	0	40
Hawaii	0	0	0	0	0	0	0	0
U.S. Total	0	0	0	10	3	0	2	3

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

**Table A.5.A. Relative Standard Error for Net Generation by Fuel Type:
Industrial Sector by Census Division and State, July 2020**

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	89	75	0	9	0	0	101
Connecticut	0	0	0	10	0	0	0
Maine	89	81	0	20	0	0	101
Massachusetts	0	0	0	12	0	0	0
New Hampshire	0	0	0	0	0	0	0
Rhode Island	0	3,940	0	31	0	0	0
Middle Atlantic	0	35	0	7	62	0	72
New Jersey	0	0	0	8	0	0	0
New York	0	11	0	7	0	0	72
Pennsylvania	0	104	0	10	132	0	0
East North Central	7	32	0	7	21	0	43
Illinois	7	0	0	13	0	0	0
Indiana	0	18	0	6	29	0	0
Michigan	115	102	0	28	0	0	164
Ohio	0	0	0	13	0	0	0
Wisconsin	24	0	0	30	0	0	44
West North Central	5	0	0	16	0	0	0
Iowa	2	0	0	23	0	0	0
Kansas	0	0	0	64	0	0	0
Minnesota	60	0	0	0	0	0	0
Missouri	0	0	0	0	0	0	0
Nebraska	19	0	0	0	0	0	0
North Dakota	70	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0	0
South Atlantic	13	19	40	5	0	0	39
Delaware	0	0	0	0	0	0	0
Florida	50	36	0	13	0	0	0
Georgia	38	30	40	19	0	0	124
Maryland	0	0	0	0	0	0	0
North Carolina	3	51	0	34	0	0	522
South Carolina	0	0	0	8	0	0	0
Virginia	0	57	0	10	0	0	0
West Virginia	0	0	0	0	0	0	40
East South Central	0	34	0	8	108	0	0
Alabama	0	81	0	16	309	0	0
Kentucky	0	0	0	27	0	0	0
Mississippi	0	0	0	22	0	0	0
Tennessee	0	0	0	4	0	0	0
West South Central	0	18	34	1	11	0	0
Arkansas	0	0	0	29	0	0	0
Louisiana	0	0	0	2	14	0	0
Oklahoma	0	0	0	0	0	0	0
Texas	0	46	34	2	12	0	0
Mountain	29	0	0	8	0	0	0
Colorado	0	0	0	0	0	0	0
Idaho	150	0	0	56	0	0	0
Montana	299	0	0	730	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	30	0	0	14	0	0	0
Pacific Contiguous	0	79	0	2	2	0	0
California	0	0	0	1	3	0	0
Oregon	0	0	0	74	0	0	0
Washington	0	126	0	16	0	0	0
Pacific Noncontiguous	0	5	0	0	0	0	95
Alaska	0	24	0	0	0	0	0
Hawaii	0	0	0	0	0	0	95
U.S. Total	4	7	18	1	7	0	28

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

**Table A.5.A. Relative Standard Error for Net Generation by Fuel Type:
Industrial Sector by Census Division and State, July 2020 (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	106	10	0	0	7
Connecticut	0	0	0	644	644	0	0	10
Maine	0	0	0	0	10	0	0	10
Massachusetts	0	0	0	107	157	0	0	14
New Hampshire	0	0	0	0	0	0	0	0
Rhode Island	0	0	0	0	0	0	0	31
Middle Atlantic	0	0	0	58	11	0	0	8
New Jersey	0	0	0	91	91	0	0	5
New York	0	0	0	119	25	0	0	8
Pennsylvania	0	0	0	82	12	0	0	12
East North Central	0	0	0	0	8	0	1	5
Illinois	0	0	0	0	0	0	0	5
Indiana	0	0	0	0	22	0	0	9
Michigan	0	0	0	0	13	0	0	13
Ohio	0	0	0	0	20	0	0	9
Wisconsin	0	0	0	0	13	0	16	14
West North Central	0	0	0	0	0	0	0	4
Iowa	0	0	0	0	0	0	0	4
Kansas	0	0	0	0	0	0	0	57
Minnesota	0	0	0	0	0	0	0	9
Missouri	0	0	0	0	0	0	0	0
Nebraska	0	0	0	0	0	0	0	19
North Dakota	0	0	0	0	0	0	0	43
South Dakota	0	0	0	0	0	0	0	0
South Atlantic	0	0	0	114	3	0	0	3
Delaware	0	0	0	0	51	0	0	0
Florida	0	0	0	136	8	0	1	5
Georgia	0	0	0	0	6	0	0	6
Maryland	0	0	0	0	0	0	0	0
North Carolina	0	0	0	0	7	0	0	7
South Carolina	0	0	0	166	4	0	0	3
Virginia	0	0	0	0	0	0	0	3
West Virginia	0	0	0	0	0	0	0	19
East South Central	0	0	0	96	4	0	55	4
Alabama	0	0	0	0	5	0	0	6
Kentucky	0	0	0	0	23	0	0	17
Mississippi	0	0	0	0	5	0	0	7
Tennessee	0	0	0	96	11	0	55	4
West South Central	0	0	0	0	6	0	3	1
Arkansas	0	0	0	0	11	0	0	11
Louisiana	0	0	0	0	8	0	0	2
Oklahoma	0	0	0	0	0	0	0	0
Texas	0	0	0	0	15	0	7	2
Mountain	0	0	0	107	1	0	0	5
Colorado	0	0	0	0	0	0	0	0
Idaho	0	0	0	166	6	0	0	20
Montana	0	0	0	0	0	0	0	62
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	41	9	0	3	2
California	0	0	0	41	14	0	3	1
Oregon	0	0	0	0	16	0	0	19
Washington	0	0	0	0	12	0	0	8
Pacific Noncontiguous	0	0	0	0	119	0	0	11
Alaska	0	0	0	0	119	0	0	9
Hawaii	0	0	0	0	0	0	0	16
U.S. Total	0	0	0	28	3	0	1	1

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

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

Industrial Sector by Census Division and State, Year-to-Date through July 2020

Census Region and State	Coal	Petroleum Liquids	Petroleum Coke	Natural Gas	Other Gases	Nuclear	Hydroelectric Conventional
New England	89	75	0	9	0	0	101
Connecticut	0	0	0	10	0	0	0
Maine	89	81	0	20	0	0	101
Massachusetts	0	0	0	12	0	0	0
New Hampshire	0	0	0	0	0	0	0
Rhode Island	0	3,940	0	31	0	0	0
Middle Atlantic	0	35	0	7	62	0	72
New Jersey	0	0	0	8	0	0	0
New York	0	11	0	7	0	0	72
Pennsylvania	0	104	0	10	132	0	0
East North Central	7	32	0	7	21	0	43
Illinois	7	0	0	13	0	0	0
Indiana	0	18	0	6	29	0	0
Michigan	115	102	0	28	0	0	164
Ohio	0	0	0	13	0	0	0
Wisconsin	24	0	0	30	0	0	44
West North Central	5	0	0	16	0	0	0
Iowa	2	0	0	23	0	0	0
Kansas	0	0	0	64	0	0	0
Minnesota	60	0	0	0	0	0	0
Missouri	0	0	0	0	0	0	0
Nebraska	19	0	0	0	0	0	0
North Dakota	70	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0	0
South Atlantic	13	19	40	5	0	0	39
Delaware	0	0	0	0	0	0	0
Florida	50	36	0	13	0	0	0
Georgia	38	30	40	19	0	0	124
Maryland	0	0	0	0	0	0	0
North Carolina	3	51	0	34	0	0	522
South Carolina	0	0	0	8	0	0	0
Virginia	0	57	0	10	0	0	0
West Virginia	0	0	0	0	0	0	40
East South Central	0	34	0	8	108	0	0
Alabama	0	81	0	16	309	0	0
Kentucky	0	0	0	27	0	0	0
Mississippi	0	0	0	22	0	0	0
Tennessee	0	0	0	4	0	0	0
West South Central	0	18	34	1	11	0	0
Arkansas	0	0	0	29	0	0	0
Louisiana	0	0	0	2	14	0	0
Oklahoma	0	0	0	0	0	0	0
Texas	0	46	34	2	12	0	0
Mountain	29	0	0	8	0	0	0
Colorado	0	0	0	0	0	0	0
Idaho	150	0	0	56	0	0	0
Montana	299	0	0	730	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	30	0	0	14	0	0	0
Pacific Contiguous	0	79	0	2	2	0	0
California	0	0	0	1	3	0	0
Oregon	0	0	0	74	0	0	0
Washington	0	126	0	16	0	0	0
Pacific Noncontiguous	0	5	0	0	0	0	95
Alaska	0	24	0	0	0	0	0
Hawaii	0	0	0	0	0	0	95
U.S. Total	4	7	18	1	7	0	28

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

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

Industrial Sector by Census Division and State, Year-to-Date through July 2020 (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	106	10	0	0	7
Connecticut	0	0	0	644	644	0	0	10
Maine	0	0	0	0	10	0	0	10
Massachusetts	0	0	0	107	157	0	0	14
New Hampshire	0	0	0	0	0	0	0	0
Rhode Island	0	0	0	0	0	0	0	31
Middle Atlantic	0	0	0	58	11	0	0	8
New Jersey	0	0	0	91	91	0	0	5
New York	0	0	0	119	25	0	0	8
Pennsylvania	0	0	0	82	12	0	0	12
East North Central	0	0	0	0	8	0	1	5
Illinois	0	0	0	0	0	0	0	5
Indiana	0	0	0	0	22	0	0	9
Michigan	0	0	0	0	13	0	0	13
Ohio	0	0	0	0	20	0	0	9
Wisconsin	0	0	0	0	13	0	16	14
West North Central	0	0	0	0	0	0	0	4
Iowa	0	0	0	0	0	0	0	4
Kansas	0	0	0	0	0	0	0	57
Minnesota	0	0	0	0	0	0	0	9
Missouri	0	0	0	0	0	0	0	0
Nebraska	0	0	0	0	0	0	0	19
North Dakota	0	0	0	0	0	0	0	43
South Dakota	0	0	0	0	0	0	0	0
South Atlantic	0	0	0	114	3	0	0	3
Delaware	0	0	0	0	51	0	0	0
Florida	0	0	0	136	8	0	1	5
Georgia	0	0	0	0	6	0	0	6
Maryland	0	0	0	0	0	0	0	0
North Carolina	0	0	0	0	7	0	0	7
South Carolina	0	0	0	166	4	0	0	3
Virginia	0	0	0	0	0	0	0	3
West Virginia	0	0	0	0	0	0	0	19
East South Central	0	0	0	96	4	0	55	4
Alabama	0	0	0	0	5	0	0	6
Kentucky	0	0	0	0	23	0	0	17
Mississippi	0	0	0	0	5	0	0	7
Tennessee	0	0	0	96	11	0	55	4
West South Central	0	0	0	0	6	0	3	1
Arkansas	0	0	0	0	11	0	0	11
Louisiana	0	0	0	0	8	0	0	2
Oklahoma	0	0	0	0	0	0	0	0
Texas	0	0	0	0	15	0	7	2
Mountain	0	0	0	107	1	0	0	5
Colorado	0	0	0	0	0	0	0	0
Idaho	0	0	0	166	6	0	0	20
Montana	0	0	0	0	0	0	0	62
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	41	9	0	3	2
California	0	0	0	41	14	0	3	1
Oregon	0	0	0	0	16	0	0	19
Washington	0	0	0	0	12	0	0	8
Pacific Noncontiguous	0	0	0	0	119	0	0	11
Alaska	0	0	0	0	119	0	0	9
Hawaii	0	0	0	0	0	0	0	16
U.S. Total	0	0	0	28	3	0	1	1

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

**Table A.6.A. Relative Standard Error for Sales of Electricity to Ultimate Customers
by End-Use Sector, Census Division, and State, July 2020**

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

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

by End-Use Sector, Census Division, and State, Year-to-Date through July 2020

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	0
Massachusetts	0	1	5	0	1
New Hampshire	0	1	3	0	1
Rhode Island	0	0	0	0	0
Vermont	2	5	6	0	2
Middle Atlantic	0	0	0	0	0
New Jersey	0	0	1	0	0
New York	0	0	1	0	0
Pennsylvania	0	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	1	3	6	0	2
West North Central	0	2	3	0	1
Iowa	1	6	5	0	3
Kansas	1	1	7	0	2
Minnesota	1	4	7	0	3
Missouri	1	2	5	0	1
Nebraska	1	6	8	0	3
North Dakota	1	4	7	0	4
South Dakota	1	8	12	0	4
South Atlantic	0	0	2	0	0
Delaware	1	2	5	0	1
District of Columbia	0	0	0	0	0
Florida	0	0	5	0	0
Georgia	1	1	4	0	1
Maryland	0	0	2	0	0
North Carolina	1	1	3	0	1
South Carolina	1	1	3	0	1
Virginia	1	1	4	1	1
West Virginia	0	1	0	0	0
East South Central	0	1	2	0	1
Alabama	1	1	3	0	1
Kentucky	1	3	2	0	1
Mississippi	1	1	5	0	2
Tennessee	1	2	4	0	1
West South Central	1	1	1	0	1
Arkansas	1	1	4	0	2
Louisiana	1	1	1	0	1
Oklahoma	1	1	4	0	1
Texas	1	1	2	0	1
Mountain	0	1	2	0	1
Arizona	0	2	3	0	1
Colorado	1	4	6	0	2
Idaho	1	4	3	0	2
Montana	1	6	6	0	3
Nevada	0	2	1	0	1
New Mexico	1	6	6	0	3
Utah	1	4	2	0	2
Wyoming	1	7	4	0	3
Pacific Contiguous	0	1	3	0	1
California	0	1	2	0	1
Oregon	1	4	8	0	3
Washington	0	4	7	0	2
Pacific Noncontiguous	1	4	4	0	2
Alaska	1	9	15	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, July 2020

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

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

by End-Use Sector, Census Division, and State, Year-to-Date through July 2020

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

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**Table A.8.A. Relative Standard Error for Average Price of Electricity to Ultimate Customers
by End-Use Sector, Census Division, and State, July 2020**

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

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

by End-Use Sector, Census Division, and State, Year-to-Date through July 2020

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

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

Table B.1 Major Disturbances and Unusual Occurrences, Year-to-Date 2020

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
2020	1	01/09/2020 11:07 PM	01/09/2020 11:18 PM	0 Hours, 11 Minutes	Entergy Transmission Control Center - South	SPP RE	Arkansas:	Electrical System Separation (Islanding) where part or parts of power grid remain(s) operational in an otherwise blacked out area or within the partial failure of an integrated electrical system.-System Operations	Unknown	Unknown
2020	1	01/09/2020 11:07 PM	01/09/2020 11:19 PM	0 Hours, 12 Minutes	Entergy - Transmission Operations Engineering	SPP RE	Arkansas: Yell 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
2020	1	01/11/2020 2:25 AM	01/11/2020 7:56 AM	5 Hours, 31 Minutes	Entergy - Transmission Operations Engineering	SPP RE	Arkansas: Cross 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	22	7541
2020	1	01/11/2020 3:30 AM	01/11/2020 5:30 PM	14 Hours, 0 Minutes	Entergy Corp	SPP RE	Arkansas: Texas:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	68138
2020	1	01/11/2020 12:50 PM	01/12/2020 1:33 PM	24 Hours, 43 Minutes	Southern Company	SERC	Alabama: Georgia: Mississippi:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	219	30715
2020	1	01/11/2020 1:20 PM	.	. Hours, . Minutes	Tennessee Valley Authority	SERC	Tennessee:	Electrical System Separation (Islanding) where part or parts of power grid remain(s) operational in an otherwise blacked out area or within the partial failure of an integrated electrical system.-Severe Weather	4	Unknown
2020	1	01/11/2020 11:02 PM	01/12/2020 2:01 AM	2 Hours, 59 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	66475
2020	1	01/17/2020 5:28 AM	01/17/2020 10:13 AM	4 Hours, 45 Minutes	Pacific Gas & Electric Co	WECC	California: Humboldt County:	Electrical System Separation (Islanding) where part or parts of power grid remain(s) operational in an otherwise blacked out area or within the partial failure of an integrated electrical system.-Severe Weather/Transmission Interruption	87	67864
2020	1	01/24/2020 4:34 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
2020	1	01/30/2020 3:01 AM	01/30/2020 4:36 AM	1 Hours, 35 Minutes	Western Area Power Administration - Upper Great Plains Region	MRO	North Dakota: Burleigh 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	75	0
2020	2	02/06/2020 1:30 PM	02/07/2020 8:08 PM	30 Hours, 38 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/Transmission Interruption	Unknown	89500
2020	2	02/06/2020 2:29 PM	02/07/2020 12:44 PM	22 Hours, 15 Minutes	Duke Energy Progress	SERC	North Carolina:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather/Distribution Interruption	Unknown	284256
2020	2	02/07/2020 8:48 AM	.	. Hours, . Minutes	Dominion Energy VA	SERC	Virginia: North Carolina:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	87000
2020	2	02/07/2020 11:00 AM	.	. 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	Unknown	52000
2020	2	02/07/2020 2:42 PM	02/10/2020 9:25 AM	66 Hours, 43 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	7500
2020	2	02/07/2020 4:25 PM	02/08/2020 12:00 PM	19 Hours, 35 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	123359
2020	2	02/09/2020 9:30 AM	02/09/2020 9:40 PM	12 Hours, 10 Minutes	Pacific Gas & Electric Co	WECC	California: Alameda County, Contra Costa County, El Dorado County, Nevada County, Placer County, Sierra County, Santa Clara County, Napa County, Marin County, Santa Cruz County:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	500	145000
2020	2	02/11/2020 7:13 AM	02/11/2020 4:00 PM	8 Hours, 47 Minutes	Portland General Electric Co	WECC	Oregon: Clackamas 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	0
2020	2	02/17/2020 4:00 AM	.	. Hours, . Minutes	Pacific Gas & Electric Co	WECC	Northern and Central California:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	91	70000

Table B.1 Major Disturbances and Unusual Occurrences, Year-to-Date 2020

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
2020	3	03/01/2020 8:00 AM		. Hours, . Minutes	Somerset Operating Company	NPCC	Western NY	Fuel supply emergencies that could impact electric power system adequacy or reliability - Fuel Supply Deficiency	675	Unknown
2020	3	03/01/2020 11:27 AM	03/01/2020 9:47 PM	10 Hours, 20 Minutes	Entergy - Transmission Operations Engineering	SERC	Mississippi: Rankin 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	19	3136
2020	3	03/12/2020 1:03 AM	03/12/2020 3:00 AM	1 Hours, 57 Minutes	PECO Energy Co	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	40	15864
2020	3	03/16/2020 12:01 PM	03/16/2020 1:10 PM	1 Hours, 9 Minutes	Pacific Gas & Electric Co	WECC	California	Loss of electric service to more than 50,000 customers for 1 hour or more- Severe Weather	165	110800
2020	3	03/18/2020 7:09 AM		. Hours, . Minutes	Pacificorp	WECC	Utah	Loss of electric service to more than 50,000 customers for 1 hour or more- Natural Disaster	237	73000
2020	3	03/24/2020 2:55 AM	03/24/2020 6:50 AM	3 Hours, 55 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	51026
2020	3	03/26/2020 9:29 PM	03/26/2020 9:47 PM	0 Hours, 18 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	19	11964
2020	3	03/29/2020 8:27 PM	03/29/2020 11:04 PM	2 Hours, 37 Minutes	Entergy - Transmission Operations Engineering	SERC	Mississippi: Panola 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	4	1558
2020	3	03/31/2020 11:45 AM	03/31/2020 8:00 PM	8 Hours, 15 Minutes	Southern Company	SERC	Alabama: Georgia	Loss of electric service to more than 50,000 customers for 1 hour or more- Severe Weather	412	57744
2020	4	04/02/2020 1:37 PM	04/02/2020 2:43 PM	1 Hours, 6 Minutes	Nebraska Public Power District	MRO	Nebraska: 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	5	Unknown
2020	4	04/05/2020 3:46 PM	04/05/2020 5:35 PM	1 Hours, 49 Minutes	Pacific Gas & Electric Co	WECC	California: Stanislaus County	Electrical System Separation (Islanding) where part or parts of power grid remain(s) operational in an otherwise blacked out area or within the partial failure of an integrated electrical system- Severe Weather	7	6814
2020	4	04/07/2020 11:39 PM	04/07/2020 11:46 PM	0 Hours, 7 Minutes	Bonneville Power Administration	WECC	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
2020	4	04/08/2020 1:21 AM	04/08/2020 3:56 AM	2 Hours, 35 Minutes	Ohio Edison Co	WECC	Ohio	Loss of electric service to more than 50,000 customers for 1 hour or more- Severe Weather	Unknown	82509
2020	4	04/08/2020 9:57 PM	04/09/2020 8:59 AM	11 Hours, 2 Minutes	Duke Energy Midwest	RF	Ohio: Kentucky	Loss of electric service to more than 50,000 customers for 1 hour or more- Severe Weather	Unknown	78314
2020	4	04/08/2020 10:03 PM	04/09/2020 7:36 AM	9 Hours, 33 Minutes	Duke Energy Midwest	RF	Indiana	Loss of electric service to more than 50,000 customers for 1 hour or more- Severe Weather	Unknown	93000
2020	4	04/09/2020 7:25 PM	04/10/2020 3:30 AM	8 Hours, 5 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	95000
2020	4	04/09/2020 7:40 PM	04/11/2020 10:00 PM	50 Hours, 20 Minutes	ISO New England	NPCC	Maine	Loss of electric service to more than 50,000 customers for 1 hour or more- Severe Weather	Unknown	340000
2020	4	04/11/2020 11:24 AM	04/11/2020 11:42 AM	0 Hours, 18 Minutes	Pacificorp	WECC	Wyoming	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
2020	4	04/12/2020 5:00 PM	04/14/2020 1:25 AM	32 Hours, 25 Minutes	Southern Company	SERC	Mississippi: Alabama: Georgia	Loss of electric service to more than 50,000 customers for 1 hour or more- Severe Weather	448	62828
2020	4	04/12/2020 6:13 PM	04/13/2020 3:23 PM	21 Hours, 10 Minutes	American Electric Power - (SPP Reliability Region)	TRE	Texas	Loss of electric service to more than 50,000 customers for 1 hour or more- Severe Weather	Unknown	63289

Table B.1 Major Disturbances and Unusual Occurrences, Year-to-Date 2020

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
2020	4	04/12/2020 8:30 PM	04/14/2020 9:00 AM	36 Hours, 30 Minutes	Arkansas Electric Coop Corp.	SPP RE	Arkansas	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	51000
2020	4	04/12/2020 8:45 PM		. Hours, . Minutes	Entergy Corp.	SPP RE	Arkansas	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	95318
2020	4	04/12/2020 9:28 PM	04/15/2020 12:00 PM	62 Hours, 32 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	104000
2020	4	04/13/2020 12:45 AM	04/13/2020 3:00 AM	2 Hours, 15 Minutes	Tennessee Valley Authority	SERC	Tennessee: Hamilton County	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	120000
2020	4	04/13/2020 3:30 AM	04/14/2020 6:18 PM	38 Hours, 48 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	216400
2020	4	04/13/2020 7:31 AM	04/13/2020 2:00 PM	6 Hours, 29 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	Unknown
2020	4	04/13/2020 8:08 AM		. 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	Unknown	72233
2020	4	04/13/2020 10:25 AM	04/13/2020 6:55 PM	8 Hours, 30 Minutes	Dominion Energy VA	SERC	North Carolina	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	95000
2020	4	04/13/2020 1:05 PM	04/14/2020 4:00 PM	26 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	68476
2020	4	04/20/2020 12:59 AM	04/20/2020 8:40 AM	7 Hours, 41 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	552	77341
2020	4	04/23/2020 4:30 AM	04/23/2020 7:00 AM	2 Hours, 30 Minutes	Entergy Corp.	SERC	Mississippi; Arkansas; Louisiana	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	55184
2020	4	04/23/2020 8:00 AM	04/23/2020 11:40 PM	15 Hours, 40 Minutes	Southern Company	SERC	Alabama; Georgia; Mississippi; Florida	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	375	52163
2020	4	04/24/2020 9:00 PM	04/24/2020 9:33 PM	0 Hours, 33 Minutes	Pacific Gas & Electric Co	WECC	California: Placer County; Nevada County	Electrical System Separation (Islanding) where part or parts of power grid remain(s) operational in an otherwise blacked out area or within the partial failure of an integrated electrical system.-System Operations	5	945
2020	4	04/26/2020 1:38 AM		. Hours, . Minutes	Florida Power & Light	FRCC	Florida	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	49999
2020	4	04/28/2020 8:01 PM	04/28/2020 11:21 PM	3 Hours, 20 Minutes	Entergy - Transmission Operations Engineering	TRE	Texas: Jefferson 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	14	1
2020	4	04/29/2020 5:55 AM	04/29/2020 7:00 PM	13 Hours, 5 Minutes	CenterPoint Energy Houston Electric, LLC	TRE	Texas: Harris County	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	146660
2020	4	04/29/2020 6:00 AM	04/29/2020 12:31 PM	6 Hours, 31 Minutes	Entergy Corp.	SERC	Louisiana	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	77933
2020	4	04/30/2020 3:00 PM		. Hours, . Minutes	Exelon Corporation/PECO	RF	Pennsylvania: Bucks County; Chester County; Delaware County; Montgomery County; Philadelphia County; York County	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	78007
2020	5	05/04/2020 11:59 AM	05/07/2020 8:00 PM	80 Hours, 1 Minutes	Tennessee Valley Authority	SERC	Tennessee: Davidson County	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	500	130000
2020	5	05/13/2020 5:12 AM	05/13/2020 2:07 PM	8 Hours, 55 Minutes	Bonneville Power Administration	WECC	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
2020	5	05/15/2020 5:55 PM	05/17/2020 6:00 PM	48 Hours, 5 Minutes	Niagara Mohawk Power Corporation (dba National Grid)	NPCC	New York: Saratoga County	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	52
2020	5	05/22/2020 4:35 PM	05/23/2020 3:29 PM	22 Hours, 54 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	108190
2020	5	05/24/2020 4:45 PM		. Hours, . Minutes	Oklahoma Gas & Electric Co	SPP RE	Central Oklahoma	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	54000
2020	5	05/25/2020 10:58 AM	05/25/2020 1:00 PM	2 Hours, 2 Minutes	LCRA Transmission Services Corporation	TRE	Texas: Kerr 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	3745
2020	5	05/27/2020 5:15 PM	05/29/2020 6:30 AM	37 Hours, 15 Minutes	CenterPoint Energy Houston Electric, LLC	TRE	Texas: Harris County	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	382000

Table B.1 Major Disturbances and Unusual Occurrences, Year-to-Date 2020

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
2020	5	05/27/2020 5:20 PM	.	. Hours, . Minutes	CenterPoint Energy	TRE	Texas	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	273269
2020	5	05/29/2020 5:01 PM	05/29/2020 6:57 PM	1 Hours, 56 Minutes	FirstEnergy Corp	RF	Pennsylvania: Warren County, Pennsylvania: Bucks County, Chester County, Delaware County, Montgomery County, Philadelphia County, 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	0	0
2020	6	06/03/2020 12:30 PM	06/03/2020 6:00 PM	5 Hours, 30 Minutes	Exelon Corporation/PECO	RF		Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	708000
2020	6	06/03/2020 1:00 PM	06/06/2020 4:30 PM	75 Hours, 30 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	80	87000
2020	6	06/03/2020 1:36 PM	06/03/2020 4:30 PM	2 Hours, 54 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	78079
2020	6	06/09/2020 11:21 AM	06/09/2020 12:01 PM	0 Hours, 40 Minutes	Bonneville Power Administration	WECC	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
2020	6	06/10/2020 12:22 PM	06/10/2020 5:00 PM	4 Hours, 38 Minutes	Consumers Energy Co	RF	Michigan: Grand County, Lake County, Missaukee County, Benzie County, Leelanau County, Manistee County, Wexford County, Montcalm County, Kent County, Ottawa County, Van Buren County, St Joseph County, Arenas County, Saginaw County, Calhoun County, Branch County	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	270000
2020	6	06/10/2020 5:24 PM	06/11/2020 6:00 PM	24 Hours, 36 Minutes	American Electric Power - (RFC Reliability Region)	RF	Ohio: Indiana: Kentucky: West Virginia	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	85822
2020	6	06/10/2020 7:30 PM	.	. Hours, . Minutes	Detroit Edison Co	RF	Michigan: Oakland County, Macomb County, Wayne County, Sanilac County, Tuscola County, Huron County, Lapeer County, Livingston County, Monroe County	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	237000
2020	6	06/27/2020 4:00 PM	06/28/2020 2:27 AM	10 Hours, 27 Minutes	Southern Company	SERC	Alabama: Georgia	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	33480	78109
2020	6	06/29/2020 2:32 PM	06/29/2020 4:35 PM	2 Hours, 3 Minutes	Entergy - Transmission Operations Engineering	SPP RE	Arkansas: Garland 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
2020	7	07/01/2020 7:26 PM	07/01/2020 7:44 PM	0 Hours, 18 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	32	2013
2020	7	07/02/2020 8:30 PM	.	. Hours, . Minutes	California Department of Water Resources	WECC	California: Butte County	Fuel supply emergencies that could impact electric power system adequacy or reliability.-Fuel Supply Deficiency	0	0
2020	7	07/07/2020 11:38 AM	07/07/2020 6:24 PM	6 Hours, 46 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).-Transmission Interruption	0	0
2020	7	07/07/2020 1:09 PM	07/08/2020 8:17 AM	19 Hours, 8 Minutes	Public Service Company of Colorado	WECC	Colorado	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
2020	7	07/07/2020 7:17 PM	07/07/2020 11:49 PM	4 Hours, 32 Minutes	American Electric Power - (RFC Reliability Region)	RF	West Virginia: Wyoming 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	Unknown	Unknown
2020	7	07/08/2020 6:45 PM	.	. Hours, . Minutes	California Department of Water Resources	WECC	California	Fuel supply emergencies that could impact electric power system adequacy or reliability.-Fuel Supply Deficiency	0	0

Table B.1 Major Disturbances and Unusual Occurrences, Year-to-Date 2020

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
2020	7	07/11/2020 4:55 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
2020	7	07/11/2020 9:30 PM		. 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	Unknown	94700
2020	7	07/11/2020 11:30 PM	07/12/2020 6:30 AM	7 Hours, 0 Minutes	Oklahoma Gas & Electric Co	SPP RE	Oklahoma; Arkansas;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	68000
2020	7	07/12/2020 4:30 AM	07/13/2020 5:00 AM	24 Hours, 30 Minutes	Oncor Electric Delivery Company LLC	TRE	Texas: Collin County, Dallas County, Denton County, Rockwall County, Tarrant County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	48000
2020	7	07/19/2020 10:30 AM		. Hours, . Minutes	Somerset Operating Company	NPCC	New York: Niagara County	Fuel supply emergencies that could impact electric power system adequacy or reliability.- Fuel Supply Deficiency	675	
2020	7	07/19/2020 2:30 PM	07/21/2020 6:48 PM	52 Hours, 18 Minutes	Detroit Edison Co	RF	Michigan	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	158500
2020	7	07/22/2020 11:30 AM	07/22/2020 2:19 PM	2 Hours, 49 Minutes	FirstEnergy Corp.	RF	West Virginia: Tucker 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
2020	7	07/25/2020 7:58 PM	07/27/2020 7:00 PM	47 Hours, 2 Minutes	American Electric Power - Texas	TRE	Texas: Nueces County, Kleberg County, Cameron County, Willacy County, Hidalgo County, Starr County, Kenedy County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	Unknown	201208
2020	7	07/25/2020 9:00 PM	07/26/2020 4:00 PM	19 Hours, 0 Minutes	Magic Valley Electric Cooperative, Inc.	TRE	Texas: Hidalgo County, Cameron County, Starr County, Kenedy County, Willacy County, Brooks County, Jim Hogg County;	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	125	84000
2020	7	07/30/2020 5:54 PM	07/30/2020 8:18 PM	2 Hours, 24 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

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, 2019

Year	Month	Event Date and Time	Restoration Date and Time	Duration	Utility/Power Pool	NERC Region	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected
2019	1	01/06/2019 1:00 AM	01/06/2019 12:00 PM	11 Hours, 0 Minutes	Puget Sound Energy	WECC	Washington: King County, Thurston County, Pierce County	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		230000
2019	1	01/06/2019 3:00 AM	01/09/2019 7:00 AM	76 Hours, 0 Minutes	Peak Reliability	WECC	Washington:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	230	230000
2019	1	01/06/2019 5:56 PM	01/06/2019 9:52 PM	3 Hours, 56 Minutes	Sacramento Municipal Util Dist	WECC	California: Sacramento County	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	300	90382
2019	1	01/10/2019 12:19 PM	01/10/2019 12:48 PM	0 Hours, 29 Minutes	Western Area Power Administration - Upper Great Plains Region	WECC	Montana: Valley County	Unexpected Transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-System Operations	11	2
2019	1	01/12/2019 11:30 AM		. Hours, . Minutes	Southwest Power Pool, Inc.	SERC	Missouri: Nebraska:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		116600
2019	1	01/12/2019 11:30 AM	01/13/2019 10:00 PM	34 Hours, 30 Minutes	Kansas City Power & Light Co	SPP RE	Missouri: Jackson County; Kansas: Johnson County	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		112530
2019	1	01/13/2019 5:30 AM	01/15/2019 5:00 PM	59 Hours, 30 Minutes	Duke Energy Carolinas	SERC	North Carolina: South Carolina:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	133200	
2019	1	01/16/2019 5:26 PM	01/17/2019 12:19 PM	18 Hours, 53 Minutes	Pacific Gas & Electric Co	WECC	California:	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	190	126700
2019	1	01/18/2019 9:54 PM	01/19/2019 12:19 AM	2 Hours, 25 Minutes	Nebraska Public Power District	MRO	Nebraska:	Unexpected Transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Transmission Interruption	8	
2019	1	01/23/2019 7:26 AM	01/23/2019 5:05 PM	9 Hours, 39 Minutes	Western Area Power Administration	WECC	Colorado: Larimer County	Unexpected Transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-System Operations	0	0
2019	1	01/29/2019 6:34 PM	01/29/2019 6:36 PM	0 Hours, 2 Minutes	Entergy Transmission Control Center - North	SERC	Louisiana: Washington Parish	Unexpected Transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Transmission Interruption		
2019	1	01/30/2019 4:23 AM	02/02/2019 9:00 AM	76 Hours, 37 Minutes	Prairie Power, Inc.	SERC	Illinois: Scott County	Fuel supply emergencies that could impact electric power system adequacy or reliability.- Fuel Supply Deficiency		
2019	1	01/30/2019 7:00 AM	01/30/2019 8:08 AM	1 Hours, 8 Minutes	Prairie Power, Inc.	SERC	Illinois: Pike County	Fuel supply emergencies that could impact electric power system adequacy or reliability.- Severe Weather		
2019	1	01/30/2019 9:30 AM	01/31/2019 6:00 PM	32 Hours, 30 Minutes	Detroit Edison Co	RF	Michigan:	Public appeal to reduce the use of electricity for purposes of maintaining the continuity of the Bulk Electric System.- Severe Weather		
2019	2	02/05/2019 6:17 PM	02/05/2019 8:26 PM	2 Hours, 9 Minutes	Pacific Gas & Electric Co	WECC	California	Electrical System Separation (Islanding) where part or parts of power grid remain(s) operational in an otherwise blocked out area or within the partial failure of an integrated electrical system.-Severe Weather	42	33200
2019	2	02/07/2019 7:39 AM	02/07/2019 7:40 AM	0 Hours, 1 Minutes	Entergy Transmission Control Center - North	SERC	Arkansas	Unexpected transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Severe Weather/Transmission Interruption	3	3370
2019	2	02/07/2019 8:55 AM	02/09/2019 4:30 PM	55 Hours, 35 Minutes	Consumers Energy Co	RF	Michigan	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		233000
2019	2	02/08/2019 6:30 PM		. Hours, . Minutes	Puget Sound Energy	WECC	Washington	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		50940
2019	2	02/13/2019 2:48 AM	02/15/2019 12:28 AM	45 Hours, 40 Minutes	Pacific Gas & Electric Co	WECC	California	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	182	121000
2019	2	02/23/2019 2:05 PM		. Hours, . Minutes	American Electric Power - (RFC Reliability Region)	SERC	Virginia	Unexpected transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Severe Weather/Transmission Interruption		

Table B.2 Major Disturbances and Unusual Occurrences, 2019

Year	Month	Event Date and Time	Restoration Date and Time	Duration	Utility/Power Pool	NERC Region	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected
2019	2	02/24/2019 11:21 AM	02/26/2019 5:29 PM	54 Hours, 8 Minutes	American Electric Power - (RFC Reliability Region)	RF	Ohio, Virginia, West Virginia	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		118761
2019	2	02/24/2019 12:31 PM	02/24/2019 2:57 PM	2 Hours, 26 Minutes	Ohio Edison Co	RF	Ohio	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		157274
2019	2	02/24/2019 2:33 PM	02/24/2019 6:03 PM	3 Hours, 30 Minutes	Monongahela Power Co	RF	Pennsylvania	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		94048
2019	2	02/24/2019 6:00 PM	02/25/2019 10:00 PM	28 Hours, 0 Minutes	Duquesne Light Co	RF	Pennsylvania	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		132000
2019	2	02/24/2019 6:47 PM	02/25/2019 1:55 PM	19 Hours, 8 Minutes	West Penn Power Company	RF	Pennsylvania	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		137216
2019	2	02/24/2019 8:02 PM	02/25/2019 2:30 PM	18 Hours, 28 Minutes	Consumers Energy Co	RF	Michigan	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		115000
2019	2	02/25/2019 7:45 AM	02/25/2019 6:40 PM	10 Hours, 55 Minutes	ISO New England	NPCC	Massachusetts	Unexpected Transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Transmission Interruption	0	0
2019	2	02/25/2019 1:35 PM	02/26/2019 2:50 AM	13 Hours, 15 Minutes	ISO New England	NPCC	Connecticut, Massachusetts, New Hampshire, Maine, Vermont, Rhode Island	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		72332
2019	2	02/27/2019 11:25 AM	02/27/2019 5:39 PM	6 Hours, 14 Minutes	MidAmerican Energy Co	MRO	Iowa	Unexpected Transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Transmission Interruption	0	0
2019	3	03/13/2019 5:50 AM	03/13/2019 10:30 AM	4 Hours, 40 Minutes	Oncor Electric Delivery Company LLC	TRE	Texas: Midland County, Ector County, Tarrant County, Dallas County, Wichita County, Brown County	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		154124
2019	3	03/13/2019 11:29 AM	03/14/2019 9:11 PM	33 Hours, 42 Minutes	Public Service Company of Colorado	WECC	Colorado: Jefferson County	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	58	58379
2019	3	03/13/2019 3:00 PM	03/14/2019 12:00 AM	9 Hours, 0 Minutes	Southwest Power Pool, Inc.	TRE	Texas: Kansas: Oklahoma	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather/Transmission Interruption		66000
2019	3	03/13/2019 3:51 PM	03/16/2019 6:00 PM	74 Hours, 9 Minutes	Southwestern Public Service	TRE	Texas	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather/Transmission Interruption	50	54290
2019	4	04/03/2019 5:15 AM	04/03/2019 12:39 PM	7 Hours, 24 Minutes	California Department of Water Resources	WECC	California: Fresno County	Fuel supply emergencies that could impact electric power system adequacy or reliability.-Fuel Supply Deficiency	0	0
2019	4	04/04/2019 10:13 AM	04/04/2019 12:08 PM	1 Hours, 55 Minutes	Bonneville Power Administration	WECC	Montana	Unexpected Transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Transmission Interruption	0	0
2019	4	04/07/2019 1:46 PM	04/08/2019 5:50 PM	28 Hours, 4 Minutes	CenterPoint Energy	TRE	Texas	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	537	231956
2019	4	04/11/2019 7:48 PM	04/11/2019 8:00 PM	0 Hours, 12 Minutes	Bonneville Power Administration	WECC	Oregon: Washington	Unexpected Transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Transmission Interruption	0	0
2019	4	04/12/2019 11:20 AM	04/12/2019 12:46 PM	1 Hours, 26 Minutes	Xcel Energy	MRO	Minnesota: Martin County	Unexpected Transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Transmission Interruption	0	0
2019	4	04/13/2019 6:15 PM	04/13/2019 11:15 PM	5 Hours, 0 Minutes	Entergy Corp	SERC	Mississippi: Arkansas: Texas: Louisiana	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		60467
2019	4	04/15/2019 4:35 AM	04/15/2019 2:40 PM	10 Hours, 5 Minutes	Dominion Virginia Power	SERC	Virginia	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		75290
2019	4	04/18/2019 7:55 PM	04/19/2019 5:29 PM	21 Hours, 34 Minutes	Southern Company	SERC	Alabama: Mississippi: Georgia: Florida	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	116	34695

Table B.2 Major Disturbances and Unusual Occurrences, 2019

Year	Month	Event Date and Time	Restoration Date and Time	Duration	Utility/Power Pool	NERC Region	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected
2019	4	04/18/2019 8:08 PM	04/19/2019 11:00 AM	14 Hours, 52 Minutes	Public Service Company of Colorado	WECC	Colorado: Clear Creek County	Unexpected transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Transmission Interruption	0	0
2019	4	04/25/2019 6:03 PM	04/25/2019 6:32 PM	0 Hours, 29 Minutes	Salt River Project	WECC	Arizona: Maricopa County	Firm load shedding of 100 Megawatts or more implemented under emergency operational policy.-Generation Inadequacy	150	51366
2019	4	04/26/2019 1:00 AM	04/26/2019 1:27 PM	12 Hours, 27 Minutes	FirstEnergy Corp.	RF	Pennsylvania	Unexpected transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Transmission Interruption	7	5830
2019	4	04/26/2019 3:16 PM	04/26/2019 3:17 PM	0 Hours, 1 Minutes	ISO New England	NPCC	Massachusetts: Hampden County(13)	Unexpected transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Severe Weather/Transmission Interruption	0	0
2019	4	04/26/2019 5:46 PM	04/27/2019 11:49 AM	18 Hours, 3 Minutes	Duke Energy Carolinas	SERC	North Carolina: South Carolina	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		54071
2019	4	04/28/2019 10:43 AM	04/29/2019 2:06 AM	15 Hours, 23 Minutes	FirstEnergy Corp.	RF	Ohio	Unexpected transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Transmission Interruption	0	0
2019	5	05/08/2019 9:22 AM	05/08/2019 9:58 AM	0 Hours, 34 Minutes	PJM Interconnection	RF	Pennsylvania: Mercer County	Unexpected transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Transmission Interruption	29	1
2019	5	05/08/2019 3:50 PM	05/13/2019 12:00 AM	104 Hours, 10 Minutes	Southwest Power Pool, Inc.	SPP RE	Louisiana: Texas	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather/Distribution Interruption		65844
2019	5	05/09/2019 5:55 PM	05/11/2019 8:50 PM	50 Hours, 55 Minutes	CenterPoint Energy	TRE	Texas: Harris County	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	691	238015
2019	5	05/09/2019 7:06 PM	05/10/2019 2:57 AM	7 Hours, 51 Minutes	CenterPoint Energy Houston Electric, LLC	TRE	Texas: Harris County	Unexpected transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Severe Weather/Transmission Interruption	0	0
2019	5	05/10/2019 2:00 AM	05/10/2019 12:15 PM	10 Hours, 15 Minutes	Entergy Corp.	TRE	Texas: 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		61008
2019	5	05/18/2019 3:45 PM	05/20/2019 4:00 AM	36 Hours, 15 Minutes	Oncor Electric Delivery Company LLC	TRE	Texas: 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	05/23/2019 1:11 AM	05/23/2019 12:00 PM	10 Hours, 49 Minutes	Northern Indiana Pub Serv Co	RF	Indiana	Unexpected transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Severe Weather/Transmission Interruption	0	0
2019	5	05/23/2019 4:55 PM	05/23/2019 11:40 PM	6 Hours, 45 Minutes	Dominion Energy VA	SERC	Virginia	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		100000
2019	5	05/24/2019 9:47 PM	05/24/2019 11:58 PM	2 Hours, 11 Minutes	Pacific Gas & Electric Co	WECC	California	Electrical System Separation (Islanding) where part or parts of power grid remain(s) operational in an otherwise blocked out area or within the partial failure of an integrated electrical system.-Severe Weather	20	10961
2019	5	05/27/2019 10:07 PM	05/28/2019 3:00 AM	4 Hours, 53 Minutes	Dayton Power & Light Co	RF	Ohio: Montgomery County, Darke County, Mercer County, Miami County, Greene County	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather/Transmission Interruption	347	70000

Table B.2 Major Disturbances and Unusual Occurrences, 2019

Year	Month	Event Date and Time	Restoration Date and Time	Duration	Utility/Power Pool	NERC Region	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected
2019	6	06/02/2019 6:19 PM	06/02/2019 8:43 PM	2 Hours, 24 Minutes	Pacific Gas & Electric Co	WECC	California	Electrical System Separation (Islanding) where part or parts of power grid remain(s) operational in an otherwise blocked out area or within the partial failure of an integrated electrical system.-Severe Weather/Transmission Interruption		
2019	6	06/06/2019 6:09 PM	06/06/2019 6:35 PM	0 Hours, 26 Minutes	CPS Energy	TRE	Texas: Bexar County	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		55017
2019	6	06/07/2019 2:43 PM	06/07/2019 4:20 PM	1 Hours, 37 Minutes	American Electric Power - Texas	TRE	Texas: Pecos County	Unexpected Transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Transmission Interruption	8	1
2019	6	06/08/2019 3:50 PM	06/08/2019 7:40 PM	3 Hours, 50 Minutes	Southwestern Public Service	TRE	Texas: Potter County	Unexpected Transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Transmission Interruption	0	0
2019	6	06/09/2019 2:45 PM	06/13/2019 10:30 PM	103 Hours, 45 Minutes	Oncor Electric Delivery Company LLC	TRE	Texas: Collin County, Dallas County, Denton County, Palo Pinto County, Tarrant County, Ellis County, Williamson County	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		558000
2019	6	06/12/2019 2:56 PM	06/12/2019 3:50 PM	0 Hours, 54 Minutes	Imperial Irrigation District	WECC	California: Imperial County, Riverside County	Firm load shedding of 100 Megawatts or more implemented under emergency operational policy.-Generation Inadequacy	982	30907
2019	6	06/16/2019 2:00 AM	06/17/2019 11:59 PM	45 Hours, 59 Minutes	Oncor Electric Delivery Company LLC	TRE	Texas: Dallas County, Tarrant County, Collin County, Denton County	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		340000
2019	6	06/16/2019 3:25 AM		. Hours, . Minutes	American Electric Power - (SPP Reliability Region)	SPP RE	Oklahoma	Unexpected Transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Severe Weather/Transmission Interruption		
2019	6	06/19/2019 10:30 PM	06/20/2019 7:00 PM	20 Hours, 30 Minutes	Entergy Corp	SPP RE	Arkansas	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		82045
2019	6	06/20/2019 4:11 PM	06/21/2019 12:45 PM	20 Hours, 34 Minutes	Dominion Energy VA	SERC	Virginia	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		60000
2019	6	06/21/2019 7:15 PM		. Hours, . Minutes	Tennessee Valley Authority	SERC	Kentucky; Tennessee	Electrical System Separation (Islanding) where part or parts of power grid remain(s) operational in an otherwise blocked out area or within the partial failure of an integrated electrical system.-Severe Weather		50000
2019	6	06/22/2019 8:46 PM	06/23/2019 12:30 AM	3 Hours, 44 Minutes	Southern Company	SERC	Alabama; Georgia	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	115	34637
2019	6	06/23/2019 5:13 AM	06/23/2019 10:58 AM	5 Hours, 45 Minutes	Entergy - Transmission Operations Engineering	SPP RE	Arkansas	Unexpected Transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Transmission Interruption	47	16199
2019	6	06/23/2019 10:00 PM	06/25/2019 11:00 PM	49 Hours, 0 Minutes	Oncor Electric Delivery Company LLC	TRE	Texas: Dallas County, Denton County, Ellis County, Collin County, Johnson County, Kaufman County	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		265000
2019	6	06/24/2019 5:30 AM	06/24/2019 8:45 AM	3 Hours, 15 Minutes	Entergy Corp	SPP RE	Arkansas	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		56451
2019	6	06/26/2019 1:58 PM	06/26/2019 2:03 PM	0 Hours, 5 Minutes	Montana-Dakota Utilities Co	MRO	North Dakota; Williams County	Unexpected Transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Transmission Interruption	53	0
2019	6	06/28/2019 2:25 PM		. Hours, . Minutes	Bonneville Power Administration	WECC	Idaho: Nez Perce County	Unexpected Transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Transmission Interruption	0	0
2019	6	06/30/2019 3:15 PM	06/30/2019 4:15 PM	1 Hours, 0 Minutes	Long Island Power Authority	NPCC	New York: Nassau County, Suffolk County	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	3189	52498

Table B.2 Major Disturbances and Unusual Occurrences, 2019

Year	Month	Event Date and Time	Restoration Date and Time	Duration	Utility/Power Pool	NERC Region	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected
2019	6	06/30/2019 3:30 PM	06/30/2019 8:30 PM	5 Hours, 0 Minutes	ComEd	SERC	Illinois: Cook County, DeKalb County, DuPage County, Grundy County, Iroquois County, Ford County, Lake County, Kendall County, Kankakee County, Kane County, Ogle County.	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		100000
2019	7	07/10/2019 12:10 PM	07/12/2019 12:30 PM	48 Hours, 20 Minutes	Oncor Electric Delivery Company LLC	TRE	Texas: Collin County, Dallas County, Denton County, Hood County, Johnson County, Tarrant County.	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		57000
2019	7	07/11/2019 11:08 AM	07/11/2019 11:13 AM	0 Hours, 5 Minutes	Southwestern Public Service	TRE	Texas: Lynn County.	Unexpected transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Transmission Interruption	26	2043
2019	7	07/13/2019 7:15 AM	07/14/2019 5:00 PM	33 Hours, 45 Minutes	Entergy Corp	SERC	Louisiana.	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		55730
2019	7	07/13/2019 6:47 PM	07/13/2019 11:37 PM	4 Hours, 50 Minutes	NYISO	NPCC	New York: New York County.	Uncontrolled loss of 300 Megawatts or more of firm system loads for 15 minutes or more from a single incident.-Transmission Interruption	452	72669
2019	7	07/13/2019 11:55 PM	07/14/2019 1:00 PM	13 Hours, 5 Minutes	Cleco Power LLC	SERC	Louisiana: Acadia Parish, Avoyelles Parish, Catahoula Parish, Evangeline Parish, Grant Parish, Iberia Parish, LaSalle Parish, Matchitoches 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	07/19/2019 7:00 PM	07/21/2019 8:00 PM	49 Hours, 0 Minutes	Detroit Edison Co	RF	Michigan.	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		400000
2019	7	07/20/2019 3:00 AM	07/22/2019 7:00 AM	52 Hours, 0 Minutes	Consumers Energy Co	RF	Michigan: Kent County, Newaygo County, Mecosta County, Montcalm County, Isabella County, Ionia County, Allegan County, Barry County.	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		160000
2019	7	07/20/2019 11:55 AM	07/23/2019 12:00 AM	60 Hours, 5 Minutes	WEC Energy Group (WEPCO, WPSC, UMER, WEP-MIUP)	RF	Wisconsin: Michigan.	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	200	50000
2019	7	07/21/2019 11:00 PM	07/22/2019 8:54 PM	21 Hours, 54 Minutes	Consolidated Edison Co-NY Inc	NPCC	New York: Kings County, New York County, Queens County, Bronx County, Westchester County, Richmond County.	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	60	45000
2019	7	07/22/2019 4:00 PM	07/24/2019 11:00 PM	55 Hours, 0 Minutes	PECO Energy Co	RF	Pennsylvania: Bucks County, Delaware County.	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		165000
2019	7	07/22/2019 5:50 PM	07/25/2019 1:15 PM	67 Hours, 25 Minutes	Public Service Electric & Gas	RF	New Jersey: Gloucester County.	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	49	95600
2019	7	07/23/2019 3:39 PM	07/23/2019 7:00 PM	3 Hours, 21 Minutes	ISO New England	NPCC	Massachusetts.	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	54	54535
2019	7	07/23/2019 11:55 PM	07/23/2019 11:56 PM	0 Hours, 1 Minutes	Nebraska Public Power District	MRO	Nebraska.	Unexpected transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Transmission Interruption	0	0
2019	7	07/23/2019 11:55 PM	07/24/2019 5:22 AM	5 Hours, 27 Minutes	Western Area Power Administration - Upper Great Plains Region	MRO	Nebraska: Scotts Bluff County.	Unexpected transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Transmission Interruption	0	0
2019	7	07/30/2019 8:45 AM	07/30/2019 9:45 AM	1 Hours, 0 Minutes	City of Alexandria	SERC	Louisiana.	Unexpected transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Severe Weather/Transmission Interruption		13720
2019	8	08/02/2019 1:49 AM	08/02/2019 1:55 AM	0 Hours, 6 Minutes	Northern States Power Co	MRO	Minnesota: Chisago County.	Unexpected transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Transmission Interruption	0	0

Table B.2 Major Disturbances and Unusual Occurrences, 2019

Year	Month	Event Date and Time	Restoration Date and Time	Duration	Utility/Power Pool	NERC Region	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected
2019	8	08/05/2019 5:23 PM	08/06/2019 12:02 AM	6 Hours, 39 Minutes	Bonneville Power Administration	WECC	Oregon: Umatilla County	Unexpected Transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Transmission Interruption	66	
2019	8	08/08/2019 4:16 PM	08/08/2019 10:41 PM	6 Hours, 25 Minutes	American Electric Power - (RFC Reliability Region)	RF	Ohio	Unexpected Transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Severe Weather/Transmission Interruption		5600
2019	8	08/13/2019 10:00 AM	08/13/2019 11:00 AM	1 Hours, 0 Minutes	Rio Bravo Rocklin	WECC	California: Placer County	Uncontrolled loss of 300 Megawatts or more of firm system loads for 15 minutes or more from a single incident.-Vandalism	0	0
2019	8	08/13/2019 3:10 PM	08/13/2019 5:30 PM	2 Hours, 20 Minutes	ERCOT	TRE	Texas: Williamson County	Public appeal to reduce the use of electricity for purposes of maintaining the continuity of the Bulk Electric System.-Severe Weather		
2019	8	08/15/2019 8:30 AM		. Hours, . Minutes	Upstate New York Power Producers	NPCC	New York: Tompkins County	Fuel supply emergencies that could impact electric power system adequacy or reliability.-Fuel Supply Deficiency	150	
2019	8	08/15/2019 3:11 PM	08/15/2019 6:00 PM	2 Hours, 49 Minutes	ERCOT	TRE	Texas	Public appeal to reduce the use of electricity for purposes of maintaining the continuity of the Bulk Electric System.-Severe Weather		
2019	8	08/15/2019 11:03 PM	08/16/2019 12:37 AM	1 Hours, 34 Minutes	Pacific Gas & Electric Co	WECC	California: Marin County	Loss of electric service to more than 50,000 customers for 1 hour or more.-Distribution Interruption	80	61318
2019	8	08/18/2019 3:59 PM	08/18/2019 11:00 PM	7 Hours, 1 Minutes	Southwest Power Pool, Inc.	SPP RE	Louisiana: Texas	Firm load shedding of 100 Megawatts or more implemented under emergency operational policy.-Transmission Interruption	271	86373
2019	8	08/18/2019 4:30 PM	08/18/2019 10:00 PM	5 Hours, 30 Minutes	East Texas Electric Coop, Inc	TRE	Texas	Loss of electric service to more than 50,000 customers for 1 hour or more.-Transmission Interruption/Distribution Interruption	259	61000
2019	8	08/18/2019 4:47 PM	08/18/2019 11:00 PM	6 Hours, 13 Minutes	American Electric Power - (SPP Reliability Region)	TRE	Texas	Uncontrolled loss of 300 Megawatts or more of firm system loads for 15 minutes or more from a single incident.-Distribution Interruption	752	86373
2019	8	08/26/2019 9:09 AM	08/26/2019 1:34 PM	4 Hours, 25 Minutes	Great River Energy	MRO	North Dakota	Unexpected Transmission loss within its area, contrary to design, of three or more Bulk Electric System Facilities caused by a common disturbance (excluding successful automatic reclosing).-Transmission Interruption	0	0
2019	8	08/26/2019 7:00 PM	08/27/2019 3:00 AM	8 Hours, 0 Minutes	Southwest Power Pool, Inc.	SPP RE	Oklahoma	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather/Transmission Interruption		95000
2019	8	08/26/2019 7:00 PM	08/29/2019 1:00 PM	66 Hours, 0 Minutes	Oklahoma Gas & Electric Co	SPP RE	Oklahoma	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		103779
2019	9	09/04/2019 2:30 PM	09/06/2019 6:00 PM	51 Hours, 30 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	9	09/05/2019 4:15 AM	09/05/2019 3:17 PM	11 Hours, 2 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	09/05/2019 10:00 PM	09/06/2019 12:00 PM	14 Hours, 0 Minutes	North Carolina EI Member Corp	SERC	North Carolina	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather	3	2000
2019	9	09/05/2019 10:36 PM	09/06/2019 4:00 PM	17 Hours, 24 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	09/06/2019 8:20 AM		. 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	09/10/2019 9:22 PM	09/10/2019 9:23 PM	0 Hours, 1 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	09/11/2019 10:35 PM	09/11/2019 11:59 PM	1 Hours, 24 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	09/19/2019 5:55 AM	09/19/2019 2:30 PM	8 Hours, 35 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

Table B.2 Major Disturbances and Unusual Occurrences, 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	9	09/25/2019 3:47 AM	09/25/2019 3:40 PM	11 Hours, 53 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	09/29/2019 7:38 AM		. 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	10	10/04/2019 5:15 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
2019	10	10/06/2019 5:15 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
2019	10	10/06/2019 2:50 PM	10/06/2019 3:00 PM	0 Hours, 10 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	10/09/2019 12:27 AM		. 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	737908
2019	10	10/12/2019 3:00 PM	10/12/2019 4:21 PM	1 Hours, 21 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	10/15/2019 3:19 AM	10/15/2019 6:38 AM	3 Hours, 19 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	10/17/2019 12:45 AM	10/19/2019 9:30 AM	56 Hours, 45 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	10/19/2019 5:57 AM	10/19/2019 1:58 PM	8 Hours, 1 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	10/20/2019 10:15 PM	10/25/2019 2:00 AM	99 Hours, 45 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, Rust 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	10/23/2019 2:36 PM		. Hours, . Minutes	Pacific Gas & Electric Co	WECC	California	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather/Transmission Interruption		50000
2019	10	10/24/2019 5:15 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
2019	10	10/24/2019 5:02 PM	10/24/2019 5:09 PM	0 Hours, 7 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	10/26/2019 5:15 AM	10/26/2019 5:31 PM	12 Hours, 16 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	10/26/2019 6:00 PM		. 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	10/26/2019 6:20 PM	10/31/2019 1:27 AM	103 Hours, 7 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	10/30/2019 6:32 AM	11/01/2019 1:29 PM	54 Hours, 57 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	10	10/31/2019 10:00 PM		. 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	11	11/01/2019 1:00 AM	11/03/2019 1:00 PM	60 Hours, 0 Minutes	Niagara Mohawk Power Corporation (dba National Grid)	NPCC	New York	Loss of electric service to more than 50,000 customers for 1 hour or more.-Severe Weather		8000

Table B.2 Major Disturbances and Unusual Occurrences, 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	11	11/01/2019 1:15 AM	11/02/2019 9:30 PM	44 Hours, 15 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	11/01/2019 2:41 AM		. 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	11/03/2019 10:17 PM	11/04/2019 11:10 AM	12 Hours, 53 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	11/05/2019 8:56 AM	11/05/2019 11:51 AM	2 Hours, 55 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	11/08/2019 5:50 AM	11/08/2019 6:10 AM	0 Hours, 20 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	11/20/2019 9:49 AM	11/20/2019 3:20 PM	5 Hours, 31 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	11/26/2019 6:07 PM	11/27/2019 12:27 PM	18 Hours, 20 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	11/27/2019 12:00 PM	11/30/2019 2:00 AM	62 Hours, 0 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	12	12/11/2019 1:27 PM	12/11/2019 1:51 PM	0 Hours, 24 Minutes	Western Area Power Administration - Upper Great Plains Region	MRO	North Dakota: Burleigh 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	18	1
2019	12	12/16/2019 11:55 PM	12/17/2019 1:47 AM	1 Hours, 52 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	12	12/31/2019 11:03 AM	01/01/2020 10:59 AM	23 Hours, 56 Minutes	American Electric Power - Texas	TRE	Texas: Nueces 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.-Transmission Interruption	25	0

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 Energy Production, Conversion & Delivery (EPCD), 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 approximately 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 approximately a 95 percent chance that the true mean or total is within 2 RSEs of the estimated mean or total.

Note that there are times when a model may not apply, such as in the case of a substantial reclassification of sales, when the relationship between the variable of interest and the regressor data does not hold. In such a case, the new information 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 sample ^{21,24}. 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:

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

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 November 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 January 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 estimates¹.

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)
	BFG	Blast Furnace Gas
	NG	Natural Gas
Natural Gas and Other Gases	OG	Other Gas
	NUC	Nuclear (including Uranium, Plutonium, and Thorium)
Nuclear		
Hydroelectric Conventional	WAT	Water at a Conventional Hydroelectric Turbine, and water used in Wave Buoy Hydrokinetic Technology, Current Hydrokinetic Technology, and Tidal Hydrokinetic Technology
	(Prime Mover = HY)	
Hydroelectric Pumped Storage	WAT	Pumping Energy for Reversible (Pumped Storage) Hydroelectric
	(Prime Mover = PS)	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
	SUN	Solar (including solar thermal)
Other Renewable Energy Sources	WND	Wind
	GEO	Geothermal
	PUR	Purchased Steam
Other Energy Sources	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 performed 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
<u>Prime Movers:</u>
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
<u>Environmental Equipment:</u>
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 waste²: 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 (see Table 1):

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 U.S. Environmental Protection Agency (USEPA). For data years 2001 through 2009, the MSW composition was based on the USEPA annual publication, *Municipal Solid Waste in the United States: Facts and Figures*. The compositions developed for the 2009 data year were carried forward for the 2010 through 2018 data years. The most updated composition and categorization of MSW (for the 2019 data year) were also derived from a USEPA publication: *Advancing Sustainable Materials Management: Facts and Figures Report: 2015 Data Tables*. The updated composition values were applied in the October EPM 2019 on the preliminary 2019 values and will be applied going forward in future data years until EIA revises the MSW composition ratios again. The Btu contents of the components of MSW were obtained from various sources.

The numbers in Tables 1 and 2 illustrate two interrelated trends in the composition of the MSW stream. First, the heat content (per unit weight) of the waste stream has been steadily increasing

over time due to higher concentrations of non-biogenic materials. Second, the shares of energy contributed to the waste stream by biogenic and non-biogenic components have been changing over time with the percentage of biogenic materials falling and the share of non-biogenic materials rising.

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 was attributed 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	...	2018	2019
Biogenic	57	56	55	55	56	57	55	54	51	51	51	45
Non-biogenic	43	44	45	45	44	43	46	46	49	49	49	55

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	...	2018	2019
Biogenic	77	77	76	76	75	67	65	65	64	64	64	61
Non-biogenic	23	23	24	24	25	34	35	35	36	36	36	39

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 kilowatt-hour.

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:

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

$x_{i_{2013}}$ is the i^{th} utility’s 2013 (or the last published year) solar PV capacity

$y_{i_{2015,m}}$ is the i^{th} 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 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, U.S. census region and U.S. 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

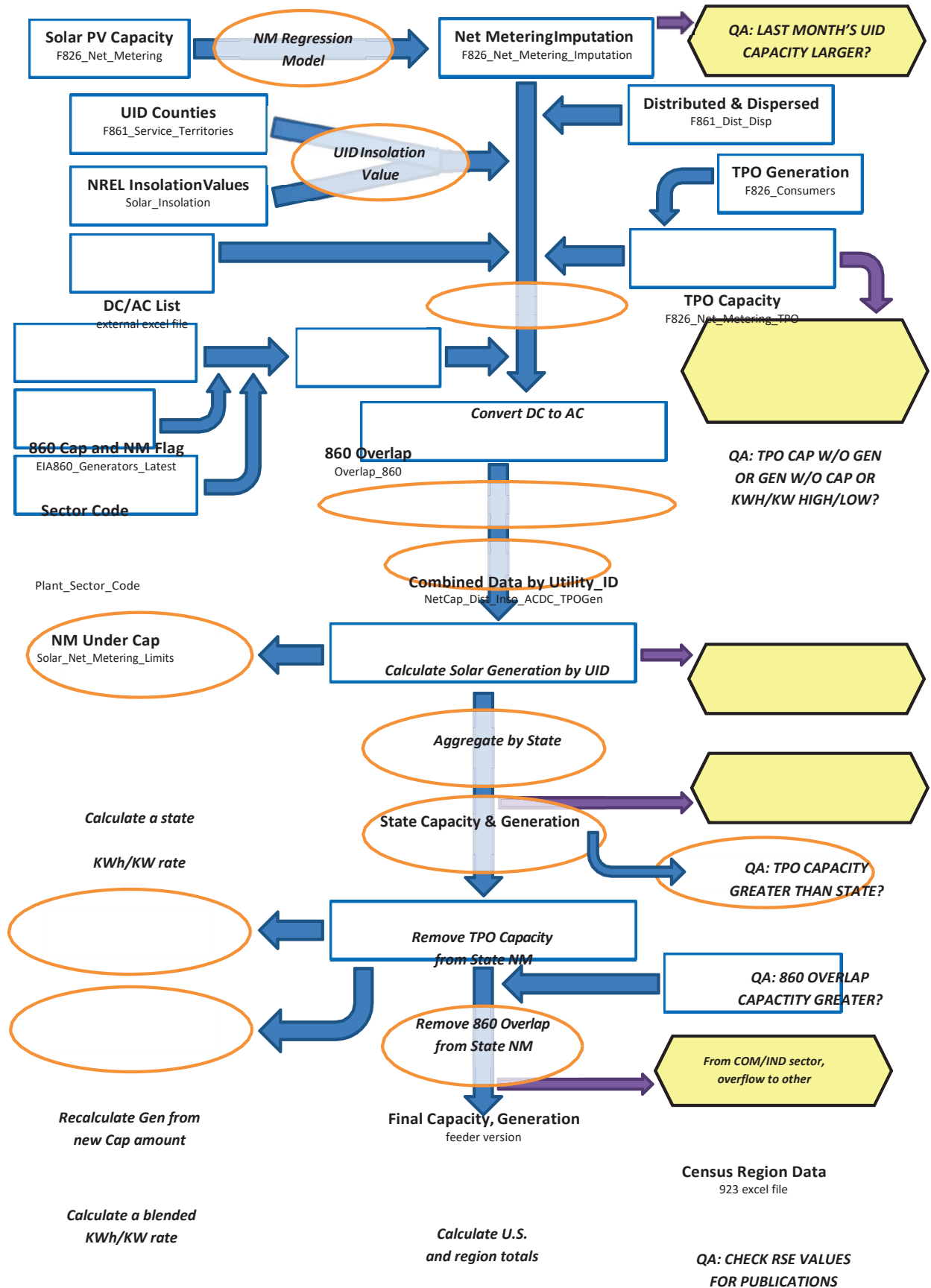
TMY3 (1991-2005) Weather Stations by MSA

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 Worcester 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 McAllen 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 Worcester 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, October 1999, <http://interstat.statjournals.net/>; Knaub, J.R. Jr. (1999b), “Model-Based Sampling, Inference and Imputation,” EIA web site: <http://www.eia.gov/cneaf/electricity/forms/eiawebme.pdf>; Knaub, J.R., Jr. (2005), “Classical Ratio Estimator,” InterStat, October 2005, <http://interstat.statjournals.net/>; Knaub, J.R., Jr. (2007a), “Cutoff Sampling and Inference,” InterStat, April 2007, <http://interstat.statjournals.net/>; Knaub, J.R., Jr. (2008), “Cutoff Sampling.” Definition in Encyclopedia of Survey Research Methods, Editor: Paul J. Lavrakas, Sage, to appear; Knaub, J.R., Jr. (2000), “Using Prediction-Oriented Software for Survey Estimation - Part II: Ratios of Totals,” InterStat, June 2000, <http://interstat.statjournals.net/>; Knaub, J.R., Jr. (2001), “Using Prediction-Oriented Software for Survey Estimation - Part III: Full-Scale Study of Variance and Bias,” InterStat, June 2001, <http://interstat.statjournals.net/>.

² See the following sources: Bahillo, A. et al. Journal of Energy Resources Technology, “NOx and N2O Emissions during Fluidized Bed Combustion of Leather Wastes.” Volume 128, Issue 2, June 2006. pp. 99-103; U.S. Energy Information Administration. *Renewable Energy Annual 2004*. “Average Heat Content of Selected Biomass Fuels.” Washington, DC, 2005; Penn State Agricultural College Agricultural and Biological Engineering and Council for Solid Waste Solutions. Garth, J. and Kowal, P. Resource Recovery, Turning Waste into Energy, University Park, PA, 1993; Utah State University Recycling Center Frequently Asked Questions. Published at <http://www.usu.edu/recycle/faq.htm>. Accessed December 2006.

³ Biogenic components include newsprint, paper, containers and packaging, leather, textiles, yard trimmings, food wastes, and wood. Non-biogenic components include plastics, rubber and other miscellaneous non-biogenic waste.

Table C.1 Average Heat Content of Fossil-Fuel Receipts, July 2020

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	20.60	6.12	--	1.03
Connecticut	--	--	--	1.03
Maine	20.60	6.25	--	1.03
Massachusetts	--	5.81	--	1.03
New Hampshire	--	--	--	1.03
Rhode Island	--	--	--	1.03
Vermont	--	--	--	--
Middle Atlantic	20.44	5.94	--	1.03
New Jersey	25.84	--	--	1.03
New York	--	6.40	--	1.03
Pennsylvania	20.17	5.93	--	1.04
East North Central	20.56	5.73	27.10	1.05
Illinois	17.82	5.80	--	1.02
Indiana	22.38	5.75	--	1.05
Michigan	19.14	5.82	27.13	1.05
Ohio	25.03	5.62	--	1.06
Wisconsin	18.05	5.88	26.50	1.02
West North Central	16.48	5.77	27.33	1.05
Iowa	17.72	5.76	27.33	1.08
Kansas	17.10	5.72	--	1.01
Minnesota	17.75	5.86	--	1.08
Missouri	17.81	5.77	--	1.02
Nebraska	17.11	--	--	1.05
North Dakota	13.03	5.71	--	1.00
South Dakota	16.57	--	--	--
South Atlantic	24.24	5.84	28.14	1.03
Delaware	--	5.82	--	1.03
District of Columbia	--	--	--	--
Florida	23.36	5.81	28.14	1.02
Georgia	19.70	5.89	--	1.03
Maryland	25.14	5.76	--	1.04
North Carolina	25.04	5.81	--	1.03
South Carolina	25.16	5.79	--	1.03
Virginia	18.90	5.93	--	1.04
West Virginia	25.32	5.83	--	1.07
East South Central	20.60	5.78	--	1.03
Alabama	18.61	5.50	--	1.03
Kentucky	22.64	5.83	--	1.04
Mississippi	13.07	5.85	--	1.02
Tennessee	22.81	5.76	--	1.00
West South Central	15.96	5.87	28.45	1.02
Arkansas	17.66	5.89	--	1.02
Louisiana	16.71	--	28.45	1.03
Oklahoma	17.13	--	--	1.03
Texas	15.47	5.82	--	1.02
Mountain	18.95	5.78	--	1.03
Arizona	18.03	5.64	--	1.02
Colorado	19.50	--	--	1.09
Idaho	--	--	--	1.00
Montana	17.05	5.92	--	1.04
Nevada	20.77	5.83	--	1.03
New Mexico	18.40	5.66	--	1.02
Utah	21.67	5.88	--	1.03
Wyoming	18.10	5.81	--	1.04
Pacific Contiguous	18.40	6.00	--	1.03
California	22.62	--	--	1.02
Oregon	--	--	--	1.04
Washington	17.19	6.00	--	1.09
Pacific Noncontiguous	18.51	6.13	--	1.00
Alaska	13.89	5.60	--	1.00
Hawaii	19.75	6.13	--	--
U.S. Total	18.99	6.04	27.89	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

Item	Mean Absolute Value of Percent Change		
	Total (All Sectors)		
	2016	2017	2018
Net Generation			
Coal	0.09%	0.17%	0.42%
Petroleum Liquids	3.08%	3.41%	2.56%
Petroleum Coke	1.46%	5.79%	5.97%
Natural Gas	0.30%	1.94%	1.10%
Other Gases	3.76%	11.64%	10.59%
Hydroelectric	0.76%	2.01%	2.37%
Nuclear	0.05%	0.00%	0.00%
Other	0.76%	1.33%	1.67%
Total	0.08%	0.56%	0.29%
Consumption of Fossil Fuels for Electricity Generation			
Coal	0.11%	0.13%	0.17%
Petroleum Liquids	5.81%	3.39%	5.23%
Petroleum Coke	0.87%	4.95%	10.63%
Natural Gas	2.26%	1.09%	0.79%
Fuel Stocks for Electric Power Sector			
Coal	0.72%	0.18%	0.35%
Petroleum Liquids	5.25%	2.10%	1.07%
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%	5.02%
Transportation	0.06%	0.12%	0.95%
Total	1.40%	1.12%	1.53%
Revenue			
Residential	0.28%	0.26%	0.21%
Commercial	1.21%	0.28%	0.49%
Industrial	4.54%	3.52%	4.76%
Transportation	1.53%	0.21%	1.63%
Total	1.34%	0.57%	1.04%
Average Retail Price			
Residential	0.05%	0.21%	0.16%
Commercial	0.65%	0.20%	0.16%
Industrial	0.24%	0.51%	0.38%
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 changes.

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

Item	2016			2017			2018		
	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	1,149,487	0.27%
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	1,296,442	1.85%	1,468,013	1,469,133	0.08%
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	293,838	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	399,346	-0.24%	433,744	427,265	-1.49%
Total	4,079,079	4,076,675	-0.06%	4,014,804	4,034,271	0.48%	4,177,810	4,178,277	0.01%
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	9,508,062	0.71%	10,855,155	10,833,043	-0.20%
Fuel Stocks for Electric Power Sector									
Coal (1,000 tons)	163,946	162,009	-1.18%	137,155	137,687	0.39%	102,786	102,793	0.01%
Petroleum Liquids (1,000 barrels)	30,880	30,593	-0.93%	28,723	28,089	-2.21%	25,082	25,977	3.57%
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	1,469,093	0.32%
Commercial	1,359,617	1,367,191	0.56%	1,349,208	1,352,888	0.27%	1,376,741	1,381,755	0.36%
Industrial	936,269	976,715	4.32%	946,443	984,298	4.00%	953,076	1,000,673	4.99%
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	3,859,185	1.51%
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	147,425	0.50%
Industrial	63,201	66,068	4.54%	65,394	67,691	3.51%	66,090	69,218	4.73%
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	406,420	1.03%
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	-0.25%
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	-0.47%
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 kilowatt-hour 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 earth's 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 through 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.

Watt-hour (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.