Electric Power Monthly March 2004

With Data for December 2003

Energy Information Administration

Office of Coal, Nuclear, Electric and Alternate Fuels
U.S. Department of Energy
Washington, DC 20585

This report is available on the Web at: http://www.eia.doe.gov/cneaf/electricity/epm/epm sum.html

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Preface

The Electric Power Monthly (EPM) presents monthly electricity statistics for a wide audience including Congress, Federal and State agencies, the electric power industry, and the general public. The purpose of this publication is to provide energy decision makers with accurate and timely information that may be used in forming various perspectives on electric issues that lie ahead. In order to provide an integrated view of the electric power industry, data in this report have been separated into two major categories: electric power sector and combined heat and power producers. The 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 Electric Power Division, Office of Coal, Nuclear, Electric and Alternate Fuels, Energy Information Administration (EIA), 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, electricity retail sales, associated revenue, and average revenue per kilowatthour 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-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-860, "Annual Electric Generator Report;" Form EIA-861, "Annual Electric Power Industry Report;" Form EIA-906, "Power Plant Data Report;" and Federal Energy Regulatory Commission (FERC) Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants." Forms and their instructions may be obtained from the internet site: http://www.eia.doe.gov/cneaf/electricity/page/forms.html (The FERC Form 423 and instructions are available at http://ferc.gov/docs-filing/eforms-elec.asp#423). detailed description of these forms and associated algorithms are found in Appendix C, "Technical Notes."

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Executive Summary

Generation and Consumption of Fuels for Electricity Generation, December 2003

Generation and Consumption of Fuels. Total generation of electric power in December 2003 was 331.0 terawatthours, almost 1.9 percent more than 324.8 terawatthours generated in December 2002. Gas-fired generation, which is generally used to meet peak and intermediate loads, was down by 7.1 percent compared to December 2002 (from 46.1 to 42.8 terawatthours). Consumption of natural gas for electric power generation decreased 6.3 percent from December 2002 to December 2003. Nuclear-powered and coal-fired generation are typically used to meet baseload demand; nuclear-powered generation in December 2003 declined 0.4 percent compared to December 2002. Coal-fired generation increased 2.8 percent, from 172.2 to 177.0 terawatthours.

During the month, 66.4 percent of electric power generation was produced at utility power plants, 29.4 percent by independent power producers, and the remainder at industrial and commercial combined heat and power plants. Utility-operated power plants consumed 77.0 percent of the coal for electric power generation in December 2003, compared to 21.8 percent by independent power producers. While utilities accounted for the largest share of coal consumption, the reverse was true for natural gas, with independent power producers consuming 51.7 percent of the gas compared to 32.0 percent by utilities. The balance of coal and gas consumption is attributable to combined heat and power plants.

For year-to-date 2003 compared to 2002, total net generation showed virtually no change (decrease of 0.3 percent, or 10.5 terawatthours). Year-to-date, nuclear generation is down 2.1 percent (16.3 terawatthours) and natural gas generation is down 8.9 percent (61.8 terawatthours). The majority of the decreases in nuclear-powered and natural gas-fired generation was taken up by coal-fired generation (a 1.9-percent increase, or 37.1 terawatthours), petroleum-fired generation (a 25.0-percent increase, or 23.7 terawatthours) and hydroelectric generation (a 4.2-percent increase, or 10.8 terawatthours).

Fuels Costs and Receipts, November 2003

1

Natural gas prices throughout the United States were lower in November than previously estimated by the Energy Information Administration in its November *Short Term Energy Outlook*. Prices spiked sharply in futures trading at the end of the first week in December as some cold weather moved across the Eastern United States and gas storage levels declined faster than expected. Natural gas storage levels were still above average in November.

Crude oil prices remained strong in November, varying between \$29.00 and \$33.00 per barrel for West Texas Intermediate.

The average price paid for natural gas by electricity generators in November of \$4.67 per MMBtu was 4.6 percent lower than the price of \$4.90 per MMBtu in October. The average price paid for fuel oil of \$3.51 per MMBtu was 7.9 percent lower that the price of \$3.81 per MMBtu in October. The average price of coal to electricity generators in November of \$1.25 per MMBtu was down 0.6 percent.

Year to date, all three fuels were running above the prices paid during the same time period last year. While coal prices were only 1.2 percent higher, fuel oil and natural gas prices increased significantly, 33.8 percent and 55.4 percent, respectively.

Retail Sales, Revenue, and Average Retail Price, December 2003

Sales: December 2003 retail electricity sales were 4.1 percent higher compared to December 2002. All sector sales increased for this reporting period. Residential sector sales increased by 4.4 percent, the commercial sector sales grew 4.0 percent, and the industrial sector sales grew 3.3 percent. Year-to-date 2003 electricity sales were slightly higher (1.1 percent or 37.4 terawatthours) than comparable 2002 sales.

Revenue: Electricity revenues showed an overall increase of 6.4 percent in December 2003 over December 2002. The residential and the commercial sectors each increased by 7.5 and 6.5 percent respectively. The industrial sector revenues also increased by 4.3 percent over December 2002. For the year-to-date 2003 compared to 2002, electricity revenues show an overall 3.8 percent increase. The largest revenue increase is in the West South Central Census Division, which is heavily dependent on natural gas (as noted above, the price of natural gas to power generators is significantly higher in 2003 than in 2002).

Prices: The overall price of retail electricity showed an increase of 2.3 percent for December 2003, compared to December 2002. Residential and commercial sector prices grew by 3.0 percent and 2.5 percent, respectively over December 2002 prices. Over the same period, the industrial sector price increased by 1.1 percent. The price rise was a reflection of higher national energy prices across most of the United States. In 2003, electricity retail prices were 2.6 percent above comparable 2002 prices.

Total Electric Power Industry Summary Statistics, 2003 and 2002 Table ES1.A.

					December						
			N	et Generatio	n and Consu	mption of Fu	els				
					Electric Po	wer Sector ¹		Combin	ed Heat and	Power Pro	ducers
Items	Total (All Sectors)			Electric Utilities		Independent Power Producers		Commercial ²		Industrial ³	
	Dec 2003	Dec 2002	% Change	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002
Net Generation (Million kWh)											
Coal ⁴	176,975	172,190	2.8	137,818	133,281	37,201	36,950	89	88	1,867	1,872
Petroleum ⁵	9,752	8,112	20.2	5,328	4,505	3,885	3,115	43	65	497	426
Natural Gas ⁶	42,810	46,100	-7.1	12,605	12,212	23,859	27,271	284	339	6,062	6,277
Other Gases ⁷	1,229	1,025	19.8	1	20	102	166	*		1,125	840
Nuclear	68,612	68,905	4	43,220	43,601	25,392	25,305				
Hydroelectric8	23,430	20,989	11.6	20,542	18,903	2,281	1,555	6	1	601	529
Other Renewables9		7,153	8.6	312	345	4,677	4,165	168	121	2,609	2,522
Other Energy Sources ¹⁰	393	360	9.2			9	121	*	7	384	231
All Energy Sources	330,967	324,834	1.9	219,826	212,868	97,405	98,648	590	622	13,146	12,697
Consumption of Fossil Fuels											
Coal (1000 tons) ⁴	91,078	87,752	3.8	70,137	67,367	19,872	19,224	44	41	1,025	1,120
Petroleum (1000 bbls) ⁵	17,182	14,442	19.0	9,134	7,631	6,893	5,568	116	135	1,039	1,108
Natural Gas (1000 Mcf) ⁶	365,868	390,357	-6.3	116,992	118,023	189,031	217,700	2,408	2,466	57,437	52,168
Fuel Stocks (end-of-month)											
Coal (1000 tons)11	122,366	144,357	-15.2	100,434	116,952	20,937	24,761	114	328	882	2,315
Petroleum (1000 bbls) ⁵	53,803	55,160	-2.5	29,046	31,243	23,443	21,247	74	267	1,240	2,404

	November	
Docointe	and Cost of Fossil F	hal

				кесегры	Electric Power Sector				Combined Heat and Power Producers			
Items	Total (All Sectors)			Electric Utilities		Independent Power Producers		Commercial		Industrial		
	Nov 2003	Nov 2002	% Change	Nov 2003	Nov 2002	Nov 2003	Nov 2002	Nov 2003	Nov 2002	Nov 2003	Nov 2002	
Receipts		_			_	_		_				
Coal (1000 tons) ⁴	73,287	77,306	-5.2	54,169	60,260	17,914	15,869	27	34	1,177	1,143	
Petroleum (1000 bbls) ⁵	10,963	10,714	2.3	7,086	6,276	3,389	3,943		10	488	484	
Natural Gas (1000 Mcf) ¹²	349,300	368,775	-5.3	89,755	95,005	174,901	209,743	49	524	84,595	63,502	
Cost (cents/million Btu) ¹³												
Coal ⁴	125.47	125.06	.3	123.81	122.22	129.27	134.49	W	W	W	W	
Petroleum ⁵	350.67	395.62	-11.4	347.54	369.51	358.13	441.15	W	W	W	W	
Natural Gas ¹²	467.12	423.23	10.4	493.60	435.81	457.23	419.90	520.25	382.74	457.71	415.73	

December

Retail Sales, Retail Revenue and Average Retail Price per Kilowatthour											
Itoma	Total U.S. Electric Power Industry										
Items	Residential	Other	All Sectors								
Retail Sales (Million kWh)14											
Dec 2003	113,903	91,592	80,612	9,176	295,283						
Dec 2002	109,085	88,076	78,032	8,546	283,738						
Percent Change	4.4	4.0	3.3	7.4	4.1						
Retail Revenue (Million Dollars)											
Dec 2003	9,502	7,146	3,852	609	21,109						
Dec 2002	8,840	6,706	3,694	593	19,833						
Percent Change	7.5	6.5	4.3	2.7	6.4						
Average Retail Price (Cents/kWh)											
Dec 2003	8.34	7.80	4.78	6.64	7.15						
Dec 2002	8.10	7.61	4.73	6.94	6.99						
Percent Change	3.0	2.5	1.1	-4.3	2.3						

The electric power sector (electric utilities and independent power producers) comprises 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., NAICS 22 plants.). The Independent Power Producer category includes the NAICS-22 CHP plants.

Notes: *See Glossary for definitions. *Values for 2003 are preliminary. Values for 2002 are final. Values from Forms EIA-826 and EIA-906 for 2003 are estimates based on samples - see Technical Notes for a discussion of the sample designs. Totals may not equal sum of components because of independent rounding. Percent difference is calculated before rounding, bbls = barrels. kWh = kilowatthours. Mcf = thousand cubic feet. MWh = megawatthours. Monetary values are expressed in nominal terms. Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the nonutility sector. This affects comparisons of current and historical data. Sources: Energy Information Administration, 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;" and Federal Energy Regulatory Commission, FERC Form 423, "Monthly Report of Cost and Ouality of Fuels for Electric Plants.'

Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

³ Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

⁵ Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

⁶ Natural gas, including a small amount of supplemental gaseous fuels.

Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels. As a result of changes in definitions and estimation methodologies, year-toyear comparisons are not appropriate.

8 Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.

⁹ Wood, black liquor, other wood waste, municipal solid waste, landfill gas, sludge waste, tires, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic

energy, and wind.

Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies. As a result of changes in definitions and estimation methodologies, year-toyear comparisons are not appropriate.

Anthracite, bituminous coal, subbituminous coal, and lignite, excludes waste coal.

¹² Natural Gas receipts and costs include blast furnace gas and other gases in 2003. Blast furnace gas and other gases are not included in 2002.

¹³ Average cost of fuel delivered to electric generating plants; costs are weighted values.

Retail sales and net generation may not correspond exactly for a particular month for a variety of reasons (i.e., sales data may include imported electricity). Net generation is for the calendar month while retail sales and associated revenue accumulate from bills collected for periods of time (28 to 35 days) that vary dependent upon customer class and consumption occurring in and outside the calendar month.

W = Withheld to avoid disclosure of individual company data.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Table ES1.B. Total Electric Power Industry Summary Statistics, Year-to-Date 2003 and 2002

	January through December											
	Net Generation and Consumption of Fuels											
				Electric Power Sector ¹				Combined Heat and Power Producers				
Items	Total (Total (All Sectors)			Electric Utilities		Independent Power Producers		Commercial ²		Industrial ³	
	2003	2002	% Change	2003	2002	2003	2002	2003	2002	2003	2002	
Net Generation (Million kWh)			_									
Coal ⁴	1,970,273	1,933,130	1.9	1,543,430	1,514,670	404,577	395,943	1,033	992	21,233	21,525	
Petroleum ⁵	118,256	94,567	25.0	70,317	59,125	42,206	30,608	499	431	5,235	4,403	
Natural Gas ⁶	629,207	691,006	-8.9	196,305	229,639	354,342	378,044	4,252	4,310	74,308	79,013	
Other Gases ⁷	10,937	11,463	-4.6	6	206	1,224	1,763	*	*	9,707	9,493	
Nuclear	763,725	780,064	-2.1	474,509	507,380	289,215	272,684					
Hydroelectric8	266,339	255,586	4.2	239,669	234,868	20,951	16,880	98	13	5,621	3,825	
Other Renewables9	84,174	86,922	-3.2	2,550	3,569	50,779	51,022	1,897	1,585	28,948	30,747	
Other Energy Sources ¹⁰	5,078	5,714	-11.1			590	2,056	8	84	4,481	3,574	
All Energy Sources	3,847,990	3,858,452	3	2,526,786	2,549,457	1,163,884	1,149,001	7,785	7,415	149,534	152,580	
Consumption of Fossil Fuels												
Coal (1000 tons) ⁴	1,014,307	987,583	2.7	786,418	767,803	215,791	207,448	501	477	11,596	11,855	
Petroleum (1000 bbls) ⁵	208,436	168,597	23.6	119,967	99,219	75,856	56,935	1,161	834	11,453	11,608	
Natural Gas (1000 Mcf) ⁶	5,379,802	6,126,062	-12.2	1,870,248	2,259,684	2,817,947	3,148,595	35,244	32,545	656,362	685,239	

January through November

				Receipts	and Cost of	Fossil Fuels					
					Electric Po	wer Sector		Combined Heat and Power Producers			
Items	Total (All Sectors)			Electric Utilities		Independent Power Producers		Commercial		Industrial	
	2003	2002	% Change	2003	2002	2003	2002	2003	2002	2003	2002
Receipts											
Coal (1000 tons) ⁴	810,949	811,043	*	624,960	631,747	173,846	166,522	339	368	11,804	12,406
Petroleum (1000 bbls) ⁵	153,977	108,723	41.6	91,882	69,751	56,116	34,082	236	72	5,743	4,818
Natural Gas (1000 Mcf) ¹¹	4,479,321	5,204,864	-13.9	1,238,624	1,531,902	2,396,310	2,898,677	9,467	17,724	834,920	756,561
Cost (cents/million Btu) ¹²											
Coal ⁴	127.23	125.78	1.2	124.49	122.11	136.04	137.95	W	W	W	W
Petroleum ⁵	439.22	328.23	33.8	415.99	320.09	485.63	346.68	W	W	W	W
Natural Gac ¹¹	5/11/3/	3/18/15	55.4	562.85	360.54	533 51	347.28	480.76	3/12/15	530.81	328 58

January through December

	ounum.	, thirdagar b		
Patail R	ovenne a	nd Avorago	Retail Price r	or Kilowatthou

Items	Total U.S. Electric Power Industry										
items	Residential	Commercial	Industrial	Other	All Sectors						
Retail Sales (Million kWh)13											
2003	1,279,907	1,119,250	991,359	109,452	3,499,968						
2002 ^R	1,266,959	1,116,248	972,168	107,146	3,462,521						
Percent Change ^R	1.0	.3	2.0	2.2	1.1						
Retail Revenue (Million Dollars)											
2003	111,443	90,983	49,062	7,603	259,091						
2002 ^R	107,229	87,706	47,485	7,208	249,629						
Percent Change ^R	3.9	3.7	3.3	5.5	3.8						
Average Retail Price (Cents/kWh)											
2003	8.71	8.13	4.95	6.95	7.40						
2002 ^R	8.46	7.86	4.88	6.73	7.21						
Percent Change ^R	3.0	3.4	1.4	3.3	2.6						

¹ The electric power sector (electric utilities and independent power producers) comprises 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., NAICS 22 plants.). The Independent Power Producer category includes the NAICS-22 CHP plants.

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Notes: *See Glossary for definitions. *Values for 2003 are preliminary. Values for 2002 are final. Values from Forms EIA-826 and EIA-906 for 2003 are estimates based on samples - see Technical Notes for a discussion of the sample designs. *Totals may not equal sum of components because of independent rounding. *Percent difference is calculated before rounding. *bbls = barrels. kWh = kilowatthours. Mcf = thousand cubic feet. MWh = megawatthours. *Monetary values are expressed in nominal terms. *Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the nonutility sector. This affects comparisons of current and historical data. Sources: Energy Information Administration, 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," and Federal Energy Regulatory Commission, FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

² Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

⁴ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

⁵ Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

⁶ Natural gas, including a small amount of supplemental gaseous fuels.

⁷ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels. As a result of changes in definitions and estimation methodologies, year-to-vear comparisons are not appropriate

year comparisons are not appropriate.

8 Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.

⁹ Wood, black liquor, other wood waste, municipal solid waste, landfill gas, sludge waste, tires, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic energy and wind.

¹⁰ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies. As a result of changes in definitions and estimation methodologies, year-to-year comparisons are not appropriate

year comparisons are not appropriate.

11 Natural Gas receipts and costs include blast furnace gas and other gases in 2003. Blast furnace gas and other gases are not included in 2002.

¹² Average cost of fuel delivered to electric generating plants; cost values are weighted values.

¹³ Retail sales and net generation may not correspond exactly for a particular month for a variety of reasons (i.e., sales data may include imported electricity). Net generation is for the calendar month while retail sales and associated revenue accumulate from bills collected for periods of time (28 to 35 days) that vary dependent upon customer class and consumption occurring in and outside the calendar month.

W = Withheld to avoid disclosure of individual company data

R = Revised

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Table ES2. Industry Summary - Combined Heat and Power Producers' Fossil Fuel Consumption and Stocks, 2003 and 2002

			All Co	mbined Heat a	nd Power Prod	ucers1			
Items	Total Fuel Co	onsumption	Fuel Consu Electric G	1	Fuel Consu Useful Ther		Fuel Stocks End-of-Month		
	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002	
Current Month									
Coal (1000 tons) 2	22,632	21,830	20,941	20,384	1,691	1,446	21,932	36,948	
Petroleum (1000 bbls) 3	9,666	8,501	8,048	6,811	1,618	1,689	24,757	23,918	
Natural Gas (1000 Mcf) 4	315,806	346,411	248,876	272,334	66,930	74,076	NA	NA	
Year to Date									
Coal (1000 tons) 2	246,084	237,341	227,889	219,780	18,195	17,561	21,932	36,948	
Petroleum (1000 bbls) 3	106,560	84,190	88,470	69,378	18,090	14,812	24,757	23,918	
Natural Gas (1000 Mcf) 4	4,268,869	4,726,403	3,509,554	3,866,378	759,316	860,024	NA	NA	

Independent Power Producer Combined Heat and Power Producers Fuel Consumption for Fuel Consumption for Total Fuel Consumption Fuel Stocks End-of-Month Items **Useful Thermal Output Electric Generation** Dec 2003 Dec 2002 Dec 2003 Dec 2002 Dec 2003 Dec 2002 Dec 2003 Dec 2002 Current Month 34,303 Coal (1000 tons) 20,064 19,416 19,872 19,224 192 20,937 Petroleum (1000 bbls) 3 5,677 242,100 5,568 217,700 6,999 23,443 21,247 Natural Gas (1000 Mcf) 4 ar to Date 212,405 189,031 23,374 24,400 NA NA Year to Date Coal (1000 tons) 2 217,864 209,703 215,791 207,448 2,073 2,255 20,937 34,303 Petroleum (1000 bbls) 3 77,340 3,059,546 75,856 2,817,947 57,777 3,412,213 1,483 23,443 Natural Gas (1000 Mcf) 4..... 263,619 3,148,595 241,599 NA NA

			Commercia	d Combined He	eat and Power	Producers ³			
Items	Total Fuel Co	onsumption	Fuel Consu Electric G		Fuel Consu Useful Ther		Fuel Stocks End-of-Month		
	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002	
Current Month									
Coal (1000 tons) ²	137	134	44	41	93	94	114	328	
Petroleum (1000 bbls) ³	163	181	116	135	47	46	74	267	
Natural Gas (1000 Mcf) 4	5,117	6,009	2,408	2,466	2,709	3,543	NA	NA	
Year to Date									
Coal (1000 tons) ²	1,492	1,405	501	477	991	929	114	328	
Petroleum (1000 bbls) ³	1,709	1,250	1,161	834	549	416	74	267	
Natural Gas (1000 Mcf) 4	70,980	73,980	35,244	32,545	35,736	41,435	NA	NA	

			Industrial	Combined Hea	t and Power P	roducers⁰			
Items	Total Fuel Co	onsumption	Fuel Consu Electric G		Fuel Consu Useful Ther		Fuel Stocks End-of-Month		
	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002	
Current Month									
Coal (1000 tons) ²	2,431	2,279	1,025	1,120	1,407	1,160	882	2,317	
Petroleum (1000 bbls) 3	2,504	2,643	1,039	1,108	1,465	1,535	1,240	2,404	
Natural Gas (1000 Mcf) 4	98,285	98,302	57,437	52,168	40,847	46,133	NA	NA	
Year to Date									
Coal (1000 tons) 2	26,728	26,232	11,596	11,855	15,131	14,377	882	2,317	
Petroleum (1000 bbls) 3	27,511	25,163	11,453	11,608	16,058	13,555	1,240	2,404	
Natural Gas (1000 Mcf) 4	1,138,343	1,240,209	656,362	685,239	481,981	554,970	NA	NA	

¹ Excludes a small amount of combined heat and power plant fuel consumption at electric utilities.

Notes: •Values include only combined heat and power producers in the industrial, commercial, and independent power producer sectors.•Values for 2002 are final. Values for 2003 are preliminary estimates based on a cutoff model sample - see Technical Notes for a discussion of the sample design for Form EIA-906.•Values for 2002 have been adjusted to reflect the annual total from the Form EIA-906. See Technical Notes for the adjustment methodology.•Totals may not equal sum of components because of independent rounding.•bbls = barrels. Mcf = thousand cubic feet.

² Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

³ Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

⁴ Natural gas, including a small amount of supplemental gaseous fuels.

⁵ Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

⁶ Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

NA = Not available.

Table ES3. New and Planned U.S. Electric Generating Units by Operating Company, Plant and Month, 2004 - 2005

New Units January 2004 Merck & Co Inc	Merck Rahway Power Plant Glenarm Glenarm John S Rainey John S Rainey John S Rainey Bayside Power Boulder City Lakewood Hydro Plaquemine Cogeneration Plant	NJ CA CA SC SC SC FL	GEN9 GT3 GT4 CT3A CT3B CT4A	(megawatts) 1 10 51 51 71	NG NG NG	Mover
Merck & Co Inc	Glenarm Glenarm John S Rainey John S Rainey John S Rainey Bayside Power Boulder City Lakewood Hydro Plaquemine Cogeneration Plant	CA CA SC SC SC	GT3 GT4 CT3A CT3B CT4A	51 51 71	NG	
Merck & Co Inc	Glenarm Glenarm John S Rainey John S Rainey John S Rainey Bayside Power Boulder City Lakewood Hydro Plaquemine Cogeneration Plant	CA CA SC SC SC	GT3 GT4 CT3A CT3B CT4A	51 51 71	NG	
Pasadena City of	Glenarm Glenarm John S Rainey John S Rainey John S Rainey Bayside Power Boulder City Lakewood Hydro Plaquemine Cogeneration Plant	CA CA SC SC SC	GT3 GT4 CT3A CT3B CT4A	51 51 71	NG	
Pasadena City of	Glenarm John S Rainey John S Rainey John S Rainey Bayside Power Boulder City Lakewood Hydro Plaquemine Cogeneration Plant	CA SC SC SC	GT4 CT3A CT3B CT4A	51 71		
South Carolina Pub Serv Auth Elec. Utility South Carolina Pub Serv Auth Elec. Utility South Carolina Pub Serv Auth Elec. Utility Tampa Electric Co Elec. Utility February 2004 Boulder City of IPP Katco Funding LP IPP IPP IPP Katco Funding LP IPP IPP Katco Funding LP IPP IPP IPP Katco Funding	John S Rainey John S Rainey John S Rainey Bayside Power Boulder City Lakewood Hydro Plaquemine Cogeneration Plant	SC SC SC	CT3A CT3B CT4A	71	NC	GT
South Carolina Pub Serv Auth Elec. Utility South Carolina Pub Serv Auth Elec. Utility Tampa Electric Co Elec. Utility February 2004 Boulder City of IPP Katco Funding LP IPP Katc	John S Rainey John S Rainey Bayside Power Boulder City Lakewood Hydro Plaquemine Cogeneration Plant	SC SC	CT3B CT4A			GT
South Carolina Pub Serv Auth	John S Rainey Bayside Power Boulder City Lakewood Hydro Plaquemine Cogeneration Plant	SC	CT4A		NG	GT
Tampa Electric Co. Elec. Utility February 2004 Boulder City of. IPP Katco Funding LP IPP Marceline City of Elec. Utility Marceline City of Elec. Utility Marceline City of Elec. Utility Merck & Co Inc-West Point CHP Milford Power Co LLC IPP Year-to-Date Capacity of New Units	Boulder City Lakewood Hydro Plaquemine Cogeneration Plant			71	NG	GT
Boulder City of. IPP Katco Funding LP IPP Marceline City of IPP Marceline City of Elec. Utility Marceline City of Elec. Utility Merck & Co Inc-West Point CHP Milford Power Co LLC IPP Year-to-Date Capacity of New Units	Boulder City Lakewood Hydro Plaquemine Cogeneration Plant	FL		71	NG	GT
Boulder City of	Plaquemine Cogeneration Plant		2	899	NG	CC
Katco Funding LP IPP Encora Funding LP IPP Lincoln Electric System Elec. Utility Lower Mount Bethel Energy LLC IPP Marceline City of Elec. Utility Marceline City of Elec. Utility Merck & Co Inc-West Point CHP Milford Power Co LLC IPP Year-to-Date Capacity of New Units	Plaquemine Cogeneration Plant			2	XX A CC	****
Katco Funding LP IPP Lincoln Electric System Elec. Utility Lower Mount Bethel Energy LLC IPP Marceline City of Elec. Utility Marceline City of Elec. Utility Merck & Co Inc-West Point CHP Milford Power Co LLC IPP Year-to-Date Capacity of New Units		CO	1	3	WAT	HY
Katco Funding LP IPP Lincoln Electric System Elec. Utility Lower Mount Bethel Energy LLC IPP Marceline City of Elec. Utility Marceline City of Elec. Utility Merck & Co Inc-West Point CHP Milford Power Co LLC IPP Wear-to-Date Capacity of New Units		LA	G500	170	NG	CT
Katco Funding LP IPP Katco Funding LP IPP Katco Funding LP IPP Lincoln Electric System Elec. Utility Lower Mount Bethel Energy LLC IPP Marceline City of Elec. Utility Marceline City of Elec. Utility Merck & Co Inc-West Point CHP Milford Power Co LLC IPP Year-to-Date Capacity of New Units	Plaquemine Cogeneration Plant	LA	G600	170	NG	CT
Katco Funding LP IPP Lincoln Electric System Elec. Utility Lower Mount Bethel Energy LLC IPP Marceline City of Elec. Utility Merck & Co Inc-West Point CHP Milford Power Co LLC IPP Year-to-Date Capacity of New Units	Plaquemine Cogeneration Plant	LA	G700	170	NG	CT
Lincoln Electric System Elec. Utility Lower Mount Bethel Energy LLC IPP Marceline City of Elec. Utility Marceline City of Elec. Utility Merck & Co Inc-West Point CHP Milford Power Co LLC IPP Year-to-Date Capacity of New Units Year-to-Date U.S. Capacity Planned Units Warch April May Elec. Utility Elec. Utility Elec. Utility Elec. Utility CHP Elec. Utility CHP Elec. Utility CHP Elec. Utility Elec	Plaquemine Cogeneration Plant	LA	G800	170	NG	CT
Lower Mount Bethel Energy LLC	Plaquemine Cogeneration Plant	LA	ST5	168	NG	CA
Marceline City of	Salt Valley	NE	3 G3	38	NG	GT ST
Marceline City of Elec. Utility Merck & Co Inc-West Point CHP Merck & Co Inc-West Point CHP Milford Power Co LLC IPP Year-to-Date Capacity of New Units	Lower Mount Bethel Energy Marceline	PA	5	216	NG DFO	IC
Merck & Co Inc-West Point	Marceline	MO MO	6	2 2	DFO	IC IC
Merck & Co Inc-West Point				1	NG	IC IC
Milford Power Co LLC	West Point	PA	GEN9	1		
Year-to-Date Capacity of New Units Year-to-Date Capacity of Retired Units Year-to-Date U.S. Capacity Planned Units 2004 March April May	West Point	PA	GN10	•	NG NG	IC CS
Year-to-Date Capacity of Retired Units	Milford Power Project	CT	CA01	232	NG	CS
Year-to-Date U.S. Capacity Planned Units 2004 March April May				2,567		
Planned Units 2004 March April May					. -	
March				955,773	-	
March April May						
April						
April				284		
May				3,625		
				3,493		
				7,192		
July				562		
September				288		
December				3,375		
2005						
January				1,770		
February				1,598		

¹ Net summer capacity is estimated.

Notes: See Glossary for definitions.*Totals may not equal sum of components because of independent rounding.*Data are preliminary. Final data for the year are to be released in the Form EIA-860 annual databases.*Producer types are: CHP = Combined Heat and Power; Elec. Utility = Electric Utility; and IPP = Independent Power Producer.*For definitions of codes for energy sources and prime movers, access Form EIA-860 at http://www.eia.doe.gov/cneaf/electricity/page/forms.html.

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

Chapter 1. Net Generation

Table 1.1. Net Generation by Energy Source: Total (All Sectors), 1990 through December 2003 (Thousand Megawatthours)

1990	(1	iiousaiiu ivie	egawatthours	<i>)</i>	 		Т			1
1991	Period	Coal ¹	Petroleum ²	Natural Gas	Other Gases ³	Nuclear		Other Renewables ⁵	Other ⁶	Total
1992	1990	1,594,011	126,621	372,765	10,383	576,862	289,358	64,372	3,616	3,037,988
1993	1991	1,590,623	119,752	381,553	11,336	612,565	284,453	68,779	4,739	3,073,799
1994	1992	1,621,206	100,154	404,074	13,270	618,776	248,911	73,770	3,720	3,083,882
1995. 1,709,426	1993	1,690,070	112,788	414,927	12,956	610,291	276,458	76,213	3,487	3,197,191
1996	1994	1,690,694	105,901	460,219	13,319	640,440	256,748	76,535	3,667	3,247,522
1997	1995	1,709,426	74,554	496,058	13,870	673,402	308,108	73,965	4,104	3,353,487
1998		1,795,196	81,411	455,056	14,356	674,729	344,074	75,796	3,571	3,444,188
1999		1,845,016	92,555	479,399	13,351	628,644	352,413	77,183	3,612	3,492,172
		1,873,516	128,800	531,257	13,492	673,702	318,868	77,088	3,571	3,620,295
	1999	1,881,087	118,061	556,396	14,126	728,254	313,439	79,423	4,024	3,694,810
January 177,287 18,112 42,389 718 68,707 18,263 6,655 381 332 58. February 149,755 10,342 37,967 676 61,272 16,766 5,850 332 28. March 155,269 11,733 44,364 769 62,141 19,704 6,366 341 30, April 140,671 10,863 45,843 698 56,003 17,217 6,422 362 27. May 151,593 10,390 50,934 785 61,512 18,553 6,353 371 300 June 162,616 11,823 57,603 733 68,023 19,954 6,580 362 27. May 179,060 11,042 73,030 840 69,166 17,208 6,872 394 355 July 179,060 11,042 73,030 840 69,166 17,208 6,872 394 355 July 179,060 11,042 73,030 840 69,166 17,208 6,872 394 355 July 18,151,593 6,534 56,576 737 60,461 14,619 6,644 431 294 November 144,117 5,931 44,491 699 62,342 14,602 6,305 448 278 December 157,402 6,539 47,541 770 67,431 18,724 6,667 423 300 Total 1,903,956 124,880 639,129 9,039 768,826 208,138 77,985 46,690 3,736 Total 1,903,956 124,880 83,9129 9,039 768,826 208,138 77,985 44,690 3,736 Total 1,903,956 124,880 82,17 51,214 904 63,041 20,225 7,003 359 300 March 151,486 82,17 51,214 904 63,041 20,225 7,003 359 300 March 151,486 82,17 51,214 904 63,041 20,225 7,003 359 300 March 151,486 82,17 51,214 904 63,041 20,225 7,003 359 300 March 151,486 82,17 51,214 904 63,041 20,225 7,003 359 300 March 151,406 81,127 50,275 910 63,032 26,124 7,437 363 301 July 183,195 9,913 83,917 1,071 70,421 24,473 7,767 786 381 July 183,195 9,913 83,917 1,071 70,421 24,473 7,767 786 381 July 183,195 9,913 83,917 1,071 70,421 24,473 7,767 786 381 July 183,195 9,913 83,917 1,071 70,421 24,473 7,767 786 381 July 183,195 9,913 83,917 1,071 70,421 24,473 7,767 786 381 July 183,195 9,913 83,917 1,071 70,421 24,473 7,767 786 381 July 183,195 9,913 83,917 1,071 70,421 24,473 7,767 786 381 July 183,195 9,913 83,917 1,071 70,421 24,473 7,767 786 381 July 183,195 9,913 83,917 1,071 70,421 24,473 7,767 786 381 July 183,195 9,913 83,917 1,071 70,421 24,473 7,767 786 381 July 182,616 6,287 45,141 79,788 6,616 11,053 64,481 16,310 7,238 595 331 July 182,616 6,306 8,075 68,161 1,053 64,481 16,310 7,238 595 331 July 182,616 6,306 8,075 68,161 1,053 64,481 12,770 9,778 20,998 7	2000	1,966,265	111,221	601,038	13,955	753,893	270,034	80,906	4,794	3,802,105
February	2001									
March 155,269 11,733 44,364 769 62,141 19,704 6,386 341 300 April 140,671 10.863 48,843 698 56,003 17,217 6,422 362 227 May 151,593 10,390 50,934 785 61,512 18,553 6,353 371 300 July 179,060 11,042 73,030 840 69,166 17,208 6,872 394 357 August 183,116 142,29 78,410 848 68,389 18,199 6,913 248 373 September 154,158 7,342 60,181 767 63,378 14,328 6,356 417 300 November 144,117 5,931 44,491 699 62,342 14,619 6,644 431 292 December 157,402 6,539 47,541 770 67,431 18,724 6,67 423 300 Total 1,90		,	18,112	42,389	718	,	18,263			332,493
April 140,671 10.863 48,843 698 56,003 17,217 6,422 362 278 May 151,593 10.390 50,934 785 61,512 18,553 6.353 371 300 June 162,616 11,823 57,603 733 68,023 19,954 6.580 362 322 July 179,060 11,042 73,030 840 691,66 17,208 6.872 394 355 August 183,116 14,229 78,410 848 68,389 18,199 69,13 428 377 September 154,158 7,342 601,81 767 63,378 14,328 6,356 447 300 October 148,931 6,534 56,376 737 60,461 14,619 6,644 431 294 November 141,117 59,31 44,491 699 62,342 14,602 6,365 448 278 December 157,402 6,539 47,541 770 67,431 18,724 6,667 423 305 Total. 1,903,956 124,880 6,901,29 90,399 768,826 208,138 7,985 4,600 3,734 2002 13mary 164,358 6,690 48,413 923 70,926 21,045 7,244 343 311 September 143,049 5,664 44,308 760 61,658 19,605 6,379 402 281 March 151,466 8,127 50,275 910 63,032 26,124 7,437 436 303 June 164,668 7,796 65,531 1,009 66,372 27,350 7,737 461 341 July 183,195 9,913 83,917 1,071 70,778 20,149 7,744 629 378 September 165,366 80,75 68,161 1,053 64,481 15,100 7,744 629 378 September 159,099 8,116 54,201 908 60,493 16,490 7,183 569 305 November 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 322 December 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 324 December 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 324 December 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 324 December 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 324 December 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 324 December 174,190 7,191 7,141 7,197 7,196 44,414 7,100 449 828 December 161,009 10,968 51,899 863 64,181 27,720		149,735		37,967		61,272	16,766	5,850		282,940
May 151,593 10,390 59,934 785 61,512 18,553 6,353 371 300 June 162,616 11,823 57,603 733 68,023 19,954 6,580 362 322 July 179,060 11,042 73,030 840 69,166 17,208 6,872 394 357 August 183,116 142,29 78,410 848 68,389 18,199 6,913 428 37 September 154,158 7,342 60,181 767 63,378 143,289 6,356 417 300 November 144,117 5,931 44,491 699 62,342 14,609 6,662 448 27 December 157,402 6,539 475,41 770 67,431 18,724 6,667 48 27 Total 1,903,956 124,880 639,129 9,039 768,826 208,138 77,985 4,690 3,732 Jamuary	March	155,269	11,733	44,364		62,141	19,704	6,386	341	300,707
June 162,616 11,823 57,603 733 68,023 19,954 6,580 362 322 July 179,060 11,042 73,030 840 69,166 17,208 6,872 394 332 July 183,116 14,229 78,410 848 68,389 18,199 6,913 428 37, August 183,116 14,229 78,410 848 68,389 18,199 6,913 428 37, August 148,158 7,422 60,181 767 63,378 14,1238 6,356 417 30, October 148,931 6,534 56,376 737 60,461 14,619 6,644 431 29, November 144,117 5,931 44,491 699 62,342 14,602 6,305 448 279, December 157,402 6,539 47,541 770 67,431 18,724 6,667 423 30, Total 1,903,956 124,880 639,129 9,039 768,826 208,138 77,985 4,690 3,736 Junuary 164,358 6,690 48,413 923 70,926 21,045 7,244 343 315 February 143,049 5,664 44,308 760 61,658 19,605 6,379 402 218, March 151,486 8,217 51,214 904 63,041 20,325 7,003 359 300, April 142,305 78,384 49,146 890 88,437 23,662 7,152 423 288 May 151,406 8,127 50,275 910 63,032 26,124 7,437 363 307 June 164,668 7,796 65,631 1,009 66,372 27,250 7,737 461 341 July 183,195 9,913 83,917 1,071 70,421 24,473 7,767 786 381 July 183,195 9,913 83,917 1,071 70,472 24,473 7,767 786 381 July 183,195 9,913 83,917 1,071 70,772 24,473 7,767 786 381 July 183,195 9,13 83,917 1,071 70,772 124,473 7,767 786 381 July 183,195 9,13 83,917 1,071 70,772 124,473 7,767 786 381 July 183,195 9,13 83,917 1,071 70,772 124,473 7,767 786 381 July 183,195 9,13 83,917 1,071 70,772 124,473 7,767 786 381 July 183,195 9,13 83,917 1,071 70,778 20,149 7,744 629 378 September 165,366 8,075 68,161 1,053 64,481 16,310 7,238 595 331 October 159,099 8,116 54,201 908 60,493 16,690 7,183 569 300 November 156,054 6,287 45,161 894 61,520 19,064 6,884 426 299 November 156,054 6,287 45,161 894 61,520 19,064 6,884 426 299 November 156,063 10,560 43,291 730 86,921 18,856 6,038 255,586 86,922 5,714 3,885 Bouston 14,676 8,18 8,18 8,18 9,19 86 60,493 12,856 6,038 24,49 8,19 8,19 8,19 8,19 8,19 8,19 8,19 8,1	April	,	,	,		,				278,079
July	May	151,593		50,934						300,492
August 183,116 14,229 78,410 848 68,389 18,199 6,913 428 37, September 154,158 7,342 60,181 767 63,378 14,328 6,356 417 300 October 148,931 6,534 56,376 737 60,461 14,619 6,644 431 29, November 144,117 5,931 44,491 699 62,342 14,602 6,6305 448 27, December 157,402 6,539 47,541 770 67,431 18,724 6,667 423 300 Total 1,903,956 124,880 639,129 9,039 768,826 208,138 77,985 4,690 3,736 2002 2002 2002 2002 2002 2002 2002 20	June	162,616	11,823	57,603		68,023	19,954			327,694
September 154,158 7,342 60,181 767 63,378 14,328 6,356 417 300 Cetober	July	179,060	11,042	73,030	840	69,166	17,208	6,872	394	357,614
October 148,931 6,534 56,376 737 60,461 14,619 6,644 431 29 November 144,117 5,931 44,491 699 62,342 14,602 6,309 48 278 December 157,402 6,539 47,541 770 67,431 18,724 6,667 423 303 Total 1,903,956 124,880 639,129 9,039 768,826 288,138 77,385 4,600 3,736 January 164,358 6,690 48,413 923 70,926 21,045 7,244 343 315 460 281 Berbuary 143,049 5,664 44,308 760 61,658 19,605 6379 402 281 March 151,486 8,217 51,214 904 63,041 20,325 7,003 359 300 May 151,406 8,127 50,275 910 63,032 26,124 7,437 363	August			78,410			18,199			370,533
November 144,117 5,931 44,491 699 62,342 14,602 63.05 448 278 December 157,402 6,539 47,541 770 67,431 18,724 6,667 423 30.0 Total 1,903,956 124,880 639,129 9,039 768,826 208,138 77,985 4,690 3,736 Total 1,903,956 124,880 639,129 9,039 768,826 208,138 77,985 4,690 3,736 Total 1,903,956 124,880 639,129 9,039 768,826 208,138 77,985 4,690 3,736 Total 1,903,956 124,880 639,129 9,039 768,826 208,138 77,985 4,690 3,736 Total 1,903,956 124,880 639,129 9,039 768,826 208,138 77,985 4,690 3,736 Total 1,42,040 5,664 44,308 760 61,658 19,605 63,79 402 281 March 151,486 8,217 51,214 904 63,041 20,325 7,003 359 30.0 April 142,305 7,834 49,146 890 58,437 23,362 7,152 423 288 May 151,406 8,127 50,275 910 63,032 26,124 7,437 363 30.0 June 164,668 7,796 65,631 1,009 66,372 27,350 7,737 461 341 July 183,195 9,913 83,917 1,001 66,322 27,350 7,737 461 341 July 183,195 9,913 83,917 1,071 70,421 24,473 7,767 786 381 August 179,955 9,737 84,477 1,117 70,778 20,149 7,744 629 374 September 155,366 8,075 68,161 1,053 64,481 16,310 7,238 595 331 November 156,054 6,287 45,161 894 61,520 19,064 6,884 426 290 December 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 322 Total 1,933,130 94,567 691,006 11,463 780,064 255,586 86,922 5,714 38,858 Total 1,933,130 94,567 691,006 11,463 780,064 255,586 86,922 5,714 38,858 April 141,676 8,148 43,341 734 56,776 24,448 7,100 498 282 May 140,296 7,971 47,854 757 62,194 29,408 7,006 397 32,240 June 161,009 10,968 51,899 863 64,181 27,720 7,006 397 32,240 July 182,761 12,102 74,809 898 69,653 23,936 7,195 44,93 33,400 June 161,009 10,968 51,899 863 64,181 27,720 7,006 397 32,240 July 182,761 12,102 74,809 898 69,653 23,936 7,106 34,93 33,400 June 161,009 10,968 51,899 863 64,181 27,720 7,006 397 32,240 July 182,761 12,102 74,809 898 69,653 23,936 7,106 34,93 33,400 June 161,009 10,968 51,899 863 64,181 27,720 7,006 397 32,240 July 182,761 2,102 74,809 898 69,653 23,936 7,106 34,93 33,400 June 161,009 10,968 51,899 863 64,181 27,720 7,006 399 33,30 Total 1,970,73 118,256 62		. ,		,		,	,			306,929
December 157,402 6,539 47,541 770 67,431 18,724 6,667 423 302 7041. 1,93,956 124,880 639,129 9,039 768,826 208,138 77,985 4,690 3,736 2002 2	October	148,931	6,534	56,376	737	60,461	14,619	6,644	431	294,734
Total. 1,903,956 124,880 639,129 9,039 768,826 208,138 77,985 4,690 3,734 2002 January 164,358 6,690 48,413 923 70,926 12,045 7,244 343 315 February 143,049 5,664 443,08 760 61,658 19,605 6,379 402 281 March 151,486 8,217 51,214 904 63,041 20,325 7,003 359 302 April 142,305 7,834 49,146 890 58,437 23,662 7,152 423 288 May 151,406 8,127 50,275 910 63,032 26,124 7,437 363 300 June 164,668 7,796 65,631 1,009 66,372 27,350 7,737 461 341 July 183,195 9,913 83,917 1,071 70,421 24,473 7,767 786 381 August 179,955 9,737 84,477 1,117 70,778 20,149 7,744 629 378 September. 165,366 8,075 68,161 1,053 64,481 16,310 7,238 995 331 October. 150,054 6,287 45,161 894 61,520 19,064 6,884 426 29 December 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 322 Total. 1,333,130 94,567 691,006 11,463 780,064 255,586 86,922 5,714 3,858 203 June 114,676 8,148 43,341 734 56,776 62,448 7,100 498 226 April 141,676 8,148 43,341 734 56,776 62,448 7,100 498 226 April 141,676 8,148 43,341 734 56,776 62,448 7,100 498 226 April 141,676 8,148 43,341 734 56,776 62,448 7,100 498 226 April 141,676 8,148 43,341 734 56,776 62,448 7,100 498 226 April 141,676 8,148 43,341 734 56,776 24,448 7,100 498 226 April 141,676 8,148 43,341 734 56,776 24,448 7,100 498 226 April 141,676 8,148 43,341 734 56,776 62,448 7,100 498 226 April 141,676 8,148 43,341 734 56,776 24,448 7,100 498 226 April 141,676 8,148 43,341 734 56,776 24,448 7,100 498 226 April 141,676 8,148 43,341 734 56,776 24,448 7,100 498 226 April 141,676 8,148 43,341 734 56,776 24,448 7,100 498 236 April 141,676 8,148 43,341 734 56,776 24,448 7,100 498 226 April 141,676 8,148 43,341 734 56,776 24,448 7,100 498 226 April 141,676 8,148 43,341 734 56,776 24,448 7,100 498 226 April 141,676 8,148 43,341 734 56,776 24,448 7,100 498 226 April 141,676 8,148 43,341 734 56,776 24,448 7,100 498 226 April 141,676 8,148 43,441 734 56,776 62,439 8,444 7,		144,117	5,931	44,491	699		14,602	6,305	448	278,934
January 164,358 6,690 48,413 923 70,926 21,045 7,244 343 315 February 143,049 5,664 44,308 760 61,658 19,605 6,379 402 281 March 151,486 8,217 51,214 904 63,041 20,325 7,003 359 300 April 142,305 7,834 49,146 890 58,437 23,662 7,152 423 288 May 151,406 8,127 50,275 910 63,032 26,124 7,437 363 300 June 164,668 7,796 65,631 1,009 66,372 27,350 7,737 461 341 July 183,195 9,913 83,917 1,071 70,421 24,473 7,767 786 381 August 179,955 9,737 84,477 1,117 70,778 20,149 7,744 629 374 September 165,366 8,075 68,161 1,053 64,481 16,310 7,238 595 331 October 159,099 8,116 54,201 908 60,493 16,490 7,183 569 300 November 156,054 6,287 45,161 894 61,520 19,046 6,884 426 290 December 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 322 December 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 322 December 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 322 December 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 322 December 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 322 December 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 322 December 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 322 December 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 322 December 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 322 December 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 322 December 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 322 December 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 322 December 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 322 December 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 322 December 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 322 December 172,190 8,112 40,100 1,025 68,905 20,989 7,153 360 322 December 172,190 8,112 40,100 1,025 68,905 20,989 7,153 360 322 December 172,190 8,112 40,100 1,025 68,905 20,989 7,153 360 322 December 182,606 31 32,901 32,	December	157,402	6,539	47,541	770	67,431	18,724	6,667	423	305,496
January	Total	1,903,956	124,880	639,129	9,039	768,826	208,138	77,985	4,690	3,736,644
February	2002									
March 151,486 8,217 51,214 904 63,041 20,325 7,003 359 302 April 142,305 7,834 49,146 890 58,437 23,662 7,152 423 285 May 151,406 8,127 50,275 910 63,032 26,124 7,437 363 307 June 164,668 7,796 65,631 1,009 66,372 27,350 7,737 461 341 July 183,195 9,913 33,917 1,071 70,421 24,473 7,767 786 381 August 179,955 9,737 84,477 1,117 70,778 20,149 7,744 629 374 September 165,366 80,75 68,161 1,053 64,481 16,310 7,238 595 331 October 159,099 8,116 54,201 908 60,493 16,490 7,183 569 300 November 15	January		,			,				319,941
April 142,305 7,834 49,146 890 58,437 23,662 7,152 423 288 May 151,406 8,127 50,275 910 63,032 26,124 7,437 363 307 June 164,668 7,796 65,651 1,009 66,372 27,350 7,737 461 341 July 183,195 9,913 83,917 1,071 70,421 24,473 7,767 786 381 August 179,955 9,737 84,477 1,117 70,778 20,149 7,744 629 374 September 165,366 8,075 68,161 1,053 64,481 16,310 7,238 595 331 October 159,099 8,116 54,201 908 60,493 16,490 7,183 569 30 November 156,054 6,227 45,161 894 61,520 19,064 6,884 426 299 December	February	143,049								281,826
May 151,406 8,127 50,275 910 63,032 26,124 7,437 363 307 June 164,668 7,796 65,631 1,009 66,372 27,350 7,737 461 341 July 183,195 9,913 83,917 1,071 70,421 24,473 7,767 786 381 August 179,955 9,737 84,477 1,117 70,778 20,149 7,744 629 374 September 165,366 8,075 68,161 1,053 64,481 16,310 7,238 595 331 October 159,099 8,116 54,201 908 60,493 16,490 7,183 569 307 November 156,054 6,287 45,161 894 61,520 19,064 6,884 426 299 Total 1,933,130 94,567 691,006 11,463 780,064 255,586 86,922 5,714 3,858 2003		,		- ,		,	,	,		302,549
June 164,668 7,796 65,631 1,009 66,372 27,350 7,737 461 344 July 183,195 9,913 83,917 1,071 70,421 24,473 7,767 786 381 August 179,955 9,737 84,477 1,117 70,778 20,149 7,744 629 374 September 165,366 8,075 68,161 1,053 64,481 16,310 7,238 595 331 October 159,099 8,116 54,201 908 60,493 16,490 7,183 569 307 November 156,054 6,287 45,161 894 61,520 19,064 6,884 426 299 December 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 322 Total 1,933,130 94,567 691,006 11,463 780,064 255,586 86,922 5,714 3,858 2003 January 180,632 12,338 48,684 908 69,211 18,954 6,432 344 337 February 156,063 10,560 43,291 730 60,942 18,856 6,038 256 29,840 154,6	April		,	49,146			,			289,848
July 183,195 9,913 83,917 1,071 70,421 24,473 7,767 786 381 August 179,955 9,737 84,477 1,117 70,778 20,149 7,744 629 374 September 165,366 8,075 68,161 1,053 64,481 16,310 7,238 595 331 October 159,099 8,116 54,201 908 60,493 16,490 7,183 569 307 November 156,054 6,287 45,161 894 61,520 19,064 6,884 426 296 December 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 324 Total 1,933,130 94,567 691,006 11,463 780,064 255,586 86,922 5,714 3,858 2003 January 180,632 12,338 48,684 908 69,211 18,954 6,432 344 337 February 156,063 10,560 43,291 730 60,942 18,856 6,038 256 296 March 154,690 10,323 45,901 900 59,933 23,552 7,254 533 303 April 141,676 8,148 43,341 734 56,776 24,448 7,100 498 282 May 149,296 7,971 47,854 757 62,194 29,309 6,709 460 304 June 161,009 10,968 51,899 863 64,181 27,720 7,006 397 324 July 182,761 12,102 74,809 898 69,651 23,926 7,214 419 371 August 185,595 12,345 80,665 818 69,024 22,019 6,910 552 377 September 163,589 8,716 54,833 830 63,584 17,430 6,449 369 310 October 159,162 8,599 50,604 1,037 60,016 17,677 7,165 451 304 November 158,824 6,434 44,515 1,233 59,600 19,019 8,133 406 296 December 176,975 9,752 42,810 1,229 68,612 23,430 7,766 393 33 December 179,0273 118,256 629,207 10,937 763,725 266,339 84,174 5,078 3,847 Vear to Date 2002 1,933,130 94,567 691,006 11,463 780,064 255,586 86,922 5,714 3,858 Rolling 12 Months Ending in December 2002 1,933,130 94,567 691,006 11,463 780,064 255,586 86,922 5,714 3,858	May	151,406		50,275					363	307,675
August 179,955 9,737 84,477 1,117 70,778 20,149 7,744 629 374 September 165,366 8,075 68,161 1,053 64,481 16,310 7,238 595 331 October 159,099 8,116 54,201 908 60,493 16,490 7,183 569 307 November 156,054 6,287 45,161 894 61,520 19,064 6,884 426 296 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 324 10		164,668		65,631	1,009	66,372	27,350	7,737		341,023
September 165,366 8,075 68,161 1,053 64,481 16,310 7,238 595 331 October 159,099 8,116 54,201 908 60,493 16,490 7,183 569 307 November 156,054 6,287 45,161 894 61,520 19,064 6,884 426 296 December 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 324 Total 1,933,130 94,567 691,006 11,463 780,064 255,586 86,922 5,714 3,855 2003 3 180,632 12,338 48,684 908 69,211 18,954 6,432 344 337 February 156,063 10,560 43,291 730 60,942 18,856 6,038 256 296 March 154,690 10,323 45,901 900 59,933 23,552 7,254 533 30 <tr< td=""><td>July</td><td></td><td>9,913</td><td>83,917</td><td></td><td></td><td>24,473</td><td></td><td></td><td>381,542</td></tr<>	July		9,913	83,917			24,473			381,542
October 159,099 8,116 54,201 908 60,493 16,490 7,183 569 307 November 156,054 6,287 45,161 894 61,520 19,064 6,884 426 296 December 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 322 Total 1,933,130 94,567 691,006 11,463 780,064 255,586 86,922 5,714 3,858 2003 3 180,632 12,338 48,684 908 69,211 18,954 6,432 344 337 February 156,063 10,560 43,291 730 60,942 18,856 6,038 256 296 March 154,690 10,323 45,901 900 59,933 23,552 7,254 533 303 April 141,676 8,148 43,341 734 56,76 24,448 7,100 498 282										374,586
November 156,054 6,287 45,161 894 61,520 19,064 6,884 426 296 December 172,190 8,112 46,100 1,025 68,905 20,989 7,153 360 324 Total 1,933,130 94,567 691,006 11,463 780,064 255,586 86,922 5,714 3,855 2003 January 180,632 12,338 48,684 908 69,211 18,954 6,432 344 337 February 156,063 10,560 43,291 730 60,942 18,856 6,038 256 296 March 154,690 10,323 45,901 900 59,933 23,552 7,254 533 303 April 141,676 8,148 43,341 734 56,776 24,448 7,100 498 282 May 149,296 7,971 47,854 757 62,194 29,309 6,709 460 304 June 161,009 10,968 51,899 863 64,181 27,720 7,006 397 324 July 182,761 12,102 74,809 898 69,653 23,926 7,214 419 371 August 185,595 12,345 80,665 818 69,024 22,019 6,910 552 377 September 163,589 8,716 54,833 830 63,584 17,430 6,449 369 315 October 159,162 8,599 50,604 1,037 60,016 17,677 7,165 451 304 November 158,824 6,434 44,515 1,233 59,600 19,019 8,133 406 298 December 176,975 9,752 42,810 1,229 68,612 23,430 7,766 393 333 Total 1,970,273 118,256 629,207 10,937 763,725 266,339 84,174 5,078 3,847 Year to Date 2001		,	8,075	68,161			16,310	7,238		331,279
December 172,190	October	159,099	8,116	54,201			16,490			307,059
Total	November	156,054	6,287	45,161			19,064			296,290
January 180,632 12,338 48,684 908 69,211 18,954 6,432 344 337 February 156,063 10,560 43,291 730 60,942 18,856 6,038 256 296 March 154,690 10,323 45,901 900 59,933 23,552 7,254 533 303 304 304 304 304 305 304 304 305 304 305 304 305	December	,		,	,	,	20,989		360	324,834
January 180,632 12,338 48,684 908 69,211 18,954 6,432 344 337 February 156,063 10,560 43,291 730 60,942 18,856 6,038 256 296 March 154,690 10,323 45,901 900 59,933 23,552 7,254 533 303 April 141,676 8,148 43,411 734 56,776 24,448 7,100 498 282 May 149,296 7,971 47,854 757 62,194 29,309 6,709 460 304 June 161,009 10,968 51,899 863 64,181 27,720 7,006 397 324 July 182,761 12,102 74,809 898 69,653 23,926 7,214 419 371 August 185,595 12,345 80,665 818 69,024 22,019 6,910 552 377 October 159,16	Total	1,933,130	94,567	691,006	11,463	780,064	255,586	86,922	5,714	3,858,452
February 156,063 10,560 43,291 730 60,942 18,856 0,038 256 296 March 154,690 10,323 45,901 900 59,933 23,552 7,254 533 303 April 141,676 8,148 43,341 734 56,776 24,448 7,100 498 282 May 149,296 7,971 47,854 757 62,194 29,309 6,709 460 304 June 161,009 10,968 51,899 863 64,181 27,720 7,006 397 324 July 182,761 12,102 74,809 898 69,653 23,926 7,214 419 371 August 185,595 12,345 80,665 818 69,024 22,019 6,910 552 377 August 183,589 8,716 54,833 830 63,584 17,430 64,49 369 315 October 159,162<										
March 154,690 10,323 45,901 900 59,933 23,552 7,254 533 303 April 141,676 8,148 43,341 734 56,776 24,448 7,100 498 282 May 149,296 7,971 47,854 757 62,194 29,309 6,709 460 304 June 161,009 10,968 51,899 863 64,181 27,720 7,006 397 324 July 182,761 12,102 74,809 898 69,653 23,926 7,214 419 371 August 185,595 12,345 80,665 818 69,024 22,019 6,910 552 377 September 163,589 8,716 54,833 830 63,584 17,430 6,449 369 315 October 159,162 8,599 50,604 1,037 60,016 17,677 7,165 451 304 November 158,										337,504
April 141,676 8,148 43,341 734 56,776 24,448 7,100 498 282 May 149,296 7,971 47,854 757 62,194 29,309 6,709 460 304 June 161,009 10,968 51,899 863 64,181 27,720 7,006 397 324 July 182,761 12,102 74,809 898 69,653 23,926 7,214 419 371 August 185,595 12,345 80,665 818 69,024 22,019 6,910 552 377 September 163,589 8,716 54,833 830 63,584 17,430 6,449 369 315 October 159,162 8,599 50,604 1,037 60,016 17,677 7,165 451 304 November 158,824 6,434 44,515 1,233 59,600 19,019 8,133 406 298 Total 1,970,273 118,256 629,207 10,937 763,725 266,339 84,174										296,735
May 149,296 7,971 47,854 757 62,194 29,309 6,709 460 304 June 161,009 10,968 51,899 863 64,181 27,720 7,006 397 324 July 182,761 12,102 74,809 898 69,653 23,926 7,214 419 371 August 185,595 12,345 80,665 818 69,024 22,019 6,910 552 377 September 163,589 8,716 54,833 830 63,584 17,430 6,449 369 315 October 159,162 8,599 50,604 1,037 60,016 17,677 7,165 451 304 November 158,824 6,434 44,515 1,233 59,600 19,019 8,133 406 298 December 176,975 9,752 42,810 1,229 68,612 23,430 7,766 393 33 Year to Date				,						303,087
June 161,009 10,968 51,899 863 64,181 27,720 7,006 397 324 July 182,761 12,102 74,809 898 69,653 23,926 7,214 419 371 August 185,595 12,345 80,665 818 69,024 22,019 6,910 552 377 September 163,589 8,716 54,833 830 63,584 17,430 6,449 369 315 October 159,162 8,599 50,604 1,037 60,016 17,677 7,165 451 304 November 158,824 6,434 44,515 1,233 59,600 19,019 8,133 406 298 December 176,975 9,752 42,810 1,229 68,612 23,430 7,766 393 33 Total 1,970,273 118,256 629,207 10,937 763,725 266,339 84,174 5,078 3,847 Year										282,721
July 182,761 12,102 74,809 898 69,653 23,926 7,214 419 371 August 185,595 12,345 80,665 818 69,024 22,019 6,910 552 377 September 163,589 8,716 54,833 830 63,584 17,430 6,449 369 315 October 159,162 8,599 50,604 1,037 60,016 17,677 7,165 451 304 November 158,824 6,434 44,515 1,233 59,600 19,019 8,133 406 298 December 176,975 9,752 42,810 1,229 68,612 23,430 7,766 393 33 Total 1,970,273 118,256 629,207 10,937 763,725 266,339 84,174 5,078 3,847 Year to Date 2001 1,903,956 124,880 639,129 9,039 768,826 208,138 77,985 4,690 3,73										304,550
August 185,595 12,345 80,665 818 69,024 22,019 0,910 552 377 September 163,589 8,716 54,833 830 63,584 17,430 6,449 369 315 October 159,162 8,599 50,604 1,037 60,016 17,677 7,165 451 304 November 158,824 6,434 44,515 1,233 59,600 19,019 8,133 406 298 December 176,975 9,752 42,810 1,229 68,612 23,430 7,766 393 33 Total 1,970,273 118,256 629,207 10,937 763,725 266,339 84,174 5,078 3,847 Year to Date 2001 1,933,130 94,567 691,006 11,463 780,064 255,586 86,922 5,714 3,858 2002 1,933,130 94,567 691,006 11,463 780,064 255,586 86,922 5,714 3,858 2002 1,933,130 94,567 691,006 11,463		,	,	,				,		324,042
September 163,589 8,716 54,833 830 63,584 17,430 6,449 369 315 October 159,162 8,599 50,604 1,037 60,016 17,677 7,165 451 304 November 158,824 6,434 44,515 1,233 59,600 19,019 8,133 406 298 December 176,975 9,752 42,810 1,229 68,612 23,430 7,766 393 33 Total 1,970,273 118,256 629,207 10,937 763,725 266,339 84,174 5,078 3,847 Year to Date 2001 1,903,956 124,880 639,129 9,039 768,826 208,138 77,985 4,690 3,736 2002 1,933,130 94,567 691,006 11,463 780,064 255,586 86,922 5,714 3,858 Rolling 12 Months Ending in December 2002 1,933,130 94,567 691,006 11,463 780,064 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>371,782</td></t<>										371,782
October 159,162 8,599 50,604 1,037 60,016 17,677 7,165 451 304 November 158,824 6,434 44,515 1,233 59,600 19,019 8,133 406 298 December 176,975 9,752 42,810 1,229 68,612 23,430 7,766 393 33 Total 1,970,273 118,256 629,207 10,937 763,725 266,339 84,174 5,078 3,847 Year to Date 2001 1,903,956 124,880 639,129 9,039 768,826 208,138 77,985 4,690 3,736 2002 1,933,130 94,567 691,006 11,463 780,064 255,586 86,922 5,714 3,856 2002 1,933,130 94,567 691,006 11,463 780,064 255,586 86,922 5,714 3,858 2002 1,933,130 94,567 691,006 11,463 780,064 255,586 86,922		,		,		,	,	,		377,929
November 158,824 6,434 44,515 1,233 59,600 19,019 8,133 406 298 December 176,975 9,752 42,810 1,229 68,612 23,430 7,766 393 330 Total 1,970,273 118,256 629,207 10,937 763,725 266,339 84,174 5,078 3,847 Year to Date 2001 1,903,956 124,880 639,129 9,039 768,826 208,138 77,985 4,690 3,736 2002 1,933,130 94,567 691,006 11,463 780,064 255,586 86,922 5,714 3,858 Rolling 12 Months Ending in December 2002 1,933,130 94,567 691,006 11,463 780,064 255,586 86,922 5,714 3,858		,								315,800
December 176,975 9,752 42,810 1,229 68,612 23,430 7,766 393 330 Total 1,970,273 118,256 629,207 10,937 763,725 266,339 84,174 5,078 3,847 Year to Date 2001 1,903,956 124,880 639,129 9,039 768,826 208,138 77,985 4,690 3,736 2002 1,933,130 94,567 691,006 11,463 780,064 255,586 86,922 5,714 3,858 Rolling 12 Months Ending in December 2002 1,933,130 94,567 691,006 11,463 780,064 255,586 86,922 5,714 3,858		,	,			,				304,711
Total			,	′						298,165
Year to Date 2001										330,967
2001		1,970,273	118,256	629,207	10,937	763,725	266,339	84,174	5,078	3,847,990
2002			44.00-	£20.44£		- (0.00 -			4 500	
2003					,					3,736,644
Rolling 12 Months Ending in December 2002 1,933,130 94,567 691,006 11,463 780,064 255,586 86,922 5,714 3,858										3,858,452
2002				629,207	10,937	763,725	266,339	84,174	5,078	3,847,990
				(01.00)	11.462	700.064	255 505	06.022	5.51.4	2.050.452
2003 1,7/0,4/3 115,450 049,40/ 10,93/ /03,/25 200,339 84,1/4 5,0/8 3,847										3,858,452
, , , , , , , , , , , , , , , , , , ,	4003	1,9/0,2/3	118,250	029,207	10,93/	/03,/25	200,339	ō4,1/4	5,078	3,847,990

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

Notes: *See Glossary for definitions. *Values for 2003 are estimates based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906. Values for 2002 and prior years are final. Totals may not equal sum of components because of independent rounding. Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the nonutility sector. This affects comparisons of current and historical data.

² Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

³ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels. As a result of changes in definitions and estimation methodologies, year-to-

Palast furnace gas, propane gas, and other manufactured and waste gases derived from lossification. As a result of changes in definition in a result of changes in definition and propriate.

4 Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.

5 Wood, black liquor, other wood waste, municipal solid waste, landfill gas, sludge waste, tires, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic

energy, and wind.

Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies. As a result of changes in definitions and estimation methodologies, year-toyear comparisons are not appropriate.

Table 1.2. Net Generation by Energy Source: Electric Utilities, 1990 through December 2003 (Thousand Megawatthours)

	IIO USUITU IVIE	gawatmours	, 				T		
Period	Coal ¹	Petroleum ²	Natural Gas	Other Gases ³	Nuclear	Hydro- electric ⁴	Other Renewables ⁵	Other ⁶	Total
1990	1,559,606	117,017	264,089	-	576,862	279,926	10,651		2,808,151
1991	1,551,167	111,463	264,172		612,565	275,519	10,137		2,825,023
1992	1,575,895	88,916	263,872		618,776	239,559	10,200		2,797,219
1993	1,639,151	99,539	258,915		610,291	265,063	9,565		2,882,525
1994	1,635,493	91,039	291,115		640,440	243,693	8,933		2,910,712
1995	1,652,914	60,844	307,306		673,402	293,653	6,409		2,994,529
1996	1,737,453	67,346	262,730	-	674,729	327,970	7,214		3,077,442
1997	1,787,806	77,753	283,625	-	628,644	337,234	7,462		3,122,523
1998	1,807,480	110,158	309,222		673,702	304,403	7,206		3,212,171
1999	1,767,679	86,929	296,381		725,036	293,932	3,716		3,173,674
2000	1,696,619	72,180	290,715		705,433	248,195	2,241		3,015,383
2001									
January	143,856	11,374	15,553		48,876	16,591	217		236,467
February	121,453	5,985	13,533		43,547	15,099	184		199,802
March	127,005	6,742	16,649		43,477	17,865	206		211,942
April	115,801	6,822	20,528		39,042	15,107	199		197,499
May	125,839	6,968	22,552		43,312	16,682	153		215,508
June	134,020	7,753	25,724		47,850	18,097	178		233,622
July	147,094	7,215	34,660		48,447	15,816	168		253,400
August	149,494	8,929	34,997		48,266	17,032	183		258,901
September	126,403	5,204	25,258		43,857	13,343	171		214,236
October	121,985	4,245	23,085		41,177	13,634	181		204,307
November	117,870	3,746	15,778		41,415	13,555	155		192,518
December	129,326	3,925	16,117 264,434		44,941	17,278	157		211,742 2,629,946
Total 2002	1,560,146	78,908	204,434		534,207	190,100	2,152		2,029,940
January	129,338	4,153	15,216	20	46,960	19,703	294		215,684
February	112,211	3,242	13,839	8	40,348	18,000	280		187,929
March	118.374	5,088	16,419	15	42,230	18,413	293		200,833
April	111,068	5,274	16,989	10	39,054	21,390	253		194,038
May	120,365	5,698	17,955	17	40,469	23,663	270		208,436
June	130,586	5,212	23,657	17	42,988	25,210	269		227,940
July	144,203	5,839	29,533	18	46,101	22,975	293		248,962
August	141,107	5,811	29,270	17	45,960	18,973	312		241,449
September	129,328	5,319	23,321	19	41,859	15,243	319		215,408
October	123,870	5,161	17,926	14	39,233	15,173	329		201,705
November	120,938	3,824	13,302	31	38,577	17,222	311		194,205
December	133,281	4,505	12,212	20	43,601	18,903	345		212,868
Total	1,514,670	59,125	229,639	206	507,380	234,868	3,569		2,549,457
2003									
January	139,501	6,204	13,994	1	42,871	17,153	209		219,933
February	120,558	4,899	12,299	1	37,995	17,349	189		193,289
March	120,068	5,515	13,460	1	36,786	21,143	220		197,193
April	111,086	4,694	14,341	1	34,524	21,836	198		186,681
May	119,945	5,805	16,841	*	37,483	26,148	213		206,434
June	128,091	7,390	17,735	*	39,157	25,373	187		217,934
July	143,686	7,531	24,580	*	44,171	22,071	219		242,259
August	144,742	7,360	26,020	*	43,465	19,945	206		241,738
September	129,152	5,847	17,051	*	39,977	15,806	194		208,026
October	124,866	5,956	13,806	*	37,740	15,678	197		198,244
November	123,917	3,786	13,574	*	37,120	16,625	206		195,230
December	137,818	5,328	12,605	1	43,220	20,542	312		219,826
Total	1,543,430	70,317	196,305	6	474,509	239,669	2,550		2,526,786
Year to Date	1.500.145	70.000	264.424		524.205	100 100	2.152		2 (20 04)
2001	1,560,146	78,908	264,434	206	534,207	190,100	2,152	-	2,629,946
2002	1,514,670	59,125	229,639	206	507,380	234,868	3,569		2,549,457
2003	1,543,430	70,317	196,305	6	474,509	239,669	2,550		2,526,786
Rolling 12 Months End			220 620	206	507 200	124 060	2 540		2 540 457
2002	1,514,670	59,125 70,317	229,639	206	507,380	234,868	3,569 2,550		2,549,457 2,526,786
2003	1,543,430	70,317	196,305	6	474,509	239,669	4,550		4,340,780

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

² Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

³ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels. As a result of changes in definitions and estimation methodologies, year-to-

year comparisons are not appropriate.

4 Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.

5 Wood, black liquor, other wood waste, municipal solid waste, landfill gas, sludge waste, tires, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic

energy, and wind.

Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies. As a result of changes in definitions and estimation methodologies, year-toyear comparisons are not appropriate.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Notes: *See Glossary for definitions. *Values for 2003 are estimates based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for Notes: See Grossary for definitions. Values for 2003 are estimates based on a sample, they are preliminary data - see Technican Notes for a discussion of the sample design the Form EIA-906. Values for 2002 and prior years are final. Totals may not equal sum of components because of independent rounding. Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the nonutility sector. This affects comparisons of current and historical data.

Sources: Energy Information Administration, Form EIA-906, "Power Plant Report," and predecessor forms.

Table 1.3. Net Generation by Energy Source: Independent Power Producers, 1990 through December 2003 (Thousand Megawatthours)

$\begin{array}{cccccccccccccccccccccccccccccccccccc$	(1)	ilousulia ivic	gawatmours	,						
1991	Period	Coal ¹	Petroleum ²	Natural Gas	Other Gases ³	Nuclear			Other ⁶	Total
1991	1990	12,503	1,847	45,397	621		6,319	26,471	12	93,171
1992. 21,818 3,322 70,403 12,12 6,280 33,640 480 13,137 1993. 26,313 5,586 83,307 967 8,425 36,667 480 16,137 1994. 30,783 7,408 94,574 1,992 6,934 36,753 239 178,013 1995. 33,142 7,407 116,028 1,333 10,117 37,072 201 206,669 1996. 34,525 7,437 116,028 1,333 10,117 37,072 201 206,669 1998. 44,5713 12,053 140,079 2,315 8,997 38,893 159 245,235 1999. 90,938 24,610 176,615 1,607 3,218 14,635 44,548 139 356,309 1999. 246,092 33,012 227,263 2,028 44,600 176,04 47,162 125 622,146 1901. 1001. 1	1991	17,679			719				403	110,538
1994	1992	21,818	3,322		1,212		6,280	33,640	480	137,154
1994. 98.0783 7.688 94.574 1.092 6.934 36.753 239 178.013 1995. 33,142 7.392 111.873 1.927 9.033 36.213 213 199.702 1996. 34.520 7.437 116.028 1.341 10,101 37.072 201 266.699 1997. 32.955 8.726 115.971 1.533 9.718 201 266.699 1999. 94.938 1.460 116.07 1.533 9.718 201 266.699 1999. 94.938 1.460 116.07 2.3218 1.463 1.453 1.333 355.309 1999. 94.938 1.460 116.07 3.218 1.463 1.453 1.333 355.309 1999. 94.938 1.460 1.6615 1.607 3.218 1.4635 1.333 355.309 1999. 94.938 1.460 1.272.63 1.2	1993	26,313	5,886	83,307	967		8,425	36,067	408	161,372
1995		30,783	7,638	94,574	1,092		6,934	36,753	239	178,013
1996	1995	33,142	7,302	111,873	1,927			36,213	213	199,702
1997. 32.955 8,726 115,971 15,33 9,375 38,228 63 26,882 1999. 1998. 42,713 12,053 140,070 2,2315 8,997 88,937 159 24,5245 1999. 1998. 42,713 12,053 140,070 2,2315 8,997 88,937 159 24,5245 1999. 1998. 42,713 12,053 140,070 2,2315 8,997 88,937 159 24,5245 1999. 1998. 42,713 12,053 12,000 246,492 33,012 227,263 2,028 48,400 17,604 17,405 14,515 12,562,140 1900 1900 1900 1900 1900 1900 1900 1									201	
1998					,					
1999					2,315				159	245,245
2000						3,218				
		246,492	33,012	227,263	2,028	48,460		47,162	125	
February 26,606 3,832 18,103 42 17,725 1,425 3,436 - 71,109 March 26,447 4,465 20,804 45 18,664 1,495 3,837 - 75,758 April 23,233 3,594 18,886 43 16,961 1,820 3,830 - 68,356 May 24,244 2,965 21,731 51 18,000 1,570 3,936 - 72,658 May 24,243 2,965 21,731 51 18,000 1,570 3,936 - 72,658 May 24,240 2,965 21,731 51 18,000 1,570 3,936 - 72,658 May 24,240 2,965 21,731 51 18,000 1,570 3,936 - 81,526 May 30,047 3,373 30,886 59 20,719 1,145 4,205 - 90,434 August 31,559 4,842 35,696 57 20,123 847 4,128 - 97,251 September 26,047 1,722 27,754 47 19,521 738 3,816 - 79,646 October 22,234 1,836 26,062 44 19,284 775 3,849 - 77,084 November 26,368 21,57 24,031 60 22,490 1,176 40,022 - 80,200 Total 322,681 40,241 290,506 586 234,619 14,26 46,648 - 950,107 Maray 31,192 2,112 2,5611 82 23,966 1,045 46,648 - 950,107 Maray 31,350 2,788 27,457 146 20,810 1,364 4,112 4,368 4,000 4,	2001				, i		, i	, i		ĺ
February 26,606 3,832 18,103 42 17,725 1,425 3,436 - 71,169 March 26,447 4,465 20,804 45 18,664 1,495 3,837 - 75,758 April 23,233 3,594 18,886 43 16,961 1,820 3,820 - 68,356 May 24,204 2,965 21,731 51 18,000 1,570 3,936 - 72,568 June 26,808 3,600 25,130 51 20,173 1,559 4,085 - 81,526 July 30,047 3,373 30,886 59 20,719 1,145 4,205 - 90,434 August 31,559 4,842 35,696 57 20,123 847 4,128 - 97,251 September 26,047 1,722 27,754 47 19,521 7,88 3,816 - 79,664 October 22,234 1,836 2,062 44 19,284 775 3,849 - 77,084 November 24,603 1,774 21,716 46 20,927 846 3,725 - 73,637 July 31,82 2,112 2,4031 60 22,490 1,176 46,022 - 80,230 Total 32,2681 40,241 290,506 58 234,619 14,826 46,648 - 950,102 April 20,403 1,744 21,716 1,716 20,716 1,716 20,716 1,716 20	January	31,447	6,022	19,707	40	19,831	1,431	3,789		82,269
March		26,606	3.832	18,103	42	17.725		3,436		
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September										
October 32,479 2,155 30,134 112 22,276 1,587 4,307 47 93,097 November 33,155 2,278 24,675 109 22,480 1,949 4,396 25 89,068 December 37,201 3,885 23,859 102 25,392 2,281 4,677 9 97,405 Total 404,577 42,206 354,342 1,224 289,215 20,951 50,779 590 1,163,884 Year to Date 2001 322,681 40,241 290,506 586 234,619 14,826 46,648 950,107 2002 395,943 30,608 378,044 1,763 272,684 16,880 51,022 2,056 1,149,001 2002 395,943 30,608 378,044 1,763 272,684 16,880 51,022 2,056 1,149,001 2002 395,943 30,608 378,044 1,763 272,684 16,880 51,022 2,056										
November										
December		,								
Total		,		,			,			,
Year to Date 2001								,		,
2001 322,681 40,241 290,506 586 234,619 14,826 46,648 950,107 2002 395,943 30,608 378,044 1,763 272,684 16,880 51,022 2,056 1,149,001 2003 404,577 42,206 354,342 1,224 289,215 20,951 50,779 590 1,163,884 301ling 12 Months Ending in December 2002 395,943 30,608 378,044 1,763 272,684 16,880 51,022 2,056 1,149,001		404,577	42,206	354,342	1,224	289,215	20,951	50,779	590	1,163,884
2002		222 (01	40.04	200 505	#0 6	224.616	14005	16.640		0.50.40-
2003										,
Rolling 12 Months Ending in December 2002										
2002				354,342	1,224	289,215	20,951	50,779	590	1,163,884
	0			200011	4 =	AH2 (0.1	4 5 000			4 4 40 004
2003										
	2003	404,577	42,206	354,342	1,224	289,215	20,951	50,779	590	1,163,884

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

² Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

³ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels. As a result of changes in definitions and estimation methodologies, year-to-

Palast furnace gas, propane gas, and other manufactured and waste gases derived from lossification. As a result of change in definition in the same comparisons are not appropriate.

4 Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.

5 Wood, black liquor, other wood waste, municipal solid waste, landfill gas, sludge waste, tires, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic

energy, and wind.

Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies. As a result of changes in definitions and estimation methodologies, year-toyear comparisons are not appropriate.

Notes: *See Glossary for definitions. *Values for 2003 are estimates based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906. Values for 2002 and prior years are final. Totals may not equal sum of components because of independent rounding. Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the nonutility sector. This affects comparisons of current and historical data.

Net Generation by Energy Source: Commercial Combined Heat and Power Sector, 1990 through **Table 1.4.** December 2003

(Thousand Megawatthours)

Period	Coal ¹	Petroleum ²	Natural Gas	Other Gases ³	Nuclear	Hydro- electric ⁴	Other Renewables ⁵	Other ⁶	Total
1990	796	589	3,272	121		138	922		5,837
1991	775	413	3,213	116		131	1,010	1	5,659
1992	749	302	3,867	105		122	1,082	1	6,228
1993	864	334	4,471	100		100	1,132	*	7,000
1994	850	417	4,929	115	-	93	1,216		7,619
1995	998	379	5,162	*		118	1,575	*	8,232
1996	1,051	369	5,249			126	2,235	*	9,030
1997	1,040	427	4,725	3		120	2,385		8,701
1998	985	383	4,879	7		120	2,373	 *	8,748
1999	995	434	4,607	*		115	2,412	*	8,563
2000	1,097	432	4,262			100	2,012		7,903
2001	88	61	361			6	112		629
January	86	39	311			6 6	106		548
February	83	38	321			7	104		553
March	65	32	331			7	116	*	550
April	73	33	334			7	129	*	575
May June	84	33	344	*		7	130		598
July	101	36	455			5	136	 	732
August	115	39	525			4	130	*	814
September	84	31	388			4	129		636
October	72	36	384			4	127	*	622
November	68	29	327			4	120	*	548
December	77	32	354			5	144	*	611
Total	995	438	4,434	*		66	1,482	*	7,416
2002	,,,,	100	1,101				1,102		7,110
January	85	35	355			1	114	8	597
February	70	36	291			1	94	7	500
March	84	32	338	*		1	111	6	573
April	66	27	328			1	118	8	546
May	69	27	314	*		1	146	8	566
June	83	30	378			1	142	8	642
July	101	38	448			1	146	8	743
August	102	37	490			1	158	8	797
September	88	34	392			1	154	8	676
October	78	31	344			1	139	8	600
November	78	38	294			1	143	*	554
December	88	65	339			1	121	7	622
Total	992	431	4,310	*		13	1,585	84	7,415
2003									
January	90	98	376	*		6	133	*	703
February	86	77	293	*		6	122	*	584
March	85	42	356	*		9	168	2	662
April	81	23	341	*		12	172	2	632
May	66	23	415	*		22	169	*	694
June	83	32	466	*		6	166	*	752
July	100	39	396	*		10	165	2	713
August	103	44	427	*		9	162	*	745
September	87	27	284	*		4	152	*	554
October	79	27	322	*		4	172	*	604
November	82	26	293	*		5	147	*	552
December	89	43	284	*		6	168	*	590
Total	1,033	499	4,252	*		98	1,897	8	7,785
Year to Date	005	420	4.42.4	*			1 402	*	7.416
2001	995	438	4,434	*		66	1,482		7,416
2002	992	431	4,310	*		13	1,585	84	7,415
2003 Rolling 12 Months End	1,033	499	4,252	*		98	1,897	8	7,785
	ing in December	431	4,310	*		13	1,585	84	7,415
2002 2003	1,033	431 499	4,310 4,252	*		13 98	1,897	8	7,415 7,785
	1,033	7//	7,434			70	1,077	σ	1,103

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

Notes: *See Glossary for definitions. *Values for 2003 are estimates based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906. Values include a small number of commercial electricity-only plants. Values for 2002 and prior years are final. Totals may not equal sum of components because of independent rounding. Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the nonutility sector. This affects comparisons of current and historical data.

² Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

³ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels. As a result of changes in definitions and estimation methodologies, year-toyear comparisons are not appropriate.

⁴ Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.

Wood, black liquor, other wood waste, municipal solid waste, landfill gas, sludge waste, tires, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic energy, and wind.

⁶ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies. As a result of changes in definitions and estimation methodologies, year-toyear comparisons are not appropriate.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Table 1.5. Net Generation by Energy Source: Industrial Combined Heat and Power Sector, December 2003 (Thousand Megawatthours)

		gawaimours	, 						
Period	Coal ¹	Petroleum ²	Natural Gas	Other Gases ³	Nuclear	Hydro- electric ⁴	Other Renewables ⁵	Other ⁶	Total
1990	21,107	7,169	60,007	9,641		2,975	26,328	3,604	130,830
1991	21,002	6,540	60,567	10,501		2,844	26,791	4,336	132,579
1992	22,743	7,615	65,933	11,953		2,950	28,847	3,239	143,280
1993	23,742	7,028	68,234	11,890		2,871	29,450	3,079	146,294
1994	23,568	6,808	69,600	12,112		6,028	29,633	3,428	151,178
1995	22,372	6,030	71,717	11,943		5,304	29,768	3,890	151,025
1996	22,172	6,260	71,049	13,015		5,878	29,274	3,370	151,017
1997	23,214	5,649	75,078	11,814		5,685	29,107	3,549	154,097
1998	22,337	6,206	77,085	11,170		5,349	28,572	3,412	154,132
1999	21,474	6,088	78,793	12,519		4,758	28,747	3,885	156,264
2000	22,056	5,597	78,798	11,927		4,135	29,491	4,669	156,673
2001									
January	1,895	654	6,767	678		234	2,518	381	13,128
February	1,590	486	6,019	633		235	2,124	332	11,421
March	1,734	489	6,590	724		338	2,238	341	12,454
April	1,572	416	6,099	655		283	2,288	362	11,674
May	1,477	424	6,317	734		293	2,135	371	11,751
June	1,644	377	6,405	682		291	2,188	362	11,949
July	1,818	419	7,030	781		242	2,364	394	13,048
August	1,949	419	7,191	791 720		316	2,472	428	13,566
September	1,625	386	6,782	720 693		243 206	2,240	417 431	12,412
October	1,640	417	6,845				2,488		12,721
November December	1,576 1,614	381 425	6,670 7,040	653 710		198 265	2,305 2,345	448 423	12,230 12,822
	20,135	5,293	79,755	8,454		3,145	2,343 27,703	4,690	149,175
Total 2002	20,133	3,293	19,133	0,434		3,143	27,703	4,070	149,173
January	1,752	390	7,231	721		296	2,550	232	13,173
February	1,548	327	6,484	653		279	2,282	276	11,850
March	1,677	359	7,001	743		276	2,287	310	12,654
April	1,741	343	6,118	759		317	2,627	271	12,176
May	1,691	333	6,761	781		287	2,545	194	12,592
June	1,848	338	6,567	868		255	2,733	220	12,829
July	2,092	371	7,079	873		273	2,742	390	13,820
August	1,891	350	7,051	915		277	2,691	263	13,438
September	1,782	339	6,388	872		247	2,594	406	12,628
October	1,827	395	5,925	737		343	2,682	455	12,363
November	1,804	432	6,131	730		447	2,493	325	12,361
December	1,872	426	6,277	840		529	2,522	231	12,697
Total	21,525	4,403	79,013	9,493		3,825	30,747	3,574	152,580
2003	2.017	505	7.250	707		412	2 222	207	12.501
January	2,017	587	7,250	797		413	2,229	297	13,591
February	1,710	462	6,220	633		362	2,049	249	11,685
March	1,804	476	6,460	802		524	2,484	451	13,001
April	1,696	381	5,698 5,472	610		414	2,365	428	11,593
May	1,663	406	5,472	652		539	2,272	421	11,425
June	1,686	436 434	6,150 6,468	769 805		499 498	2,334	351 360	12,225
July	1,890 1,892	434	6,468 6,748	729		498 497	2,370 2,270	421	12,825 12,963
August	1,892	343	5,465	736		428	2,270	334	12,963
September October	1,738	461	6,342	926		407	2,489	404	12,766
November	1,669	345	5,973	1,124		440	3,384	381	13,315
December	1,867	497	6,062	1,124		601	2,609	384	13,146
Total	21,233	5,235	74,308	9,707		5,621	28,948	4,481	149,534
Year to Date									
2001	20,135	5,293	79,755	8,454		3,145	27,703	4,690	149,175
2002	21,525	4,403	79,013	9,493		3,825	30,747	3,574	152,580
2003	21,233	5,235	74,308	9,707		5,621	28,948	4,481	149,534
Rolling 12 Months End				0.102			20 - :-	2 :	4.50
2002 2003	21,525	4,403	79,013	9,493		3,825	30,747	3,574	152,580
	21,233	5,235	74,308	9,707		5,621	28,948	4,481	149,534

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

² Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

³ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels. As a result of changes in definitions and estimation methodologies, year-to-

Palast furnace gas, propane gas, and other manufactured and waste gases derived from lossification. As a result of change in definition in the same comparisons are not appropriate.

4 Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.

5 Wood, black liquor, other wood waste, municipal solid waste, landfill gas, sludge waste, tires, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic

energy, and wind.

Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies. As a result of changes in definitions and estimation methodologies, year-toyear comparisons are not appropriate.

Notes: •See Glossary for definitions.•Values include a small number of industrial electricity-only plants.•Values for 2002 and prior years are final.•Totals may not equal sum of components because of independent rounding. Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the nonutility sector. This affects comparisons of current and historical data.

Table 1.6.A. Net Generation by State, December 2003 and 2002 (Thousand Megawatthours)

					Electric Po	ower Sector		Combin	ed Heat an	d Power Pi	roducers
Census Division and State	To	otal (All Secto	ors)	Electric	Utilities		lent Power lucers	Comn	nercial¹	Indus	strial ²
	Dec 2003	Dec 2002	Percent Change	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002
New England	11,321	11,363	4	745	655	9,870	9,991	70	79	636	639
Connecticut	2,688	2,487	8.1	NM	NM	2,666	2,457	NM	NM	NM	NM
Maine	1,951	1,955	2	NM	NM	1,380	1,425	18	15	553	515
Massachusetts	4,023	4,091	-1.7	53	91	3,895	3,915	NM	NM	NM	NM
New Hampshire	1,729	1,629	6.1	632	523	1,064	1,038	NM	NM	NM	NM
Rhode Island Vermont	372 558	678 523	-45.1 6.6	NM 57	NM 38	367 497	672 483	NM 	NM 	NM NM	NM NM
Middle Atlantic	35,517	35,862	-1.0	6,706	6,863	28,126	28,281	91	89	594	628
New Jersey	4,567	5,383	-15.2	154	150	4,306	5,112	NM	NM	NM	NM
New York	12,228	11,664	4.8	3,757	3,685	8,242	7,729	NM	NM	180	209
Pennsylvania	18,722	18,815	5	2,795	3,029	15,578	15,439	NM	NM	317	308
East North Central	55,660	54,176	2.7	37,926	36,725	16,649	16,486	NM	NM	999	869
Illinois	16,569	15,940	3.9	2,005	1,545	14,278	14,098	NM	NM	270	264
Indiana	10,914	10,518	3.8	9,712	9,473	873	762	NM	NM	308	263
Michigan	9,936	10,010	7	8,830	8,816	921	1,063	37	32	149	99
Ohio	12,872 5,370	12,730 4,978	1.1 7.9	12,330 5,050	12,220 4,670	498 79	477 85	NM NM	NM NM	NM 230	NM 210
Wisconsin West North Central	26,625	26,401	.8	25,773	25,680	516	298	NM NM	NM NM	306	210 384
Iowa	3,471	3,798	-8.6	3,215	3,569	126	110	NM	NM	119	105
Kansas	4,277	4,050	5.6	4,227	4,017	47	32	NM	NM	NM	NM
Minnesota	4,893	4,764	2.7	4,401	4,373	335	144	NM	NM	148	236
Missouri	7,883	7,547	4.4	7,850	7,507	7	12	8	11	NM	NM
Nebraska	2,834	2,853	6	2,828	2,846	NM	NM	NM	NM	NM	NM
North Dakota	2,867	2,839	1.0	2,853	2,817					NM	NM
South Dakota	398	550	-27.7	398	550						
South Atlantic	67,448	65,314	3.3	54,522	52,179	10,686	10,848	NM	NM	2,174	2,231
Delaware District of Columbia	409 -1	464 4	-11.9 -122.1	6	5	331 -1	427 4			73	32
Florida	16,226	15,414	5.3	14,339	13,795	1,355	1,271	NM	NM	523	339
Georgia	11,053	10,044	10.1	10,450	9,026	84	162	NM	NM	518	856
Maryland	4,856	4,719	2.9	NM	NM	4,806	4,666	NM	NM	44	50
North Carolina	11,932	11,094	7.6	11,045	10,186	446	489	NM	NM	432	409
South Carolina	7,376	8,403	-12.2	7,191	8,263	7	9	NM	NM	173	130
Virginia	7,468	6,527	14.4	6,154	5,317	1,029	921	NM	NM	244	252
West Virginia	8,130	8,646	-6.0	5,334	5,584	2,630	2,900			167	163
East South Central	32,015	30,925	3.5	29,349	28,688	1,629	1,357	NM	NM	1,027	870
Alabama	11,517 8,401	11,830	-2.6	10,797	11,267	226 981	130 854			494 NM	434 NM
Kentucky	3,299	7,739 3,274	8.6 .7	7,378 2,702	6,855 2,825	419	854 370	NM	NM	NM NM	NM NM
Mississippi Tennessee	3,299 8,798	8,082	8.9	8,472	2,823 7,742	NM	NM	NM	NM	315	329
West South Central	45,481	44,903	1.3	22,739	22,101	17,136	17,549	NM	NM	5,566	5,212
Arkansas	3,952	3,653	8.2	3,613	3,347	134	131	NM	NM	204	174
Louisiana	7,754	7,340	5.6	3,476	3,990	2,276	1,484	NM	NM	2,001	1,863
Oklahoma	4,879	4,256	14.6	4,055	3,868	692	269	NM	NM	130	118
Texas	28,896	29,654	-2.6	11,595	10,897	14,034	15,664	NM	NM	3,231	3,057
Mountain	27,119	27,488	-1.3	23,372	23,332	3,543	3,980	NM	NM	NM	NM
Arizona	7,016	8,449	-17.0	6,662	7,028	323	1,394	NM NM	NM NM	30 NM	26 NM
ColoradoIdaho	4,148 547	3,958 516	4.8 5.9	3,686 433	3,665 419	444 NM	277 NM	NM 	NM	NM 76	NM 58
Montana	2,434	2,111	15.3	588	653	1,839	1,452			70	6
Nevada	2,434	2,779	6.7	2,309	2,114	658	666				
New Mexico	2,877	2,416	19.1	2,770	2,352	91	50	NM	NM	NM	NM
Utah	3,241	3,184	1.8	3,187	3,139	33	43	NM	NM	NM	NM
Wyoming	3,889	4,074	-4.5	3,737	3,962	119	59			NM	NM
Pacific Contiguous	28,214	26,799	5.3	17,615	15,517	8,867	9,509	NM	NM	1,569	1,596
California	14,768	14,535	1.6	6,439	5,657	6,731	7,257	NM	NM	1,442	1,449
Oregon	4.407	3,887	13.9	3,545	3,187	818	644	NM	NM	63	55
	4,426										
Washington	9,020	8,376	7.7	7,631	6,673	1,318	1,608	NM	NM	64	92
Pacific Noncontiguous	9,020 1,566	8,376 1,602	-2.2	1,079	1,128	384	349	NM	NM	NM	NM
Pacific Noncontiguous Alaska	9,020 1,566 649	8,376 1,602 649	-2.2	1,079 559	1,128 526	384 NM	349 NM	NM NM	NM NM	NM NM	NM NM
Pacific Noncontiguous	9,020 1,566	8,376 1,602	-2.2	1,079	1,128	384	349	NM	NM	NM	NM

¹ Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

Notes: •See Glossary for definitions. •Values for 2003 are estimated based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906. •Values for 2002 are final. •Negative generation denotes that electric power consumed for plant use exceeds gross generation. •Totals may not equal sum of components because of independent rounding. •Percent difference is calculated before rounding. •Due to restructuring of the electric power industry, electric utilities are selling plants to the nonutility sector. This will affect comparisons of current and historical data.

² Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

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

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Table 1.6.B. Net Generation by State, Year-to-Date through December 2003 and 2002 (Thousand Megawatthours)

					Electric P		Combined Heat and Power Producers					
Census Division and State	To	otal (All Secto	ors)	Electri	c Utilities		dent Power ducers	Comm	nercial ¹	Indi	ustrial ²	
	2003	2002	Percent Change	2003	2002	2003	2002	2003	2002	2003	2002	
New England	127,545	124,327	2.6	7,378	16,438	112,508	99,889	790	879	6,870	7,122	
Connecticut	30,375	31,311	-3.0	NM	NM	30,086	30,931	NM	NM	NM	NM	
Maine	20,375	22,535	-9.6	NM	NM	14,227	16,218	186	180	5,958	6,137	
Massachusetts	47,939	42,016	14.1	501	1,157	46,547	39,872	494	575	396	413	
New HampshireRhode Island	17,487	15,953 7,057	9.6	6,232 NM	12,276 NM	10,973	3,405 6,998	NM NM	NM NM	253 NM	242 NM	
Vermont	5,312 6,058	5,456	-24.7 11.0	601	2,971	5,253 5,422	6,998 2,465	NM 	NM 	NM NM	NM NM	
Middle Atlantic	399,042	405,484	-1.6	73,233	75,573	317,755	320,839	1,042	1,128	7,012	7,943	
New Jersey	56,317	61,569	-8.5	1,867	1,569	52,980	57,617	NM	NM	1,317	2,265	
New York	136,962	139,592	-1.9	41,467	43,466	93,029	93,486	499	567	1,967	2,073	
Pennsylvania	205,763	204,323	.7	29,899	30,537	171,746	169,736	390	443	3,729	3,606	
East North Central	630,569	637,052	-1.0	426,682	424,309	192,169	200,523	1,104	1,263	10,614	10,957	
Illinois	192,396	188,054	2.3	21,554	17,150	167,765	167,633	NM	NM	2,853	2,882	
Indiana	121,957	125,608	-2.9	113,426	112,030	5,262	9,901	224	242	3,045	3,435	
Michigan	110,531	117,889	-6.2	96,615	100,452	11,758	15,168	500	477	1,658	1,792	
Ohio	145,697	147,069	9	138,857	139,904	6,372	6,723	NM	NM	449	434	
Wisconsin	59,988	58,431	2.7	56,229	54,774	1,012	1,098	NM	NM	2,609	2,413	
West North Central	300,425	294,304	2.1 -1.6	290,803	285,529	4,704	4,368	391 NM	411 NM	4,527	3,996	
Iowa	41,863 46,789	42,528 47,188	-1.6 8	39,499	40,052 46,692	1,077 453	1,085 479	NM NM	NM NM	1,156 NM	1,263 NM	
Kansas Minnesota	55,019	52,778	4.2	46,234 49,631	48,569	2,383	1,758	NM	NM	2,883	2,327	
Missouri	87,261	81,162	7.5	86,167	79,797	783	1,039	120	140	2,883 NM	2,327 NM	
Nebraska	30,432	31,618	-3.8	30,360	31,550	NM	NM	NM	NM	NM	NM	
North Dakota	31,224	31,306	3	31,074	31,147					NM	NM	
South Dakota	7,839	7,722	1.5	7,839	7,722							
South Atlantic	784,246	775,207	1.2	635,762	629,913	126,111	119,886	791	688	21,582	24,720	
Delaware	6,517	6,002	8.6	115	171	5,890	5,271			512	560	
District of Columbia	74	262	-71.7			74	262					
Florida	204,844	203,353	.7	182,339	182,347	17,690	16,489	NM	NM	4,715	4,407	
Georgia	125,370	126,512	9	116,557	111,856	3,867	5,282	NM	NM	4,943	9,372	
Maryland	53,421	48,279	10.6	NM	NM	52,823	47,664	NM	NM	524	575	
North Carolina	129,502	124,468	4.0	118,483	115,598	6,055	5,186	110	106	4,853	3,578	
South Carolina	94,361 75,411	96,563 75,006	-2.3	92,180 61,985	93,689 62,880	392 10,394	1,049 8,902	NM 501	NM 456	1,738 2,531	1,823 2,767	
Virginia West Virginia	94,747	94,762	.5 *	64,057	63,342	28,924	29,782	J01 	430	1,767	1,639	
East South Central	365,806	364,043	.5	333,066	331,571	20,197	21,798	NM	NM	12,423	10,561	
Alabama	137,306	132,921	3.3	127,757	123,739	3,744	3,816			5,805	5,365	
Kentucky	91,804	92,107	3	80,731	80,162	10,566	11,369	9		498	576	
Mississippi	44,766	42,901	4.3	36,195	35,099	5,832	6,406	NM	NM	2,720	1,370	
Tennessee	91,930	96,114	-4.4	88,384	92,571	NM	NM	NM	NM	3,400	3,249	
West South Central	572,634	587,393	-2.5	279,272	298,601	227,550	223,373	1,074	538	64,738	64,881	
Arkansas	46,690	47,612	-1.9	41,728	42,873	2,749	2,551	NM	NM	2,205	2,179	
Louisiana	88,749	94,971	-6.6	41,830	54,922	23,043	18,591	555	32	23,321	21,426	
Oklahoma	59,833	59,183	1.1	49,776	51,218	8,633	6,592	NM	NM	1,401	1,346	
Texas	377,362	385,629	-2.1	145,939	149,587	193,125	195,639	488	471	37,811	39,932	
Mountain	319,207	318,135	.3	268,461	271,650	48,350	44,224	NM	NM	2,116	2,020	
Arizona	90,979 46.037	94,132 45,600	-3.3 1.0	77,857 41,205	81,710	12,747	12,107 3,827	NM NM	NM NM	357 NM	296 NM	
ColoradoIdaho	9,274	9,787	-5.2	7,768	41,510 8,164	4,569 835	926	INIVI	INIVI	672	697	
Montana	25,915	25,474	1.7	6,028	6,726	19,809	18,675			78	72	
Nevada	31,791	32,089	9	23,670	25,009	8,121	7,080					
New Mexico	32,917	30,662	7.4	32,022	29,926	674	536	NM	NM	NM	NM	
Utah	38,396	36,608	4.9	37,652	36,072	461	496	NM	NM	NM	NM	
Wyoming	43,897	43,784	.3	42,259	42,532	1,134	576			505	676	
Pacific Contiguous	330,350	334,074	-1.1	199,725	202,889	110,356	110,166	2,032	1,997	18,236	19,022	
California	183,582	184,210	3	79,937	74,588	85,135	90,521	1,906	1,958	16,605	17,142	
Oregon	49,804	47,099	5.7	39,408	39,732	9,629	6,560	NM	NM	763	802	
Washington	96,964	102,765	-5.6	80,381	88,568	15,593	13,086	NM	NM	868	1,078	
Pacific Noncontiguous	18,113	18,430	-1.7	12,353	12,985	4,184	3,933	NM	NM	1,415	1,356	
Alaska	7,210	6,767	6.5	5,860	5,472	NM 2.024	NM	NM	NM	939	895	
Hawaii U.S. Total	10,903	11,663	-6.5	6,493 2 526 786	7,513 2,549,457	3,934	3,689	7 785	7.415	476 149,534	461 152,580	
11.3. I 0121	3,847,990	3,858,452	3	2,526,786	2,349,43/	1,163,884	1,149,001	7,785	7,415	147,554	152,500	

¹ Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

Notes: •See Glossary for definitions. •Values for 2003 are estimated based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906. •Values for 2002 are final. •Negative generation denotes that electric power consumed for plant use exceeds gross generation. •Totals may not equal sum of components because of independent rounding. •Data for 2002 are final, and data for 2003 are preliminary. •Due to restructuring of the electric power industry, electric utilities are selling plants to the nonutility sector. This will affect comparisons of current and historical data.

² Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

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

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Table 1.7.A. Net Generation from Coal by State, December 2003 and 2002 (Thousand Megawatthours)

	iousuna ivi	egawaunou	113)		Flectric Po	ower Sector		Combin	ned Heat an	d Power Pr	roducers
Census Division	To	otal (All Secto	ors)	Electric	Utilities	Independ	dent Power		nercial ¹	Indus	
and State	Dec 2003	Dec 2002	Percent Change	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002
New England	1,533	1,948	-21.3	404	358	1,090	1,557			40	33
Connecticut	361	376	-4.1			361	376				
Maine	58	48	20.1			22	17			36	30
Massachusetts	711	1,166	-39.1	404	259	707	1,163			NM	NM
New Hampshire Rhode Island	404	358	12.9	404	358						
Vermont											
Middle Atlantic	13,524	14,079	-3.9	1,680	1,987	11,648	11,911	NM	NM	193	179
New Jersey	769	963	-20.1	164	151	605	811				
New York	2,118	2,218	-4.5	155	177	1,907	1,986	NM	NM	54	52
Pennsylvania	10,638 40,153	10,899	-2.4 5.2	1,361	1,658 31,057	9,137	9,114 6,718	NM NM	NM NM	139 389	127 354
East North Central	8,401	38,166 7,266	15.6	32,266 1,983	1,523	7,457 6,226	5,553	NM	NM	189	189
Indiana	10,285	10,010	2.8	9,541	9,283	723	709	NM	NM	NM	NM
Michigan	5,884	5,820	1.1	5,761	5,752	42	4	17	17	NM	NM
Ohio	11,839	11,687	1.3	11,348	11,217	466	452	NM	NM	NM	NM
Wisconsin	3,743	3,383	10.7	3,633	3,282			NM	NM	106	97
West North Central	20,993 2,884	21,007 3,164	1 -8.8	20,604 2,752	20,653 3,047	146 NM	10 NM	NM NM	NM NM	227 112	322 96
Iowa Kansas	3,293	3,104	-8.8 8.9	3,293	3,047	INIVI	INIVI	INIVI	INIVI	112	90
Minnesota	3,160	3,220	-1.9	2,938	3,026	134				87	194
Missouri	6,847	6,746	1.5	6,823	6,720			8	10	NM	NM
Nebraska	1,922	1,855	3.6	1,917	1,851					NM	NM
North Dakota	2,728	2,665	2.3	2,720	2,653					NM	NM
South Dakota	160	331	-51.8	160	331	 					
South Atlantic Delaware	38,060 260	36,975 365	2.9 -28.8	30,436	29,248	7,187 252	7,265 358	NM 	NM 	428 NM	454 NM
District of Columbia			-28.6			232					
Florida	5,607	5,981	-6.3	5,072	5,485	508	475			26	21
Georgia	7,114	6,253	13.8	7,030	6,118					84	135
Maryland	2,898	2,706	7.1			2,874	2,677			23	28
North Carolina	7,144	6,397	11.7	6,763	6,035	295	285	NM	NM	76 50	68
South Carolina	3,550	3,132 3,702	13.4 -3.4	3,500	3,100 2,992	703	624			50 86	31 86
Virginia West Virginia	3,578 7,909	8,440	-6.3	2,788 5,282	5,517	2,553	2,846			74	78
East South Central	20,594	19,443	5.9	19,475	18,335	943	953	NM	NM	171	151
Alabama	6,181	6,235	9	6,126	6,195	19	20			36	19
Kentucky	7,627	7,132	6.9	7,010	6,504	617	628				
Mississippi	1,433	1,543	-7.2	1,125	1,239	308	305	 >D.4	 ND 6	125	122
West South Central	5,352 20,789	4,532 20,312	18.1 2.3	5,213 14,782	4,396 13,936	5,705	6,092	NM 	NM	135 303	132 285
Arkansas	2,350	1,816	2.3	2,342	1,807	5,705	6,092			8	9
Louisiana	2,231	2,311	-3.4	1,140	1,237	1,086	1,073			6	1
Oklahoma	3,342	3,374	9	3,139	3,158	154	174			49	42
Texas	12,866	12,812	.4	8,162	7,734	4,465	4,845			240	232
Mountain	19,549	18,501	5.7	17,789	17,279	1,691	1,177	-	-	NM 20	NM 10
ArizonaColorado	3,497 3,272	3,556 3,175	-1.7 3.0	3,468 3,244	3,537 3,157	NM	NM			30	19
Idaho	3,272 NM	3,173 NM	3.0	3,244	3,137	11111	11171			NM	NM
Montana	1,599	1,157	38.2	31	31	1,568	1,126				
Nevada	1,699	1,498	13.4	1,699	1,498	·	´				
New Mexico	2,549	2,166	17.7	2,549	2,166					 >D.f.	
Utah	3,131	3,004	4.2	3,091	2,970	31	34			NM NM	NM NM
Wyoming Pacific Contiguous	3,795 1,583	3,939 1,574	-3.7 .5	3,708 364	3,919 411	64 1,173	1,113	NM	NM	NM 45	NM 49
California	205	208	-1.1			163	165			42	42
Oregon	365	416	-12.3	364	411					NM	NM
Washington	1,013	951	6.5			1,009	948	NM	NM	2	2
Pacific Noncontiguous	198	184	7.6	19	18	161	153	NM	NM	5	-
Alaska	NM 143	NM 129	10.9	19 	18	NM 139	NM 129	NM 	NM 	5	
U.S. Total	176,975	172,190	2.8	137,818	133,281	37,201	36,950	89	88	1,867	1,872

¹ Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

Notes: •See Glossary for definitions.•Values for 2003 are estimated based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906.•Values for 2002 are final.•Negative generation denotes that electric power consumed for plant use exceeds gross generation.•Totals may not equal sum of components because of independent rounding.•Percent difference is calculated before rounding.•Due to restructuring of the electric power industry, electric utilities are selling plants to the nonutility sector. This will affect comparisons of current and historical data.•Coal includes anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

² Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

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

Table 1.7.B. Net Generation from Coal by State, Year-to-Date through December 2003 and 2002 (Thousand Megawatthours)

	an.	. 1 (4 11 6			Electric Po	ower Sector		Combin	ed Heat an	d Power P	roducers
Census Division and State	T:	otal (All Secto	<u> </u>	Electri	c Utilities		dent Power ducers	Comn	nercial¹	Indu	strial ²
	2003	2002	Percent Change	2003	2002	2003	2002	2003	2002	2003	2002
New England	19,685	19,056	3.3	3,923	3,722	15,296	14,940	-	-	466	394
Connecticut	4,187	3,227	29.8			4,187	3,227				
Maine	642	604	6.3			219	242			423	362
Massachusetts	10,932	11,503	-5.0		2.722	10,889	11,471			NM	NM
New Hampshire	3,923	3,722	5.4	3,923	3,722						
Rhode Island											
Vermont Middle Atlantic	148,792	146,751	1.4	19,386	19,035	127,152	125,491	NM	NM	2,221	2,191
New Jersey	9,195	9,605	-4.3	1,748	1,417	7,447	8,188		14141		2,171
New York	23,752	23,239	2.2	1,694	1,682	21,395	20,815	NM	NM	635	713
Pennsylvania	115,845	113,906	1.7	15,944	15,936	98,310	96,488	NM	NM	1,586	1,478
East North Central	450,385	443,805	1.5	368,428	357,685	77,462	81,410	496	478	3,998	4,232
Illinois	91,129	86,685	5.1	21,092	16,897	68,122	67,819	NM	NM	1,879	1,960
Indiana	115,023	117,660	-2.2	110,889	109,441	3,904	7,986	178	196	NM	NM
Michigan	67,800	66,700	1.7	66,497	65,390	385	259	237	230	682	821
Ohio	134,601	132,953	1.2	129,293	127,373	5,042	5,332	NM	NM	NM	NM
Wisconsin	41,832	39,807	5.1	40,657	38,584	9	15	NM	NM	1,125	1,167
West North Central	234,350	224,923	4.2	230,141	221,441	525	112	199	214	3,485	3,157
lowa	35,585	35,372	.6	34,312	34,033	NM	NM	NM	NM	1,051	1,132
Kansas	35,110	35,369	7	35,110	35,369					2.120	1.710
Minnesota	35,680	33,920	5.2	33,152	32,201	401		102	110	2,128	1,719
Missouri	74,206 20,954	67,435 19,944	10.0	73,930 20,908	67,148 19,900			102	118	NM NM	NM NM
Nebraska North Dakota	29,384	29,612	5.1 8	29,298	29,519					NM	NM
South Dakota	3,431	3,272	4.9	3,431	3,272						INIVI
South Atlantic	417,439	420,099	6	336,365	339,901	76,594	74,735	101	92	4,379	5,372
Delaware	3,495	3,464	.9			3,410	3,382			NM	NM
District of Columbia											
Florida	62,705	65,926	-4.9	57,229	60,997	5,296	4,766			180	163
Georgia	78,776	78,828	1	77,941	77,288	,				834	1,540
Maryland	29,832	28,712	3.9			29,520	28,366			311	346
North Carolina	74,788	75,188	5	70,629	71,223	3,270	3,085	101	92	788	788
South Carolina	37,882	36,948	2.5	37,423	36,491					459	457
Virginia	37,527	38,082	-1.5	29,644	31,099	6,976	5,916	*		907	1,067
West Virginia	92,436	92,951	6	63,499	62,802	28,121	29,220			815	929
East South Central	235,611	229,875	2.5	223,197	217,503	10,439	10,554	NM	NM	1,923	1,779
Alabama	76,814	72,042	6.6	76,201	71,631	219	218			394	192
Kentucky	84,086	83,274	1.0	76,392	75,308	7,694	7,966				
Mississippi	19,779	14,853	33.2	17,228	12,484	2,526	2,369	NIM	NIM	25	1.500
Tennessee West South Central	54,932 230,785	59,706 222,961	-8.0 3.5	53,376 161,665	58,081 158,949	65,695	60,787	NM 	NM 	1,504 3,425	1,586 3,226
Arkansas	23,521	23,098	1.8	23,422	22,987	05,095	00,767	_		99	112
Louisiana	23,048	22,051	4.5	11,160	12,259	11,819	9,767			70	26
Oklahoma	36,676	35,965	2.0	34,200	33,444	1,959	1,996			518	524
Texas	147,539	141,847	4.0	92,883	90,260	51,918	49,023			2,738	2,564
Mountain	214,249	208,770	2.6	195,871	192,461	17,601	15,696	_	-	776	613
Arizona	38,094	38,227	3	37,740	37,957					354	269
Colorado	36,115	35,388	2.1	35,808	35,135	307	253				
Idaho	NM	NM								NM	NM
Montana	16,667	15,338	8.7	322	286	16,345	15,052				
Nevada	16,118	16,413	-1.8	16,118	16,413						
New Mexico	28,813	26,903	7.1	28,813	26,903						
Utah	36,016	34,488	4.4	35,579	34,081	337	391			100	16
Wyoming	42,350	41,923	1.0	41,491	41,685	613	10.450	NIM	NM	NM 522	NM 525
Pacific Contiguous	16,783	14,768	13.6	4,286	3,769	11,968	10,458	NM	NM	523	535
California	2,332	2,328	.2	1 206	2 760	1,846	1,832			486 NM	496 NIM
Oregon	4,297 10,154	3,780 8,661	13.7	4,286	3,769	10,122	8,626	NM	NM	NM 25	NM 28
Washington Pacific Noncontiguous	2,195	2,121	17.2 3.5	168	204	1,845	1,760	NM NM	NM NM	NM	NM
Alaska	558	575	-3.0	168	204	NM	NM	NM	NM	14141	14141
Hawaii	1,637	1,546	5.9		204	1,598	1,519			NM	NM
	1,970,273	1,933,130	1.9	1,543,430	1,514,670	404,577	395,943	1,033	992	21,233	21,525

¹ Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

² Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

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

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Notes: •Data for 2002 are final, and data for 2003 are preliminary. •Values for 2003 are estimated based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906. •Values for 2002 are final. •Negative generation denotes that electric power consumed for plant use exceeds gross generation. •Totals may not equal sum of components because of independent rounding. •Percent difference is calculated before rounding. •Due to restructuring of the electric power industry, electric utilities are selling plants to the nonutility sector. This will affect comparisons of current and historical data. •Coal includes anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

Table 1.8.A. Net Generation from Petroleum by State, December 2003 and 2002 (Thousand Megawatthours)

		egawaunou			Electric Po	ower Sector		Combin	ed Heat an	d Power Pr	roducers
Census Division and State	To	otal (All Secto	ors)	Electric	Utilities		lent Power lucers	Comn	nercial ¹	Indus	strial ²
	Dec 2003	Dec 2002	Percent Change	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002
New England	1,560	1,231	26.8	240	196	1,200	913	27	28	94	94
Connecticut	239	53	354.1	NM	NM	234	50	NM	NM	NM	NM
Maine	250	188	33.4		*	178	119	*	*	72	69
Massachusetts	875 190	836 149	4.7 27.6	52 186	60	787 NM	744 NM	20	15 NM	NM NM	NM
New Hampshire Rhode Island	NM	NM	27.0	NM	135 NM	INIVI	INIVI *	NM NM	NM	NM	NM NM
Vermont	NM	NM		NM	NM						
Middle Atlantic	2,365	1,905	24.1	1,073	914	1,237	946	NM	NM	46	39
New Jersey	31	61	-48.8	1	9	18	44	NM	NM	13	8
New York	1,972	1,513	30.3	1,064	904	887	596	NM	NM	NM	NM
Pennsylvania	361 185	330 186	9.3 7	8 98	1 144	332 49	306 9	NM NM	NM NM	NM 36	NM 31
East North Central	NM	NM	 /	NM	NM	46	8	NM	NM	NM	NM
Indiana	15	25	-40.5	13	12	NM	NM	NM	NM	2	13
Michigan	50	101	-50.9	46	101	*		NM	NM	NM	NM
Ohio	25	19	26.6	22	18	NM	NM	NM	NM	NM	NM
Wisconsin	45	29	57.7	15	10	1	*	NM	NM	30	18
West North Central	185 NM	133 NM	39.0	180	130	2 NM	× NM	NM NM	NM NM	NM NM	NM NM
Iowa Kansas	65	52	23.5	10 64	3 52	INIVI	INIVI	INIVI	NM 	NM	NM
Minnesota	92	67	37.3	90	66	1		NM	NM	NM	NM
Missouri	7	4	62.6	6	3			NM	NM	NM	NM
Nebraska	NM	NM		NM	NM			NM	NM		
North Dakota	NM	NM		5	5					NM	NM
South Dakota	2 274	*	NM 11.0	2.770	*	210		NM	NM.	101	160
South Atlantic Delaware	3,274 36	2,949 55	-34.3	2,770 5	2,338 5	319 7	419 39	NM 	NM 	181 24	168
District of Columbia	-1	4	-122.1			-1	4				
Florida	2,121	1,956	8.4	2,020	1,917	77	29			24	10
Georgia	108	123	-12.5	23	8	*	2	NM	NM	85	113
Maryland	198	322	-38.5	NM	NM	195	320	NM	NM	NM	NM
North Carolina	NM	NM 24	100.0	13	13	NM *	NM	NM	NM	NM	NM
South Carolina Virginia	49 706	24 390	109.0 81.1	34 653	15 341	39	16	NM NM	NM NM	15 NM	8 NM
West Virginia	22	37	-41.0	20	36	1	1			1	*
East South Central	599	284	110.4	219	48	363	221	NM	NM	NM	NM
Alabama	29	26	11.3	14	13	NM	NM			NM	NM
Kentucky	368	237	55.2	6	16	361	221			 >D.6	
Mississippi	185 16	1 21	NM -19.8	184 14	1 19			NM 	NM 	NM 3	NM 2
West South Central	498	334	-19.8 49.0	107	45	351	255	NM	NM	39	34
Arkansas	47	50	-5.1	43	41					4	8
Louisiana	223	130	71.7	33	*	187	126			3	4
Oklahoma	NM	NM		NM	NM			NM	NM	5	4
Texas	222	150	48.1	31	3	164	129	NM	NM	27	17
Mountain	NM 17	NM 4	354.5	32 17	16 2	11	43	NM NM	NM NM	NM NM	NM NM
Colorado	NM	NM	334.3	2	1	NM	NM	INIVI	INIVI	NM	NM
Idaho	*	*	NM	*	*						
Montana	10	43	-77.5	NM	NM	10	43				
Nevada	1	1	-18.0	1	1						
New Mexico	NM	NM		5	4	 >D.4	*			NM	NM
Utah Wyoming	NM NM	NM NM		NM 2	NM 1	NM 	NM 			NM	NM
Pacific Contiguous	259	175	47.9	4	5	190	151	NM	NM	65	19
California	245	170	44.6	3	4	189	151	NM	NM	NM	NM
Oregon	3	*	NM	1	*			NM	NM	3	
Washington	11	6	95.7	*	*	1	*			10	5
Pacific Noncontiguous	784	852	-8.0	605	670	163	157	NM	NM	NM	NM
Alaska	91 693	76 777	19.9 -10.7	85 519	68	NM 162	NM 156	NM 	NM 	NM NM	NM NM
Hawaii	9,752	777 8,112	-10.7 20.2	5,328	602 4,505	163 3,885	156 3,115	43	65	NM 497	NM 426
	7,102	3,112	-7.2	0,020	1,000	2,000	3,110		00	.,,	.20

¹ Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

² Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

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

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Notes: •See Glossary for definitions.•Values for 2003 are estimated based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906.•Values for 2002 are final.•Negative generation denotes that electric power consumed for plant use exceeds gross generation.•Totals may not equal sum of components because of independent rounding.•Percent difference is calculated before rounding.•Due to restructuring of the electric power industry, electric utilities are selling plants to the nonutility sector. This will affect comparisons of current and historical data.•Petroleum includes distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

Source: Energy Information Administration, Form EIA-906, "Power Plant Report."

Table 1.8.B. Net Generation from Petroleum by State, Year-to-Date through December 2003 and 2002 (Thousand Megawatthours)

New England	Producers
New Factors 1,1386	ustrial ²
Connecticut	2002
Mainc	989
Massenbuests. 7,144 6,800 5,1 282 220 6,507 6,246 172 189 NM	NM
New Hampshire	791
Rhode Island	NM
Vermont.	NM NM
Nicolar Atlantic	1 1 1 1 1
New Jersey	431
New York	NM
East North Central	141
Illinois	226
Indiana	407
Michigan	NM 142
Ohio 399 389 2.5 377 381 NM NM NM NM Wisconsin 494 423 16.9 18.3 16.3 3 2 NM NM NM 295 West North Central 2,181 1,819 19.9 2,130 1,792 NM	NM
Wisconsin 494 423 169 183 163 3 2 NM NM 299 West North Central 2,181 1,819 19.9 2,130 1,792 NM NM<	NM
New North Central	253
Kansas 953 509 87.1 952 509 NM NM NM Minnesota 863 653 32.2 840 640 12 5 NM NM NM NM NM NM NM NM NM NM NM NM NM NM NM NM NM NM NM Debayare 1- 1- 2- 2- 1- 102 154 1,182 1,262	NM
Minsesota 863 653 32.2 840 640 12 5 NM NM NM Missouri 158 529 70.1 156 528 NM NM NM NM NM NM	NM
Missouri	NM
Nebraska	NM
North Dakota	NM
South Dakota 16 5 223.7 16 5 1,625 Delayare 1,478 950 55.7 102 154 1,185 550 199 District of Columbia 74 262 -71.7 74 262 174 262 161 6 161 6 161 6 6 161 6 6 161 6 6 161 6 6 161 6 6 2 161 3 3 3 161 3 3 2 2 2 4 161 3 3 3	NM
South Atlantic 50,595 43,362 16.7 41,922 37,183 6,947 4,415 NM NM 1,625 Delaware 1,478 950 55.7 102 154 1,185 550 19 District of Columbia 74 262 -71.7 74 262 Florida 37,113 33,681 10.2 35,579 32,449 1,373 1,096 161 Georgia 1,189 1,205 -1.3 292 234 78 22 NM NM MM 817 Maryland 3,375 2,282 47.9 NM NM 3,365 2,249 NM NM NM 21,5 NM NM MM 215 NM NM 21,5 NM NM 130 21,5 NM NM 130 21,5 13,6 13,2 2,5 5,0 13,3 5,5	
District of Columbia	1,717
Florida	246
Georgia 1,189 1,205 -1.3 292 234 78 22 NM NM 817 Maryland 3,375 2,282 47.9 NM NM 3,325 2,249 NM 201	
Maryland 3,375 2,282 47.9 NM NM 3,325 2,249 NM NM NM North Carolina 751 592 26.8 442 376 92 15 NM NM 21 South Carolina 388 300 29.0 238 206 18 NM NM NM 130 Virginia 5,980 3,793 57.7 5,014 3,455 770 206 NM NM NM NM NM NM NM NM NM NM NM NM NM NM <td< td=""><td>136</td></td<>	136
North Carolina 751 592 26.8 442 376 92 15 NM NM 215 South Carolina 388 300 29.0 238 206 18 NM NM NM 133 Virginia 5,980 3,793 57.7 5,014 3,455 770 206 NM NM NM NM NM NM NM NM NM NM NM 162 East South Central 5,230 3,680 42.1 2,242 596 2,824 2,956 NM NM NM NM NM NM NM	946
South Carolina. 388 300 29.0 238 206 18 NM NM 130 Virginia 5,980 3,793 57.7 5,014 3,455 770 206 NM NM NM West Virginia 248 298 -16.6 210 279 32 15 NM East South Central 5,230 3,680 42.1 2,242 596 2,824 2,956 NM NM 16 Alabama 310 312 5 186 184 NM NM 118 Kentucky 2,953 3,068 -3.8 138 135 2,815 2,933 118 Kentucky 2,953 3,068 -3.8 138 135 2,815 2,933 118 Kentucky 2,953 3,068 -3.8 138 135 2,8	NM 199
Virginia 5,980 3,793 57.7 5,014 3,455 770 206 NM NM NM West Virginia 248 298 -16.6 210 279 32 15 NM East South Central 5,230 3,680 42.1 2,242 596 2,824 2,956 NM NM NM 162 Alabama 310 312 5 186 184 NM NM 118 Kentucky 2,953 3,068 -3.8 138 135 2,815 2,933 118 Kentucky 2,953 3,068 -3.8 138 135 2,815 2,933 NM MM NM NM NM <	94
West Virginia 248 298 -16.6 210 279 32 15 NM East South Central 5,230 3,680 42.1 2,242 596 2,824 2,956 NM NM 162 Alabama 310 312 5 186 184 NM NM 118 Kentucky 2,953 3,068 -3.8 138 135 2,815 2,933 118 Kentucky 2,953 3,068 -3.8 138 135 2,815 2,933 NM NM NM NM NM NM 22 2404 241 3,113 3,225 NM NM NM	NM
Alabama 310 312 5 186 184 NM NM 118 Kentucky 2,953 3,068 -3.8 138 135 2,815 2,933	NM
Kentucky 2,953 3,068 -3.8 138 135 2,815 2,933 2.5 2 0 NM NM NM 2.5 2 West South Central 5,918 3,693 60.2 2,404 241 3,113 3,225 NM NM NM 988 Arkansas 2,88 160 80.5 262 136	128
Mississippi. 1,642 30 NM 1,621 26 NM NM NM Tennessee 325 270 20.5 297 250 NM NM 2 250 West South Central 5,918 3,693 60.2 2,404 241 3,113 3,225 NM NM NM 398 Arkansas 288 160 80.5 262 136 2 2 Louisiana 2,937 1,865 57.5 1,013 68 1,882 1,765 2 2 0 0 NM NM 46 1,882 1,765 NM NM 46 0 NM NM A6 1,822 1,620 NM NM NM 28	105
Tennessee 325 270 20.5 297 250 NM NM 22 West South Central 5,918 3,693 60.2 2,404 241 3,113 3,225 NM NM 398 Arkansas 288 160 80.5 262 136 2- NM NM NM NM 180 NM NM NM 283<	
West South Central 5,918 3,693 60.2 2,404 241 3,113 3,225 NM NM 398 Arkansas 288 160 80.5 262 136 2. 2. 2. 2. 136 NM NM NM MM 283 1,01 26 1,231 1,460 NM NM NM 283 1,01 26 1,231 1,460 NM NM NM NM NM NM NM NM NM NM <t< td=""><td>NM 10</td></t<>	NM 10
Arkansas. 288 160 80.5 262 136 20 Louisiana 2,937 1,865 57.5 1,013 68 1,882 1,765 42 Oklahoma 159 50 218.8 112 10 NM NM NM 44 Texas 2,534 1,621 56.3 1,016 26 1,231 1,460 NM NM NM 283 Mountain 728 703 3.6 235 223 473 470 NM NM NM NM Arizona 55 57 -4.5 53 51 NM NM NM Colorado NM NM NM 19 23 NM NM NM Idaho. * * 78.5 * *	19 222
Louisiana 2,937 1,865 57.5 1,013 68 1,882 1,765 42 Oklahoma 159 50 218.8 112 10 NM NM 40 Texas 2,534 1,621 56.3 1,016 26 1,231 1,460 NM NM NM 28 Mountain 728 703 3.6 235 223 473 470 NM NM NM NM Arizona 55 57 -4.5 53 51 NM NM NM Colorado NM NM NM 19 23 NM NM NM Idaho * * 78.5 * * NM Montana 402 470 -14.3 NM NM 400 469	24
Oklahoma 159 50 218.8 112 10 NM NM 46 Texas 2,534 1,621 56.3 1,016 26 1,231 1,460 NM NM NM 283 Mountain 728 703 3.6 235 223 473 470 NM NM NM Arizona 55 57 -4.5 53 51 NM NM NM NM Colorado NM NM NM 19 23 NM NM NM NM Idaho * * 78.5 * * NM NM NM NM NM NM NM 469	31
Texas 2,534 1,621 56.3 1,016 26 1,231 1,460 NM NM 283 Mountain 728 703 3.6 235 223 473 470 NM NM NM Arizona 55 57 -4.5 53 51 NM -NM NM NM NM NM NM NM NM NM NM NM NM NM NM NM <	39
Arizona 55 57 -4.5 53 51 NM NM NM NM Colorado NM NM NM 19 23 NM NM NM Idaho * * 78.5 * * Montana 402 470 -14.3 NM NM 400 469	131
Colorado NM NM NM 19 23 NM NM NM Idaho * * 78.5 * * <	NM
Idaho	NM
Montana	NM
Nevada	
New Mexico	NM
Utah	
Wyoming	NM
Pacific Contiguous	223
California	169
Oregon 48 7 623.2 44 6 NM NM <t< td=""><td>NM NM</td></t<>	NM NM
Washington	NM NM
Alaska	NM
Hawaii	NM
U.S. Total	4,403

¹ Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

Notes: •See Glossary for definitions.•Values for 2003 are estimated based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906.•Values for 2002 are final.•Negative generation denotes that electric power consumed for plant use exceeds gross generation.•Totals may not equal sum of components because of independent rounding.•Percent difference is calculated before rounding.•Due to restructuring of the electric power industry, electric utilities are selling plants to the nonutility sector. This will affect comparisons of current and historical data.•Petroleum includes distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

² Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

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

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Table 1.9.A. Net Generation from Natural Gas by State, December 2003 and 2002 (Thousand Megawatthours)

	ilousand ivi	<u> </u>	,		Electric Po	ower Sector		Combin	ed Heat an	d Power Pr	oducers
Census Division and State	To	otal (All Secto	ors)	Electric	Utilities	-	lent Power lucers	Comn	nercial ¹	Indus	strial ²
	Dec 2003	Dec 2002	Percent Change	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002
New England	3,281	3,805	-13.8	1	25	3,115	3,518	NM	NM	141	228
Connecticut	393	606	-35.1			378	580	NM	NM	NM	NM
Maine	821	1,133	-27.5			706	981	NM	NM	115	152
Massachusetts	1,705	1,408	21.0	1	16	1,674	1,347	NM	NM	NM	NM
New Hampshire	NM	NM		*	9	2.55				NM	NM
Rhode Island	357	611	-41.6	*	*	357	611	NM	NM		
Vermont Middle Atlantic	3,132	4,040	-4.9 -22.5	360	520	2,525	3,199	NM	NM	210	276
New Jersey	1,116	1,299	-14.1	*	2	1,031	1,195	NM	NM	NM	NM
New York	1,638	2,470	-33.7	360	518	1,185	1,823	NM	NM	78	113
Pennsylvania	378	271	39.4	NM	NM	309	180	NM	NM	58	71
East North Central	1,439	1,625	-11.4	303	358	1,018	1,125	NM	NM	99	101
Illinois	166	190	-12.3	NM	NM	99	98	NM	NM	NM	NM
Indiana	288	213	35.3	125	150	142	46	NM	NM	NM	NM
Michigan	782	1,056	-25.9	51	127	715	907	NM	NM	NM	NM
Ohio	NM	NM		13	19	NM	NM	NM	NM	NM	NM
Wisconsin	173	138	25.9	99	51	48	67	NM	NM	NM	NM
West North Central	319 NM	218 NM	46.2	218	149	73	32	NM NM	NM NM	NM NM	NM NM
Iowa Kansas	NM 64	NM 53	21.2	13 61	15 52			NM NM	NM NM	NM NM	NM NM
Minnesota	147	84	75.9	66	41	66	20	NM	NM	NM	NM
Missouri	75	40	85.5	66	28	7	12	NM	NM	NM	NM
Nebraska	NM	NM		8	13	NM	NM	NM	NM	NM	NM
North Dakota	NM	NM		*	*					NM	NM
South Dakota	3	1	267.5	3	1						
South Atlantic	5,863	4,755	23.3	4,719	3,478	934	1,118	NM	NM	194	151
Delaware	72	30	138.2	*	*	72	30				*
District of Columbia											
Florida	5,028	3,954	27.2	4,477	3,375	435	492	NM	NM	NM	NM
Georgia	NM	NM	49.2	NM	NM	82	158 99			NM	NM
Maryland North Carolina	54 155	105 177	-48.2 -12.2	NM 44	NM 24	51 110	150	NM	NM	NM NM	NM NM
South Carolina	78	29	164.6	77	24		4	NM	NM	1	1
Virginia	323	258	25.0	106	46	169	179	NM	NM	NM	NM
West Virginia	23	11	109.0	*	*	16	4			NM	NM
East South Central	1,587	1,608	-1.3	1,115	1,268	303	162	NM	NM	NM	NM
Alabama	946	818	15.6	658	603	191	93			NM	NM
Kentucky	NM	NM		17	15	2	5			NM	NM
Mississippi	592	711	-16.7	438	629	110	64	NM	NM	NM	NM
Tennessee	NM	NM		2 224	20			NM	NM	NM	NM
West South Central	16,094	17,134 149	-6.1	3,034 7	3,732	9,003	9,409	NM NM	NM NM	4,021	3,953
Arkansas Louisiana	163 3,028	2,846	9.3 6.4	740	4 1,177	134 919	129 219	NM NM	NM NM	NM 1,367	NM 1,447
Oklahoma	1,346	817	64.8	809	679	492	95	NM	NM	43	41
Texas	11,556	13,322	-13.3	1,477	1,872	7,458	8,966	NM	NM	2,588	2,449
Mountain	2,881	3,742	-23.0	1,493	1,414	1,334	2,257	NM	NM	NM	NM
Arizona	686	1,572	-56.4	362	182	323	1,384	NM	NM	NM	NM
Colorado	778	735	5.7	361	474	402	246	NM	NM	NM	NM
Idaho	NM	NM		1	1	NM	NM			NM	NM
Montana	3	1	469.8	3	*					1	*
Nevada	1,088	1,015	7.2	528	465	560	550	NIM	NM	NIM	NM
New Mexico	254 NM	226 NM	12.3	201 NM	168 NM	38	44 7	NM NM	NM NM	NM NM	NM NM
Utah Wyoming	NM NM	NM NM		NM 2	NM 13	 1	15	NM 	NM 	NM NM	NM NM
Pacific Contiguous	7,852	8,798	-10.7	1,049	970	5,554	6,452	NM	NM	1,127	1,239
California	6,572	7,307	-10.7	738	642	4,624	5,327	NM	NM	1,090	1,204
Oregon	844	795	6.2	101	205	708	560	NM	NM	34	29
Washington	437	697	-37.3	209	123	222	565	NM	NM	3	6
Pacific Noncontiguous	364	375	-3.1	314	298			_	-	NM	NM
Alaska	364	375	-3.1	314	298					NM	NM
HawaiiU.S. Total	42,810	46,100	 -7.1	12,605	12,212	23,859	27,271	284	339	6,062	6,277
C.D. Tottlimmin	12,010	10,100	,	12,000	12,212	20,009	27,271	201	- 557	0,002	0,277

¹ Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

Notes: •Total includes small amount of generation from waste heat.•See Glossary for definitions.•Values for 2003 are estimated based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906.•Values for 2002 are final.•Negative generation denotes that electric power consumed for plant use exceeds gross generation.•Totals may not equal sum of components because of independent rounding.•Percent difference is calculated before rounding.•Due to restructuring of the electric power industry, electric utilities are selling plants to the nonutility sector. This will affect comparisons of current and historical data.•Natural gas includes a small amount of supplemental gaseous fuels.

² Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

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

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Table 1.9.B. Net Generation from Natural Gas by State, Year-to-Date through December 2003 and 2002 (Thousand Megawatthours)

		~			Electric Po	wer Sector		Combin	ed Heat an	d Power P	oducers
Census Division and State	To	tal (All Secto	ors)	Electric	Utilities	_	lent Power lucers	Comm	ercial ¹	Indu	strial ²
	2003	2002	Percent Change	2003	2002	2003	2002	2003	2002	2003	2002
New England	43,898	44,775	-2.0	219	827	41,243	41,217	325	411	2,111	2,320
Connecticut	5,872	8,868	-33.8			5,655	8,539	NM	NM	NM	NM
Maine	10,145	13,504	-24.9			8,443	11,817	NM	NM	1,702	1,687
Massachusetts	22,668	15,869	42.8	217	729	22,004	14,558	292	356	NM	NM
New Hampshire	NM	NM		*	96					NM	NM
Rhode Island	5,144	6,310	-18.5			5,141	6,304	NM	NM		
Vermont	2	3	-38.0	2	3						2.001
Middle Atlantic	47,308	64,236	-26.4	7,780	10,896	36,332	48,852	477	587	2,718	3,901
New Jersey	14,656	19,069	-23.1	30	96	13,418	16,771	NM	NM NM	1,061	2,088
New York	27,177 5,475	38,451	-29.3 -18.5	7,748 NM	10,798 NM	18,368 4,546	26,431	NM NM	NM NM	903 754	968 845
,	21,816	6,716 32,558	-18.3 - 33.0	4,635	5,974	15,460	5,650 24,604	272	488	1.449	1,492
East North Central	4,142	9,079	-54.4	NM	NM	3,010	7,928	NM	NM	601	616
Indiana	3,278	3,782	-13.3	1,705	1,707	1,264	1,821	NM	NM	300	248
Michigan	10,849	15,853	-31.6	1,123	2,336	9,517	13,051	NM	NM	191	447
Ohio	1,340	1,767	-24.2	312	797	986	941	NM	NM	NM	NM
Wisconsin	2,208	2,076	6.3	1,139	973	683	865	NM	NM	326	157
West North Central	6,978	7,987	-12.6	5,016	6,044	1,519	1,497	NM	NM	308	298
Iowa	401	555	-27.7	279	407			NM	NM	NM	NM
Kansas	1,383	1,789	-22.7	1,282	1,772			NM	NM	NM	NM
Minnesota	2,055	1,592	29.1	1,132	897	735	457	NM	NM	92	134
Missouri	2,614	3,544	-26.2	1,810	2,478	783	1,039	14	18	NM	NM
Nebraska	413	413	1	404	404	NM	NM	NM	NM	NM	NM
North Dakota	NM	NM		*	*					NM	NM
South Dakota	109	86	27.6	109	86						
South Atlantic	85,874	86,398	6	64,477	63,623	19,404	20,321	NM	NM	1,836	2,225
Delaware	1,309	1,443	-9.3	13	17	1,295	1,339			1	87
District of Columbia											
Florida	66,559	63,164	5.4	58,161	54,883	7,327	7,065	NM	NM	1,011	1,146
Georgia	5,018	6,889	-27.2	907	1,189	3,766	5,239			346	461
Maryland	2,794	2,214	26.2	NM	NM	2,752	2,162			NM	NM
North Carolina	3,574	3,561	.4	1,322	1,936	2,227	1,600	NM	NM	NM	NM
South Carolina	2,102	4,498	-53.3	1,770	3,466	320	988	NM	NM	11	43
Virginia	4,238	4,387	-3.4	2,299	2,128	1,514	1,754	NM 	NM 	336	353
West Virginia	279 23,516	241 34,719	15.8 - 32.3	4 14,607	24,506	204 6,675	174 7,916	NM	NM	NM 2,175	NM 2,229
East South Central	12,264	15,904	-22.9	7,735	11,242	3,307	3,248	INIVI	INIVI	1,222	1,414
Kentucky	467	1,374	-66.0	231	693	5,507	470	9		NM	NM
Mississippi	10,368	16,971	-38.9	6,443	12,530	3,292	4,024	NM	NM	614	392
Tennessee	417	470	-11.3	198	40	NM	NM	NM	NM	NM	NM
West South Central	250,093	269,986	-7.4	63,555	81,969	136,320	137,134	1,030	516	49,188	50,367
Arkansas	3,582	4,603	-22.2	599	1,756	2,749	2,508	NM	NM	230	336
Louisiana	40,180	47,901	-16.1	13,531	25,086	8,505	6,109	555	32	17,590	16,674
Oklahoma	21,004	21,049	2	13,872	15,954	6,629	4,595	NM	NM	481	473
Texas	185,328	196,433	-5.7	35,553	39,173	118,437	123,922	450	454	30,887	32,883
Mountain	44,352	44,413	1	18,852	21,156	24,635	22,287	NM	NM	621	733
Arizona	16,974	17,293	-1.8	4,212	5,238	12,747	12,020	NM	NM	NM	NM
Colorado	8,712	9,028	-3.5	4,369	5,322	4,125	3,443	NM	NM	NM	NM
Idaho	252	329	-23.3	61	76	NM	NM			48	82
Montana	25	17	52.8	18	7	1	1			7	9
Nevada	12,804	12,211	4.9	5,784	6,311	7,020	5,900				
New Mexico	3,630	3,442	5.5	2,940	2,728	472	516	NM	NM	NM	NM
Utah	1,568	1,380	13.6	1,347	1,268	38	88	NM	NM	NM	NM
Wyoming	385	713	-46.0	120	206	90	148			175	360
Pacific Contiguous	101,225	102,156	9	13,867	11,692	72,752	74,215	1,555	1,625	13,051	14,624
California	83,853	89,624	-6.4	9,712	8,808	60,065	65,186	1,515	1,593	12,561	14,037
Oregon	10,858	7,813	39.0	1,977	1,799	8,465	5,611	NM	NM	411	397
Washington	6,514	4,719	38.0	2,177	1,084	4,222	3,419	NM	NM	78	190
Pacific Noncontiguous	4,096	3,778	8.4	3,246	2,953	-				850	825
Alaska	4,096	3,778	8.4	3,246	2,953					850	825
Hawaii	629,207	601.006	9.0	106 205	220 630	354,342	378,044	4 252	4 210	74,308	70.013
U.S. Total	029,207	691,006	-8.9	196,305	229,639	334,342	3/0,044	4,252	4,310	74,308	79,013

¹ Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

Notes: *Total includes small amount of generation from waste heat. *See Glossary for definitions. *Values for 2003 are estimated based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906. *Values for 2002 are final. *Negative generation denotes that electric power consumed for plant use exceeds gross generation. *Totals may not equal sum of components because of independent rounding. *Percent difference is calculated before rounding. *Due to restructuring of the electric power industry, electric utilities are selling plants to the nonutility sector. This will affect comparisons of current and historical data. *Natural gas includes a small amount of supplemental gaseous fuels.

² Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

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

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Table 1.10.A. Net Generation from Other Gases by State, December 2003 and 2002 (Thousand Megawatthours)

					Electric Po	wer Sector		Combin	ned Heat an	d Power Pr	oducers
Census Division and State	To	otal (All Secto	ors)	Electric	Utilities		lent Power ducers	Comn	nercial ¹	Indus	strial ²
	Dec 2003	Dec 2002	Percent Change	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002
New England					-	-		_	-	_	-
Connecticut											
Maine											
Massachusetts											
New Hampshire											
Rhode IslandVermont											
Middle Atlantic	75	55	35.7			*	1			75	55
New Jersey	NM	NM					*			NM	NM
New York	NM	NM								NM	NM
Pennsylvania	57	47	19.8			*	*			56	47
East North Central	295	263	11.8		-	NM	NM	-		284	251
Illinois	NM	NM								NM	NM
Indiana	243	228	6.6			NM	NM			243	228
Michigan		1	-100.0				1				
Ohio	NM	NM				NM	NM			NM	NM
Wisconsin											
West North Central	NM	NM		*	*	-				NM	NM
Iowa											
Kansas											
Minnesota	*			*							
Missouri Nebraska		*	-100.0	•	*						
North Dakota	NM	NM	-100.0							NM	NM
South Dakota											
South Atlantic	89	53	68.1			34	22			55	31
Delaware	41	14	200.9							41	14
District of Columbia											
Florida	1	1	-29.2			*	*			*	1
Georgia											
Maryland	34	22	51.1			34	22				
North Carolina		*	-100.0				*				
South Carolina		*	-100.0								*
Virginia											
West Virginia	14 NM	16	-13.6							14 NM	16 NM
East South Central	NM NM	NM NM				-			-	NM NM	NM NM
Kentucky	1NIVI									INIVI	11111
Mississippi		2	-100.0								2
Tennessee	*	*	9.7							*	*
West South Central	564	499	12.9		20	26	82		_	537	398
Arkansas											
Louisiana	288	198	44.9		20					288	179
Oklahoma	NM	NM								NM	NM
Texas	269	295	-8.6			26	82			243	213
Mountain	NM	NM		1	*	1	19	_	-	NM	NM
Arizona		*			*						
Colorado	1		70.8	1	*						
Idaho	1		60.5			1					
Montana	1	2 17	-60.5 			I 	2 17				
Nevada New Mexico							1 /				
Utah											
Wyoming	NM	NM								NM	NM
Pacific Contiguous	189	120	56.7		_	31	29	NM	NM	158	91
California	158	91	73.6			*		NM	NM	158	91
Oregon											
Washington	31	29	4.5			31	29				
Pacific Noncontiguous	NM	NM	-		-	-		-	-	NM	NM
Alaska											
Hawaii	NM	NM								NM	NM
U.S. Total	1,229	1,025	19.8	1	20	102	166	*		1,125	840

¹ Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

Notes: •See Glossary for definitions.•Values for 2003 are estimated based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906.•Values for 2002 are final.•Negative generation denotes that electric power consumed for plant use exceeds gross generation.•Totals may not equal sum of components because of independent rounding.•Percent difference is calculated before rounding.•Due to restructuring of the electric power industry, electric utilities are selling plants to the nonutility sector. This will affect comparisons of current and historical data.•Other gases include blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

² Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

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

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Table 1.10.B. Net Generation from Other Gases by State, Year-to-Date through December 2003 and 2002 (Thousand Megawatthours)

					Electric Po	wer Sector		Combin	ed Heat an	d Power Pi	roducers
Census Division and State	Tot	tal (All Secto	<i></i>	Electric	Utilities		ent Power lucers	Comn	iercial ¹	Indu	strial ²
	2003	2002	Percent Change	2003	2002	2003	2002	2003	2002	2003	2002
New England	*	9	-99.5	-	-	*	9	-	-	-	-
Connecticut		9	-100.0				9				
Maine	*	*	-4.2			*	*				
Massachusetts											
New Hampshire											
Rhode Island Vermont											
Middle Atlantic	767	659	16.4			NM	NM			763	655
New Jersey	NM	NM				1	2			NM	NM
New York	NM	NM								NM	NM
Pennsylvania	604	569	6.3			NM	NM			601	567
East North Central	2,611	3,456	-24.4			NM	NM	-	-	2,514	3,285
Illinois	NM	NM								NM	NM
Indiana	2,164	3,006	-28.0			NM	NM			2,161	3,001
Michigan	2 NIM	10 NM	-78.3			2 NIM	10 NM			NIM	NIM
Ohio Wisconsin	NM 	NM 				NM 	NM 			NM 	NM
West North Central	NM	NM		2	*					NM	NM
Iowa								-		14141	14141
Kansas											
Minnesota											
Missouri	2			2							
Nebraska	*	*	104.0	*	*						
North Dakota	NM	NM								NM	NM
South Dakota						256	 50 <i>C</i>			206	224
South Atlantic Delaware	642 235	840 146	-23.6 60.3		-	256	506	-		386 235	334 146
District of Columbia	233	140								233	140
Florida	14	13	8.7			1	1			14	12
Georgia											
Maryland	256	505	-49.3			256	505				
North Carolina	*	1	-93.3			*	1				
South Carolina	*	*	-76.8							*	*
Virginia											
West Virginia	137	175	-21.4							137	175
Alabama	139 136	162 113	-14.3 21.0		-	-		-	-	139 136	1 62 113
Kentucky	130	113	21.0							130	113
Mississippi	*	38	-99.4							*	38
Tennessee	3	12	-77.7							3	12
West South Central	4,718	4,621	2.1		203	496	697			4,222	3,720
Arkansas											
Louisiana	1,921	1,498	28.3		203					1,921	1,294
Oklahoma	81	71	13.9							81	71
Texas	2,716	3,053	-11.0			496	697			2,220	2,356
Mountain	NM 	NM 		4	3	22	64	-		NM 	NM
Arizona	4	3	38.7	4	3						
Idaho			36.7								
Montana	20	19	1.8			20	19				
Nevada	2	45	-94.5			2	45				
New Mexico											
Utah											
Wyoming	NM	NM								NM	NM
Pacific Contiguous	1,963	1,553	26.4		-	349	313	NM	NM	1,614	1,240
California	1,615	1,240	30.2			NM	NM	NM	NM	1,614	1,240
Oregon Washington	348	313	11.3			348	313				
Pacific Noncontiguous	NM	NM				346	313			NM	NM
Alaska								-		14141	14141
Hawaii	NM	NM								NM	NM
								*	*		

¹ Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

Notes: •See Glossary for definitions.•Values for 2003 are estimated based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906.•Values for 2002 are final.•Negative generation denotes that electric power consumed for plant use exceeds gross generation.•Totals may not equal sum of components because of independent rounding.•Percent difference is calculated before rounding.•Due to restructuring of the electric power industry, electric utilities are selling plants to the nonutility sector. This will affect comparisons of current and historical data.•Other gases include blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

² Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

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

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Table 1.11.A. Net Generation from Nuclear Energy, by State December 2003 and 2002 (Thousand Megawatthours)

					Electric Po	ower Sector		Combin	ned Heat an	d Power Pi	oducers
Census Division and State	To	otal (All Secto	ors)	Electric	Utilities		lent Power ducers	Comr	nercial ¹	Indus	strial ²
	Dec 2003	Dec 2002	Percent Change	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002
New England	3,250	3,007	8.1			3,250	3,007	-	-	_	-
Connecticut	1,490	1,260	18.2			1,490	1,260				
Maine	508	491	3.5			508	491				
Massachusetts New Hampshire	862	862	3.3 .1			862	862				
Rhode Island											
Vermont	389	394	-1.3			389	394				
Middle Atlantic	13,077	12,880	1.5	1,633	1,612	11,444	11,268		_	-	-
New Jersey	2,534	2,946	-14.0	369	260	2,534	2,946				
New York Pennsylvania	3,776 6,767	3,101 6,833	21.8 -1.0	1,264	369 1,243	3,407 5,503	2,732 5,591				
East North Central	12,859	13,254	-3.0	5,036	4,876	7,824	8,378				_
Illinois	7,824	8,378	-6.6			7,824	8,378				
Indiana											
Michigan	2,945	2,802	5.1	2,945	2,802						
Ohio Wisconsin	925 1,165	928 1,145	3 1.7	925 1,165	928 1,145						
West North Central	4,131	4,146	4	4,131	4,146						
Iowa	370	429	-13.8	370	429						
Kansas	808	888	-9.0	808	888						
Minnesota	1,233	1,163	6.0	1,233	1,163						
Missouri	872	741	17.7	872	741						
Nebraska North Dakota	849	926	-8.3	849	926						
South Dakota											
South Atlantic	16,816	17,375	-3.2	15,515	16,083	1,301	1,292	_	-		-
Delaware											
District of Columbia											
Florida	2,737	2,987	-8.4	2,737	2,987						
Georgia Maryland	3,073 1,301	2,535 1,292	21.2 .7	3,073	2,535	1,301	1,292				
North Carolina	3,749	3,679	1.9	3,749	3,679	1,501	1,272				
South Carolina	3,413	4,959	-31.2	3,413	4,959						
Virginia	2,544	1,923	32.3	2,544	1,923						
West Virginia											
East South Central	6,047 2,974	6,245 2,858	-3.2 4.1	6,047 2,974	6,245 2,858				-	-	
Kentucky	2,974	2,636	4.1 	2,974	2,636						
Mississippi	955	956	1	955	956						
Tennessee	2,118	2,430	-12.9	2,118	2,430						
West South Central	6,072	5,476	10.9	4,498	4,117	1,574	1,360			-	-
Arkansas	1,034	1,353	-23.6	1,034	1,353						
LouisianaOklahoma	1,563	1,556	.4	1,563	1,556						
Texas	3,475	2,567	35.4	1,901	1,207	1,574	1,360				
Mountain	2,292	2,813	-18.5	2,292	2,813			-	-	-	-
Arizona	2,292	2,813	-18.5	2,292	2,813						
Colorado											
Idaho											
Montana Nevada											
New Mexico											
Utah											
Wyoming											
Pacific Contiguous	4,068	3,710	9.7	4,068	3,710	-		-	-		-
California	3,237	2,873	12.7	3,237	2,873						
Washington	831	837	 7	831	837						
Pacific Noncontiguous					-	-		-	-	-	-
Alaska											
Hawaii	 (0.(13					25 202	25.205				
U.S. Total	68,612	68,905	4	43,220	43,601	25,392	25,305	-	-		-

¹ Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

² Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

Notes: •See Glossary for definitions.•Values for 2003 are estimated based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906.•Values for 2002 are final.•Negative generation denotes that electric power consumed for plant use exceeds gross generation.•Totals may not equal sum of components because of independent rounding.•Percent difference is calculated before rounding.•Due to restructuring of the electric power industry, electric utilities are selling plants to the nonutility sector. This will affect comparisons of current and historical data.

Source: Energy Information Administration, Form EIA-906, "Power Plant Report."

Table 1.11.B. Net Generation from Nuclear Energy by State, Year-to-Date through December 2003 and 2002 (Thousand Megawatthours)

	ousulla 111				Electric Po	wer Sector		Combin	ed Heat and	d Power Pr	oducers
Census Division and State	То	tal (All Secto	ors)	Electric	Utilities		lent Power lucers	Comm	ercial¹	Indus	trial ²
	2003	2002	Percent Change	2003	2002	2003	2002	2003	2002	2003	2002
New England	34,776	33,944	2.5	_	9,967	34,776	23,977	_	_	_	-
Connecticut	16,078	14,918	7.8		´	16,078	14,918				
Maine						·					
Massachusetts	4,978	5,769	-13.7			4,978	5,769				
New Hampshire	9,276	9,295	2		7,600	9,276	1,695				
Rhode Island											
Vermont	4,444	3,963	12.2		2,367	4,444	1,595				
Middle Atlantic	144,749	146,572	-1.2	16,483	17,422	128,266	129,151	-		-	
New Jersey	29,709	30,866	-3.7			29,709	30,866				
New York	40,679	39,617	2.7	3,864	3,827	36,815	35,791				
Pennsylvania	74,361	76,089	-2.3	12,619	13,595	61,742	62,494				
East North Central	143,377	145,261	-1.3	48,644	54,401	94,733	90,860	-		-	-
Illinois	94,733	90,860	4.3			94,733	90,860				
Indiana				27.054							
Michigan	27,954	31,087	-10.1	27,954	31,087						
Ohio	8,475	10,865	-22.0	8,475	10,865						
Wisconsin	12,215	12,449	-1.9	12,215	12,449						
West North Central	43,988	45,812	-4.0	43,988	45,812	-	-	-	-	-	-
Iowa	3,988 8,890	4,574 9,042	-12.8	3,988 8,890	4,574 9,042						
Kansas		,	-1.7	,							
Minnesota	13,414 9,700	13,685	-2.0 15.6	13,414 9,700	13,685 8,390						
Missouri Nebraska	7,997	8,390 10,122	-21.0	7,997	10,122						
North Dakota	1,991	10,122	-21.0	1,991	10,122						
South Dakota	 				 						
South Atlantic	194,067	197,239	-1.6	180,377	185,111	13,691	12,128				
Delaware	174,007	177,237	-1.0	100,577	105,111	15,071	12,120				-
District of Columbia											
Florida	30,979	33,704	-8.1	30,979	33,704						
Georgia	33,257	31,108	6.9	33,257	31,108						
Maryland	13,691	12,128	12.9			13,691	12,128				
North Carolina	40,907	39,627	3.2	40,907	39,627		,				
South Carolina	50,418	53,326	-5.5	50,418	53,326						
Virginia	24,816	27,346	-9.3	24,816	27,346						
West Virginia		·		·							
East South Central	66,732	69,490	-4.0	66,732	69,490	-		-			
Alabama	31,677	31,857	6	31,677	31,857						
Kentucky											
Mississippi	10,902	10,059	8.4	10,902	10,059						
Tennessee	24,153	27,574	-12.4	24,153	27,574						
West South Central	64,253	67,482	-4.8	46,504	50,914	17,749	16,568	-		-	
Arkansas	14,689	14,559	.9	14,689	14,559						
Louisiana	16,126	17,305	-6.8	16,126	17,305						
Oklahoma											
Texas	33,437	35,618	-6.1	15,689	19,050	17,749	16,568				
Mountain	28,573	30,862	-7.4	28,573	30,862	-		-	-	-	-
Arizona	28,573	30,862	-7.4	28,573	30,862						
Colorado											
Idaho											
Montana											
Nevada											
New Mexico											
Utah											
Wyoming	42 208	43,401		42 209	 43 401						
Pacific Contiguous	43,208 25,504	-, -	4 2.6	43,208	43,401	-		_	-	-	-
California	35,594	34,352	3.6	35,594	34,352						
Oregon Washington	7 615	9,048	-15.8	7,615	9,048						
	7,615										
Pacific Noncontiguous Alaska					-	-		-	-	-	-
Hawaii											
U.S. Total	763,725	780,064	-2.1	474,509	507,380	289,215	272,684		_	_	
C.5. 1 Ottal	700,723	700,004	2.1	17 1,500	307,300	207,213	2,2,004				

¹ Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

² Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

Notes: •See Glossary for definitions.•Values for 2003 are estimated based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906.•Values for 2002 are fnal.•Negative generation denotes that electric power consumed for plant use exceeds gross generation.•Totals may not equal sum of components because of independent rounding.•Percent difference is calculated before rounding.•Due to restructuring of the electric power industry, electric utilities are selling plants to the nonutility sector. This will affect comparisons of current and historical data.

Source: Energy Information Administration, Form EIA-906, "Power Plant Report."

Table 1.12.A. Net Generation from Hydroelectric Power by State, December 2003 and 2002 (Thousand Megawatthours)

	110 4104114 111	egawaunou			Electric Po	ower Sector		Combin	ed Heat an	d Power Pi	oducers
Census Division and State	To	otal (All Secto	ors)	Electric	Utilities		lent Power lucers	Comn	nercial ¹	Indu	strial ²
	Dec 2003	Dec 2002	Percent Change	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002
New England	896	487	84.0	78	52	642	341	*	*	175	94
Connecticut	73	54	35.6	NM	NM	70	52				
Maine	468	209	124.4	NM	NM	314	132 -2	*	*	154	76
Massachusetts New Hampshire	33 190	14 122	135.0 55.6	NM 42	NM 21	31 131	-2 85			NM 17	NM 15
Rhode Island	NM	NM	33.0			NM	NM				
Vermont	132	89	49.2	34	14	96	74			NM	NM
Middle Atlantic	2,746	2,300	19.4	1,960	1,831	775	461	NM	NM	11	8
New Jersey	-9 2.484	-11	-21.1	-12	-12 1.716	NM	NM	NIM	NIM	 11	0
New York Pennsylvania	2,484 270	2,115 196	17.5 37.7	1,809 163	1,716 127	665 107	391 69	NM 	NM 	11	8
East North Central	243	287	-15.4	196	254	21	12	NM	NM	24	21
Illinois	15	12	32.0	NM	NM	NM	NM	NM	NM		
Indiana	33	29	11.2	33	29						
Michigan	38	41	-6.0	24	33	11	6			NM	NM
Ohio Wisconsin	21 136	38 167	-45.4 -18.9	21 113	38 147	NM	NM	NM	NM	21	 19
West North Central	612	558	9.7	581	552	NM	NM		INIVI	23	2
Iowa	67	72	-6.9	65	71	NM	NM				
Kansas	NM	NM				NM	NM				
Minnesota	66	44	49.8	40	40	NM	NM			23	2
Missouri	67 51	8 55	727.5	67 51	8 55						
Nebraska North Dakota	127	160	-7.5 -20.5	127	160						
South Dakota	231	218	5.9	231	218						
South Atlantic	1,692	1,552	9.0	1,067	1,018	359	260	NM	NM	266	273
Delaware											
District of Columbia			21.6								
FloridaGeorgia	23 316	19 357	21.6 -11.5	23 311	19 355	NM	NM			5	2
Maryland	304	211	44.1	311		304	211				
North Carolina	668	647	3.2	476	436	NM	NM	NM	NM	189	209
South Carolina	172	168	2.2	165	163	7	5	NM	NM		
Virginia	71	18	291.3	64	15	7	3			NM	NM
West Virginia East South Central	139 2,593	132 2,901	5.2 -10.6	28 2,492	30 2,793	40 2	39 1			71 100	62 107
Alabama	1,024	1,598	-35.9	1,024	1,598						
Kentucky	343	320	7.1	343	320						
Mississippi	2	1	46.0			2	1				
Tennessee	1,224	982	24.7	1,125	875					100	107
West South Central	400 187	316 141	26.8	318 187	252 141	82 NM	64 NM	-	-	-	-
ArkansasLouisiana	78	61	32.2 28.6	187	141	78	61				
Oklahoma	108	31	250.7	108	31						
Texas	27	83	-67.1	24	80	3	3				
Mountain	2,027	2,087	-2.9	1,738	1,778	289	309	-	-	-	
Arizona	522	490	6.6	522	490	NIM	 NM				
ColoradoIdaho	75 457	28 442	164.0 3.3	73 432	27 418	NM NM	NM NM				
Montana	815	903	-9.7	554	621	261	282				
Nevada	82	150	-45.7	81	150	NM	NM				
New Mexico	NM	NM		NM	NM						
Utah	38	33	15.8	37	32	NM	NM				
Wyoming	23 12,072	26 10,353	-12.2 16.6	23 11,971	26 10,232	NM	NM	NM	NM	NM	NM
Pacific Contiguous	2,403	2,074	15.9	2,347	2,013	NM	NM	INIVI	NIVI	NIVI	NM
Oregon	3,109	2,592	19.9	3,079	2,571	NM	NM				
Washington	6,560	5,687	15.4	6,545	5,648	NM	NM	NM	NM	NM	NM
Pacific Noncontiguous	149	148	.6	141	142	NM	NM	-	-	NM	NM
Alaska	140	142	-1.5	140	142	 >D.4	 >D.4			 ND(ND (
Hawaii	NM 23,430	NM 20,989	11.6	20,542	18,903	NM 2,281	NM 1,555	6	1	NM 601	NM 529
C.D. 10tal	23,730	20,707	11.0	20,372	10,703	2,201	1,000	U	1	001	34)

¹ Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

² Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

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

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Notes: •See Glossary for definitions.•Values for 2003 are estimated based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906.•Values for 2002 are final.•Negative generation denotes that electric power consumed for plant use exceeds gross generation.•Totals may not equal sum of components because of independent rounding.•Percent difference is calculated before rounding.•Deteron the electric power industry, electric utilities are selling plants to the nonutility sector. This will affect comparisons of current and historical data.•Hydroelectric power includes conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.

Source: Energy Information Administration, Form EIA-906, "Power Plant Report."

Table 1.12.B. Net Generation from Hydroelectric Power by State, Year-to-Date through December 2003 and 2002 (Thousand Megawatthours)

		egawaunou)		Electric Po	ower Sector		Combin	ed Heat an	d Power Pi	oducers
Census Division and State	To	tal (All Secto	ors)	Electric	Utilities		lent Power lucers	Comm	iercial ¹	Indus	strial ²
	2003	2002	Percent Change	2003	2002	2003	2002	2003	2002	2003	2002
New England	6,584	5,372	22.6	704	895	4,698	3,461	6	4	1,176	1,012
Connecticut	539	325	65.9	NM	NM	514	304				
Maine	3,423 159	2,768 20	23.7 691.1	NM NM	NM NM	2,375 140	1,831 -197	6	4	1,044 11	937
Massachusetts New Hampshire	1,289	1,141	13.0	331	263	858	825			100	6 53
Rhode Island	NM	NM				NM	NM				
Vermont	1,169	1,115	4.8	342	404	807	695			21	16
Middle Atlantic	26,060	25,546	2.0	19,656	20,544	6,349	4,935	NM	NM	55	67
New Jersey	-93 24.002	-134	-30.5	-120	-146	27 5,469	12	NIM	NM	55	67
New York Pennsylvania	24,002 2,151	24,127 1,553	5 38.5	18,478 1,298	19,725 965	853	4,335 587	NM 	NM 	33	67
East North Central	3,327	4,177	-20.4	2,811	3,762	231	169	NM	NM	276	247
Illinois	162	129	26.1	59	57	100	72	NM	NM		
Indiana	424	411	3.1	424	411						
Michigan	370	634	-41.6	220	522	115	82			35	29
Ohio Wisconsin	399 1,971	488 2,515	-18.3 -21.6	399 1,709	488 2,283	 17	 14	NM	NM	240	218
West North Central	9,220	10,010	-7.9	8,897	9,915	89	49	INIVI	INIVI	234	45
Iowa	796	946	-15.9	776	937	20	10				
Kansas	34	13	169.3			34	13				
Minnesota	961	809	18.8	692	737	35	27			234	45
Missouri	448	1,198	-62.6	448	1,198						
Nebraska North Dakota	980 1,724	1,097 1,593	-10.7 8.2	980 1,724	1,097 1,593						
South Dakota	4,276	4,354	-1.8	4,276	4,354						
South Atlantic	18,568	7,622	143.6	12,451	3,929	3,217	2,124	NM	NM	2,897	1,560
Delaware											
District of Columbia											
Florida	263	184	42.7	263	184	 ND 4	 ND 6				
Georgia Maryland	4,208 2,647	2,068 1,661	103.5 59.4	4,160	2,037	NM 2,647	NM 1,661			44	29
North Carolina	7,314	3,517	108.0	5,183	2,436	14	1,001	NM	NM	2,115	1,062
South Carolina	2,365	247	859.2	2,310	185	54	61	NM	NM		
Virginia	273	-1,121	-124.4	212	-1,148	59	26			NM	NM
West Virginia	1,499	1,066	40.6	323	236	440	363			736	467
East South Central	27,195 11,959	20,139	35.0	26,265 11,959	19,471	13	12		-	917	656
Alabama Kentucky	3,948	8,825 4,025	35.5 -1.9	3,948	8,825 4,025						
Mississippi	13	12	9.7	5,746		13	12				
Tennessee	11,275	7,278	54.9	10,358	6,622					917	656
West South Central	5,958	7,261	-17.9	5,142	6,322	816	939	_	-	-	
Arkansas	2,754	3,436	-19.8	2,754	3,436	NM	NM				
Louisiana Oklahoma	778 1,592	891 1,810	-12.8 -12.0	1,592	1,810	778	891				
Texas	834	1,810	-12.0 -25.8	1,392 796	1,810	38	47				
Mountain	28,368	30,450	-6.8	24,612	26,599	3,756	3,851	_	_	_	
Arizona	7,238	7,551	-4.2	7,238	7,551		´				
Colorado	977	989	-1.2	946	968	NM	NM				
Idaho	8,364	8,769	-4.6	7,706	8,088	658	681				
Montana Nevada	8,730 1,761	9,567 2,268	-8.7 -22.4	5,686 1,748	6,433 2,259	3,044 NM	3,134 NM				
New Mexico	221	2,208	-16.5	221	265	10101	INIVI				
Utah	487	458	6.3	475	452	NM	NM				
Wyoming	592	584	1.4	592	584						
Pacific Contiguous	139,251	143,475	-2.9	137,441	141,983	1,729	1,314	79	-	NM	NM
California	35,383	30,900	14.5	34,249	29,996	1,133	904				
Oregon Washington	33,480 70,389	34,413 78,162	-2.7 -9.9	33,100 70,091	34,158 77,829	379 216	255 156	 79		NM	NM
Pacific Noncontiguous	1,808	1,534	17.9	1,691	1,448	52	26	-		65	60
Alaska	1,689	1,439	17.3	1,689	1,439						
Hawaii	120	95	26.0	2	9	52	26			65	60
U.S. Total	266,339	255,586	4.2	239,669	234,868	20,951	16,880	98	13	5,621	3,825

¹ Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

Notes: •See Glossary for definitions.•Values for 2003 are estimated based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906.•Values for 2002 are final.•Negative generation denotes that electric power consumed for plant use exceeds gross generation.•Totals may not equal sum of components because of independent rounding.•Percent difference is calculated before rounding.•Due to restructuring of the electric power industry, electric utilities are selling plants to the nonutility sector. This will affect comparisons of current and historical data.•Hydroelectric power includes conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.

² Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

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

Table 1.13.A. Net Generation from Other Renewables by State, December 2003 and 2002 (Thousand Megawatthours)

	Total (All Sectors)				Electric Po	Combined Heat and Power Producers					
Census Division and State				Electric Utilities		Independent Power Producers		Commercial ¹		Industrial ²	
	Dec 2003	Dec 2002	Percent Change	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002
New England	801	832	-3.7	22	24	574	603	20	17	186	188
Connecticut	133	139	-4.5			133	139				
Maine	355	378	-6.2			160	176	17	15	177	188
Massachusetts New Hampshire	190 79	174 92	9.5			188 71	172 91	2	2	NM 8	NM 1
Rhode Island	9	92	-14.6 4			9	91				1
Vermont	35	39	-10.6	22	24	12	15			NM	NM
Middle Atlantic	595	601	-1.0		_	497	496	42	36	56	70
New Jersey	117	116	1.1			116	115	NM	NM	NM	NM
New York	229	247	-7.3			191	202	22	17	15	28
Pennsylvania	249 448	238 393	4.4 13.9	28	36	190 268	179 231	19 24	18 17	39 128	41 109
East North Central	81	64	27.6			74	57	NM	NM	7	7
Indiana	13	12	6.5			8	7	NM	NM	2	3
Michigan	237	189	25.4	3	1	153	146	18	13	63	30
Ohio	12	12	1.0			NM	NM	NM	NM	NM	NM
Wisconsin	105	116	-10.0	25	35	29	17	NM	NM	49	63
West North Central	376 119	328 104	14.8	59	49 4	287 112	251 99	NM NM	NM NM	27 NM	23 NM
Kansas	44	31	14.0 43.2	*		44	31	INIVI	NM 	INIVI	INIVI
Minnesota	192	182	5.4	34	37	130	121	NM	NM	26	23
Missouri	16	8	108.1	15	7			*	*	NM	NM
Nebraska	4	2	91.6	2	1	NM	NM	NM	NM		
North Dakota	1			1						NM	NM
South Dakota	1 112	*	6.9	1	*						1.022
South Atlantic Delaware	1,442	1,533	-5.9 	15	14	551	471	37	16	839	1,032
District of Columbia											
Florida	516	401	28.7	11	12	334	275	NM	NM	167	110
Georgia	313	584	-46.5			NM	NM			311	583
Maryland	66	60	10.1			47	44	NM	NM	18	15
North Carolina	164	151	8.2			38	42			126	109
South Carolina Virginia	114 247	91 236	25.2 4.7	2	1	110	99	NM 26	NM 12	107 110	90 125
West Virginia	23	9	143.9	3	*	20	9			110	*
East South Central	589	439	34.2	2	*	18	19	NM	NM	568	419
Alabama	356	293	21.6			15	16			342	277
Kentucky	31	14	117.5	2						29	14
Mississippi	131	59	121.8		*	 >D.4	 >D/4	 >D.4	 ND 6	131	59
West South Central	70 949	72 679	-3.3 39.7	1 *	*	NM 389	NM 220	NM 4	NM 1	65 556	68 459
Arkansas	161	129	25.6					NM	NM	161	128
Louisiana	289	215	34.5			6	6			283	209
Oklahoma	70	24	189.3			45				25	24
Texas	429	312	37.5	*	*	338	214	3	*	87	97
Mountain	309	253 14	22.2 -83.5	27 2	32 4	217	174 10	3 NM	* NM	62	46
Arizona Colorado	20	17	-83.3 16.9	6	6	11	10	3	INIVI		
Idaho	59	44	32.4			NM	NM			56	40
Montana	6	6	7.5							6	6
Nevada	95	98	-3.0			95	98				
New Mexico	53	5	910.3			53 NM	5				
Utah Wyoming	18 55	22 46	-15.2 19.6	17 2	21 2	NM 54	NM 44				
Pacific Contiguous	2,189	2,056	6.5	159	189	1,823	1,663	35	30	172	173
California	1,946	1,802	8.0	114	125	1,699	1,552	35	30	98	94
Oregon	106	84	26.0		*	80	63			26	21
Washington	137	170	-19.4	45	65	44	48			48	58
Pacific Noncontiguous	68	40	69.9	NM	NM	53	37	-	-	14	3
Alaska	NM	NM	74.0	NM *	NM *	 52	*			1.4	1
Hawaii	7,766	39 7,153	74.8 8.6	312	345	53 4,677	37 4,165	168	121	14 2,609	2 2,522
C.D. 10tut	7,700	7,133	3.0	312	545	1,077	1,103	100	121	2,307	2,022

¹ Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

Notes: •See Glossary for definitions.•Values for 2003 are estimated based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906.•Values for 2002 are final.•Negative generation denotes that electric power consumed for plant use exceeds gross generation.•Totals may not equal sum of components because of independent rounding.•Percent difference is calculated before rounding.•Due to restructuring of the electric power industry, electric utilities are selling plants to the nonutility sector. This will affect comparisons of current and historical data.•Other renewables include wood, black liquor, other wood waste, municipal solid waste, landfill gas, sludge waste, tires, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic energy, and wind.

Source: Energy Information Administration, Form EIA-906, "Power Plant Report."

² Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants. NM = Not meaningful due to large relative standard error or excessive percentage change.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Table 1.13.B. Net Generation from Other Renewables by State, Year-to-Date through December 2003 and 2002 (Thousand Megawatthours)

	Total (All Sectors)				Electric Po	Combined Heat and Power Producers					
Census Division and State				Electric Utilities		Independent Power Producers		Commercial ¹		Industrial ²	
	2003	2002	Percent Change	2003	2002	2003	2002	2003	2002	2003	2002
New England	9,212	9,495	-3.0	234	187	6,570	6,704	207	201	2,201	2,403
Connecticut	1,544	1,626	-5.0			1,544	1,626				
Maine	4,201	4,430	-5.2			1,896	1,895	182	175	2,123	2,359
Massachusetts	2,053	2,051	.1			2,028	2,025	25	26	NM	NM
New Hampshire	892	925	-3.5			828	885			NM	NM
Rhode Island	102	98	4.1			102	98				
Vermont	420	366	14.8	234	187	171	175			NM	NM
Middle Atlantic	6,549	6,711	-2.4			5,456	5,576	444	448	649	687
New Jersey	1,319	1,330	8			1,304 2,087	1,315 2,209	NM 234	NM 230	13 140	13 184
New York Pennsylvania	2,461 2,768	2,623 2,757	-6.2 .4			2,064	2,209	208	215	496	490
East North Central	5,039	4,791	5.2	351	347	2,893	2,889	307	287	1,487	1,267
Illinois	805	845	-4.8			718	766	NM	NM	80	74
Indiana	136	132	3.2			86	89	34	36	16	7
Michigan	2,723	2,501	8.8	23	25	1,725	1,767	245	227	729	482
Ohio	137	151	-9.4	1		62	66	NM	NM	NM	NM
Wisconsin	1,238	1,161	6.6	326	322	301	202	22	18	589	619
West North Central	3,618	3,655	-1.0	630	524	2,556	2,703	38	38	394	389
Iowa	1,005	1,017	-1.2	66	46	929	961	11	11	NM	NM
Kansas	420	467	-10.1	*		419	467				
Minnesota	2,006	2,077	-3.4	401	409	1,202	1,269	18	18	385	380
Missouri	133	66	100.2	122	55	,	´	3	3	8	9
Nebraska	43	21	101.8	30	8	NM	NM	NM	NM		
North Dakota	7	*	NM	6						NM	NM
South Dakota	6	6	-5.8	6	6						
South Atlantic	14,828	17,947	-17.4	171	166	5,980	5,654	434	313	8,244	11,814
Delaware											
District of Columbia											
Florida	5,186	5,143	.8	128	129	3,673	3,558	NM	NM	1,346	1,416
Georgia	2,923	6,415	-54.4			NM	NM			2,903	6,396
Maryland	827	777	6.5			633	593	NM	NM	168	174
North Carolina	1,960	1,818	7.8			452	474			1,508	1,344
South Carolina	1,207	1,244	-3.0	22	16			46	2.62	1,139	1,229
Virginia	2,577	2,518	2.3			1,075	1,001	322	263	1,180	1,254
West Virginia	148	31	372.0	21	22	127	9			 7 101	1
East South Central	7,348	5,855	25.5	24	4	215	243	8	5	7,101	5,603
Alabama	4,116 350	3,750	9.8 -4.2	22		182	209			3,935 328	3,541
Kentucky	2,061	365 937	120.0							2,061	365 937
Mississippi	821	802	2.3	2	4	33	33	8	5	777	760
West South Central	9,085	8,681	4.7	2	2	3,028	2,898	40	17	6,015	5,764
Arkansas	1,786	1,585	12.7			3,026	2,070	NM	NM	1,781	1,581
Louisiana	2,988	2,863	4.4			61	59			2,927	2,804
Oklahoma	315	239	31.9			45				270	239
Texas	3,996	3,993	.1	2	2	2,922	2,839	34	12	1,037	1,140
Mountain	2,729	2,705	.9	314	347	1,848	1,856	36	4	530	498
Arizona	45	142	-67.9	42	50		88	NM	NM		
Colorado	189	169	12.1	58	60	98	109	32			
Idaho	493	508	-2.9			NM	NM			459	435
Montana	71	63	12.1							71	63
Nevada	1,073	1,127	-4.8			1,073	1,127				
New Mexico	201	19	938.1			201	19				
Utah	209	229	-8.6	198	218	NM	NM				
Wyoming	446	447	3	16	19	430	428				
Pacific Contiguous	25,037	26,556	-5.7	821	1,989	21,694	22,112	383	272	2,140	2,183
California	22,052	23,681	-6.9	331	1,388	20,233	20,860	383	272	1,106	1,160
Oregon	1,120	1,087	3.1		*	784	694			336	393
Washington	1,864	1,788	4.2	490	601	677	558			698	629
Pacific Noncontiguous	729	527	38.4	NM	NM	540	387		-	185	138
Alaska	NM	NM		NM	NM		1				11
Hawaii	727	514	41.3	2	2	540	386			185	127
U.S. Total	84,174	86,922	-3.2	2,550	3,569	50,779	51,022	1,897	1,585	28,948	30,747

¹ Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

Notes: See Glossary for definitions. Values for 2003 are estimated based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906. Values for 2002 are final. Negative generation denotes that electric power consumed for plant use exceeds gross generation. Totals may not equal sum of components because of independent rounding. Percent difference is calculated before rounding. Due to restructuring of the electric power industry, electric utilities are selling plants to the nonutility sector. This will affect comparisons of current and historical data. Other renewables include wood, black liquor, other wood waste, municipal solid waste, landfill gas, sludge waste, tires, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic energy, and wind.

Source: Energy Information Administration, Form EIA-906, "Power Plant Report."

² Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

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

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Table 1.14.A. Net Generation from Other Energy Sources by State, December 2003 and 2002 (Thousand Megawatthours)

Part		Total (All Sectors)				Electric Po	Combined Heat and Power Producers					
New Facignal					Electric Utilities				Commercial ¹		Industrial ²	
Connection		Dec 2003	Dec 2002		Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002
Maine	New England	*	53	-99.4			-	52		-	*	1
Massachuetts.												
New Interpolities. Second S												 1
Rhode Island.												
Vermont												
New York												
New York												2
Pennsylvania 3												2
East North Central 39 2 NM												
Illinois			2	NM			*	*	*			2
Michigan *			*	NM			*	*				
Ohio												
Wisconsin 2 4 -05 - - 3 Iowa - - - - 3 Kansas -												2
West North Central												
Kansas			4		_	_	_					4
Minsesota												
Missouri												
Nebraska												4
North Dakota												
South Alattic												
Delaware												
District of Columbia 193 116 66.9		212	121	74.8	-	-	1	-	-	-	212	121
Florida												
Georgia												116
Maryland.												110
North Carolina												
Virginia -<	North Carolina	19	6	238.0							19	6
West Virginia - <												
East South Central * 1 40.8 - - * - *												
Alabama * * -83.1 - - * - - * - <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>*</td></td<>												*
Kentucky		*						*				
Tennessee												
West South Central 116 152 -23.5 - - 6 68 - - 110 8 Arkansas 10 15 -32.7 - - - 2 - - 10 1 Louisiana 54 23 135.5 - - - - - 54 2 Oklahoma 1 - - - - - - - 1 - - - 1 - - - - - - 1 -<												
Arkansas												*
Louisiana												84 12
Oklahoma 1 1 1 1 1 45 4 Mountain 16 13 28.6 2 15 1 Arizona 2 15 1 Arizona												23
Mountain 16 13 28.6 2 15 1 Arizona												
Arizona								66				48
Colorado 8 Montana 8 Montana												13
Idaho												
Montana - </td <td></td> <td></td> <td>7</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>7</td>			7									7
Nevada. 2												
Utah 7 Wyoming 7 6 16.4 7 2 Pacific Contiguous 2 13 -83.6 1 * 7 2 California 2 13 -83.6 1 * 7 2 Oregon 1 * 7 2 Oregon 1 * 7 2 Washington <	Nevada						2					
Wyoming 7 6 16.4 7 Pacific Contiguous 2 13 -83.6 1 * 7 2 California 2 13 -83.6 1 * 7 2 Oregon </td <td></td>												
Pacific Contiguous												
California 2 13 -83.6 1 * 7 2 Oregon <td></td> <td>6 4</td>												6 4
Oregon												4
Pacific Noncontiguous												
Alaska												
11411411												
												231

¹ Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

Notes: •See Glossary for definitions.•Values for 2003 are estimated based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906.•Values for 2002 are final.•Negative generation denotes that electric power consumed for plant use exceeds gross generation.•Totals may not equal sum of components because of independent rounding.•Percent difference is calculated before rounding.•Due to restructuring of the electric power industry, electric utilities are selling plants to the nonutility sector. This will affect comparisons of current and historical data.•Other energy sources include batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

² Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

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

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Table 1.14.B. Net Generation from Other Energy Sources by State, Year-to-Date through December 2003 and 2002

(Thousand Megawatthours)

	_				Electric Po	wer Sector		Combin	ed Heat an	d Power Pr	oducers
Census Division and State	To	tal (All Secto	ors)	Electric	Utilities		lent Power lucers	Comm	nercial ¹	Indus	strial ²
	2003	2002	Percent Change	2003	2002	2003	2002	2003	2002	2003	2002
New England	4	591	-99.4	-	-	_	587	_	_	4	4
Connecticut											
Maine											
Massachusetts	4	4	-2.0							4	4
New HampshireRhode Island		587					587				
Vermont		367					367				
Middle Atlantic	38	12	233.2			2				36	12
New Jersey	*	12	-99.2							*	12
New York	2					2					
Pennsylvania	36									36	
East North Central	677	249	171.4			176	222	*	*	501	27
Illinois	1 473	1	61.0			1	1			172	
Indiana Michigan	4/3	*	-5.6					*	*	473	
Ohio	175	249	-29.8			175	222				27
Wisconsin	29									29	
West North Central	39	42	-8.0	_	_	-	-	_	_	39	42
Iowa											
Kansas											
Minnesota	39	42	-8.0							39	42
Missouri Nebraska											
North Dakota											
South Dakota											
South Atlantic	2,233	1,700	31.3			22	2	-		2,211	1,698
Delaware											
District of Columbia										_ 	
Florida	2,025	1,536	31.8			22	2			2,004	1,534
Georgia											
Maryland North Carolina	207	164	26.3							207	164
South Carolina			20.5								
Virginia											
West Virginia											
East South Central	35	122	-71.1	-		30	118	-	-	5	3
Alabama	30	118	-74.5			30	118			*	
Kentucky											
Mississippi Tennessee	5	3	50.3							5	3
West South Central	1,824	2,707	-32.6			334	1,125			1,490	1,582
Arkansas	69	171	-59.5				44			69	127
Louisiana	771	597	29.0							771	597
Oklahoma	6									6	
Texas	979	1,939	-49.5			334	1,081			645	858
Mountain	176	166	6.1		-	13		-	-	163	166
Colorado											
Idaho	88	90	-1.9							88	90
Montana											
Nevada	13					13					
New Mexico											
Utah	 75		1.0							 75	
Wyoming	75 52	77 125	-1.9 58.4			13	1	8	9.1	75 31	77 40
Pacific Contiguous California	52	125 125	-58.4 -58.4			13	1	8	84 84	31	40
Oregon		123	-36.4								
Washington											
Pacific Noncontiguous	-	-		-	-	-	-	-	-	-	-
Alaska											
Hawaii	 5 050						2.056			4 401	2.554
U.S. Total	5,078	5,714	-11.1	-		590	2,056	8	84	4,481	3,574

¹ Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

Notes: •See Glossary for definitions.•Values for 2003 are estimated based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906.•Values for 2002 are final.•Negative generation denotes that electric power consumed for plant use exceeds gross generation.•Totals may not equal sum of components because of independent rounding.•Percent difference is calculated before rounding.•Due to restructuring of the electric power industry, electric utilities are selling plants to the nonutility sector. This will affect comparisons of current and historical data.•Other energy sources include batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

² Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Chapter 2. Consumption of Fossil Fuels

Consumption of Fossil Fuels for Electricity Generation: Total (All Sectors), 1990 through December

Period	Coal (Thousand Tons) ¹	Petroleum (Thousand Barrels) ²	Natural Gas (Thousand Mcf) ³		
1990	` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `	218.997	3,691,563		
1991		203,669	3,764,778		
	· · · · · · · · · · · · · · · · · · ·	172,241	3,899,718		
992		172,241	3,928,653		
993		. , .	-)		
994	· · · · · · · · · · · · · · · · · · ·	183,618	4,367,148		
995		132,578	4,737,871		
1996	907,209	144,626	4,312,458		
1997	931,949	159,715	4,564,770		
1998		222,640	5,081,384		
1999	· · · · · · · · · · · · · · · · · · ·	207.871	5,321,984		
2000	······	195,228	5,691,481		
2001		193,220	3,071,401		
	89,136	32,164	380.142		
January	,	· · · · · · · · · · · · · · · · · · ·	,		
February		18,020	347,939		
March		20,256	402,383		
April	71,022	19,039	422,486		
May	77,344	17,931	473,896		
June		20,555	532,482		
July	· · · · · · · · · · · · · · · · · · ·	18.829	678.341		
August		24,532	732,863		
	,	· · · · · · · · · · · · · · · · · · ·	,		
September		12,659	552,780		
October		11,191	509,011		
November		10,271	389,977		
December	81,509	11,224	410,005		
Total	972,691	216,672	5,832,305		
2002					
January	83,186	12,003	423,766		
February	*	10,069	380,881		
		14,594	447,756		
March		The state of the s			
April		13,657	439,403		
May		14,258	452,798		
June		14,209	589,291		
July		17,730	776,565		
August	92.604	17,688	759,216		
September		14.333	605,500		
October	·····	14,333	475,151		
	,				
November		11,282	385,378		
December		14,442	390,357		
Total	987,583	168,597	6,126,062		
2003					
January	92,030	21,941	407,786		
February		18,679	364,952		
March		18,203	390.993		
April		14,732	365,031		
•					
May		14,299	416,749		
June		18,960	451,515		
July		21,097	646,150		
August	95,573	21,642	696,521		
September		15,001	467,900		
October		15,236	432,282		
November	,	11,465	374,054		
		17,182	365,868		
December	,	· · · · · · · · · · · · · · · · · · ·			
Γotal	1,014,307	208,436	5,379,802		
Year to Date					
2001	972,691	216,672	5,832,305		
2002	987,583	168,597	6,126,062		
2003	,	208,436	5,379,802		
Rolling 12 Months Ending in December		200,			
	007 502	1/0 505	(12(0/2		
2002		168,597	6,126,062		
2003		208,436	5,379,802		

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.
² Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

³ Natural gas, including a small amount of supplemental gaseous fuels.

Notes: *See Glossary for definitions. *Values for 2003 are estimates based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906-Values for prior years are final. Totals may not equal sum of components because of independent rounding. Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the nonutility sector. This affects comparisons of current and historical data. Mcf = thousand cubic feet. Sources: Energy Information Administration, Form EIA-906, "Power Plant Report," and predecessor forms.

Consumption of Fossil Fuels for Electricity Generation: Electric Utilities, 1990 through December

Period	Coal	Petroleum	Natural Gas
	(Thousand Tons) ¹	(Thousand Barrels) ²	(Thousand Mcf) ³
1990		200,152	2,787,332
991		188,494	2,789,014
992	779,860	152,329	2,765,608
993	813,508	168,556	2,682,440
994	817,270	155,377	2,987,146
995	829,007	105,956	3,196,507
996		116,680	2,732,107
997		132,147	2,968,453
998		187,461	3,258,054
999	,	151,868	3,113,419
000	,	125,788	3,043,094
001	302,000	120,.00	2,012,051
January		20,280	156,993
February	,	10,240	143,268
March	, , , , , , , , , , , , , , , , , , ,	11,317	171,278
April		11,517	210,339
•	,		
May		11,739	233,213
June		13,044	260,189
July	,	11,966	353,858
August		15,072	359,381
September		8,655	255,222
October	,	7,083	229,563
November		6,112	154,920
December	67,694	6,436	158,063
Total	806,269	133,456	2,686,287
002			
January		7,018	148,293
February		5,436	135,922
March	The state of the s	8,388	160,938
April		8.713	170.117
May	······	9,520	181,097
June	,	8,646	232.524
July		9,825	297,000
August	,	9,986	287,812
	,	8,959	228,057
September	,		
October	,	8,686	174,856
November	The state of the s	6,410	125,045
December		7,631	118,023
Total	767,803	99,219	2,259,684
003			
January		10,643	131,815
February	The state of the s	8,559	115,308
March		9,347	128,481
April		8,059	133,514
May	61,206	10,039	160,746
June		12,540	170,370
July	,	12,648	236,785
August	,	12,501	250,461
September	,	9,858	163,680
October	,	10,199	136,190
November		6,441	125,906
December		9,134	116,992
	,		
Total	786,418	119,967	1,870,248
Year to Date	007.470	100 186	A COC AOM
2001		133,456	2,686,287
	,	99,219	2,259,684
2003	786,418	119,967	1,870,248
Rolling 12 Months Ending in December			
002	767,803	99,219	2,259,684
003		119,967	1,870,248

Notes: *See Glossary for definitions. *Values for 2003 are estimates based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906-Values for prior years are final. Totals may not equal sum of components because of independent rounding. Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the nonutility sector. This affects comparisons of current and historical data. Mcf = thousand cubic feet. Sources: Energy Information Administration, Form EIA-906, "Power Plant Report," and predecessor forms.

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.
² Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

³ Natural gas, including a small amount of supplemental gaseous fuels.

Table 2.3. Consumption of Fossil Fuels for Electricity Generation: Independent Power Producers, 1990 through December 2003

Period	Coal	Petroleum	Natural Gas
101104	(Thousand Tons) ¹	(Thousand Barrels) ²	(Thousand Mcf) ³
1990	7,752	4.593	359.957
1991	10,385	2,316	427,042
1992	13,530	5,390	559,355
	16,343	10,478	661,800
1993	18,844		
1994		14,010	771,337
1995	18,847	13,707	897,266
1996	19,719	13,489	927,703
1997	18,648	15,056	934,742
1998	23,259	21,986	1,157,759
1999	43,768	42,477	1,530,355
2000	123,378	58,158	1,970,977
2001			
January	14,752	10,475	166,646
February	12,549	6,743	153,697
March	12,560	7,912	175,314
April	11,131	6,562	159,562
May	11,582	5,245	185,360
June	12,895	6,654	216,891
July	14.641	5,957	264,141
	15,229	8,589	309,133
August	,		
September	12,809	3,186	237,739
October	12,279	3,190	219,151
November	11,931	3,320	178,105
December	12,895	3,830	190,466
Total	155,254	71,663	2,456,206
2002			
January	16,616	3,910	211,421
February	15,095	3,761	187,851
March	16,114	5,128	224,281
April	15,451	4,087	213,926
May	15,592	3,852	208,711
June	17.177	4.622	296,779
July	19,500	6,812	413,267
August	19.281	6,660	405.515
September	18,028	4,333	318,115
October	17,731	4,507	245,774
November	17,731	3,695	245,774
			,
December	19,224	5,568	217,700
Total	207,448	56,935	3,148,595
2003	20.425	2.2	240.052
January	20,425	9,879	210,863
February	17,414	9,030	193,133
March	17,444	7,828	203,825
April	15,266	5,791	178,841
May	15,329	3,140	204,036
June	16,925	5,343	223,445
July	19,712	7,367	350.816
August	20,606	8,189	383,600
September	17,665	4,306	252,479
October	17,350	3,832	232,479
	17,330	,	190,728
November		4,258	
December	19,872	6,893	189,031
Total	215,791	75,856	2,817,947
Year to Date			
2001	155,254	71,663	2,456,206
2002	207,448	56,935	3,148,595
2003	215,791	75,856	2,817,947
Rolling 12 Months Ending in December			
2002	207,448	56,935	3,148,595
2003	215,791	75,856	2,817,947

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

Notes: *See Glossary for definitions.*Values for 2003 are estimates based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906.*Values for prior years are final.*Totals may not equal sum of components because of independent rounding.*Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the nonutility sector. This affects comparisons of current and historical data.*Mcf = thousand cubic feet.

Sources: Energy Information Administration, Form EIA-906, "Power Plant Report," and predecessor forms.

² Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

³ Natural gas, including a small amount of supplemental gaseous fuels.

Table 2.4. Consumption of Fossil Fuels for Electricity Generation: Commercial Combined Heat and Power Producers, 1990 through December 2003

Period	Coal	Petroleum	Natural Gas
	(Thousand Tons) ¹	(Thousand Barrels) ²	(Thousand Mcf) ³
1990	417	953	27,544
1991		576	26,806
1992		429	32,674
1993	404	672	37,435
1994		694	40,828
1995		649	42,700
1996	656	645	42,380
1997		790	38,975
1998		802	40,693
1999	481	931	39,045
2000		823	37,029
2001			
January	41	144	2,737
February	46	88	2,471
March		89	2,545
April	35	74	2,607
May		77	2,739
June		75	2,807
July	56	80	3,829
August	65	91	4,463
September		72	3,285
October	36	84	3,173
November	35	68	2,681
December		82	2,909
Total	532	1,023	36,248
2002			
January	46	67	2,621
February	30	64	2,120
March	42	56	2,730
April	36	49	2,539
May	36	51	2,411
June	39	56	2,824
July	41	71	3,334
August	46	73	3,693
September	44	62	2,980
October		59	2,616
November		92	2,210
December	41	135	2,466
Total	477	834	32,545
2003			
January		228	3,165
February		186	2,411
March		90	2,808
April		53	2,688
May		46	3,293
June		71	3,708
July		100	3,322
August		100	3,548
September		56	2,414
October		57	2,906
November		58	2,575
December		116	2,408
Total	501	1,161	35,244
Year to Date			
2001	532	1,023	36,248
2002		834	32,545
2003	501	1,161	35,244
Rolling 12 Months Ending in December			
2002	477	834	32,545
2003		1,161	35,244

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

Sources: Energy Information Administration, Form EIA-906, "Power Plant Report," and predecessor forms.

² Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

³ Natural gas, including a small amount of supplemental gaseous fuels.

Notes: •See Glossary for definitions.•Values for 2003 are estimates based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906.•Values include a small number of commercial electricity-only plants.•Totals may not equal sum of components because of independent rounding.•Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the nonutility sector. This affects comparisons of current and historical data.•Mcf = thousand cubic feet.

Table 2.5. Consumption of Fossil Fuels for Electricity Generation: Industrial Combined Heat and Power Producers, 1990 through December 2003

Period	Coal (Thousand Tons) ¹	Petroleum (Thousand Barrels) ²	Natural Gas (Thousand Mcf) ³
1000		,	,
1990		13,299	516,729
1991		12,283	521,916 542,001
1992	*	14,093	542,081
1993		12,755	546,978
1994		13,537	567,836
995		12,265	601,397
1996		13,813	610,268
1997		11,723	622,599
1998		12,392	624,878
1999		12,595	639,165
2000	11,706	10,459	640,381
2001			
January	980	1,265	53,766
February	809	949	48,503
March		937	53,246
April		892	49,978
May		871	52.583
June		782	52,595
July		826	56,512
		781	59,886
August		746	
September		/46 834	56,534 57,124
October			57,124
November		770	54,271
December		876	58,566
Total	10,636	10,530	653,565
002			
January	943	1,008	61,431
February		808	54,988
March	887	1,022	59,807
April	966	807	52,820
May		835	60,579
June		885	57,164
July		1.022	62,964
August	, .	969	62,196
September	*	979	56,348
		1,080	51,905
October	*		
November		1,084	52,869
December		1,108	52,168
Total	11,855	11,608	685,239
003			
January		1,192	61,943
February		904	54,100
March		938	55,879
April	934	829	49,988
May	937	1,075	48,673
June		1,006	53,992
July		983	55,227
August	*	852	58,912
September	••••••	781	49,328
October		1,148	56,038
November		708	54,845
December		1.039	57,437
Fotal	1,023 11,596	1,039 11,453	656,362
	11,390	11,455	050,302
Year to Date	10.626	10.720	C#2 # C#
2001		10,530	653,565
2002		11,608	685,239
2003	11,596	11,453	656,362
Rolling 12 Months Ending in December			
2002	11,855	11,608	685,239
003		11,453	656,362

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

Sources: Energy Information Administration, Form EIA-906, "Power Plant Report," and predecessor forms.

² Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

³ Natural gas, including a small amount of supplemental gaseous fuels.

Notes: •See Glossary for definitions.•Values for 2003 are estimates based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906.•Values include a small number of industrial electricity-only plants.•Totals may not equal sum of components because of independent rounding.•Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the nonutility sector. This affects comparisons of current and historical data.•Mcf = thousand cubic feet.

Table 2.6.A. Consumption of Coal for Electricity Generation by State, December 2003 and 2002 (Thousand Tons)

	_				Electric Po	wer Sector		Combin	ed Heat and	l Power Pr	oducers
Census Division and State	To	tal (All Secto		Electric	Utilities	Independ Prod	ent Power ucers	Comm	ercial ¹	Indus	strial ²
	Dec 2003	Dec 2002	Percent Change	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002
New England	673	803	-16.1	161	143	489	643	-	-	23	16
Connecticut	188	184	2.2			188	184				
Maine	29	21	37.8			7	6			22	15
Massachusetts	295	454	-35.0	161	1.42	294	453			NM	NM
New HampshireRhode Island	161	143	12.2	161	143						
Vermont			 			 					
Middle Atlantic	5,885	6,056	-2.8	679	787	5,110	5,187	NM	NM	94	80
New Jersey	309	395	-21.9	67	70	241	325				
New York	850	888	-4.3	68	73	763	796	NM	NM	18	18
Pennsylvania	4,726	4,773	-1.0	544	643	4,106	4,067	NM	NM	76	63
East North Central	20,296	19,061	6.5	15,786	15,025	4,312	3,803	NM	NM	181	222
Illinois	4,962	4,222	17.5	1,137	840	3,730	3,264	NM	NM NM	93 NM	118 NM
Indiana Michigan	5,068 3,029	4,826 2,965	5.0 2.2	4,691 2,970	4,470 2,941	365 21	345 2	NM 6	NM 5	NM NM	NM NM
Ohio	5,000	4,899	2.1	4,793	4,695	196	192	NM	NM	NM	NM
Wisconsin	2,236	2,149	4.0	2,195	2,078			NM	NM	40	69
West North Central	13,418	13,432	1	13,195	13,148	85	6	NM	NM	131	270
Iowa	1,838	2,010	-8.6	1,774	1,891	NM	NM	NM	NM	54	109
Kansas	2,112	1,934	9.2	2,112	1,934						
Minnesota	1,884	1,915	-1.6	1,752	1,790	78				53	125
Missouri	3,996	3,934	1.6	3,984	3,924			4	6	NM	NM
Nebraska	1,166	1,131	3.1	1,164	1,123					NM	NM
North DakotaSouth Dakota	2,315 108	2,299 209	.7 -48.4	2,301 108	2,276 209					NM 	NM
South Atlantic	15,576	14,957	4.1	12,425	11,814	2,929	2,946	NM	NM	219	196
Delaware	114	157	-27.0	12,423	11,014	112	154	14141	14141	NM	NM
District of Columbia											
Florida	2,281	2,511	-9.2	2,055	2,311	200	193			27	8
Georgia	3,152	2,625	20.1	3,107	2,565					45	60
Maryland	1,134	1,063	6.7			1,126	1,052			8	11
North Carolina	2,814	2,504	12.4	2,645	2,344	130	123	NM	NM	37	35
South Carolina	1,399	1,207	15.9	1,367	1,186					32	21
Virginia	1,480	1,523	-2.8	1,131	1,229	310	267			40	27
West Virginia	3,201 9,585	3,366	-4.9 8.4	2,121 8,844	2,179	1,052 669	1,157 649	NM	NM	28 70	30 50
East South Central	2,906	8,844 2,879	1.0	2,871	8,144 2,855	10	11	INIVI	INIVI	25	13
Kentucky	3,556	3,264	9.0	3,240	2,944	317	320				
Mississippi	833	789	5.6	490	470	343	319				
Tennessee	2,290	1,912	19.7	2,243	1,874			NM	NM	45	38
West South Central	14,025	13,453	4.3	9,448	8,817	4,333	4,407		-	244	228
Arkansas	1,432	1,141	25.5	1,423	1,130					9	11
Louisiana	1,507	1,513	4	809	810	697	702			2	*
Oklahoma	2,055	2,018	1.8	1,948	1,920	78	81			30	17
Texas	9,031	8,781	2.9	5,268	4,957	3,559	3,624			204	200
Mountain	10,510 1,780	10,027 1,801	4.8 -1.2	9,366 1,766	9,241 1,796	1,101	747			NM 14	NM 5
Arizona Colorado	1,738	1,708	1.7	1,700	1,796	NM	NM			14	
Idaho	NM	NM	1.7	1,724	1,098	11111				NM	NM
Montana	1,031	725	42.1	31	31	1,000	694				
Nevada	792	763	3.8	792	763	-,					
New Mexico	1,440	1,246	15.6	1,440	1,246						
Utah	1,397	1,383	1.0	1,349	1,340	43	43			NM	NM
Wyoming	2,328	2,394	-2.8	2,263	2,366	45				NM	NM
Pacific Contiguous	979	1,015	-3.6	214	231	750	765	NM	NM	15	18
California	88	95 234	-7.8 8.2	214	221	74	82			14 NM	14 NM
Oregon	214 677	234 686	-8.2 -1.4	214	231	676	683	NM	NM	NM 1	NM 2
Washington Pacific Noncontiguous	129	103	25.0	19	18	93	72	NM NM	NM NM	4	-
Alaska	NM	NM	23.0	19	18	NM	NM	NM	NM		
Hawaii	69	57	21.1			65	57			4	
			3.8	70,137	67,367	19,872	19,224	44	41	1,025	1,120

¹ Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

Notes: •See Glossary for definitions. •Values for 2003 are estimated based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906. •Totals may not equal sum of components because of independent rounding. •Percent difference is calculated before rounding. •Due to restructuring of the electric power industry, electric utilities are selling plants to the nonutility sector. This will affect comparisons of current and historical data. •Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

² Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

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

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Consumption of Coal for Electricity Generation by State, Year-to-Date through December 2003 and **Table 2.6.B.**

(Thousand Tons)

					Electric Po	wer Sector		Combin	ed Heat and	d Power Pr	oducers
Census Division and State	Tot	tal (All Secto	ors)	Electric	Utilities		lent Power lucers	Comm	ercial¹	Indu	strial ²
	2003	2002	Percent Change	2003	2002	2003	2002	2003	2002	2003	2002
New England	8,316	7,866	5.7	1,595	1,527	6,470	6,150	_	_	251	190
Connecticut	2,013	1,467	37.2			2,013	1,467				
Maine	303	260	16.8			68	80			236	180
Massachusetts	4,405	4,613	-4.5	1.505	1.527	4,390	4,603			NM	NM
New Hampshire	1,595	1,527	4.5	1,595	1,527						
Rhode Island Vermont											
Middle Atlantic	64,923	63,573	2.1	7,794	7,793	56,085	54,793	NM	NM	1,030	967
New Jersey	3,828	3,958	-3.3	779	661	3,049	3,297				
New York	9,874	9,283	6.4	746	705	8,901	8,341	NM	NM	216	230
Pennsylvania	51,220	50,332	1.8	6,269	6,427	44,134	43,155	NM	NM	815	737
East North Central	226,953	221,458	2.5	179,951	173,079	44,826	46,201	206	169	1,970	2,008
Illinois	53,240	50,059	6.4	11,761	9,346	40,434	39,805	NM	NM	1,031	907
Indiana	56,981	57,719	-1.3	54,800	53,620	2,061	3,977	81	66	NM	NM
Michigan	34,492	33,759	2.2	33,882	33,236	184	129	92	85	335	308
Ohio	57,380	56,019	2.4	55,112	53,553	2,142	2,281	NM	NM	NM	NM
Wisconsin West North Central	24,861 150,698	23,901 144,559	4.0 4.2	24,396 148,203	23,323 142,336	5 308	8 60	NM 95	NM 108	2,092	553 2,054
Iowa	22,537	22,085	2.0	21,905	21,378	NM	NM	NM	NM	528	613
Kansas	22,580	22,660	4	22,580	22,660					320	013
Minnesota	21,358	20,251	5.5	19,812	19,088	241				1,304	1,163
Missouri	43,970	39,853	10.3	43,834	39,703			58	74	NM	NM
Nebraska	12,750	12,243	4.1	12,725	12,210					NM	NM
North Dakota	25,329	25,416	3	25,173	25,247					NM	NM
South Dakota	2,174	2,051	6.0	2,174	2,051						
South Atlantic	171,689	172,446	4	138,077	139,146	31,540	30,752	27	24	2,046	2,524
Delaware	1,549	1,569	-1.3			1,519	1,541			NM	NM
District of Columbia	26,353	28,117	-6.3	24 120	25 049	2,095	1,940			138	230
Georgia	33,826	33,309	-0.5 1.6	24,120 33,398	25,948 32,637	2,093	1,940			429	672
Maryland	11,881	11,365	4.5	33,396	32,037	11,763	11,226			119	139
North Carolina	29,764	29,789	1	27,883	27,953	1,435	1,390	27	24	419	422
South Carolina	15,053	14,627	2.9	14,798	14,341					254	287
Virginia	15,602	15,569	.2	12,154	12,557	3,090	2,615	*		358	398
West Virginia	37,661	38,100	-1.2	25,723	25,711	11,637	12,040			300	349
East South Central	108,189	105,435	2.6	100,713	97,990	6,636	6,636	NM	NM	819	802
Alabama	35,846	33,669	6.5	35,458	33,416	117	106			271	147
Kentucky	38,536	38,605	2	34,700	34,533	3,836	4,071				
Mississippi	10,054	7,869	27.8	7,366	5,410	2,683	2,459	NM	NM	6	
Tennessee West South Central	23,753 155,164	25,293 148,374	-6.1 4.6	23,189 103,334	24,630 100,922	49,097	44,877	NM 	NM 	542 2,734	656 2,574
Arkansas	14,399	14,275	.9	14,310	14,165	47,077				89	110
Louisiana	15,487	14,632	5.8	7,802	7,882	7,661	6,740			24	9
Oklahoma	21,836	21,603	1.1	20,612	20,342	943	996			281	264
Texas	103,443	97,864	5.7	60,610	58,532	40,493	37,141			2,340	2,191
Mountain	116,153	113,290	2.5	104,056	102,656	11,630	10,098	_	-	467	535
Arizona	19,529	19,442	.5	19,378	19,328					151	114
Colorado	19,399	19,279	.6	19,251	19,139	147	140				
Idaho	NM	NM 0.746		210						NM	NM
Montana	10,927	9,746	12.1	319	283	10,608	9,463				
New Mexico	7,365	7,885 15.107	-6.6 8 8	7,365 16,530	7,885 15.107						
New Mexico Utah	16,539 16,265	15,197 15,650	8.8 3.9	16,539 15,788	15,197 15,149	430	495			48	7
Wyoming	26,086	26,001	.3	25,416	25,675	445	493			NM	NM
Pacific Contiguous	10,872	9,386	15.8	2,533	2,155	8,170	7,050	NM	NM	164	177
California	962	1,081	-11.0			815	924			147	157
Oregon	2,539	2,161	17.5	2,533	2,155					NM	NM
Washington	7,371	6,145	20.0			7,355	6,126	NM	NM	11	14
Pacific Noncontiguous	1,350	1,196	12.9	162	200	1,031	830	NM	NM	NM	NM
Alaska	607	489	24.1	162	200	NM	NM	NM	NM	 ND 6	 ND (
Hawaii	743	707	5.1	707 410	7/7 002	718	684	 501	477	NM	NM
U.S. Total	1,014,307	987,583	2.7	786,418	767,803	215,791	207,448	501	477	11,596	11,855

¹ Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.
² Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

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

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Notes: *See Glossary for definitions.*Totals may not equal sum of components because of independent rounding.*Percent difference is calculated before rounding.*Due to restructuring of the electric power industry, electric utilities are selling plants to the nonutility sector. This will affect comparisons of current and historical data. Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

Source: Energy Information Administration, Form EIA-906, "Power Plant Report."

Table 2.7.A. Consumption of Petroleum for Electricity Generation by State, December 2003 and 2002 (Thousand Barrels)

					Electric Po	wer Sector		Combin	ed Heat and	l Power Pr	oducers
Census Division and State	To	tal (All Secto		Electric	Utilities	Independ Prod	ent Power ucers	Comm	ercial ¹	Indus	strial ²
	Dec 2003	Dec 2002	Percent Change	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002
New England	2,599	2,060	26.2	422	347	1,945	1,478	83	82	149	153
Connecticut	411	100	313.4	NM	NM	403	99	NM	NM	NM	NM
Maine	401	307	30.8		*	296	195	1	1	105	111
Massachusetts	1,419	1,345	5.5	83	97 247	1,247	1,183	56	30	NM	NM
New HampshireRhode Island	346 NM	290 NM	19.6	335 NM	247 NM	NM 	NM 1	NM NM	NM NM	NM NM	NM NM
Vermont	NM	NM		NM	NM			11111			
Middle Atlantic	4,334	3,311	30.9	1,959	1,495	2,224	1,728	NM	NM	133	78
New Jersey	133	141	-6.0	2	18	66	106	NM	NM	64	17
New York	3,521	2,491	41.4	1,943	1,476	1,535	991	NM	NM	NM	NM
Pennsylvania	680	679	.1	13	1	623	631	NM	NM	NM	NM
East North Central	399	339	17.6	221	273	113	17	NM	NM	63	48
Illinois	NM 29	NM 36	-19.0	NM 26	NM 23	108 NM	14 NM	NM NM	NM NM	NM 3	NM 12
Indiana Michigan	108	182	-19.0 -40.4	26 99	182	INIVI *	INIVI	NM NM	NM NM	NM	NM
Ohio	58	37	58.0	52	33	NM	NM	NM	NM	NM	NM
Wisconsin	87	62	39.2	38	26	1		NM	NM	47	35
West North Central	342	239	42.7	333	235	3	*	NM	NM	NM	NM
Iowa	NM	NM		22	8	NM	NM	NM	NM	NM	NM
Kansas	113	90	26.2	113	90					NM	NM
Minnesota	164	119	38.4	159	117	3		NM	NM	NM	NM
Missouri	16 NM	10 NM	63.1	16 NM	9 NM			NM NM	NM NM	NM 	NM
Nebraska North Dakota	NM NM	NM		9	8			INIVI	INIVI	NM	NM
South Dakota	12	*	NM	12	*						
South Atlantic	5,474	5,025	8.9	4,510	3,915	550	764	NM	NM	405	314
Delaware	78	92	-15.0	9	9	14	71			55	12
District of Columbia	*	13	-99.0			*	13				
Florida	3,498	3,300	6.0	3,303	3,212	136	53			59	35
Georgia	230	189	21.9	49	17	*	4	NM	NM	181	168
Maryland North Carolina	340 NM	574 NM	-40.7	NM 32	NM 33	334 NM	569 NM	NM NM	NM NM	NM NM	NM NM
South Carolina	95	80	18.3	57	37	*	INIVI	NM	NM	38	43
Virginia	1,114	620	79.6	1,020	541	63	37	NM	NM	NM	NM
West Virginia	40	64	-37.1	35	62	2	2			4	*
East South Central	1,155	569	102.9	367	94	750	438	NM	NM	NM	NM
Alabama	62	57	8.7	29	26	NM	NM			NM	NM
Kentucky	761	466	63.3	14	28	747	438		 >D.6	 >D.6	 >D.6
Mississippi	303	3	NM	299	1			NM	NM	NM	NM
West South Central	29 1,009	43 748	-33.1 34.9	26 206	39 76	699	520	NM	NM	3 103	4 151
Arkansas	80	103	-22.5	71	69		320	14141	14141	9	34
Louisiana	437	245	78.3	76	*	349	239			12	5
Oklahoma	NM	NM		NM	NM			NM	NM	9	8
Texas	483	392	23.4	60	7	350	281	NM	NM	73	104
Mountain	NM	NM		62	32	27	100	NM	NM	NM	NM
Arizona	33	6	471.0	33	4	 NIM	 NIM	NM	NM	NM	NM
Colorado	NM *	NM *	NM	4	5	NM	NM			NM	NM
Idaho Montana	24	100	-75.5	NM	NM	24	100				
Nevada	2	3	-73.3	2	3						
New Mexico	NM	NM		8	6		*			NM	NM
Utah	NM	NM		NM	NM	NM	NM				
Wyoming	NM	NM		6	3					NM	NM
Pacific Contiguous	489	600	-18.4	10	14	358	292	NM	NM	122	293
California	468	586 *	-20.1	8	13	356	292	NM	NM	NM	NM
Oregon Washington	4 17	13	854.9 29.7	1	*	 1	*	NM 	NM 	3 15	13
Pacific Noncontiguous	1,290	1,416	- 8.9	1,044	1,151	223	231	NM	NM	NM	NM
Alaska	159	138	15.3	151	124	NM	NM	NM	NM	NM	NM
Hawaii	1,131	1,278	-11.5	893	1,027	222	231			NM	NM
	17,182	14,442	19.0	9,134	7,631	6,893	5,568	116	135	1,039	1,108

¹ Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

Notes: •See Glossary for definitions.•Values for 2003 are estimated based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906.•Totals may not equal sum of components because of independent rounding.•Percent difference is calculated before rounding.•Due to restructuring of the electric power industry, electric utilities are selling plants to the nonutility sector. This will affect comparisons of current and historical data.•Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

² Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

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

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Table 2.7.B. Consumption of Petroleum for Electricity Generation by State, Year-to-Date through December 2003 and 2002

(Thousand Barrels)

	_	LARR	_		Electric Po	wer Sector		Combine	ed Heat and	l Power Pr	oducers
Census Division and State	Tot	al (All Secto	ors)	Electric	Utilities		ent Power ucers	Comm	ercial¹	Indu	strial ²
	2003	2002	Percent Change	2003	2002	2003	2002	2003	2002	2003	2002
New England	23,176	18,546	25.0	4,061	1,579	16,828	14,847	690	595	1,598	1,525
Connecticut	3,759	3,872	-2.9	NM	NM	3,664	3,870	NM	NM	NM	NM
Maine	3,328	1,988	67.4		2	2,185	750	10	11	1,134	1,225
Massachusetts	12,182	11,165	9.1	487	373	10,952	10,216	395	301	NM	NM
New Hampshire	3,647	1,299	180.8	3,489	1,152	19	1	NM	NM	NM	NM
Rhode Island	NM	NM		NM	NM	8	11	NM	NM	NM	NM
Vermont	NM	NM		NM 16 007	NM	25.205	12.001			1 2 40	014
Middle Atlantic	43,801	27,225 1,692	60.9 92.3	16,907 419	13,141	25,385	13,091	NM NM	NM NM	1,349 NM	914 NM
New York	3,254 32,007	20,099	59.3	16,429	382 12,691	2,275 15,144	1,160 7,002	NM	NM NM	292	334
Pennsylvania	8,540	5,435	57.1	60	68	7,965	4,929	NM	NM	502	432
East North Central	6,782	5,290	28.2	3,846	4,184	2,219	393	NM	NM	685	693
Illinois	2,310	453	409.6	NM	NM	2,163	373	NM	NM	NM	NM
Indiana	898	1,112	-19.2	818	940	7	2	NM	NM	70	169
Michigan	1,689	2,155	-21.7	1,629	2,144	11	*	NM	NM	NM	NM
Ohio	893	681	31.0	838	656	NM	NM	NM	NM	NM	NM
Wisconsin	993	888	11.8	456	363	6	3	NM	NM	514	512
West North Central	4,053	3,373	20.1	3,949	3,316	NM	NM	NM	NM	NM	NM
Iowa	NM	NM		NM	NM	NM	NM	NM	NM	NM	NM
Kansas	1,665	923	80.3	1,664	923					NM	NM
Minnesota	1,593	1,177	35.3	1,540	1,145	20	7	NM	NM	NM	NM
Missouri	336	989	-66.0	334	987			NM	NM	NM	NM
Nebraska	NM	NM		NM	NM			NM	NM		
North Dakota	NM	NM		96	68					NM	NM
South Dakota	44	18	143.7	44	18						
South Atlantic	86,130	71,899	19.8	69,616	60,489	12,651	8,026	NM	NM	3,664	3,315
Delaware	2,563	1,656	54.8	184	256	1,937	984			442	416
District of Columbia	199	620	-68.0	 50.246		199	620			271	222
Florida	61,167	55,002	11.2	58,346	52,775	2,450	1,903 50	 NIM	NIM	371	323
Georgia Maryland	2,572 6,167	2,170 4,108	18.6 50.1	622 NM	484 NM	150 6,079	4,047	NM NM	NM NM	1,796 NM	1,632 NM
North Carolina	1,737	1,262	37.7	1,001	782	203	30	NM	NM	529	447
South Carolina	855	727	17.5	479	399	35		NM	NM	337	327
Virginia	10,421	5,884	77.1	8,537	5,311	1,539	367	NM	NM	NM	NM
West Virginia	450	471	-4.5	366	427	58	24			NM	NM
East South Central	10,277	8,446	21.7	4,022	1,080	5,813	7,025	NM	NM	436	339
Alabama	735	642	14.5	396	329	NM	NM			325	283
Kentucky	6,080	7,249	-16.1	288	254	5,792	6,995				
Mississippi	2,753	68	NM	2,695	54			NM	NM	NM	NM
Tennessee	709	487	45.6	643	443	NM	NM			59	44
West South Central	11,407	7,770	46.8	4,379	441	5,865	6,500	NM	NM	1,157	823
Arkansas	493	324	52.3	453	249					40	75
Louisiana	5,292	3,332	58.9	1,794	114	3,400	3,171			98	47
Oklahoma	269	88	204.7	189	20			NM	NM	79	67
Texas	5,353	4,026	33.0	1,943	57	2,465	3,329	NM	NM	940	635
Mountain	1,566	1,505	4.1	449	427	1,084	1,060	NM	NM	NM	NM
Arizona	109	109	3	106	100	 ND 6	 >D.4	NM	NM	NM	NM
Colorado	NM *	NM *	97.2	39	52	NM	NM			NM	NM
Idaho	983	1,058	87.2 -7.1	NM	NM	 977	1.056				
Montana Nevada	37	1,038	-7.1	37	49	9//	1,056				
New Mexico	92	59	57.1	85	53	3	2			NM	NM
Utah	183	96	91.8	NM	NM	86	*				1 1111
Wyoming	86	80	7.3	80	76					NM	NM
Pacific Contiguous	5,982	7,121	-16.0	239	132	3,616	3,413	NM	NM	2,126	3,574
California	5,766	6,956	-17.1	124	107	3,600	3,385	NM	NM	2,040	3,461
Oregon	106	16	578.6	100	14	- ,		NM	NM	NM	NM
Washington	NM	NM		15	11	NM	NM	NM	NM	NM	NM
Pacific Noncontiguous	15,261	17,422	-12.4	12,497	14,429	2,369	2,569	NM	NM	NM	NM
Alaska	1,569	1,760	-10.8	1,393	1,604	NM	NM	NM	NM	NM	NM
Hawaii	13,692	15,662	-12.6	11,104	12,825	2,360	2,566			NM	NM
U.S. Total	208,436	168,597	23.6	119,967	99,219	75,856	56,935	1,161	834	11,453	11,608

Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

Notes: •See Glossary for definitions.•Values for 2003 are estimated based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906.•Totals may not equal sum of components because of independent rounding.•Percent difference is calculated before rounding.•Due to restructuring of the electric power industry, electric utilities are selling plants to the nonutility sector. This will affect comparisons of current and historical data.•Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

² Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

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

^{*} = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Source: Energy Information Administration, Form EIA-906, "Power Plant Report."

Table 2.8.A. Consumption of Natural Gas for Electricity Generation by State, December 2003 and 2002 (Thousand Mcf)

					Electric Po	wer Sector		Combin	ed Heat and	d Power Pro	oducers
Census Division and State	To	tal (All Secto	,	Electric	Utilities		ent Power lucers	Comm	ercial¹	Indus	strial ²
	Dec 2003	Dec 2002	Percent Change	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002
New England	25,460	29,149	-12.7	14	259	23,867	26,514	NM	NM	1,366	2,038
Connecticut	3,749	4,374	-14.3			3,599	4,118	NM	NM	NM	NM
Maine	6,007	8,096	-25.8			4,887	6,650	NM	NM	1,120	1,445
Massachusetts	12,925	11,150	15.9	12	153	12,656	10,625	NM	NM	NM	NM
New Hampshire	NM 2,729	NM 5 142	-46.9		103	2 725	 5 121	NIM	NIM	NM 	NM
Rhode Island Vermont	2,729	5,143	-46.9 -7.2	3	3	2,725	5,121	NM 	NM 		
Middle Atlantic	28,500	33,861	-15.8	3,802	5,096	22,402	26,124	NM	NM	1,892	2,309
New Jersey	11,097	11,124	2	2	27	10,345	10,156	NM	NM	NM	NM
New York	14,411	20,705	-30.4	3,798	5,067	9,683	14,452	NM	NM	747	1,039
Pennsylvania	2,992	2,033	47.2	NM	NM	2,373	1,515	NM	NM	501	438
East North Central	13,629	14,625	-6.8	3,422	4,040	8,865	8,944	NM	NM	1,196	1,415
Illinois	1,883	2,137	-11.9	NM	NM	1,142	1,063	NM	NM	NM	NM
Indiana	2,666	2,127	25.3	1,117	1,341	1,314	590	NM	NM	NM	NM
Michigan	6,708	8,282	-19.0	650	1,570	5,840	6,629	NM	NM	NM	NM
Ohio	NM	NM		183	283	NM	NM	NM	NM	NM	NM
Wisconsin	1,956	1,661	17.8	1,336	711	381	575	NM	NM	NM	NM
West North Central	3,646	2,671	36.5	2,535	1,862	609	222	NM	NM	NM	NM
Iowa	NM	NM		225	229			NM	NM	NM	NM
Kansas	801	683	17.3	778	672	 5.42	124	NM	NM	NM	NM
Minnesota Missouri	1,592	877	81.5	810	461	543	134	NM	NM	NM	NM
Nebraska	643 NM	420 NM	53.1	566 98	331 143	65 NM	87 NM	NM NM	NM NM	NM NM	NM NM
North Dakota	NM	NM			143	11111	INIVI	11111	10101	NM	NM
South Dakota	57	25	128.4	57	25						
South Atlantic	45,352	38,887	16.6	35,742	27,840	7,610	9,144	NM	NM	1,876	1,855
Delaware	661	329	100.6	5	*	656	329				*
District of Columbia	20.106	21.774	20.2	22.701	26.907	2 420	2.004	NIM	NIM	NM	NM
Florida	38,196 NM	31,774 NM	20.2	33,781 NM	26,807 NM	3,439 686	3,994 1,246	NM 	NM 	NM NM	NM NM
Maryland	507	986	-48.6	NM	NM	469	910			NM	NM
North Carolina	1,293	1,334	-3.0	488	275	789	1,032	NM	NM	NM	NM
South Carolina	464	290	59.8	443	242		36	NM	NM	19	11
Virginia	2,709	2,294	18.1	828	405	1,424	1,554	NM	NM	NM	NM
West Virginia	256	187	36.5	5	3	146	42			NM	NM
East South Central	15,050	16,149	-6.8	11,370	12,770	1,952	1,277	NM	NM	NM	NM
Alabama	7,477	7,050	6.1	5,397	4,843	1,063	764			NM	NM
Kentucky	NM	NM		257	213	26	38			NM	NM
Mississippi	6,977	8,156	-14.5	5,676	7,434	863	475	NM	NM	NM	NM
Tennessee	NM	NM		40	281	*	*	NM	NM	NM	NM
West South Central	143,309	147,243	-2.7	33,571	40,816	69,320	73,951	NM	NM	40,036	32,150
Arkansas Louisiana	1,162 29,291	1,301 26,093	-10.7 12.3	103 8,509	61 12,980	787 6,454	898 1,770	NM NM	NM NM	NM 14,306	NM 11,318
Oklahoma	11,958	8,214	45.6	8,012	7,147	3,531	670	NM	NM	396	372
Texas	100,897	111,635	-9.6	16,947	20,627	58,547	70,613	NM	NM	25,065	20,119
Mountain	24,275	31,150	-22.1	13,440	13,373	10,237	16,975	NM	NM	NM	NM
Arizona	5,507	12,156	-54.7	3,163	2,020	2,336	10,098	NM	NM	NM	NM
Colorado	6,089	6,048	.7	2,597	3,858	3,393	2,124	NM	NM	NM	NM
Idaho	NM	NM		13	18	NM	NM			NM	NM
Montana	44	9	369.0	34	4					10	6
Nevada	8,938	8,457	5.7	4,812	4,346	4,126	4,111				
New Mexico	2,801	2,339	19.8	2,342	1,827	288	283	NM	NM	NM	NM
Utah	NM	NM		NM	NM		90	NM	NM	NM	NM
Wyoming	NM	NM		28	152	11	167			NM	NM
Pacific Contiguous	62,648	72,648	-13.8	9,710	8,849	44,169	54,550	NM	NM	7,921	8,286
California	52,455	61,553	-14.8	7,158	6,212	36,910	46,382	NM NM	NM NM	7,555	8,013
Oregon Washington	6,848 3,344	5,649 5,446	21.2 -38.6	952 1,600	1,585 1,052	5,545 1,714	3,886 4,282	NM NM	NM NM	346 19	165 108
Pacific Noncontiguous	3,999	3,974	-38.0 . 6	3,384	3,118	1,/14	4,282	INIVI	INIVI	NM	NM
Alaska	3,999	3,974	.6	3,384	3,118					NM	NM
HawaiiU.S. Total	365,868	390,357	-6.3	116,992	118,023	189,031	217,700	2,408	2,466	57,437	52,168

¹ Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

Notes: •Total includes small amount of waste heat consumption. •See Glossary for definitions. •Values for 2003 are estimated based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906. •Totals may not equal sum of components because of independent rounding. •Percent difference is calculated before rounding. •Due to restructuring of the electric power industry, electric utilities are selling plants to the nonutility sector. This will affect comparisons of current and historical data. •Mcf = thousand cubic feet. •Natural gas, including a small amount of supplemental gaseous fuels.

² Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

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

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Table 2.8.B. Consumption of Natural Gas for Electricity Generation by State, Year-to-Date through December 2003 and 2002

(Thousand Mcf)

	_				Electric P	ower Sector		Combin	ed Heat an	d Power P	roducers
Census Division and State	То	tal (All Secto	ors)	Electric	c Utilities		dent Power ducers	Comm	ercial¹	Indu	ıstrial ²
	2003	2002	Percent Change	2003	2002	2003	2002	2003	2002	2003	2002
New England	330,179	351,877	-6.2	2,119	8,125	305,541	317,283	2,542	3,937	19,977	22,532
Connecticut	44,383	67,289	-34.0			42,224	64,053	NM	NM	NM	NM
Maine	73,973	97,411	-24.1			58,102	80,672	NM	NM	15,871	16,720
Massachusetts	170,866	130,970	30.5	2,088	6,992	165,024	118,642	2,174	3,288	NM	NM
New Hampshire	NM	NM		1	1,096					NM	NM
Rhode Island	40,250	54,145	-25.7			40,191	53,915	NM	NM		
Vermont Middle Atlantic	30	37 584.475	-17.9 - 29.2	80,999	37	202.076	420 112	4,949	4,362	24,077	25 057
New Jersey	413,901 122,679	171,937	-29.2	393	114,144 1,169	303,876 111,173	430,113 149,548	4,949 NM	4,302 NM	9,591	35,857 19,944
New York	247,703	359,601	-31.1	80,577	112,954	156,421	234.806	NM	NM	8,949	9,608
Pennsylvania	43,520	52,938	-17.8	NM	NM	36,282	45,759	NM	NM	5,537	6,305
East North Central	204,867	310,493	-34.0	52,121	71,183	135,376	219,253	2,121	2,831	15,249	17,226
Illinois	40,732	90,226	-54.9	NM	NM	30,042	77,357	NM	NM	6,080	8,896
Indiana	30,288	37,678	-19.6	15,084	15,117	12,520	19,586	NM	NM	2,628	2,890
Michigan	94,847	137,521	-31.0	14,351	30,379	77,323	104,075	NM	NM	2,966	2,907
Ohio	14,908	22,500	-33.7	4,202	10,650	10,036	11,260	NM	NM	NM	NM
Wisconsin	24,092	22,568	6.8	15,183	13,125	5,455	6,974	NM	NM	3,031	1,999
West North Central	75,524	82,426	-8.4	54,771	64,132	12,349	11,107	NM	NM	5,962	6,001
Iowa	7,718	9,160	-15.7	4,493	5,250			NM	NM	NM	NM
Kansas	16,977 22,937	21,554 15,054	-21.2 52.4	15,711 13,192	21,389 9,351	6 212	2 121	NM NM	NM NM	NM 1,659	NM 1,933
Minnesota Missouri	21,098	30,283	-30.3	13,192	21,944	6,213 6,129	3,131 7,966	179	NM 280	1,039 NM	1,933 NM
Nebraska	5,029	4,994	-30.3 .7	4,918	4,931	NM	7,900 NM	NM	NM	NM	NM
North Dakota	NM	NM		*	1					NM	NM
South Dakota	1,743	1,265	37.8	1,743	1,265						
South Atlantic	689,599	748,085	-7.8	510,787	536,391	160,106	184,764	NM	NM	17,502	25,161
Delaware	11,215	18,041	-37.8	167	239	11,038	17,221			9	581
District of Columbia											
Florida	529,194	532,558	6	457,703	458,228	63,546	61,993	NM	NM	7,532	11,855
Georgia	42,009	62,828	-33.1	9,183	13,423	28,567	43,091			4,259	6,314
Maryland	21,562	22,627	-4.7	NM	NM	21,017	21,951			NM	NM
North Carolina	29,208	31,995	-8.7	11,993	18,674	16,947	13,074	NM	NM	NM	NM
South Carolina	16,629	37,261	-55.4	13,378	27,373	3,056	9,237	NM	NM	172	638
Virginia West Virginia	36,305 3,477	39,630 3,145	-8.4 10.5	18,311 43	18,421 33	13,913 2,021	16,345 1,852	NM 	NM 	3,344 NM	3,624 NM
East South Central	220,180	316,624	-30.5	145,425	230,943	48,391	56,123	NM	NM	25,895	28,846
Alabama	102,651	131,531	-22.0	63,750	88,241	24,010	23,650			14,892	19,641
Kentucky	5,397	14,663	-63.2	3,042	8,537	638	5,175	98		NM	NM
Mississippi	107,084	163,712	-34.6	75,961	133,580	23,520	25,288	NM	NM	7,465	4,453
Tennessee	5,048	6,718	-24.9	2,672	585	NM	NM	NM	NM	NM	NM
West South Central	2,196,134	2,422,378	-9.3	675,026	877,361	1,074,369	1,115,742	8,845	4,445	437,894	424,831
Arkansas	27,874	42,745	-34.8	6,936	20,036	17,746	17,884	NM	NM	3,164	4,793
Louisiana	380,789	466,936	-18.4	154,855	277,054	65,230	46,749	4,166	298	156,538	142,835
Oklahoma	193,970	199,093	-2.6	140,049	160,797	48,963	33,463	NM	NM 2.700	4,694	4,517
Texas	1,593,500	1,713,605	-7.0	373,186	419,474	942,431	1,017,646	4,386	3,799	273,498	272,686
Mountain	378,020 133,766	394,191 145,303	-4.1 -7.9	183,130 42,582	210,983 55,198	185,640 91,059	172,202 89,898	NM NM	NM NM	7,776 NM	9,850 NM
Colorado	72,698	77,146	-5.8	35,782	45,031	35,495	30,700	NM	NM	NM	NM
Idaho	3,253	4,838	-32.8	755	941	NM	NM			1,297	2,238
Montana	340	245	39.1	252	103	7	13			82	129
Nevada	109,094	106,474	2.5	55,907	62,748	53,187	43,726				
New Mexico	37,489	37,051	1.2	31,816	30,411	3,241	3,554	NM	NM	NM	NM
Utah	17,186	15,573	10.4	14,674	14,363	490	1,075	NM	NM	NM	NM
Wyoming	4,194	7,562	-44.5	1,363	2,187	960	1,576			1,872	3,798
Pacific Contiguous	824,908	874,148	-5.6	129,690	114,719	592,299	642,010	11,197	12,144	91,721	105,275
California	695,782	776,884	-10.4	96,930	89,454	501,179	576,793	10,832	12,033	86,842	98,604
Oregon	78,556	59,531	32.0	15,603	15,632	58,879	39,294	NM	NM	4,014	4,529
Washington	50,570	37,733	34.0	17,158	9,633	32,241	25,923	NM	NM	866	2,142
Pacific Noncontiguous Alaska	46,120 46,120	41,365 41,365	11.5 11.5	35,809 35,809	31,704 31,704					10,311 10,311	9,660 9,660
Hawaii	40,120	41,363	11.5	33,809	31,704					10,511	2,000
U.S. Total	5,379,802	6,126,062	-12.2	1,870,248	2,259,684	2,817,947	3,148,595	35,244	32,545	656,362	685,239
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Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

Notes: •Total includes small amount of waste heat consumption.•See Glossary for definitions.•Values for 2003 are estimated based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906.•Totals may not equal sum of components because of independent rounding.•Percent difference is calculated before rounding.•Due to restructuring of the electric power industry, electric utilities are selling plants to the nonutility sector. This will affect comparisons of current and historical data.•Mcf = thousand cubic feet. •Natural gas, including a small amount of supplemental gaseous fuels.

² Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

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

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Chapter 3. Fossil-Fuel Stocks for Electricity Generation

Table 3.1. Stocks of Coal and Petroleum: Electric Power Sector, 1990 through December 2003

	Electric Po	ower Sector ¹	Electric	Utilities	Independent Powe	er Producers
Period	Coal (Thousand Tons) ²	Petroleum (Thousand Barrels) ³	Coal (Thousand Tons) ²	Petroleum (Thousand Barrels) ³	Coal (Thousand Tons) ²	Petroleum (Thousand Barrels) ³
1990	156,166	83,970	156,166	83,970	NA	NA
1991	157,876	75,343	157,876	75,343	NA	NA
1992	154,130	72,183	154,130	72,183	NA	NA
1993	111,341	62,890	111,341	62,890	NA	NA
1994	126,897	63,333	126,897	63,333	NA	NA
1995	126,304	50,821	126,304	50,821	NA	NA
1996		48,146	114,623	48,146	NA	NA
1997	98,826	51,138	98,826	51,138	NA	NA
1998		56,591	120,501	56,591	NA	NA
1999	141,604	54,109	129,041	46,169	NA	NA
2000		40,932	90,115	30,502	12,180	10,430
2001						
January	96,545	43,775	84,903	30,795	11,642	12,980
February	,	48,775	85,978	33,129	12,242	15,646
March		46,450	94,153	32,362	15,000	14,088
April		47,365	102,133	31,896	16,390	15,469
May		53,681	108,452	35,068	19,069	18,613
June	· ·	53,707	106,987	35,436	19,696	18,270
July	,	55,374	101,131	36,415	17,874	18,958
August		48,209	95,495	32,447	17,571	15,762
September		51,369	98,028	33,640	17,722	17,729
October		53,675	107,154	34,488	19,593	19,187
November		55,161	114,684	35,237	20,744	19,924
December		57,031	117,147	37,308	21,349	19,723
2002	138,470	37,031	117,147	37,300	21,549	19,723
January	139,400	58,283	114,160	33,763	25,240	24,520
February	,	56,353	117,236	32,692	25,915	23,660
March	-	53,500	120,400	30,158	26,043	23,341
April		52,683	124,658	30,407	28,717	22,276
May	· ·	53,047	126,637	30,872	28,676	22,175
June	· ·	55,190	123,590	31,479	28,543	23,711
July	· ·	50,921	115,972	29,267	26,662	21,654
August	,	50,820	111,923	29,862	25,207	20,958
September		48,117	110,993	27,604	24,969	20,538
October		49,829	115,168	28,652	25,633	21,177
		51,767	118,674	28,632	25,934	22,180
November		,	116,952		· · · · · · · · · · · · · · · · · · ·	,
December	141,/14	52,490	110,932	31,243	24,761	21,247
2003	125 771	29.051	112 140	26 779	22.622	11 272
January		38,051	113,149	26,778	22,622	11,272 10,686
February		36,713	105,537	26,027	23,291	,
March		42,385	107,941	26,132	23,222	16,253
April	-	45,681	113,077	29,077	25,818	16,604
May		50,339	115,634	29,429	28,250	20,911
June	,	48,250	115,375	28,840	26,950	19,410
July		49,957	108,393	29,166	24,571	20,791
August		48,722	101,549	28,593	24,175	20,129
September		53,309	99,741	29,300	22,684	24,009
October		54,617	104,350	28,806	21,652	25,811
November		51,400	104,055	31,017	22,145	20,382
December	121,371	52,489	100,434	29,046	20,937	23,443

¹ The electric power sector comprises electricity only and combined-heat-and-power plants with the NAICS 22 category whose primary business is to sell electricity or electricity and heat to the public. ² Anthracite, bituminous coal, subbituminous coal, and lignite.

Source: Energy Information Administration, Form EIA-906, "Power Plant Report," and predecessor forms.

³ Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil. NA = Not available.

Notes: •See Glossary for definitions.•Prior to 2001 values represent December end-of-month stocks. For 2001 forward values represent end-of-month stocks.•Values for 2003 are estimates based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906. Values for 2002 and prior years are final. Totals may not equal sum of components because of independent rounding. Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the nonutility sector. This affects comparisons of current and historical data.

Table 3.2. Stocks of Coal: Electric Power Sector, by State, December 2003 (Thousand Tons)

Census Division and State	Elec	tric Power Sector	1	Electric	Utilities	Independent Po	wer Producers
and State	Dec 2003	Dec 2002	Percent Change	Dec 2003	Dec 2002	Dec 2003	Dec 2002
New England	2,054	1,034	98.6	236	344	1,818	690
Connecticut, Maine,							
New Hampshire, Rhode Island,							
Vermont ²	1,635	527	210.4	W	W	W	W
Massachusetts	418	507	-17.5	W	W	W	W
Middle Atlantic	4,727	7,480	-36.8	1,191	1,656	3,536	5,824
New Jersey	522	850	-38.6	W	W	W	W
New York	805	851	-5.5	W	W	W	W
Pennsylvania	3,400	5,779	-41.2	W	W	W	W
East North Central	32,825	37,373	-12.2	26,874	31,669	5,950	5,704
Illinois	6,784	7,048	-3.7	W	W	W	W
Indiana	9,280	9,284	*	W	W	W	W
Michigan	7,310	9,048	-19.2	W	W	W	W
Ohio	5,035	6,775	-25.7	W	W	W	W
Wisconsin	4,415	5,220	-15.4	W	W	W	W
West North Central	20,751	23,446	-11.5	20,475	23,418	276	28
Iowa	3,940	4,486	-12.2	W	W W	W	W W
Kansas	4,056	5,192	-21.9	W	W W	W W	W W
Minnesota	2,218	2,194	1.1	W			W W
Missouri	6,211	6,878	-9.7 -9.3	W W	W W	W W	W W
Nebraska	2,564	2,827	-9.3 -5.7	W W	W W	W	W
North Dakota, South Dakota ²	1,763 19.077	1,870					
South Atlantic	19,077	24,265	-21.4	16,099	20,537	2,978	3,728
Delaware, District of Columbia,	1 212	1.010	27.5	***	W	***	W
Maryland ²	1,313	1,810	-27.5	W		W	
Florida	3,649	5,290	-31.0	W	W	W	W
Georgia	3,893	3,842	1.3	W	W	W	W
North Carolina	3,502	3,658	-4.3	W	W	W	W
South Carolina	1,512	3,115	-51.5	W	W	W	W
Virginia	1,373	2,083	-34.1	W W	W W	W W	W W
West Virginia	3,835 12.347	4,467	-14.2 - 3.1	11.343	11.703	1.003	1.032
East South Central	3.178	12,736 2,646	20.1	11,343 W	11,/03 W	1,003 W	1,032 W
Alabama	5,178 5,958	2,040 6,518	-8.6	W W	W W	W	W W
Kentucky				W	W	W	W
Mississippi	736 2,476	740 2,832	6 -12.6	W W	W W	W	W W
Tennessee	17,549	21,077	-12.0 - 16.7	13,779	15,024	3,770	6,053
Arkansas	1,756	2,075	-15.3	W	W	3,770 W	W
Louisiana	2,540	3,634	-30.1	W	W	W	W
Oklahoma	3,177	4,289	-25.9	W	W	W	W
Texas	10,076	11,079	-9.1	W	W	W	W
Mountain	10,726	13,094	-18.1	10,173	12,457	554	638
Arizona	2.305	3.318	-30.5	W	W	W	W
Colorado	2,379	2,779	-14.4	w	w	w	w
Idaho	-,	-,					
Montana, New Mexico ²	1.353	1,435	-5.7	W	W	W	W
Nevada	727	828	-12.2	W	W	W	W
Utah	2,137	3,180	-32.8	W	W	W	W
Wyoming	1,825	1,554	17.4	W	W	W	W
Pacific ³	1,314	1,208	8.8	264	144	1,050	1,064
California, Oregon, Washington,		,				, , , , , , , , , , , , , , , , , , , ,	,
Hawaii, Alaska ²	1,314	1,208	8.8	264	144	1,050	1,064
U.S. Total	121,371	141,714	-14.4	100,434	116,952	20,937	24,761

¹ The electric power sector comprises electricity only and combined-heat-and-power plants with the NAICS 22 category whose primary business is to sell electricity or electricity and heat to the public. ² Individual states' data are aggregated in order to protect confidentiality.

³ Pacific Contiguous and Pacific Non-Contiguous were aggregated to Pacific to protect Census Division proprietary information.

W = Withheld to avoid disclosure of individual company data.

^{*} = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Notes: *See Glossary for definitions. *Values for 2003 are estimated based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906. Values for 2002 are final. Totals may not equal sum of components because of independent rounding. Percent difference is calculated before rounding. Due to restructuring of the electric power industry, electric utilities are selling plants to the nonutility sector. This will affect comparisons of current and historical data. Anthracite, bituminous coal, subbituminous coal, and lignite.

Table 3.3. Stocks of Petroleum: Electric Power Sector, by State, December 2003 (Thousand Barrels)

Census Division and State	Elec	tric Power Sector	1	Electric	Utilities	Independent Po	wer Producer
and State	Dec 2003	Dec 2002	Percent Change	Dec 2003	Dec 2002	Dec 2003	Dec 2002
New England	3,967	2,865	38.5	884	729	3,083	2,136
Connecticut, Maine,							
New Hampshire, Rhode Island,							
Vermont ²	2,652	1,640	61.7	W	W	W	W
Massachusetts	1.316	1,225	7.4	W	W	W	W
Middle Atlantic	8,316	8,081	2.9	2,545	2,706	5,770	5,375
New Jersey	807	1,775	-54.5	W	W	W	W
New York	5,103	4,617	10.5	W	W	W	W
Pennsylvania	2,405	1,689	42.4	W	W	W	W
East North Central	3,844	3,878	9	2,148	2,177	1,696	1,702
Illinois	1.606	1.715	-6.3	W	W	W	W
Indiana	379	428	-11.6	W	W	W	W
Michigan	993	1,034	-3.9	W	W	W	W
Ohio	516	390	32.5	W	W	W	W
Wisconsin	350	312	12.1	W	W	W	W
West North Central	2.078	2,335	-11.0	2,064	2,318	14	17
Iowa	99	155	-36.4	W	W	W	W
Kansas	862	989	-12.8	W	W	W	w
Minnesota	406	331	22.7	W	W	W	W
Missouri	371	436	-14.8	w	W	w	w
Nebraska	219	273	-19.8	w	w	w	w
North Dakota, South Dakota ²	121	151	-20.0	w	w	w	w
South Atlantic	19,523	17,954	8.7	13,246	14,656	6,277	3,298
Delaware, District of Columbia,	17,525	17,737	0.7	15,270	14,030	0,277	3,270
Maryland ²	2,215	1,641	35.0	W	W	W	W
	,	,	7.2	W	W	W	W
Florida	12,295 824	11,473 991	-16.9	W W	W W	W W	W W
Georgia North Carolina	824 914	802	-16.9 14.0	W W	W	W W	W
South Carolina	767	626	22.5	W	W	W	W
Virginia	2,309	2,304	.2	W	W	W	W
West Virginia	200	117	71.0	W	W	W 5.202	W
East South Central	6,954	8,297	-16.2	1,751	1,927	5,203	6,369
Alabama	218	294	-25.9	W	W	W	W
Kentucky	5,342	6,572	-18.7	W	W	W	W
Mississippi	761	662	14.9	W	W	W	W
Tennessee	633	768	-17.5	W	W	W	W
West South Central	3,844	4,150	-7.4	3,333	3,147	511	1,003
Arkansas	159	166	-4.1	W	W	W	W
Louisiana	1,488	1,226	21.4	W	W	W	W
Oklahoma	496	527	-5.9	W	W	W	W
Texas	1,701	2,231	-23.8	W	W	W	W
Mountain	1,156	1,344	-14.0	1,032	1,155	124	189
Arizona	397	455	-12.7	W	W	W	W
Colorado	166	172	-3.9	W	W	W	W
Idaho	*	*	1.7	W	W	W	W
Montana, New Mexico ²	166	259	-35.8	W	W	W	W
Nevada	372	385	-3.3	W	W	W	W
Utah	32	35	-8.8	W	W	W	W
Wyoming	23	38	-39.8	W	W	W	W
Pacific ³	2,807	3,586	-21.7	2,043	2,427	764	1,159
California, Oregon, Washington,							
Hawaii, Alaska ²	2,807	3,586	-21.7	2,043	2,427	764	1,159
U.S. Total	52,489	52,490	*	29,046	31,243	23,443	21,247

¹ The electric power sector comprises electricity only and combined-heat-and-power plants with the NAICS 22 category whose primary business is to sell electricity or electricity and heat to the public

electricity and heat to the public.

Individual states' data are aggregated in order to protect confidentiality.

³ Pacific Contiguous and Pacific Non-Contiguous were aggregated to Pacific to protect Census Division proprietary information.

W = Withheld to avoid disclosure of individual company data.

^{*} = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Notes: •See Glossary for definitions.•Values for 2003 are estimated based on a sample; they are preliminary data - see Technical Notes for a discussion of the sample design for the Form EIA-906.•Values for 2002 are final.•Totals may not equal sum of components because of independent rounding. Percent difference is calculated before rounding.•Due to restructuring of the electric power industry, electric utilities are selling plants to the nonutility sector. This will affect comparisons of current and historical data.•Distillate fuel oil, residual fuel oil, jet fuel, kerosene, and petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology).

Chapter 4. Receipts and Cost of Fossil Fuels

Receipts, Average Cost, and Quality of Fossil Fuels: Total (All Sectors), January 2001 through November 2003

		Co	oal¹			Petro	leum ²		Natura	al Gas³	All Fossil Fuels ⁴
Period	Receipts	Avera	ge Cost	Avg. Sulfur	Receipts	Averaș	ge Cost	Avg.	Receipts	Average Cost	Average Cost
	(1000 tons)	(cents/ 10 ⁶ Btu)	(dollars/ ton)	%	(1000 barrels)	(cents/ 10 ⁶ Btu)	(dollars/ barrel)	Sulfur %	(1000 Mcf)	(cents/ 10 ⁶ Btu)	(cents/ 10 ⁶ Btu)
2001											
January		122.33	24.73	.92	17,891	457.74	28.61	1.10	134,549	920.74	214.11
February		123.88	25.10	.98	10,225	441.42	27.71	1.24	114,039	694.66	189.05
March		122.63	24.64	.88	10,242	401.07	25.18	1.33	141,653	573.82	178.28
April		123.94	24.73	.85	10,740	388.63	24.55	1.33	178,222	563.74	191.91
May	68,369	124.47	25.02	.89	13,424	378.61	24.00	1.42	203,724	514.15	186.34
June	63,667	124.78	25.04	.89	12,107	369.68	23.17	1.36	212,536	425.10	178.34
July	65,920	122.50	24.42	.86	12,169	349.15	22.12	1.49	282,929	374.31	176.40
August		123.28	24.71	.90	10,049	331.23	20.84	1.67	277,039	355.79	169.55
September		123.44	24.53	.86	8,454	316.00	19.73	1.85	207,491	295.47	156.39
October		121.00	24.15	.90	5.906	287.54	18.00	1.66	165,688	271.49	142.20
November		123.68	25.00	.89	7,019	268.78	16.85	1.51	111,201	324.05	145.11
December		122.04	24.11	.87	6.390	256.08	15.92	1.62	123,295	307.63	141.71
Total	,	123.15	24.68	.89	124,618	369.27	23.20	1.42	2,152,366	448.65	173.04
2002 ⁵	702,013	120.13	21.00	.07	121,010	007.27	20.20	1.12	2,132,500	110.05	170.01
January	76,217	126.16	25.74	.98	8,973	254.72	15.79	1.71	377,322	300.08	150.53
February	,	127.99	26.25	1.01	5,273	242.09	14.87	1.87	364,407	273.57	148.75
March		125.35	25.64	.96	8,037	267.65	16.52	1.92	419,393	320.44	151.09
April		125.27	25.45	.92	10,220	316.41	19.68	1.64	409,056	363.82	148.14
May	,	125.66	25.50	.92	11,574	329.91	20.65	1.66	418,814	365.14	152.04
June		126.02	25.48	.90	10,942	334.31	20.95	1.50	522,348	348.62	151.16
July		124.71	25.28	.91	9,556	328.97	20.37	1.71	662,862	340.97	150.67
August	,	125.98	25.73	.94	13,388	346.37	21.45	1.67	668,445	332.97	152.73
		126.30	25.73	.93	7,551	338.24	20.69	1.72	547,067	360.61	146.88
September		125.21	25.49	.93	12,497	374.35	23.31	1.60	446,377	404.23	
October									,		152.66
November		125.06	25.46	.96	10,714	395.62	24.66	1.40	368,775	423.23	156.75
December		122.04	24.38	.92	12,128	388.40	24.22	1.51	402,873	453.03	155.49
Total	884,287	125.48	25.52	.94	120,851	334.29	20.77	1.64	5,607,737	355.96	151.51
2003	72.620	105.00	25.40	1.00	11.057	127.20	27.07	1.52	254 521	500.00	200.00
January		125.30	25.49	1.08	11,257	437.39	27.07	1.53	354,531	522.83	208.99
February		127.59	26.36	1.10	18,783	489.53	30.64	.91	326,428	614.20	237.55
March		128.55	26.33	.98	19,781	546.20	34.25	1.16	355,470	706.93	260.96
April		131.13	27.11	1.01	11,870	434.36	27.22	1.37	357,460	519.76	218.22
May		127.86	25.79	.97	10,928	473.71	29.35	1.49	411,431	547.74	226.80
June		127.58	25.93	1.00	13,371	426.75	25.86	1.44	418,298	580.77	229.93
July		127.27	25.57	.93	15,942	427.81	26.54	1.54	552,070	532.54	242.32
August		126.76	25.53	.96	15,146	405.89	25.06	1.74	550,691	504.48	233.33
September		126.05	25.41	.98	12,679	374.73	23.11	1.85	429,125	498.58	214.88
October	75,900	126.29	25.45	.95	13,256	380.71	23.48	1.77	374,519	489.63	204.20
November	73,287	125.47	25.20	.97	10,963	350.67	21.49	2.19	349,300	467.12	195.04
Total	810,949	127.23	25.82	.99	153,977	439.22	27.21	1.50	4,479,321	541.34	225.14
Year to Date											
2001	697,435	123.25	24.73	.89	118,228	375.32	23.60	1.41	2,029,071	457.16	175.76
2002		125.78	25.62	.94	108,723	328.23	20.38	1.65	5,204,864	348.45	185.13
2003		127.23	25.82	.99	153,977	439.22	27.21	1.50	4,479,321	541.34	225.14
Rolling 12 Months E			25.02	•22	100,777	107.22	27,21	1.00	1,17,021	311.01	223.17
2002		125.51	25.51	.94	115,113	324.22	20.13	1.65	5,328,159	347.51	148.57
2003		125.51	25.51 25.70	.94 .99	166,105	324.22 435.49	26.99	1.65	5,328,139 4,882,194	533.84	223.97

Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

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

² Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

³ Natural gas, including a small amount of supplemental gaseous fuels. Natural gas values for 2002 do not include blast furnace gas or other gas, whereas values for 2003 do.

Data include blast furnace gas and other gas.

Data include blast furnace gas and other gas.

Beginning in 2002, data from the Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report" for independent power producers and combined heat and provided in the form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report" for independent power producers and combined heat and provided in the form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report" for independent power producers and combined heat and combined heat and provided in the form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report" for independent power producers and combined heat and combined heat and provided in the form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report" for independent power producers and combined heat and combined heat and provided in the form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report" for independent power producers and combined heat and combined electric utilities via the FERC Form 423.

Notes: •See Glossary for definitions.•Values for 2003 are preliminary. Values for 2001 and 2002 are final.•Totals may not equal sum of components because of independent rounding.•Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the Independent Power Producer sector. This will affect comparisons of current and historical data. Price data on the Form EIA-423 are proprietary and are only reported at an aggregated level. Mcf = thousand cubic feet. Monetary values are expressed in nominal terms.

Receipts, Average Cost, and Quality of Fossil Fuels: Electric Utilities, January 2001 through November **Table 4.2.**

		Co	oal ¹			Petro	leum ²		Natura	al Gas³	All Fossil Fuels ⁴
Period	Receipts	Avera	ge Cost	Avg. Sulfur	Receipts	Avera	ge Cost	Avg. Sulfur	Receipts	Average Cost	Average Cost
	(1000 tons)	(cents/ 10 ⁶ Btu)	(dollars/ ton)	%	(1000 barrels)	(cents/ 10 ⁶ Btu)	(dollars/ barrel)	%	(1000 Mcf)	(cents/ 10 ⁶ Btu)	(cents/ 10 ⁶ Btu)
2001											
January		122.33	24.73	.92	17,891	457.74	28.61	1.10	134,549	920.74	214.11
February		123.88	25.10	.98	10,225	441.42	27.71	1.24	114,039	694.66	189.05
March		122.63	24.64	.88	10,242	401.07	25.18	1.33	141,653	573.82	178.28
April	60,277	123.94	24.73	.85	10,740	388.63	24.55	1.33	178,222	563.74	191.91
May	68,369	124.47	25.02	.89	13,424	378.61	24.00	1.42	203,724	514.15	186.34
June		124.78	25.04	.89	12,107	369.68	23.17	1.36	212,536	425.10	178.34
July		122.50	24.42	.86	12,169	349.15	22.12	1.49	282,929	374.31	176.40
August		123.28	24.71	.90	10,049	331.23	20.84	1.67	277,039	355.79	169.55
September		123.44	24.53	.86	8,454	316.00	19.73	1.85	207,491	295.47	156.39
October		121.00	24.15	.90	5.906	287.54	18.00	1.66	165.688	271.49	142.20
November		123.68	25.00	.89	7,019	268.78	16.85	1.51	111,201	324.05	145.11
December		122.04	24.11	.87	6,390	256.08	15.92	1.62	123,295	307.63	141.71
Total	,	123.15	24.68	.87 .89	124,618	369.27	23.20	1.42	2,152,366	448.65	173.04
2002	/02,013	123.13	24.00	.07	124,010	307.27	23.20	1.42	2,132,300	440.03	1/3.04
January	60,026	121.90	24.72	.92	5,098	237.49	14.78	1.86	98,309	321.35	149.41
	,	123.99	25.33	.93	2,927	231.50	14.78	1.87	97,610	297.17	147.47
February	,										
March		121.13	24.75	.91	4,661	258.29	15.98	2.05	117,426	343.48	149.85
April		121.11	24.61	.86	7,289	324.42	20.29	1.56	120,664	379.90	146.88
May		121.37	24.60	.84	7,706	332.79	21.02	1.59	129,959	378.55	150.98
June		121.61	24.59	.82	7,328	340.56	21.55	1.37	164,554	358.10	150.14
July		120.77	24.51	.84	6,093	316.63	19.84	1.77	204,987	343.76	149.80
August		123.36	25.20	.87	8,770	326.12	20.46	1.82	204,695	338.47	151.99
September		123.03	25.09	.86	5,124	320.10	19.88	1.75	164,317	367.84	145.23
October	,	122.41	24.87	.87	8,479	359.67	22.42	1.71	134,376	415.47	151.40
November		122.22	24.85	.87	6,276	369.51	23.20	1.44	95,005	435.81	155.90
December	56,000	118.43	23.64	.85	7,443	372.34	23.31	1.68	102,832	471.62	153.82
Total	687,747	121.81	24.74	.87	77,194	325.13	20.35	1.68	1,634,734	367.54	150.35
2003											
January	58,692	123.26	25.11	1.06	6,520	402.30	25.03	1.77	99,142	530.69	161.04
February	52,743	123.31	25.59	1.02	12,012	445.83	28.12	.80	85,983	620.80	177.65
March		123.78	25.27	.91	13,329	517.90	32.67	1.19	93,978	728.35	193.44
April		129.11	26.84	.93	7,444	411.25	25.75	1.48	101,409	545.13	175.35
May		124.23	25.07	.88	5.031	374.03	23.10	2.01	119,546	556.46	171.00
June	,	125.27	25.63	.93	6,172	359.76	22.27	1.95	115,604	615.26	173.94
July		124.60	25.13	.86	9,332	429.82	27.10	1.56	154,338	556.54	186.43
August	,	124.46	25.25	.88	9,328	402.08	25.19	1.79	163,906	522.90	181.45
September		124.27	25.18	.89	7,626	375.87	23.44	1.78	119,721	533.08	171.07
October		123.52	25.02	.86	8,001	381.98	23.90	1.73	95,242	522.01	163.44
November		123.32	25.02	.90	7,086	347.54	23.90	2.24	93,242 89,755	493.60	159.05
	,			.90 .92					,		
Total	624,960	124.49	25.37	.92	91,882	415.99	26.03	1.57	1,238,624	562.85	174.20
Year to Date	(0= 12=	122.25	24.52	00	110.000	255.22	22.50	1.4	2 020 051	455.14	100 00
2001		123.25	24.73	.89	118,228	375.32	23.60	1.41	2,029,071	457.16	175.76
2002		122.11	24.84	.87	69,751	320.09	20.03	1.68	1,531,902	360.54	153.18
2003		124.49	25.37	.92	91,882	415.99	26.03	1.57	1,238,624	562.85	174.20
Rolling 12 Months Er											
2002		122.10	24.77	.87	76,141	314.75	19.69	1.68	1,655,197	356.63	147.63
2003	680,960	124.00	25.22	.91	99,325	412.72	25.83	1.58	1,341,456	555.84	173.73

Notes: *See Glossary for definitions. *Values for 2003 are preliminary. Values for 2001 and 2002 are final. *Totals may not equal sum of components because of independent rounding. *Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the Independent Power Producer sector. This will affect comparisons of current and historical data. *Mcf = thousand cubic feet. *Monetary values are expressed in nominal terms.

Sources: Federal Energy Regulatory Commission, FERC Form 423, "Monthly Cost and Quality of Fuels for Electric Plants Report."

Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.
 Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.
 Natural gas, including a small amount of supplemental gaseous fuels. Natural gas values for 2002 do not include blast furnace gas or other gas, whereas values for 2003 do.

⁴ Data include blast furnace gas and other gas.

Receipts, Average Cost, and Quality of Fossil Fuels: Independent Power Producers, January 2002 through November 2003

	8	Co				Petro	leum ²		Natura	All Fossil Fuels ⁴	
Period	Receipts	Avera	ge Cost	Avg. Sulfur	Receipts	Avera	ge Cost	Avg.	Receipts	Average Cost	Average Cost
	(1000 tons)	(cents/ 10 ⁶ Btu)	(dollars /ton)	%	(1000 barrels)	(cents/ 10 ⁶ Btu)	(dollars / barrel)	Sulfur %	(1000 Mcf)	(cents/ 10 ⁶ Btu)	(cents/ 10 ⁶ Btu)
2002											
January	14,999	140.94	29.29	1.2	3,320	278.45	17.17	1.5	205,723	294.16	149.41
February		143.03	29.63	1.2	1,867	253.75	15.49	1.9	199,150	270.28	147.47
March		141.58	28.96	1.1	2,827	280.31	17.20	1.8	226,939	323.37	149.85
April		138.81	28.01	1.1	2,468	296.95	18.20	1.8	218,906	365.95	146.88
May		138.55	28.09	1.2	3,489	324.97	19.94	1.8	216,070	363.22	150.98
June	15,352	139.14	27.96	1.1	3,253	320.41	19.64	1.8	290,514	348.23	150.14
July	16,020	137.80	27.64	1.1	3,074	356.95	21.61	1.5	384,166	338.92	149.80
August	16,710	133.97	27.19	1.2	4,235	391.34	23.59	1.3	389,329	331.64	151.99
September	15,921	136.72	28.00	1.2	2,035	376.89	22.17	1.6	314,336	359.50	145.23
October	16,388	134.40	27.47	1.1	3,570	407.85	25.38	1.3	243,801	404.86	151.40
November	15,869	134.49	27.47	1.3	3,943	441.15	27.19	1.3	209,743	419.90	155.88
December	15,960	132.53	26.38	1.1	4,154	416.62	25.83	1.2	227,631	455.47	153.82
Total	182,482	137.48	27.96	1.2	38,236	354.37	21.69	1.5	3,126,308	355.15	150.35
2003											
January	14,030	132.10	26.63	1.1	4,281	488.30	29.95	1.2	188,005	528.83	302.20
February	13,934	142.72	28.88	1.4	6,186	580.05	35.91	1.0	171,338	635.12	350.20
March	15,205	144.53	29.86	1.2	5,885	618.01	38.39	1.0	191,721	683.27	369.23
April	15,443	137.29	27.85	1.3	4,072	486.58	30.64	1.0	178,886	508.49	284.55
May		141.02	28.31	1.3	5,484	575.18	35.91	.9	203,116	552.56	326.54
June	15,268	135.90	26.82	1.3	6,671	494.65	29.54	.9	211,152	564.12	327.14
July	17,130	135.44	26.75	1.2	5,899	436.56	26.71	1.3	310,606	519.91	327.75
August		134.17	26.19	1.2	5,210	421.35	25.73	1.5	331,499	498.06	325.12
September		131.25	25.84	1.3	4,427	382.61	23.43	1.7	237,089	483.26	289.32
October	17,600	134.29	26.52	1.2	4,612	387.95	23.60	1.7	197,997	484.28	269.18
November		129.27	25.22	1.1	3,389	358.13	21.76	2.0	174,901	457.23	244.61
Total	173,846	136.04	27.10	1.2	56,116	485.63	29.81	1.3	2,396,310	533.51	310.77
Year to Date											
2002	166,522	137.95	28.11	1.2	34,082	346.68	21.19	1.6	2,898,677	347.28	239.24
2003	173,846	136.04	27.10	1.2	56,116	485.63	29.81	1.3	2,396,310	533.51	310.77

Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

Notes: •See Glossary for definitions. •Values for 2003 are preliminary. Values for 2002 are final. •Totals may not equal sum of components because of independent rounding. Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the Independent Power Producer sector. This will affect comparisons of current and historical data. Price data on the Form EIA-423 are proprietary and are only reported at an aggregated level. Data for 2002 are final, and data for 2003 are preliminary. • Monetary values are expressed in nominal terms.

Sources: Energy Information Administration, Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report."

² Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

³ Natural gas, including a small amount of supplemental gaseous fuels. Natural gas values for 2002 do not include blast furnace gas or other gas, whereas values for 2003 do.
⁴ Data include blast furnace gas and other gas.

Table 4.4. Receipts, Average Cost, and Quality of Fossil Fuels: Commercial Combined Heat and Power Producers, January 2002 through November 2003

		Co	oal ¹			Petro	leum ²		Natura	All Fossil Fuels ⁴	
Period	Receipts	Averaş	ge Cost	Avg. Sulfur	Receipts	Averaş	ge Cost	Avg. Sulfur	Receipts	Average Cost	Average Cost
	(1000 tons)	(cents/ 10 ⁶ Btu)	(dollars /ton)	Sullur %	(1000 barrels)	(cents/ 10 ⁶ Btu)	(dollars / barrel)	Sullur %	(1000 Mcf)	(cents/ 10 ⁶ Btu)	(cents/ 10 ⁶ Btu)
2002											
January	41	W	W	2.2	19	W	W	*	588	327.90	237.02
February		W	W	2.2	8	W	W	*	646	283.50	230.79
March		W	W	2.2	5	W	W		1,715	342.28	223.84
April		W	W	2.5					1,228	371.31	207.20
May	32	W	W	2.5	11	W	W	*	593	379.26	233.92
June		W	W	2.4	3	W	W		887	362.48	220.09
July		W	W	3.8	4	W	W	*	4,295	321.42	216.80
August		W	W	4.3	13	W	W		3,617	323.68	232.06
September		W	W	2.0					2,652	361.00	210.98
October		W	W	2.0					979	398.54	212.11
November		W	W	2.4	10	W	W	*	524	382.74	228.94
December	31	W	W	2.5	19	W	W		531	420.43	257.45
Total	399	W	W	2.6	91	W	W	*	18,256	344.42	226.65
2003											
January	45	W	W	2.2	58	W	W	*	825	486.76	378.35
February	32	W	W	2.5	94	W	W	*	634	501.40	466.61
March		W	W	2.6	50	W	W	*	986	492.54	463.50
April		W	W	2.6					1,379	500.53	403.77
May		W	W	2.5					924	496.43	373.48
June		W	W	2.3	34	W	W	*	533	447.07	326.63
July		W	W	2.7	*	W	W	*	1,115	481.51	368.80
August		W	W	2.9	1	W	W	*	1,748	487.85	414.41
September		W	W	2.3					665	431.09	309.60
October		W	W	2.0					608	421.28	322.03
November		W	W	2.0					49	520.25	231.30
Total		W	W	2.4	236	W	W	*	9,467	480.76	383.56
Year to Date	/								-,.07		
2002	368	W	W	2.6	72	W	W	*	17,724	342.15	302.20
2003		w	w	2.4	236	w	w	*	9,467	480.76	383.56

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

Notes: •See Glossary for definitions.•Values include a small number of commercial electricity-only plants.•Data for 2002 are final, and data for 2003 are preliminary.•Totals may not equal sum of components because of independent rounding.•Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the Independent Power Producer sector. This will affect comparisons of current and historical data.•Price data on the Form EIA-423 are proprietary and are only reported at an aggregated level.•Mcf = thousand cubic feet.•Monetary values are expressed in nominal terms.

 $Sources: \ Energy\ Information\ Administration, Form\ EIA-423, "Monthly\ Cost\ and\ Quality\ of\ Fuels\ for\ Electric\ Plants\ Report."$

² Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

³ Natural gas, including a small amount of supplemental gaseous fuels. Natural gas values for 2002 do not include blast furnace gas or other gas, whereas values for 2003 do.

⁴ Data include blast furnace gas and other gas.

W = Withheld to avoid disclosure of individual company data.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Receipts, Average Cost, and Quality of Fossil Fuels: Industrial Combined Heat and Power Producers, January 2002 through November 2003

	ualy 2002	Co				Petro	leum ²		Natura	All Fossil Fuels ⁴	
Period	Receipts	Averag	ge Cost	Avg. Sulfur	Receipts	Avera	ge Cost	Avg.	Receipts	Average Cost	Average Cost
	(1000 tons)	(cents/ 10 ⁶ Btu)	(dollars /ton)	%	(1000 barrels)	(cents/ 10 ⁶ Btu)	(dollars / barrel)	Sulfur %	(1000 Mcf)	(cents/ 10 ⁶ Btu)	(cents/ 10 ⁶ Btu)
2002											
January	1,152	W	W	1.5	537	W	W	1.9	72,701	287.67	160.33
February		W	W	3.2	470	W	W	1.9	67,000	248.78	160.21
March		W	W	1.4	544	W	W	1.3	73,314	274.09	162.82
April		W	W	1.5	462	W	W	2.0	68,258	328.49	160.03
May	1,098	W	W	1.4	368	W	W	2.0	72,191	346.57	162.30
June		W	W	1.4	358	W	W	1.8	66,392	326.67	161.62
July		W	W	1.4	384	W	W	2.3	69,414	345.20	159.01
August	1,217	W	W	1.4	369	W	W	2.1	70,803	324.81	159.58
September	1,084	W	W	1.5	392	W	W	1.8	65,762	347.86	166.48
October		W	W	1.4	448	W	W	1.8	67,222	379.62	168.07
November		W	W	1.3	484	W	W	1.8	63,502	415.73	165.62
December	1,253	W	W	1.4	512	W	W	1.8	71,879	419.03	171.79
Total	13,659	W	W	1.6	5,330	W	W	1.8	828,439	336.44	163.16
2003											
January	. 871	W	W	1.3	397	W	W	1.5	66,559	492.57	412.85
February	. 806	W	W	1.2	490	W	W	2.3	68,474	550.26	463.46
March		W	W	1.6	517	W	W	2.4	68,784	749.66	584.10
April		W	W	1.6	354	W	W	3.2	75,787	511.02	417.30
May		W	W	1.5	413	W	W	2.8	87,844	519.20	424.76
June		W	W	1.3	494	W	W	2.4	91,009	574.28	463.40
July		W	W	1.1	711	W	W	3.0	86,010	536.14	446.11
August		W	W	1.4	608	W	W	2.6	53,539	488.02	373.24
September		W	W	1.4	626	W	W	3.4	71,649	490.14	384.13
October		W	W	1.4	643	W	W	3.1	80,671	458.33	367.40
November		W	W	1.3	488	W	W	3.0	84,595	457.71	373.01
Total		W	W	1.4	5,743	W	W	2.7	834,920	530.81	428.43
Year to Date	,- · · <u>-</u>				-, -						
2002	12,406	W	W	1.6	4,818	W	W	1.9	756,561	328.58	283.96
2003		W	W	1.4	5,743	W	w	2.7	834,920	530.81	428.43

Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

Notes: *See Glossary for definitions. *Values include a small number of industrial electricity-only plants. *Data for 2002 are final, and data for 2003 are preliminary. *Totals may not equal sum of components because of independent rounding. Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the Independent Power Producer sector. This will affect comparisons of current and historical data. Price data on the Form EIA-423 are proprietary and are only reported at an aggregated level. •Mcf = thousand cubic feet. •Monetary values are expressed in nominal terms.

Sources: Energy Information Administration, Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report."

² Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

³ Natural gas, including a small amount of supplemental gaseous fuels. Natural gas values for 2002 do not include blast furnace gas or other gas, whereas values for 2003 do.

⁴ Data include blast furnace gas and other gas.

W = Withheld to avoid disclosure of individual company data.

Table 4.6.A. Receipts of Coal Delivered for Electricity Generation by State, November 2003 and 2002 (Thousand Tons)

					Electric Po	wer Sector		Combin	ned Heat an	d Power Pr	oducers
Census Division and State	To	tal (All Sector		Electric	Utilities ¹		ent Power ucers	Comm	ercial ²	Indu	strial ³
	Nov 2003	Nov 2002	Percent Change	Nov 2003	Nov 2002	Nov 2003	Nov 2002	Nov 2003	Nov 2002	Nov 2003	Nov 2002
New England	659	410	60.5	148	144	504	262	_	-	7	5
Connecticut	52	27	90.3			52	27				
Maine	20	16	28.8			13	11			7	5
Massachusetts	461	241	91.3	22	17	439	224				
New HampshireRhode Island	125	126	7 	125	126						
Vermont											
Middle Atlantic	4,310	4,532	-4.9	256	208	3,937	4,234			117	89
New Jersey	268	446	-40.0	161	74	107	372				
New York	847	921	-8.0	54	71	739	796			54	55
Pennsylvania	3,195	3,164	1.0	41	64	3,092	3,066			63	34
East North Central	17,975	16,910	6.3	12,225	12,875	5,424	3,735	18	19	307	281
Illinois	6,102	4,366	39.8	774	764	5,102	3,380			226	222
Indiana	4,372 2,964	4,449 3,006	-1.7 -1.4	4,207 2,922	4,380 2,973	165 24	69 14	18	 19		
Michigan Ohio	2,740	3,006	-1.4 -9.4	2,922	2,973	133	272	18	19	26	24
Wisconsin	1,797	2,064	-12.9	1,741	2,029	155				55	35
West North Central	11,071	12,023	-7.9	10,929	11,812			9	15	132	196
Iowa	1,538	1,579	-2.6	1,472	1,516					66	63
Kansas	1,768	1,842	-4.1	1,768	1,842						
Minnesota	1,622	1,725	-6.0	1,555	1,591					67	134
Missouri	3,212	3,329	-3.5	3,203	3,315			9	15		
Nebraska	683	1,162	-41.2	683	1,162						
North DakotaSouth Dakota	2,067 181	2,197 188	-5.9 -3.7	2,067 181	2,197 188						
South Atlantic	11,525	13,588	-15.2	9,055	10,784	2,311	2,674			159	130
Delaware	99	159	-38.0	7,033	10,764	99	159				
District of Columbia											
Florida	1,596	2,182	-26.9	1,480	2,027	116	155				
Georgia	2,371	2,300	3.1	2,337	2,262					33	38
Maryland	1,002	964	3.9			1,002	964				
North Carolina	1,303	2,627	-50.4	1,141	2,184	100	381			62	63
South Carolina	1,059	1,166	-9.2	1,049	1,166	106	240			10	
Virginia	1,246	1,256 2,933	8 -2.8	1,036 2,012	990 2,155	196 798	249			14 41	17 12
West Virginia East South Central	2,851 7,962	2,933 8,282	-2.8 -3.9	7,142	2,133 7,772	690	766 377			130	133
Alabama	1,702	2,414	-29.5	1,691	2,402	11	11				
Kentucky	2,966	2,470	20.1	2,623	2,470	343					
Mississippi	781	704	11.0	445	338	336	365				
Tennessee	2,513	2,695	-6.7	2,383	2,561					130	133
West South Central	10,469	10,987	-4.7	6,251	7,127	3,994	3,616	-	_	225	244
Arkansas	1,181	1,405	-15.9	1,181	1,405						
Louisiana	1,018	1,382	-26.3	380	778	634	603			4	1
Oklahoma	1,670	1,983	-15.8	1,552	1,871	78	66			40 182	45 197
Texas Mountain	6,601 8,368	6,217 9,730	6.2 -14.0	3,138 7,970	3,073 9,343	3,281 363	2,947 354			35	33
Arizona	1,416	1,862	-23.9	1,381	1,828	303				35	33
Colorado	1,740	1,359	28.0	1,740	1,359						
Idaho											
Montana	896	878	2.1	533	524	363	354				
Nevada	876	1,130	-22.5	876	1,130						
New Mexico	577	1,284	-55.0	577	1,284						
Utah	695	1,246	-44.3	695	1,246						
Wyoming	2,168	1,971	10.0	2,168	1,971		 EE0				22
Pacific Contiguous	887 142	787 86	12.8 64.9	193	196	630 78	558 54		-	65 65	32 32
California Oregon	193	86 196	-1.7	193	196	/8	34				32
Washington	552	504	9.5	193	190	552	504				
Pacific Noncontiguous	60	59	2.4			60	59			_	
Alaska											
Hawaii	60	59	2.4			60	59				
U.S. Total	73,287	77,306	-5.2	54,169	60,260	17,914	15,869	27	34	1,177	1,143

¹ Data shown for electric utilities are collected by the Federal Energy Regulatory Commission on the FERC Form 423.

² Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

³ Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

Notes: *See Glossary for definitions.*Data for 2002 are final, and data for 2003 are preliminary.*Totals may not equal sum of components because of independent rounding. Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the Independent Power Producer sector. This will affect comparisons of current and historical data. Coal includes anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

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

Table 4.6.B. Receipts of Coal Delivered for Electricity Generation by State, Year-to-Date through November 2003 and 2002

(Thousand Tons)

					Electric Po	wer Sector		Combin	ed Heat and	d Power Pr	oducers
Census Division and State	Tot	al (All Secto	rs)	Electric U	Utilities ¹	Independe Produ		Comme	ercial ²	Indus	trial ³
	2003	2002	Percent Change	2003	2002	2003	2002	2003	2002	2003	2002
New England	6,752	6,611	2.1	1,553	1,524	5,116	5,023	-	-	83	65
Connecticut	1,392	1,236	12.7			1,392	1,236				
Maine	234	198	18.3			151	133			83	65
Massachusetts	3,807	3,831 1,347	6 -2.1	234	177	3,573	3,654				
New HampshireRhode Island	1,319	1,347	-2.1	1,319	1,347						
Vermont											
Middle Atlantic	46,429	47,648	-2.6	2,294	1,978	42,952	44,529	_	_	1,182	1,141
New Jersey	3,240	3,559	-9.0	993	506	2,248	3,053			´	
New York	8,814	7,915	11.4	660	631	7,575	6,671			579	612
Pennsylvania	34,374	36,174	-5.0	641	841	33,129	34,805			603	528
East North Central	179,030	168,807	6.1	137,609	129,481	38,437	35,895	210	244	2,774	3,187
Illinois	44,185	46,225	-4.4 7.5	7,166	11,862	35,145	32,115			1,874	2,248
Indiana Michigan	43,919 30,499	40,849 29,971	7.5 1.8	42,487 30,132	39,562 29,560	1,433 156	1,287 167	210	244		
Ohio	39,033	30,167	29.4	37,065	27,554	1,703	2,326	210	2 44 	265	287
Wisconsin	21,394	21,595	9	20,759	20,944	1,703	2,320			635	651
West North Central	124,147	128,213	-3.2	122,894	126,818	_		129	124	1,125	1,271
Iowa	20,060	20,483	-2.1	19,340	19,617					720	866
Kansas	17,218	19,146	-10.1	17,218	19,146						
Minnesota	17,784	16,973	4.8	17,380	16,568					405	404
Missouri	36,221	35,499	2.0	36,092	35,375			129	124		
Nebraska	8,290	11,316	-26.7	8,290	11,316						
North Dakota	22,700	23,101	-1.7	22,700	23,101						
South DakotaSouth Atlantic	1,874 141,612	1,695 148,142	10.6 -4.4	1,874 113,202	1,695 119,311	26,853	26,885			1,557	1,946
Delaware	1,581	1,246	26.9			1,581	1,246			1,337	1,740
District of Columbia											
Florida	20,718	22,369	-7.4	18,579	20,331	2,139	2,037				
Georgia	31,129	29,446	5.7	30,798	29,102					330	343
Maryland	9,408	10,383	-9.4			9,408	10,383				
North Carolina	21,070	24,670	-14.6	19,340	22,345	1,296	1,521			435	804
South Carolina	10,728	13,769	-22.1	10,549	13,601					179	168
Virginia	13,428	13,347	.6	10,319	10,545	2,905	2,600			203	201
West Virginia	33,550	32,913	1.9	23,616	23,386	9,524	9,098			409	430
East South Central	94,044 24,542	92,394 26,396	1.8 -7.0	86,382 24,414	88,508 26,281	6,129 128	2,392 115	-		1,533	1,494
Kentucky	33,858	29,664	14.1	30,592	29,664	3,266					
Mississippi	8,187	6,964	17.6	5,452	4,687	2,736	2,277				
Tennessee	27,457	29,369	-6.5	25,924	27,876		-,			1,533	1,494
West South Central	113,277	115,235	-1.7	68,193	72,009	42,462	40,772			2,622	2,454
Arkansas	12,395	12,635	-1.9	12,395	12,635						
Louisiana	10,022	14,618	-31.4	5,752	7,322	4,252	7,283			19	14
Oklahoma	19,017	19,761	-3.8	17,556	18,534	962	799			499	429
Texas	71,843	68,221	5.3	32,490	33,519	37,249	32,691			2,104	2,011
Mountain	94,630	94,130	.5 -3.4	90,448	90,274	3,866	3,574	-		317 317	282
Arizona Colorado	15,737 16,991	16,285 17,447	-3.4 -2.6	15,420 16,991	16,012 17,447					31/	272
Idaho	10,551	17,447	-2.0	10,991	17,447						
Montana	9,700	9,234	5.1	5,834	5,660	3,866	3,574				
Nevada	8,012	6,879	16.5	8,012	6,879	-,					
New Mexico	11,497	9,031	27.3	11,497	9,031						
Utah	12,170	13,436	-9.4	12,170	13,426						10
Wyoming	20,522	21,818	-5.9	20,522	21,818						
Pacific Contiguous	10,371	9,329	11.2	2,387	1,844	7,372	6,917	-	-	612	569
California	1,188	1,310	-9.3 20.4	2 297	1 044	577	741			612	569
Oregon	2,387 6,796	1,844	29.4	2,387	1,844	6,796	6 175				
Washington Pacific Noncontiguous	6,796 657	6,175 535	10.1 22.8			6,796 657	6,175 535				
Alaska			22.6					-		-	-
Hawaii	657	535	22.8			657	535	-			

Data shown for electric utilities are collected by the Federal Energy Regulatory Commission on the FERC Form 423.

² Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

³ Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Notes: *See Glossary for definitions.*Data for 2002 are final, and data for 2003 are preliminary.*Totals may not equal sum of components because of independent rounding.*Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the Independent Power Producer sector. This will affect comparisons of current and historical data.*Coal includes anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

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

Table 4.7.A. Receipts of Petroleum Delivered for Electricity Generation by State, November 2003 and 2002 (Thousand Barrels)

	nousand Da				Electric Po	wer Sector		Combin	ied Heat an	ıd Power Pr	oducers
Census Division and State	Tot	tal (All Secto		Electric	Utilities ¹		ent Power ucers	Comm	ercial ²	Indu	strial ³
	Nov 2003	Nov 2002	Percent Change	Nov 2003	Nov 2002	Nov 2003	Nov 2002	Nov 2003	Nov 2002	Nov 2003	Nov 2002
New England	1,009	1,355	-25.5	224	107	703	1,113		-	82	135
Connecticut	32	384	-91.6			32	384				
Maine	190	175	8.2			108	40			82	135
Massachusetts	574	689	-16.7	11	*	563	689				
New Hampshire Rhode Island	214	107	99.1 	214	107						
Vermont		 									
Middle Atlantic	2,566	2,790	-8.0	1,395	1,134	1,120	1,644		_	50	12
New Jersey	73	128	-42.8	50	53	23	74				
New York	2,342	1,878	24.7	1,345	1,080	990	788			6	10
Pennsylvania	151	785	-80.8	*	*	107	782			44	2
East North Central	404 123	385	4.8 NIM	236 4	273 2	120 118	3			47	108
IllinoisIndiana	99	125	NM -20.6	99	65	118	2			1	60
Michigan	40	69	-41.7	40	69						
Ohio	45	39	14.7	43	37	2	1			*	1
Wisconsin	96	148	-35.0	50	101		*			46	48
West North Central	211	170	24.3	211	170	-			-	*	
Iowa	13	9	49.6	13	9						
Kansas	82	60 89	36.7	82 97	60					*	
Minnesota Missouri	98 4	89 7	10.0 -38.1	4	89 7					*	
Nebraska	3	3	24.2	3	3						
North Dakota	10	3	313.1	10	3						
South Dakota											
South Atlantic	5,144	5,042	2.0	4,663	4,521	235	327	-	10	246	183
Delaware	85	177	-51.9		14	70	83			15	81
District of Columbia	4 2 4 7	14	 5 (4 227	2.051		14 64			1.4	7
FloridaGeorgia	4,247 166	4,023 20	5.6 721.9	4,227 66	3,951 10	6	9			14 100	1
Maryland	133	150	-11.6			133	150				
North Carolina	67	65	3.0	4	34		2			63	29
South Carolina	27	37	-28.9	2	8					24	29
Virginia	386	520	-25.8	334	475	25	2		10	27	33
West Virginia	35	35	-2.0	30	29	1	2			4	4
East South Central	721 24	32 10	NM 145.8	314 24	28 6	407		-			4
Alabama Kentucky	417	8	143.8 NM	9	8	407					4
Mississippi	251	3	NM	251	3						
Tennessee	30	11	163.5	30	11						
West South Central	644	640	.6	26	9	572	594	-		46	37
Arkansas	8	9	-13.1	8	9	_ 					-
Louisiana	333	341	-2.4	12	*	306	332			15	9
Oklahoma	304	290	4.8	6	*	266	262			31	28
Texas Mountain	304 17	290 41	-60.0	16	33	266 1	262 8			31	1
Arizona		1	-00.0								1
Colorado	1	1	-22.2	1	1						
Idaho											
Montana	2	10	-82.7	1	3	1	8				
Nevada		6			6						
New Mexico	8 3	11 2	-27.7 49.3	8 3	11 2						
Utah Wyoming	3	10	-67.4	3	10						
Pacific Contiguous	78	73	7.1		-	61	69	-		17	3
California	61	69	-11.7			61	69			*	
Oregon											
Washington	17	3	381.3							17	3
Pacific Noncontiguous	169	185	-8.8			169	185	-	-	-	-
Alaska	169	185	-8.8			169	185				
Hawaii	10,963	10,714	-8.8 2.3	7,086	6,276	3,389	3,943		10	488	484
C.S. I Otal	10,703	10,/14	2.3	7,000	0,270	3,30)	3,773		10	700	707

¹ Data shown for electric utilities are collected by the Federal Energy Regulatory Commission on the FERC Form 423.

Technical Notes for conversion methodology), and waste oil.

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

² Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

³ Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

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^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Notes: *See Glossary for definitions.*Data for 2002 are final, and data for 2003 are preliminary.*Totals may not equal sum of components because of independent rounding.*Due to restructuring of the electric power industry, electric utilities are selling/ transferring plants to the Independent Power Producer sector. This will affect comparisons of current and historical data.*Petroleum includes distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see

Table 4.7.B. Receipts of Petroleum Delivered for Electricity Generation by State, Year-to-Date through November 2003 and 2002

(Thousand Barrels)

					Electric Po	wer Sector		Combin	ed Heat an	d Power Pro	oducers
Census Division and State	Tota	al (All Secto	rs)	Electric U	Jtilities ¹	Independe Produ		Comme	ercial ²	Indus	trial ³
	2003	2002	Percent Change	2003	2002	2003	2002	2003	2002	2003	2002
New England	21,720	13,050	66.4	7,842	754	13,579	11,006	27	11	272	1,280
Connecticut	3,138	2,484	26.4			3,138	2,484				
Maine	2,791	1,689	65.3			2,519	409			272	1,280
Massachusetts	13,221	8,136	62.5	5,272	13 741	7,922	8,113	27	11		
New HampshireRhode Island	2,569	741 	246.5	2,569	/41 						
Vermont											
Middle Atlantic	39,959	19,329	106.7	15,580	9,921	23,789	9,331	15		574	77
New Jersey	3,265	1,143	185.7	801	414	2,461	729			4	
New York	29,234	15,196	92.4	14,778	9,505	14,366	5,633	15		75	58
Pennsylvania	7,459	2,990	149.5	1	2	6,962	2,969			496	19
East North Central	6,036	4,692	28.6	3,820	3,278	1,262	208	-		953	1,206
Illinois	1,225	204	500.0	33	71 601	1,192	133			200	 542
Indiana Michigan	896 1,857	1,144 1,419	-21.7 30.9	687 1,857	601 1,419					209	543
Ohio	410	297	30.9 37.9	341	239	55	40			15	18
Wisconsin	1,647	1,627	1.2	902	948	16	35			729	645
West North Central	2,785	2,619	6.3	2,785	2,619			*	-	*	-
Iowa	112	82	36.5	112	82						
Kansas	1,367	696	96.2	1,367	696						
Minnesota	1,158	949	22.1	1,158	949					*	
Missouri	93	841	-88.9	93	841			*			
Nebraska	14	10	46.3	14	10						
North Dakota	41	42	-2.3	41	42						
South Atlantic	66,454	58,955	12.7	56,929	51,887	6,758	5,250	193	62	2,574	1,756
Delaware	2,419	2,034	18.9	170	299	1,799	802			449	933
District of Columbia	198	600	-67.0			198	600				
Florida	51,102	48,389	5.6	48,833	46,752	1,890	1,617			379	21
Georgia	1,131	214	429.4	315	170	63	40			754	3
Maryland	1,786	1,961	-8.9			1,786	1,961				
North Carolina	810	673	20.4	431	289	116	14			264	370
South Carolina	400	172	132.4	74	84					326	88
Virginia	8,163	4,540	79.8	6,764	4,051	834	134	193	62	372	293
West Virginia	445	373 456	19.5 NM	343	242 435	73	83			30 41	47 20
East South Central	6,070 154	96	60.3	2,889 113	76	3,140		-		41	20
Kentucky	3,346	182	NM	206	182	3,140					
Mississippi	2,375	31	NM	2,375	31	5,140					
Tennessee	196	147	33.3	196	147						
West South Central	7,142	6,359	12.3	1,756	397	4,859	5,651	_		527	311
Arkansas	63	62	1.8	63	62						
Louisiana	4,716	3,352	40.7	1,539	63	3,036	3,230			141	59
Oklahoma	78	10	654.8	78	10						
Texas	2,284	2,935	-22.2	75	261	1,824	2,421			386	252
Mountain	332	570	-41.7	275	443	52	102	_	-	5	24
ArizonaColorado	41 25	70 12	-40.8 114.7	37 15	46 12	10				5	24
Idaho	23	12	114./		12	10					
Montana	79	248	-68.3	40	146	39	102				
Nevada	55	84	-34.5	55	84						
New Mexico	54	41	31.6	51	41	3					
Utah	27	33	-20.4	27	33						
Wyoming	51	82	-37.4	51	82						
Pacific Contiguous	1,673	886	88.9	6	16	871	728	-	-	796	142
California	1,551	727	113.4		1	871	726			680	
Oregon	6	15	-60.0	6	15	*	2			116	142
Washington Pacific Noncontiguous	116 1,805	144 1,806	-19.3 1			1,805	1,806			116	142
Alaska	1,805	1,800	1 			1,805	1,806				-
Hawaii	1,805	1,806	1			1,805	1,806				

Data shown for electric utilities are collected by the Federal Energy Regulatory Commission on the FERC Form 423.

² Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

³ Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

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

^{*} = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Notes: *See Glossary for definitions.*Data for 2002 are final, and data for 2003 are preliminary.*Totals may not equal sum of components because of independent rounding.*Due to restructuring of the electric power industry, electric utilities are selling/ transferring plants to the Independent Power Producer sector. This will affect comparisons of current and historical data.*Petroleum includes distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

Sources: Energy Information Administration, Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report," and Federal Energy Regulatory Commission, FERC Form 423, "Monthly Cost and Quality of Fuels for Electric Plants Report."

Table 4.8.A. Receipts of Natural Gas Delivered for Electricity Generation by State, November 2003 and 2002 (Thousand Mcf)

					Electric Po	wer Sector		Combin	ied Heat an	d Power Pr	oducers
Census Division and State	Tot	tal (All Sector		Electric	Utilities ¹		ent Power ucers	Comm	ercial ²	Indu	strial ³
	Nov 2003	Nov 2002	Percent Change	Nov 2003	Nov 2002	Nov 2003	Nov 2002	Nov 2003	Nov 2002	Nov 2003	Nov 2002
New England	22,431	26,652	-15.8	383	532	21,038	24,896	_	-	1,010	1,224
Connecticut	4,055	3,633	11.6			4,055	3,633				
Maine	6,215	7,745	-19.8			5,205	6,521			1,010	1,224
Massachusetts	10,758	9,174	17.3	383	528	10,375	8,646				
New HampshireRhode Island	1,403	6,096	 -77.0			1,403	6,096				
Vermont	1,405	4	-//.0		4	1,403	0,090				
Middle Atlantic	22,871	30,945	-26.1	2,576	3,184	19,230	26,235		156	1,066	1,371
New Jersey	6,458	9,196	-29.8	585		5,873	9,196				
New York	13,176	18,532	-28.9	1,990	3,184	10,682	14,729		156	503	464
Pennsylvania	3,237	3,217	.6			2,674	2,311			563	906
East North Central	24,169	9,575	152.4	540	680	7,910	7,659	16	8	15,702	1,229
Illinois Indiana	1,754 15,778	1,449 300	21.1 NM	24 76	50 29	949 977	618 7			782 14,725	782 264
Michigan	5,391	6,765	-20.3	201	460	5,174	6,298	16	8	17,/23	204
Ohio	99	127	-21.9	4	18	91	53			4	56
Wisconsin	1,146	934	22.7	236	123	719	683			191	128
West North Central	2,835	1,989	42.5	2,129	1,465	673	503	32	4	1	17
Iowa	237	199	19.5	237	199						
Kansas	760	515	47.4	760	515						
Minnesota	1,060	582	82.2	569	140	490	424			1	17
Missouri Nebraska	397 381	537 156	-26.0 143.7	182 381	455 156	183	78 	32	4		
North Dakota			143.7								
South Dakota											
South Atlantic	49,479	34,386	43.9	32,535	24,445	7,117	7,839	_	17	9,827	2,085
Delaware	1,380	322	328.2	2	2	423	244			955	76
District of Columbia											
Florida	37,036	29,329	26.3	31,180	24,067	4,858	4,060			998 296	1,202 238
Georgia Maryland	462 77	960 2,020	-51.9 -96.2	46	55	120 77	667 2,020			296	238
North Carolina	516	373	38.5	5	1	511	371				
South Carolina	28	15	85.0		3	3	11			25	2
Virginia	2,683	1,077	149.1	1,302	308	989	395		17	392	357
West Virginia	7,297	290	NM		8	136	71			7,161	210
East South Central	7,030	10,332	-32.0	3,099	8,954	3,227	157	1	-	703	1,220
Alabama	2,330	5,432	-57.1	1,535	4,651	119	25			676	756
Kentucky Mississippi	49 4,624	72 4,792	-32.4 -3.5	20 1,544	72 4,232	27 3,080	132	1			428
Tennessee	27	37	-25.0	1,544	4,232	3,000	*			27	36
West South Central	142,984	159,204	-10.2	31,333	33,126	65,015	79,005	_	339	46,636	46,734
Arkansas	1,744	1,586	10.0	498	485	1,246	1,100				
Louisiana	30,220	30,262	1	10,489	11,939	418	1,846			19,312	16,477
Oklahoma	8,777	7,017	25.1	7,229	5,746	1,179	815		220	369	455
Texas	102,243	120,339	-15.0	13,117	14,955	62,172	75,243		339	26,954	29,802
Mountain	20,392 3,424	29,369 11,032	-30.6 -69.0	10,408 1,073	13,334 2,600	9,957 2,335	15,769 8,413			27 17	266 19
Colorado	5,176	6,254	-17.2	3,122	3,900	2,054	2,354				
Idaho	971	180	439.0			971	180				
Montana	*	*	-2.8	*	*	*					
Nevada	8,408	9,172	-8.3	4,353	4,948	4,055	4,224				
New Mexico	2,370	2,342	1.2	1,826	1,752	542	589			2	
Utah	 /12	123	02 0	24	115		8			 9	247
Wyoming Pacific Contiguous	43 55,609	266 64,701	-83.8 -14.1	34 5,252	19 7,664	40,736	47,680			9,622	247 9,357
California	43,846	54,128	-14.1 -19.0	3,909	6,203	30,872	39,280			9,065	8,645
Oregon	8,216	7,387	11.2	1,342	1,462	6,377	5,410			497	515
Washington	3,547	3,186	11.3		-,	3,487	2,990			60	197
Pacific Noncontiguous	1,500	1,622	-7.5	1,500	1,622	_		_	-	-	-
Alaska	1,500	1,622	-7.5	1,500	1,622						
Hawaii	349,300	368,775	-5.3	 89 755	95,005	 174 901	209,743	49	524	84,595	63,502
U.S. Total	347,300	300,773	-5.5	89,755	23,003	174,901	209,743	49	324	04,393	05,302

¹ Data shown for electric utilities are collected by the Federal Energy Regulatory Commission on the FERC Form 423.

² Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

³ Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

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

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Notes: *See Glossary for definitions.*Data for 2002 are final, and data for 2003 are preliminary.*Totals may not equal sum of components because of independent rounding.*Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the Independent Power Producer sector. This will affect comparisons of current and historical data.*Natural gas, including a small amount of supplemental gaseous fuels. Natural gas values for 2002 do not include blast furnace gas or other gas, whereas values for 2003 do.

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

Table 4.8.B. Receipts of Natural Gas Delivered for Electricity Generation by State, Year-to-Date through November 2003 and 2002

(Thousand Mcf)

	_				Electric Po	wer Sector		Combined Heat and Power Producers				
Census Division and State	Tot	tal (All Secto	ors)	Electric	Utilities ¹	Independ Prod		Comme	ercial ²	Indu	strial ³	
	2003	2002	Percent Change	2003	2002	2003	2002	2003	2002	2003	2002	
New England	276,263	315,678	-12.5	2,971	4,811	267,589	297,932	_	-	5,703	12,935	
Connecticut	36,126	54,541	-33.8			36,126	54,541					
Maine	60,994	82,626	-26.2	2.071	2.020	55,291	69,691			5,703	12,935	
Massachusetts New Hampshire	133,028	115,628 865	15.1	2,971	3,929 865	130,057	111,698					
Rhode Island	46,115	62,001	-25.6			46,115	62,001					
Vermont		17			17							
Middle Atlantic	318,067	498,464	-36.2	24,089	73,004	276,826	399,347	1,120	1,757	16,032	24,356	
New Jersey	95,892	139,279	-31.2	4,394		90,897	129,961			600	9,318	
New York	172,020	303,690	-43.4	19,695	73,004	146,698	223,728	1,120	1,757	4,507	5,202	
Pennsylvania	50,155	55,494	-9.6	12 (02	22.001	39,231	45,659	105	216	10,925	9,836	
East North Central	213,935 31,126	242,289 80,488	-11.7 -61.3	12,602 162	22,001 3,489	112,096 24,890	206,453 69,682	105	216	89,132 6,074	13,619 7,317	
Indiana	87,838	15,948	450.8	875	438	5,852	11,955			81,111	3,555	
Michigan	78,260	116,465	-32.8	8,970	15,041	69,185	101,208	105	216			
Ohio	4,243	12,222	-65.3	190	215	3,628	11,216			425	791	
Wisconsin	12,468	17,167	-27.4	2,405	2,818	8,540	12,393			1,522	1,956	
West North Central	37,736	45,955	-17.9	24,715	31,994	12,738	13,348	216	504	66	109	
Iowa	3,402	3,191	6.6	2,431	3,191	971						
Kansas	9,015	14,153	-36.3	9,015	14,153		 5 416					
Minnesota Missouri	9,829 13,777	8,225 18,981	19.5 -27.4	4,013 7,543	2,700 10,545	5,750 6,017	5,416 7,932	216	504	66	109	
Nebraska	1,713	1,405	21.9	1,713	1,405	0,017	1,932	210	304			
North Dakota	*	*	-46.1	*	*							
South Dakota												
South Atlantic	546,643	566,261	-3.5	337,447	358,109	129,516	180,166	250	2,137	79,429	25,849	
Delaware	20,252	15,522	30.5	220	250	10,581	14,548			9,451	724	
District of Columbia	200.462	405.007		225 176	242.722		40.270			10 120	12.006	
Florida	390,462	405,807	-3.8	325,176	343,732	55,156	48,270			10,130	13,806	
Georgia Maryland	28,275 5,185	60,722 18,525	-53.4 -72.0	486	340	25,825 5,185	57,168 18,525			1,964	3,214	
North Carolina	17,537	22,638	-22.5	296	2,422	17,159	20,216			82		
South Carolina	1,285	4,736	-72.9	*	37	1,191	3,367			94	1,333	
Virginia	27,327	32,912	-17.0	11,171	11,158	12,465	15,839	250	2,137	3,441	3,778	
West Virginia	56,320	5,397	943.5	98	169	1,955	2,234			54,267	2,994	
East South Central	144,902	224,215	-35.4	74,050	164,114	25,466	45,359	106	2,322	45,280	12,421	
Alabama	87,026	80,730	7.8	39,848	62,983	5,284	9,739		2 222	41,893	8,008	
Kentucky	1,173 56,039	6,546 133,823	-82.1 -58.1	600 33,602	779 100,351	467 19,388	3,445 29,357	106	2,322	3,049	4,115	
Mississippi Tennessee	664	3,116	-78.7	33,002	100,551	326	2,818			338	298	
West South Central	1,966,551	2,239,361	-12.2	504,800	618,384	949,934	1,045,077	7,669	10,790	504,148	565,110	
Arkansas	39,652	35,610	11.4	5,831	17,164	33,821	18,446					
Louisiana	360,231	478,629	-24.7	147,186	231,285	21,962	35,839	3,746	6,787	187,336	204,718	
Oklahoma	143,156	166,674	-14.1	120,411	145,278	17,980	16,131			4,765	5,265	
Texas	1,423,511	1,558,448	-8.7	231,371	224,658	876,170	974,660	3,922	4,002	312,047	355,128	
Mountain	298,166 110,949	319,577 112,985	- 6.7 -1.8	140,917 31,603	156,050 40,155	155,421 79,241	159,009 72,327			1,829 105	4,518 503	
Colorado	55,256	69,385	-20.4	33,195	38,048	22,061	31,338			103	303	
Idaho	6,914	5,886	17.5			6,914	5,886					
Montana	23	23	7	13	12	10	11					
Nevada	87,651	89,611	-2.2	46,911	47,306	40,741	42,305					
New Mexico	32,260	31,909	1.1	26,246	25,104	5,975	6,344			39	461	
Utah	3,261	6,023	-45.9	2,781	5,224	480	799			1.606	2.554	
Wyoming	1,853	3,756	-50.7	167	202	466 724	 551 500			1,686	3,554	
Pacific Contiguous California	659,898 552,400	735,514 647,423	-10.3 -14.7	99,874 88,442	86,371 74,976	466,724 378,238	551,500 484,056			93,300 85,720	97,643 88,390	
Oregon	71,738	59,865	19.8	11,432	11,395	54,698	43,065			5,607	5,405	
Washington	35,761	28,227	26.7			33,788	24,378			1,973	3,849	
Pacific Noncontiguous	17,160	17,551	-2.2	17,160	17,063	0	487	_	-	-	_	
Alaska	17,160	17,551	-2.2	17,160	17,063	0	487					
Hawaii												
U.S. Total	4,479,321	5,204,864	-13.9	1,238,624	1,531,902	2,396,310	2,898,677	9,467	17,724	834,920	756,561	

Data shown for electric utilities are collected by the Federal Energy Regulatory Commission on the FERC Form 423.

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

² Commercial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of commercial electricity-only plants.

³ Industrial combined-heat-and-power (CHP) with NAICS other than 22, which includes a small number of industrial electricity-only plants.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Notes: *See Glossary for definitions.*Data for 2002 are final, and data for 2003 are preliminary.*Data for 2002 are final, and data for 2003 are preliminary.*Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the Independent Power Producer sector. This will affect comparisons of current and historical data.*Natural gas, including a small amount of supplemental gaseous fuels. Natural gas values for 2002 do not include blast furnace gas or other gas, whereas values for 2003

Table 4.9.A. Average Cost of Coal Delivered for Electricity Generation by State, November 2003 and 2002 (Cents per Million Btu)

Census Division	Elect	ric Power Sector		Electric	Utilities	Independent Power Producers		
and State	Nov 2003	Nov 2002 ¹	Percent Change	Nov 2003	Nov 2002	Nov 2003	Nov 2002	
New England	W	W	W	181.79	183.01	W	W	
Connecticut	W	W	W			W	W	
Maine	W	W	W			W	W	
Massachusetts	171.33	171.06	.2	202.60	236.90	169.66	165.77	
New Hampshire	178.16	175.70	1.4	178.16	175.70			
Rhode Island								
Vermont								
Middle Atlantic	132.29	136.07	-2.8	160.77	160.81	130.30	134.51	
New Jersey	180.85	180.84	*	176.84	208.90	187.03	175.39	
New York	156.07	151.51	3.0	142.78	145.76	157.12	151.35	
Pennsylvania	121.77	124.40	-2.1	120.83	121.73	121.78	124.31	
East North Central	116.86	118.27	-1.2	119.56	117.36	109.77	121.31	
Illinois	108.27	115.91	-6.6	117.05	116.40	106.83	115.58	
Indiana	W	W	W	118.31	115.94	W	W	
Michigan	W	W	W	131.95	122.72	W	W	
Ohio	W	W	W	116.70	119.56	W	W	
Wisconsin	107.03	108.78	-1.6	107.03	108.52			
West North Central	90.13	88.13	2.3	90.13	87.85			
Iowa	81.00	88.92	-8.9	81.00	88.39			
Kansas	100.78	97.35	3.5	100.78	97.35			
Minnesota	106.72	107.23	5	106.72	106.61			
Missouri	91.63	88.41	3.6	91.63	88.24			
Nebraska	57.83	57.96 74.28	2	57.83 75.62	57.96			
North Dakota	75.62 134.25	74.38 125.89	1.7 6.6	134.25	74.38 125.89			
South Dakota	160.57	160.14	.3	162.06	123.89 1 60.77	154.86	157.47	
South Atlantic	W	W		102.00	100.//	154.60 W	157.47 W	
District of Columbia								
Florida	176.34	W	W	173.67	176.69	210.24	W	
Georgia	168.72	168.54	.1	168.72	168.65	210.24	**	
Maryland	164.03	154.96	5.9	100.72	100.03	164.03	154.96	
North Carolina	W	178.16	W	181.09	176.17	W	189.21	
South Carolina	166.68	160.09	4.1	166.68	160.09			
Virginia	167.64	167.09	.3	162.30	158.47	195.24	199.34	
West Virginia	127.28	120.95	5.2	132.40	123.58	114.32	113.37	
East South Central	133.13	129,39	2.9	134.32	128.97	115.90	138.58	
Alabama	W	W	W	152.81	143.04	W	W	
Kentucky	123.40	120.98	2.0	126.14	120.98	102.03		
Mississippi	W	W	W	159.09	161.37	W	W	
Tennessee	124.81	120.55	3.5	124.81	120.16			
West South Central	117.12	116.13	.8	112.35	115.89	125.87	117.07	
Arkansas	118.81	123.06	-3.5	118.81	123.06			
Louisiana	W	W	W	129.22	123.81	W	W	
Oklahoma	W	W	W	92.24	92.53	W	W	
Texas	120.82	120.49	.3	118.35	125.79	123.65	115.03	
Mountain	W	W	W	108.80	105.99	W	W	
Arizona	119.85	113.22	5.9	119.85	112.74			
Colorado	96.71	95.63	1.1	96.71	95.63			
Idaho								
Montana	W	W	W	57.06	53.11	W	W	
Nevada	164.77	141.13	16.8	164.77	141.13			
New Mexico	167.60	142.93	17.3	167.60	142.93			
Utah	110.40	98.01	12.6	110.40	98.01			
Wyoming	77.98	75.28	3.6	77.98	75.28			
Pacific	163.70	165.41	-1.0	158.08	131.28	165.26	176.27	
California	180.02	185.80	-3.1			180.02	188.27	
Oregon	158.08	131.28	20.4	158.08	131.28			
Washington	W	W	W			W	W	
Alaska								
Hawaii	W	W	W			W	W	
U.S. Total	125.13	124.88	.2	123.81	122.22	129.27	134.49	

¹ Data shown for electric utilities are collected by the Federal Energy Regulatory Commission on the FERC Form 423.

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

W = Withheld to avoid disclosure of individual company data.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Notes: "See Glossary for definitions. Data for 2002 are final, and data for 2003 are preliminary. Totals may not equal sum of components because of independent rounding. Monetary values are expressed in nominal terms. Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the Independent Power Producer sector. This will affect comparisons of current and historical data. Coal includes anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

Table 4.9.B. Average Cost of Coal Delivered for Electricity Generation by State, Year-to-Date through November 2003 and 2002

(Cents per Million Btu)

Census Division and State	Electr	ic Power Sector		Electric U	Utilities	Independent Power Producers		
and State	2003	20021	Percent Change	2003	2002	2003	2002	
New England	W	200.41	W	173.91	185.28	W	205.35	
Connecticut	W	W	W			W	W	
Maine	W	W	W			W	W	
Massachusetts	W	W	W	204.06	221.69	W	W	
New Hampshire	168.71	180.76	-6.7	168.71	180.76			
Rhode Island								
Vermont								
Middle Atlantic	133.45	134.56	8	182.01	159.25	130.67	133.41	
New Jersey	199.86	186.12	7.4	242.90	230.33	180.53	178.87	
New York	158.31 120.36	152.56 125.00	3.8 -3.7	148.43 121.04	153.66 119.91	159.22 120.34	152.45 125.13	
Pennsylvania	120.36 120.47	120.35	-3.7 .1	120.71	119.91 119.18	120.34 119.47	125.13 125.13	
East North Central	113.53	118.73	-4.4	113.83	117.12	113.46	119.37	
Indiana	W W	W	-4.4 W	118.63	115.70	W W	119.57 W	
Michigan	W	W W	W W	133.45	129.90	W	W	
Ohio	W	W	W	118.85	119.37	W	W	
Wisconsin	111.73	110.67	1.0	111.73	110.67			
West North Central	90.40	88.16	2.5	90.40	88.16			
Iowa	87.02	87.11	1	87.02	87.11			
Kansas	102.35	98.40	4.0	102.35	98.40			
Minnesota	107.37	105.50	1.8	107.37	105.50			
Missouri	90.96	89.28	1.9	90.96	89.28			
Nebraska	59.31	58.11	2.1	59.31	58.11			
North Dakota	73.72	74.56	-1.1	73.72	74.56			
South Dakota	134.28	130.19	3.1	134.28	130.19			
South Atlantic	160.70	158.95	1.1	161.29	159.79	158.29	155.37	
Delaware	W	W	W			W	W	
District of Columbia								
Florida	178.97	176.49	1.4	174.76	173.87	214.88	202.14	
Georgia	172.81	167.61	3.1	172.81	167.61			
Maryland	164.55	163.72	.5			164.55	163.72	
North Carolina	W	W	W	175.74	174.64	W	W	
South Carolina	160.67	158.60	1.3	160.67	158.60			
Virginia	162.76	168.16	-3.2	153.01	160.21	196.53	199.71	
West Virginia	124.73	120.28	3.7	128.37	124.04	115.60	110.56	
East South Central	131.50	W	W	132.36	128.00	114.92	W	
Alabama	W	W	W	147.17	141.31	W	W	
Kentucky	121.03	118.49	2.1	122.91	118.49	101.99		
Mississippi	W 124.00	W	W	157.15	164.43	W	W	
Tennessee	124.90	120.01	4.1	124.90	120.01	125.02	120.05	
West South Central	120.83 113.76	115.99 79.47	4.2 43.2	113.17 113.76	109.38 79.47	135.03	128.95	
	W	79.47 W	43.2 W	136.28	129.35	W	W	
LouisianaOklahoma	W	W	W	95.52	93.90	W	W	
Texas	127.25	128.10	7	119.12	126.27	135.50	130.22	
Mountain	W	W	W	108.44	104.55	W	W	
Arizona	125.27	124.42	.7	125.27	124.42			
Colorado	96.35	95.45	.9	96.35	95.45			
Idaho	70.55			70.55	75.15 			
Montana	W	W	W	61.92	61.03	W	W	
Nevada	144.35	133.50	8.1	144.35	133.50			
New Mexico	153.53	151.93	1.1	153.53	151.93			
Utah	102.53	97.86	4.8	102.53	97.86			
Wyoming	77.65	78.95	-1.7	77.65	78.95			
Pacific Contiguous	150.55	159.80	-5.8	125.84	133.23	157.79	166.41	
California	177.08	187.00	-5.3			177.08	187.00	
Oregon	125.84	133.23	-5.6	125.84	133.23			
Washington	W	W	W			W	W	
Alaska								
Hawaii	W	W	W			W	W	
U.S. Total	126.96	125.42	1.2	124.49	122.11	136.04	137.95	

¹ Data shown for electric utilities are collected by the Federal Energy Regulatory Commission on the FERC Form 423. W = Withheld to avoid disclosure of individual company data.

Notes: *See Glossary for definitions.*Data for 2002 are final, and data for 2003 are preliminary.*Totals may not equal sum of components because of independent rounding.*Monetary values are expressed in nominal terms.*Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the Independent Power Producer sector. This will affect comparisons of current and historical data.*Coal includes anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

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

Table 4.10.A. Average Cost of Petroleum Delivered for Electricity Generation by State, November 2003 and 2002 (Cents per Million Btu)

Census Division	Elect	tric Power Sector		Electric	Utilities	Independent Power Producers		
and State	Nov 2003	Nov 2002 ¹	Percent Change	Nov 2003	Nov 2002	Nov 2003	Nov 2002	
New England		407.67	-1.5	362.11	342.23	414.42	413.01	
Connecticut		W	W			W	W	
Maine		W	W			W	W	
Massachusetts		396.46	W	476.56	559.50	W	396.43	
New Hampshire		341.92	4.3	356.53	341.92			
Rhode Island								
Vermont		465.10	-5.3	399.66	364.41	492.28	536.36	
New Jersey		403.10 W	-3.5 W	296.76	243.95	W	330.30 W	
New York		414.94	6.1	403.50	370.29	491.09	477.41	
Pennsylvania		W	W	628.40	517.70	W	W	
East North Central		W	W	329.93	297.87	474.51	W	
Illinois		W	W	698.51	681.63	W	W	
Indiana	. 292.98	356.30	-17.8	292.98	415.69			
Michigan	317.48	298.94	6.2	317.48	298.94			
Ohio	. W	W	W	654.16	576.25	W	W	
Wisconsin	98.10	W	W	98.10	110.57		W	
West North Central		240.93	14.0	274.58	240.93			
Iowa		840.31	-22.5	651.59	840.31			
Kansas		336.11	17.4	394.65	336.11			
Minnesota		50.41	16.7	58.81	50.41			
Missouri		593.83	4.8	622.46	593.83			
Nebraska		602.73	-77.2	137.61	602.73			
North Dakota		616.87	5.2	648.65	616.87			
South Dakota		384.14	-13.4	325.26	 276 16	479,99	106 01	
South Atlantic Delaware		364.14 W	-13.4 W	323.20	376.16 479.51	479.99 W	486.81 W	
District of Columbia		W	W		479.51		W	
Florida		W	W	305.81	370.69	W	W	
Georgia		W	W	583.53	528.19		W	
Maryland		423.06	11.5			471.62	423.06	
North Carolina		W	W	622.17	564.90		W	
South Carolina		495.61	30.4	646.22	563.96			
Virginia		W	W	481.59	387.34	W	W	
West Virginia		588.70	12.0	658.01	604.18	712.17	595.13	
East South Central		662.89	W	448.77	670.28	W		
Alabama	622.02	600.09	3.7	622.02	621.74			
Kentucky		644.48	W	632.03	644.48	W		
Mississippi		364.68	12.8	411.19	364.68			
Tennessee		790.60	-23.4	605.58	790.60			
West South Central		196.54	-45.2	546.78	556.83	86.96	186.89	
Arkansas		553.04	22.8	679.00	553.04			
Louisiana		W	W	472.55	536.30	W	W	
Oklahoma		653.31	 W/	541.26	653.31		W	
Texas		W	W	541.26 751.39	616.81	W	W	
Mountain		739.50	vv	/31.39	010.01	W	vv	
Colorado		898.10	6.1	953.10	898.10			
Idaho	. 933.10	070.10	0.1	955.10	070.10			
Montana	W	W	W	728.96	694.76	W	W	
Nevada		583.20			583.20			
New Mexico		552.90	34.9	746.10	552.90			
Utah		709.04	5.9	751.20	709.04			
Wyoming		644.06	13.8	732.72	644.06			
Pacific		443.35	1.4			449.43	444.44	
California		W	W			W	W	
Oregon								
Washington		205.00						
Alaska								
Hawaii		W	W			W	W	
U.S. Total	350.93	396.43	-11.5	347.54	369.51	358.13	441.15	

¹ Data shown for electric utilities are collected by the Federal Energy Regulatory Commission on the FERC Form 423.

W = Withheld to avoid disclosure of individual company data.

Notes: See Glossary for definitions. Data for 2002 are final, and data for 2003 are preliminary. Totals may not equal sum of components because of independent rounding. Monetary values are expressed in nominal terms. Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the Independent Power Producer sector. This will affect comparisons of current and historical data. Petroleum includes distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical notes for conversion methodology), and waste oil.

Sources: Energy Information Administration, Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report;" and Federal Energy Regulatory Commission,

FERC Form 423, "Monthly Cost and Quality of Fuels for Electric Plants Report."

Table 4.10.B. Average Cost of Petroleum Delivered for Electricity Generation by State, Year-to-Date through November 2003 and 2002

(Cents per Million Btu)

Census Division and State	Electr	ic Power Sector		Electric U	J tilities	Independent Power Producers		
and State	2003	20021	Percent Change	2003	2002	2003	2002	
New England	497.42	363.39	36.9	510.24	367.85	489.93	363.08	
Connecticut	W	W	W			W	W	
Maine	W	W	W			W	W	
Massachusetts	506.13	343.10	47.5	578.34	451.59	457.89	342.94	
New Hampshire	371.81	366.45	1.5	371.81	366.45			
Rhode Island								
Vermont								
Middle Atlantic	517.34	376.43	37.4	420.30	344.23	582.48	412.65	
New Jersey	613.68	463.76	32.3	435.95	405.04	676.71	499.76	
New York	505.23	354.05	42.7	419.46	341.59	594.85	376.37	
Pennsylvania	526.76	459.99	14.5	571.91	516.87	526.75	459.96	
East North Central	399.10	W	W	349.51	239.27	541.17	W	
Illinois	W	510.49	W	684.40	444.41	W	546.59	
Indiana	301.30	226.03	33.3	301.30	226.03			
Michigan	419.59	266.06	57.7	419.59	266.06			
Ohio	W	W	W	621.66	526.03	W	W	
Wisconsin	W	W	W	109.80	113.59	W	W	
West North Central	269.20	166.34	61.8	269.20	166.34		-	
Iowa	630.90	559.45	12.8	630.90	559.45			
Kansas	357.98	275.55	29.9	357.98	275.55			
Minnesota	73.64	59.06	24.7	73.64	59.06			
Missouri	471.75	115.08	309.9	471.75	115.08			
Nebraska	432.53	550.37	-21.4	432.53	550.37			
North Dakota	678.31	559.68	21.2	678.31	559.68			
South Dakota		222.06					44.6 =0	
South Atlantic	419.85	333.06	26.1	404.80	324.76	547.08	416.78	
Delaware	W	W	W	559.58	387.66	W	W	
District of Columbia	W	W	W	205.02	217.20	W	W	
Florida	389.14	321.21	21.2	385.92	317.28	468.35	436.06	
Georgia	651.07	W	W	633.85	536.65	740.11	W	
Maryland	519.90	367.75	41.4	 (40.62	400.20	519.90	367.75	
North Carolina	W	W	W	648.63	499.28	W	W	
South Carolina	665.55	528.30	26.0	665.55	528.30	 615.44		
Virginia	507.00	W	W	495.21	368.49	615.44	W	
West Virginia	695.22	571.37	21.7	692.71	570.66	706.99	577.66	
East South Central	W 576.10	479.60	W	438.90	479.60	W		
Alabama	576.19	509.41	13.1	576.19	509.41			
Kentucky	W	437.17	W	553.10	437.17	W		
Mississippi	409.97	427.66	-4.1	409.97	427.66			
Tennessee	634.88	527.33	20.4	634.88	527.33	1.45.62	114.22	
West South Central	268.68	122.02	120.2	593.29	236.31	145.62	114.22	
Arkansas	640.72	550.18	16.5	640.72	550.18			
Louisiana	W	W	W	588.11	471.91	W	W	
Oklahoma	558.58 W	483.79 W	15.5 W	558.58	483.79	 W	W	
Texas		W	W	740.23	83.18	W	W	
Mountain	W			706.34	474.88		W	
Arizona	783.87	673.53	16.4	783.87	673.53	 W		
Colorado	W	676.28	W	924.01	676.28	W		
Idaho				722.70	212.67			
Montana	W 542.10	W	W	733.70	212.67	W	W	
Nevada	542.10	638.18	-15.1	542.10	638.18	 W/		
New Mexico	W 747.42	604.55	W 27.4	759.21	604.55	W		
Utah	747.42	543.84	37.4	747.42	543.84			
Wyoming	674.10	543.15	24.1	674.10	543.15	 425 11	270.05	
Pacific Contiguous	435.60	380.15	14.6	652.00	573.11	435.11	378.95	
California	117.34	115.36	1.7	 (52.00	591.70	117.34	114.94	
Oregon	652.00	572.32	13.9	652.00	572.32	 W		
Washington	W	W	W			W	W	
Alaska	 W/	 W/				 W		
Hawaii	W	W	W			W	W	
U.S. Total	442.08	328.68	34.5	415.99	320.09	485.63	346.68	

¹ Data shown for electric utilities are collected by the Federal Energy Regulatory Commission on the FERC Form 423. W = Withheld to avoid disclosure of individual company data.

Notes: •See Glossary for definitions.•Data for 2002 are final, and data for 2003 are preliminary.•Totals may not equal sum of components because of independent rounding.•Monetary values are expressed in nominal terms.•Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the Independent Power Producer sector. This will affect comparisons of current and historical data.•Petroleum includes distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical notes for conversion methodology), and waste oil.

Sources: Energy Information Administration, Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report," and Federal Energy Regulatory Commission, FERC Form 423, "Monthly Cost and Quality of Fuels for Electric Plants Report."

Table 4.11.A. Average Cost of Natural Gas Delivered for Electricity Generation by State, November 2003 and 2002 (Cents per Million Btu)

Census Division	Elec	tric Power Sector		Electric	Utilities	Independent Power Producers		
and State	Nov 2003	Nov 2002 ¹	Percent Change	Nov 2003	Nov 2002	Nov 2003	Nov 2002	
New England	485.50	456.15	6.4	515.61	461.12	484.96	456.36	
Connecticut		W	W			W	W	
Maine		467.49	5.4			492.78	469.41	
Massachusetts		414.52	13.3	515.61	460.95	467.79	411.67	
New Hampshire								
Rhode Island		W	W		402.60	W	W	
Vermont		483.60			483.60		400.00	
Middle Atlantic		489.29	6.9	520.78	502.19	523.56	488.22	
New Jersey		502.76 483.57	10.2 6.1	512.90 523.12	502.10	557.66 511.25	502.76 479.64	
New York Pennsylvania		480.91		323.12	502.19	489.21	484.12	
2		398.11	1.7 -1.4	463.95	698.71	387.89	367.64	
East North Central		472.25	6.1	557.70	483.02	499.44	461.98	
Indiana		472.23 W	W	504.69	494.04	499.44 W	401.98 W	
Michigan		367.30	W	336.60	797.77	W	335.38	
Ohio		574.01	5.8	654.15	597.67	605.32	614.11	
Wisconsin		374.01 W	3.8 W	521.43	477.63	003.32 W	014.11 W	
West North Central		460.39	6.7	490.13	440.41	494.91	519.21	
Iowa		513.53	10.0	564.89	513.53		317.21	
Kansas		411.26	4.9	431.28	411.26			
Minnesota		W	W	531.80	484.91	W	W	
Missouri		W	W	560.98	426.76	W	W	
Nebraska		445.49	4.3	464.53	445.49			
North Dakota								
South Dakota								
South Atlantic		443.75	21.2	561.22	462.80	435.51	385.37	
Delaware		W	W	486.46	409.50	W	W	
District of Columbia								
Florida		440.31	21.9	560.31	457.95	394.51	339.15	
Georgia		404.30	30.3	476.70	229.03	545.87	409.67	
Maryland		438.39	W			W	438.39	
North Carolina		W	W	608.30	585.77	W	W	
South Carolina		W	W		480.39	W	W	
Virginia		W	W	585.01	873.28	W	W	
West Virginia		577.28	6.1		902.69	612.69	645.43	
East South Central		435.82	2.4	451.38	434.18	441.36	489.76	
Alabama		W	W	422.10	449.27	468.99	W	
Kentucky		479.02	W	617.56	479.02	W		
Mississippi	452.24	W	W	478.66	416.68	439.05	W	
Tennessee	W	W	W			W	W	
West South Central	450.08	409.22	10.0	472.14	433.63	439.21	399.32	
Arkansas	W	W	W	468.80	416.70	W	W	
Louisiana	W	W	W	482.38	443.75	W	W	
Oklahoma	W	W	W	521.18	476.69	W	W	
Texas	438.22	401.30	9.2	437.07	409.25	438.47	398.71	
Mountain	419.37	373.69	12.2	417.08	406.06	421.75	346.80	
Arizona		370.72	28.4	516.95	391.31	456.96	364.31	
Colorado	303.43	292.74	3.7	213.10	317.63	434.35	254.98	
Idaho		W	W			W	W	
Montana		500.80	W	737.50	500.80	W		
Nevada		432.05	9.8	532.20	479.28	411.41	376.99	
New Mexico		W	W	418.24	412.64	W	W	
Utah		W	W		345.50		W	
Wyoming		374.68	16.8	437.50	556.30			
Pacific		424.36	7.9	405.01	370.96	466.17	434.04	
California		443.89	8.0	443.44	420.93	483.98	447.91	
Oregon		365.59	19.2	450.69	344.36	432.85	373.12	
Washington		367.55	.6			369.80	363.11	
Alaska		202.45	30.4	264.02	202.45			
Hawaii								
U.S. Total	469.50	424.25	10.7	493.60	435.81	457.23	419.90	

¹ Data shown for electric utilities are collected by the Federal Energy Regulatory Commission on the FERC Form 423.

W = Withheld to avoid disclosure of individual company data.

Notes: See Glossary for definitions. Data for 2002 are final, and data for 2003 are preliminary. Totals may not equal sum of components because of independent rounding. Monetary values are expressed in nominal terms. Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the Independent Power Producer sector. This will affect comparisons of current and historical data. Natural gas, including a small amount of supplemental gaseous fuels. Natural gas values for 2002 do not include blast furnace gas or other gas, whereas values for 2003 do.

Sources: Energy Information Administration, Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report;" and Federal Energy Regulatory Commission,

FERC Form 423, "Monthly Cost and Quality of Fuels for Electric Plants Report."

Table 4.11.B. Average Cost of Natural Gas Delivered for Electricity Generation by State, Year-to-Date through November 2003 and 2002

(Cents per Million Btu)

Census Division and State	Electr	ic Power Sector		Electric U	J tilities	Independent Power Producers		
and State	2003	20021	Percent Change	2003	2002	2003	2002	
New England	581.13	374.81	55.1	638.46	384.66	580.49	374.65	
Connecticut	W	377.82	W			W	377.82	
Maine	586.01	373.94	56.7			586.01	373.94	
Massachusetts	531.61	335.92	58.3	638.46	389.74	529.17	334.02	
New Hampshire		362.08			362.08			
Rhode Island	W	445.37	W			W	445.37	
Vermont		383.74			383.74			
Middle Atlantic	611.78	391.34	56.3	641.53	374.81	609.15	394.33	
New Jersey	634.12	397.25	59.6	548.35		638.27	397.25	
New York	609.35	391.22	55.8	662.50	374.81	602.10	396.57	
Pennsylvania	564.48	375.22	50.4			564.48	375.22	
East North Central	472.07	343.52	37.4	596.50	366.64	458.52	341.06	
Illinois	584.02	333.28	75.2	658.87	340.58	583.52	332.91	
Indiana	585.88	322.97	81.4	632.18	377.50	578.96	320.97	
Michigan	404.59	350.33	15.5	591.76	369.32	381.32	347.49	
Ohio	597.84	366.30	63.2	743.40	502.94	590.29	363.69	
Wisconsin	574.15	340.97	68.4	583.93	372.99	571.38	333.64	
West North Central	542.13	330.66	64.0	539.07	332.90	548.09	325.30	
Iowa	W	379.44	W	586.18	379.44	W		
Kansas	520.28	306.29	69.9	520.28	306.29			
Minnesota	W	W	W	566.32	383.90	W	W	
Missouri	W	W	W	514.32	336.04	W	W	
Nebraska	619.70	373.47	65.9	619.70	373.47	···		
North Dakota	745.26	247.91	200.6	745.26	247.91			
South Dakota	743.20	247.71	200.0	743.20	247.71			
South Atlantic	591.46	384.69	53.8	623.78	398.83	508.86	356.54	
Delaware	W	W	W	646.39	352.32	W	W	
District of Columbia	•••	** 		040.39	332.32		vv	
Florida	592.82	390.20	51.9	622.54	396.49	421.36	345.43	
	558.75	358.07	56.0	520.62	390.49	559.46	358.41	
Georgia				320.02				
Maryland	778.87	397.28	96.1	502.21	410.44	778.87	397.28	
North Carolina	W	341.71	W	593.21	419.44	W	332.25	
South Carolina	W	W	W	709.98	501.61	W	W	
Virginia	W	412.14	W	660.54	469.98	W	371.67	
West Virginia	993.57	398.32	149.4	1074.93	431.00	989.56	395.90	
East South Central	561.13	329.40	70.4	574.92	331.15	520.90	323.09	
Alabama	565.70	334.53	69.1	569.27	336.54	538.22	321.50	
Kentucky	W	W	W	686.23	418.84	W	W	
Mississippi	554.96	325.96	70.3	579.76	327.06	512.35	322.24	
Tennessee	W	W	W			W	W	
West South Central	538.99	331.99	62.4	555.83	341.10	529.87	326.55	
Arkansas	490.18	345.86	41.7	546.90	352.35	480.55	339.84	
Louisiana	578.64	345.66	67.4	586.30	348.36	526.55	328.09	
Oklahoma	557.25	338.85	64.5	573.10	343.64	450.35	295.19	
Texas	532.30	327.57	62.5	527.67	331.06	533.54	326.76	
Mountain	486.98	331.61	46.9	505.47	377.93	470.28	286.92	
Arizona	507.40	307.89	64.8	524.47	315.59	500.61	303.63	
Colorado	432.43	239.88	80.3	416.31	255.41	455.01	222.46	
Idaho	W	W	W			W	W	
Montana	W	W	W	557.18	425.96	W	W	
Nevada	510.47	440.10	16.0	574.37	549.07	436.75	319.85	
New Mexico	W	W	W	494.25	316.39	W	W	
Utah	W	W	W	270.37	455.17	W	W	
Wyoming	340.52	391.66	-13.1	340.52	391.66			
Pacific Contiguous	504.60	357.43	41.2	461.76	360.71	515.20	356.81	
California	534.55	366.67	45.8	511.20	399.62	539.94	361.60	
Oregon	443.05	325.51	36.1	431.11	294.94	445.54	333.61	
Washington	353.68	W	W	.51.11	221.21	353.68	W	
Alaska	225.43	W	W	225.43	232.82	.00	W	
	223.73	**	**	22J.TJ	202.02	.00	vv	
Hawaii								

¹ Data shown for electric utilities are collected by the Federal Energy Regulatory Commission on the FERC Form 423.

W = Withheld to avoid disclosure of individual company data.

Notes: *See Glossary for definitions.*Data for 2002 are final, and data for 2003 are preliminary.*Totals may not equal sum of components because of independent rounding.*Monetary values are expressed in nominal terms.*Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the Independent Power Producer sector. This will affect comparisons of current and historical data.*Natural gas, including a small amount of supplemental gaseous fuels. Natural gas values for 2002 do not include blast furnace gas or other gas, whereas values for 2003 do.

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

Table 4.12. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Total (All Sectors) by State, November 2003

(Thousand Tons)

Census Division and State		Bituminous			Subbituminous			Lignite		
and State	Receipts	Sulfur %	Ash %	Receipts	Sulfur %	Ash %	Receipts	Sulfur %	Ash %	
New England	659	.8	6.4							
Connecticut	52	1.4	12.9							
Maine	20	.7	5.5							
Massachusetts	461	.7	5.8							
New Hampshire	125	1.1	6.2							
Rhode Island										
Vermont										
Middle Atlantic	2,906	2.0	10.7	133	.3	5.2				
New Jersey	268	1.1	8.4							
New York	714	2.2	8.1	133	.3	5.2				
Pennsylvania	1,924	2.1	12.0							
East North Central	8,312	2.0	8.7	9,663	.3	4.7				
Illinois	1,686	1.3	7.3	4,416	.3	4.8				
Indiana	2,971	2.0	8.7	1,401	.2	4.5				
Michigan	803	1.3	8.8	2,161	.3	4.5				
Ohio	2,740	2.6	9.6							
Wisconsin	113	1.1	8.1	1,684	.3	4.9				
West North Central	202	2.4	8.6	8,803	.3	5.8	2,066	.7	9.5	
Iowa	21	3.5	8.8	1,517	.3	5.2				
Kansas	31	5.5	19.4	1,736	.4	5.1				
Minnesota	27	.9	6.7	1,595	.5	6.8				
Missouri	123	1.8	6.2	3,089	.3	6.3				
Nebraska				683	.3	4.6				
North Dakota				1	.8	9.4	2,066	.7	9.5	
South Dakota				181	.4	4.7	2,000			
South Atlantic	10,636	1.2	10.2	553	.3	5.3				
Delaware	99	1.0	10.0							
District of Columbia		1.0	10.0							
Florida	1,596	1.4	7.6							
Georgia	1,818	1.0	10.4	553	.3	5.3				
Maryland	731	1.1	10.4		.5	5.5				
North Carolina	1,303	.9	10.8							
South Carolina	1,059	1.2	9.1							
Virginia	1,246	1.0	9.8							
West Virginia	2,785	1.6	11.7							
East South Central	6,858	1.7	10.9	530	.4	7.8	336	.5	16.1	
Alabama	1,702	1.2	10.8			7.0			10.1	
	2,673	2.3	12.1	111	.4	6.3				
Kentucky	2,073 445		8.8			0.5	336	.5	16.1	
Mississippi		.6		419	 4		330	.5	10.1	
Tennessee	2,038	1.5	9.7		.4	8.2			107	
West South Central	91	2.4	15.8	7,054	.3	5.1	3,325	1.3	18.7	
Arkansas			14.4	1,181	.3	4.6	150		12.7	
Louisiana	4	.6	14.4	856	.4	5.5	159	.8	13.7	
Oklahoma	87	2.5	15.8	1,582	.3	5.1				
Гехаs	2.012			3,435	.3	5.2	3,166	1.4	18.9	
Mountain	2,913	.5	9.8	5,430	.5	9.3	25	.6	7.1	
Arizona	749	.5	9.3	667	.8	17.3				
Colorado	475	.5	9.9	1,265	.3	5.5				
(daho										
Montana				871	.6	8.2	25	.6	7.1	
Nevada	876	.5	9.2							
New Mexico				577	.8	18.8				
Jtah	695	.5	11.8							
Wyoming	119	.8	5.3	2,049	.4	6.8				
Pacific Contiguous	142	.5	8.3	745	.9	12.9	-			
California	142	.5	8.3							
Oregon				193	.3	4.5				
Washington				552	1.1	15.9				
Pacific Noncontiguous				60	.5	4.5				
Alaska										
Hawaii				60	.5	4.5				
U.S. Total	32,720	1.5	9.9	32,970	.4	6.1	5,751	1.1	15.2	

Notes: *See Glossary for definitions.*Data for 2003 are preliminary.*Totals may not equal sum of components because of independent rounding.*Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the Independent Power Producer sector. This will affect comparisons of current and historical data. Sources: Energy Information Administration, Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report," and Federal Energy Regulatory Commission, FERC Form 423, "Monthly Cost and Quality of Fuels for Electric Plants Report."

Table 4.13. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Electric Utilities by State, November 2003

Census Division and State		Bituminous			Subbituminous	S		Lignite			
and State	Receipts	Sulfur %	Ash %	Receipts	Sulfur %	Ash %	Receipts	Sulfur %	Ash %		
New England	148	1.1	6.4								
Connecticut											
Maine											
Massachusetts	22	.6	7.2								
New Hampshire	125	1.1	6.2								
Rhode Island											
Vermont											
Middle Atlantic	256	1.4	8.2	-	-			-			
New Jersey	161	1.0	8.2								
New York	54	2.1	8.3								
Pennsylvania	41	2.3	8.2								
East North Central	6,789	2.1	9.1	5,436	.3	4.7					
Illinois	371	2.3	10.3	403	.3	4.9					
Indiana	2,971	2.0	8.7	1,236	.2	4.6					
Michigan	760	1.3	8.8	2,161	.3	4.5					
Ohio	2,582	2.6	9.5	2,101	.5						
Wisconsin	105	1.0	8.0	1,636	.3	4.9					
West North Central	172	2.2	8.6	8,691	.3	5.8	2,066	.7	9.5		
			o.u 	1,472	.3	5.2	,		9.5		
Iowa	31	5.5	19.4	1,736	.3 .4	5.1					
Kansas				,							
Minnesota	27	.9	6.7	1,528	.5	6.9					
Missouri	114	1.6	6.1	3,089	.3	6.3					
Nebraska				683	.3	4.6		=			
North Dakota				1	.8	9.4	2,066	.7	9.5		
South Dakota				181	.4	4.7					
South Atlantic	8,502	1.1	10.2	553	.3	5.3		-			
Delaware											
District of Columbia											
Florida	1,480	1.5	7.3								
Georgia	1,784	1.0	10.4	553	.3	5.3					
Maryland											
North Carolina	1,141	.9	11.1								
South Carolina	1,049	1.2	9.1								
Virginia	1,036	1.0	10.1								
West Virginia	2,012	1.0	12.2								
East South Central	6,612	1.7	10.9	530	.4	7.8					
Alabama	1,691	1.2	10.8								
Kentucky	2,512	2.2	12.0	111	.4	6.3					
Mississippi	445	.6	8.8								
Tennessee	1,964	1.5	9.8	419	.4	8.2					
West South Central	1,704	1.5	J.0 	5,472	.3	5.0	779	1.3	18.1		
Arkansas				1,181	.3	4.6			10.1		
Louisiana				222	.3	5.4	159	.8	13.7		
Oklahoma				1,552	.3	5.1	139	.0	13.7		
				,	.3	5.1	620	1.5	19.3		
Texas				2,517							
Mountain	2,913	.5	9.8	5,032	.5	9.4	25	.6	7.1		
Arizona	749	.5	9.3	632	.8	17.5					
Colorado	475	.5	9.9	1,265	.3	5.5					
Idaho											
Montana				508	.6	8.6	25	.6	7.1		
Nevada	876	.5	9.2								
New Mexico				577	.8	18.8					
Utah	695	.5	11.8								
Wyoming	119	.8	5.3	2,049	.4	6.8					
Pacific Contiguous				193	.3	4.5	-	-			
California											
Oregon				193	.3	4.5					
Washington											
Pacific Noncontiguous											
Alaska											
Hawaii											
11aw a11											

Notes: •See Glossary for definitions.•Data for 2003 are preliminary.•Totals may not equal sum of components because of independent rounding.•Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the Independent Power Producer sector. This will affect comparisons of current and historical data. Sources: Federal Energy Regulatory Commission, FERC Form 423, "Monthly Cost and Quality of Fuels for Electric Plants Report."

Table 4.14. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Independent Power Producers by State, November 2003

Census Division and State		Bituminous			Subbituminous	;	Lignite		
and State	Receipts	Sulfur %	Ash %	Receipts	Sulfur %	Ash %	Receipts	Sulfur %	Ash %
New England	504	.7	6.4						
Connecticut	52	1.4	12.9						
Maine	13	.7	5.2						
Massachusetts	439	.7	5.7						
New Hampshire									
Rhode Island									
Vermont									
Middle Atlantic	2,552	2.1	11.1	133	.3	5.2	-		-
New Jersey	107	1.2	8.7	122		 			
New York	606 1,840	2.2 2.2	8.1 12.2	133	.3	5.2			
East North Central	1,291	.8	6.6	4,133	.3	4.8			
Illinois	1,134	.7	6.2	3,968	.3	4.8			
Indiana	1,134	./	0.2	165	.3	3.8			
Michigan	24	1.2	8.3		.5	3.6			
Ohio	133	1.5	10.0						
Wisconsin		1.5	10.0						
West North Central			_	_				_	
Iowa									
Kansas									
Minnesota									
Missouri									
Nebraska									
North Dakota									
South Dakota									
South Atlantic	1,975	1.8	10.4				-	-	-
Delaware	99	1.0	10.0						
District of Columbia									
Florida	116	1.0	11.2						
Georgia									
Maryland	731	1.1	10.9						
North Carolina	100	.9	9.2						
South Carolina	196								
Virginia	733	.8 3.2	8.2 10.6						
West Virginia East South Central	172	3.1	12.4				336	.5	16.1
Alabama	11	.7	10.5						10.1
Kentucky	161	3.2	12.5						
Mississippi		J.2 	12.3				336	.5	16.1
Tennessee									
West South Central	78	2.7	17.0	1,552	.3	5.3	2,364	1.3	18.8
Arkansas				´					
Louisiana				634	.4	5.5			
Oklahoma	78	2.7	17.0						
Texas				917	.3	5.2	2,364	1.3	18.8
Mountain				363	.6	7.7			
Arizona									
Colorado									
Idaho									
Montana				363	.6	7.7			
Nevada									
New Mexico									
Utah									
Pacific Contiguous	78	.5	8.5	552	1.1	15.9			
Pacific Contiguous	78 78	.5 .5	8.5 8.5	552	1.1	15.9			
California Oregon	/ o 	.3	6.3						
Washington				552	1.1	15.9			
Pacific Noncontiguous				60	.5	4.5			
Alaska						4. 3			
Hawaii				60	.5	4.5			
11awaii									

Notes: •See Glossary for definitions.•Data for 2003 are preliminary.•Totals may not equal sum of components because of independent rounding.•Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the Independent Power Producer sector. This will affect comparisons of current and historical data. Sources: Energy Information Administration, Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report."

Table 4.15. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Commercial Combined Heat and Power Producers by State, November 2003

Census Division and State		Bituminous			Subbituminous		Lignite		
and State	Receipts	Sulfur %	Ash %	Receipts	Sulfur %	Ash %	Receipts	Sulfur %	Ash %
New England									
Connecticut									
Maine									
Massachusetts									
New Hampshire									
Rhode Island									
Vermont									
Middle Atlantic		-	-	-	-		-	-	-
New Jersey									
New York									
Pennsylvania									
East North Central	18	1.2	8.4		-				
Illinois									
Indiana		1.2							
Michigan	18	1.2	8.4						
Ohio									
Wisconsin	9								
West North Central		3.6	8.3						
Kansas									
Minnesota									
Missouri	9	3.6	8.3						
Nebraska		5.0	6.5						
North Dakota									
South Dakota									
South Atlantic									
Delaware									
District of Columbia									
Florida									
Georgia									
Maryland									
North Carolina									
South Carolina									
Virginia									
West Virginia									
East South Central					-			-	
Alabama									
Kentucky									
Mississippi									
Tennessee									
West South Central		-	-		-			-	-
Arkansas									
Louisiana									
Oklahoma									
Texas									
Mountain		-			-				
Arizona									
Colorado									
Idaho									
Montana									
Nevada									
New Mexico									
Utah Wyoming									
Pacific Contiguous									
California									
Oregon									
Washington									
Pacific Noncontiguous									
Alaska									
Hawaii									
			8.4						

Notes: *See Glossary for definitions.*Data for 2003 are preliminary.*Values include a small number of commercial electricity-only plants.*Totals may not equal sum of components because of independent rounding. Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the Independent Power Producer sector. This will affect comparisons of current and historical data.

Sources: Energy Information Administration, Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report."

Table 4.16. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Industrial Combined Heat and Power Producers by State, November 2003

Census Division and State		Bituminous			Subbituminous	i		Lignite		
una state	Receipts	Sulfur %	Ash %	Receipts	Sulfur %	Ash %	Receipts	Sulfur %	Ash %	
New England	7	.7	6.1							
Connecticut										
Maine	7	.7	6.1							
Massachusetts										
New Hampshire										
Rhode Island										
Vermont										
Middle Atlantic	98	1.4	8.0		-	-	-	-	-	
New Jersey										
New York	54	1.5	7.8							
Pennsylvania	44	1.2	8.2							
East North Central	214	3.1	8.8	93	.3	5.6		-		
Illinois	181	3.0	8.6	45	.4	4.5				
Indiana										
Michigan										
Ohio	26	3.8	10.5							
Wisconsin	7	2.9	9.0	48	.3	6.6				
West North Central	21	3.5	8.8	112	.3	5.0				
Iowa	21	3.5	8.8	45	.3	4.8				
Kansas										
Minnesota				67	.3	5.1				
Missouri										
Nebraska										
North Dakota										
South Dakota										
South Atlantic	159	1.0	8.1		-					
Delaware										
District of Columbia										
Florida										
Georgia	33	.8	8.5							
Maryland			7.2							
North Carolina	62	.8	7.2							
South Carolina	10	.8	8.9							
Virginia	14	.9	7.3							
West Virginia	41 74	1.3 .9	9.1							
East South Central			6.7			-	-			
Alabama										
Kentucky										
Mississippi	 74	.9	6.7							
West South Central	13	.9 .5	8.2	30	.2	6.5	182	1.7	19.5	
		 					102	1./	17.3	
Arkansas Louisiana	4	.6	14.4							
Oklahoma	9	.4	5.7	30	.2	6.5				
Texas			3.7			0.5	182	1.7	19.5	
Mountain				35	.5	14.3	102	1./	19.5	
Arizona				35	.5	14.3				
Colorado					.5	14.5				
Idaho										
Montana										
Nevada										
New Mexico										
Utah										
Wyoming										
Pacific Contiguous	65	.4	8.0							
California	65	.4	8.0							
Oregon			6.0							
Washington										
Pacific Noncontiguous										
Alaska		 			-					
Hawaii								 		
Hawaii										

Notes: *See Glossary for definitions.*Data for 2003 are preliminary.*Values include a small number of industrial electricity-only plants.*Totals may not equal sum of components because of independent rounding. Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the Independent Power Producer sector. This will affect comparisons of current and historical data.

Sources: Energy Information Administration, Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report."

Chapter 5. Retail Sales, Revenue, and Average Retail Price of Electricity

Table 5.1. Retail Sales of Electricity to Ultimate Customers: Total by Sector, 1990 through December 2003 (Million Kilowatthours)

Period	Residential	Commercial	Industrial	Other ¹	All Sectors
1990	924,019	751,027	945,522	91,988	2,712,555
991	955,417	765,664	946,583	94,339	2,762,003
992	935,939	761,271	972,714	93,442	2,763,365
993	994,781	794,573	977,164	94,944	2,861,462
994	1,008,482	820,269	1,007,981	97,830	2,934,563
995	1,042,501	862,685	1,012,693	95,407	3,013,287
996	1,082,512	887,445	1,033,631	97,539	3,101,127
997	1,075,880	928,633	1,038,197	102,901	3,145,610
998	1,130,109	979,401	1,051,203	103,518	3,264,231
	1,144,923	1,001,996	1,058,217	106,952	3,312,087
999	1,192,446	1,055,232	1,064,239	109,496	3,421,414
	1,192,440	1,055,252	1,004,239	109,490	3,421,414
2001	100.464	01.405	00.245	0.167	200 202
January	128,464	91,407	80,245	9,167	309,283
February	101,026	82,072	79,349	8,636	271,083
March	93,568	84,477	80,533	8,730	267,307
April	82,937	81,538	79,824	8,525	252,823
May	81,539	87,955	82,736	9,038	261,269
June	98,689	96,153	82,616	10,075	287,533
July	119,819	102,863	80,766	10,355	313,803
August	128,472	106,234	84,259	11,024	329,988
September	105,385	97,267	80,133	10,925	293,709
October	85,207	89,818	80,569	9.660	265,255
November	81,188	83,539	77,774	8,902	251,404
December	96.354	85,830	75,421	8,717	266,322
	1,202,647	1,089,154	964,224	113,756	3,369,781
Total	1,202,047	1,065,134	904,224	113,730	3,309,781
	117,742	89,366	76,600	8,315	292,023
January	97,309	82,526	76,413	8,028	264,275
February					
March	95,919	85,055	78,122	8,010	267,105
April	86,103	85,549	78,918	8,009	258,578
May	87,494	90,819	82,242	8,501	269,055
June	107,853	98,638	82,432	9,306	298,230
July	133,389	108,091	85,724	10,064	337,268
August	133,951	107,439	86,739	10,183	338,312
September	114,951	100,138	84,107	10,266	309,462
October	94,237	95,188	83,783	9,456	282,665
November	88,926	85,363	79,057	8,464	261,810
December	109,085	88,076	78,032	8,546	283,738
Total	1,266,959	1,116,248	972,168	107,146	3,462,521
003	-,,	-,,-	,	,	-,,
January	125,307	93,712	80,351	8,743	308,113
February	112,021	84,886	77,901	8,327	283,136
March	100,154	86,482	78,914	8,265	273,816
	84,102	83,470	80,561	7,924	256,057
April	88,340	89,391			268,807
May			82,495	8,581	
June	100,912	94,911	84,296	9,353	289,472
July	130,254	106,961	86,064	10,232	333,510
August	133,889	108,218	88,825	10,550	341,481
September	113,506	99,408	84,526	9,939	307,379
October	90,044	93,497	85,438	9,525	278,504
November	87,474	86,722	81,374	8,838	264,408
December	113,903	91,592	80,612	9,176	295,283
Total	1,279,907	1,119,250	991,359	109,452	3,499,968
ear to Date					
001	1,202,647	1,089,154	964,224	113,756	3,369,781
2002	1,266,959	1,116,248	972,168	107,146	3,462,521
2003	1,279,907	1,119,250	991,359	109,452	3,499,968
Rolling 12 Months Ending in		1,117,120	272,000	102,102	2,.,,,,,
	1,266,959	1,116,248	972,168	107,146	3,462,521
002					

¹ Public street and highway lighting, other sales to public authorities, sales to railroads and railways, and interdepartmental sales.

Notes: *See Glossary for definitions.*Geographic coverage is the 50 States and the District of Columbia.*Sales values for 1996-2003 include energy service provider (power marketer) data.*Values for 2002 and prior years are final.*Values for 2003 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. *Retail sales and net generation may not correspond exactly for a particular month for a variety of reasons (i.e., sales data may include purchases of electricity from nonutilities or imported electricity). Net generation is for the calendar month while retail sales and associated revenue accumulate from bills collected for periods of time (28 to 35 days) that vary dependent upon customer class and consumption occurring in and outside the calendar month.*Totals may not equal sum of components because of independent rounding.

Sources: 2002 - 2003: Energy Information Administration, Form EIA-826, "Monthly Electric Sales and Revenue Report with State Distributions Report;" 1990-2002: Form EIA-861, "Annual Electric Power Industry Report."

Table 5.2. Revenue from Retail Sales of Electricity to Ultimate Customers: Total by Sector, 1990 through December 2003
(Million Dollars)

Period	Residential	Commercial	Industrial	Other ¹	All Sectors
1990	72,378	55,117	44,857	5,891	178,243
1991	76,828	57,655	45,737	6,138	186,359
1992	76,848	58,343	46,993	6,296	188,480
1993	82,814	61,521	47,357	6,528	198,220
1994	84,552	63,396	48,069	6,689	202,706
1995	87,610	66,365	47,175	6,567	207,717
1996	90,503	67,829	47,536	6,741	212,609
1997	90,704	70,497	47,023	7,110	215,334
1998	93,360	72,575	47,050	6,863	219,848
1999	93,483	72,771	46,846	6,796	219,896
2000	98,209	78,405	49,369	7,179	233,163
2001					
January	10,001	6,732	4,000	608	21,341
February	8,176	6,192	3,834	596	18,799
March	7,815	6,504	3,925	607	18,851
April	7,063	6,302	3,885	595	17,844
May	7,236	6,806	4,127	640	18,810
June	8,961	7,789	4,283	714	21,747
July	10,850	8,629	4,424	748	24,651
August	11,592	8,875	4,554	791	25,813
September	9,423	8,001	4,205	756	22,384
October	7,588	7,453	4,039	706	19,786
November	6,923	6,480	3,694	626	17,724
December	8,043	6,591	3,603	611	18,847
Total 2002	103,671	86,354	48,573	7,999	246,597
January	9,527	6,652	3,663	547	20,390
February	7,971	6,325	3,682	543	18,521
March	7,836	6,541	3,773	544	18,693
April	7,216	6,512	3,757	550	18,034
May	7,564	7,056	3,932	577	19,129
June	9,406	7,944	4,114	636	22,100
July	11,752	8,923	4,441	670	25,786
August	11,729	8,808	4,431	669	25,638
September	9,951	8,056	4,160	673	22,841
October	8,023	7,651	4,098	638	20,410
November	7,414	6,530	3,741	568	18,252
December	8,840	6,706	3,694	593	19,833
Total	107,229	87,706	47,485	7,208	249,629
2003					
January	10,005	7,286	3,754	584	21,629
February	8,961	6,589	3,758	575	19,883
March	8,322	6,777	3,862	594	19,555
April	7,417	6,704	3,919	571	18,611
May	7,947	7,285	4,055	616	19,903
June	9,291	8,091	4,270	668	22,320
July	11,921	9,203	4,546	714	26,384
August	12,305	9,227	4,684	732	26,948
September	10,106	8,157	4,245	697	23,206
October	8,017	7,641	4,237	653	20,548
November	7,649	6,878	3,878	590	18,995
December	9,502	7,146	3,852	609	21,109
Fotal	111,443	90,983	49,062	7,603	259,091
Year to Date	102 (54	96.271	40.550	# 000	246 808
2001	103,671	86,354	48,573	7,999	246,597
2002	107,229	87,706	47,485	7,208	249,629
2003	111,443	90,983	49,062	7,603	259,091
Rolling 12 Months Ending in 2002	107,229	87,706	47,485	7,208	249,629
			4/457		

¹ Public street and highway lighting, other sales to public authorities, sales to railroads and railways, and interdepartmental sales.

Notes: *See Glossary for definitions.*Geographic coverage is the 50 States and the District of Columbia.*Revenue values for 1996-2003 include energy service provider (power marketer) data.*Values for 2002 and prior years are final.*Values for 2003 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. *Values for 1996 in the commercial and industrial sectors reflect an electric utility's reclassification for this information by Standard Industrial Classification. *Changes from year to year in consumer counts, sales and revenues, particularly involving the commercial and industrial consumer sectors, may result from respondent implementation of changes in the definitions of consumers, and reclassifications. *Retail sales and net generation may not correspond exactly for a particular month for a variety of reasons (i.e., sales data may include purchases of electricity from nonutilities or imported electricity). Net generation is for the calendar month while retail sales and associated revenue accumulate from bills collected for periods of time (28 to 35 days) that vary dependent upon customer class and consumption occurring in and outside the calendar month. *Totals may not equal sum of components because of independent rounding.

Sources: 2002-2003: Energy Information Administration, Form EIA-826, "Monthly Electric Sales and Revenue Report with State Distributions Report;" 1990-2002: Form EIA-861, "Annual Electric Power Industry Report."

Table 5.3. Average Retail Price of Electricity to Ultimate Customers: Total by Sector, 1990 through December 2003

(Cents per kilowatthour)

(1	or knowatthour)				
Period	Residential	Commercial	Industrial	Other ¹	All Sectors
1990	7.83	7.34	4.74	6.40	6.57
1991	8.04	7.53	4.83	6.51	6.75
1992	8.21	7.66	4.83	6.74	6.82
1993	8.32	7.74	4.85	6.88	6.93
1994	8.38	7.73	4.77	6.84	6.91
1995	8.40	7.69	4.66	6.88	6.89
		7.64			
1996	8.36		4.60	6.91	6.86
1997	8.43	7.59	4.53	6.91	6.85
1998	8.26	7.41	4.48	6.63	6.74
1999	8.16	7.26	4.43	6.35	6.64
2000	8.24	7.43	4.64	6.56	6.81
2001					
January	7.78	7.36	4.99	6.63	6.90
February	8.09	7.54	4.83	6.91	6.93
March	8.35	7.70	4.87	6.95	7.05
April	8.52	7.73	4.87	6.98	7.06
May	8.87	7.74	4.99	7.09	7.20
June	9.08	8.10	5.18	7.08	7.56
July	9.06	8.39	5.48	7.23	7.86
August	9.02	8.35	5.40	7.18	7.82
September	8.94	8.23	5.25	6.92	7.62
October	8.91	8.30	5.01	7.31	7.46
November	8.53	7.76	4.75	7.04	7.05
December	8.35	7.68	4.78	7.00	7.08
Average	8.62	7.93	5.04	7.03	
_ ~	8.02	7.93	5.04	7.03	7.32
2002	0.00	7.44	4.70	6.50	(00
January	8.09	7.44	4.78	6.58	6.98
February	8.19	7.66	4.82	6.76	7.01
March	8.17	7.69	4.83	6.79	7.00
April	8.38	7.61	4.76	6.86	6.97
May	8.64	7.77	4.78	6.79	7.11
June	8.72	8.05	4.99	6.83	7.41
July	8.81	8.26	5.18	6.66	7.65
August	8.76	8.20	5.11	6.57	7.58
September	8.66	8.05	4.95	6.56	7.38
October	8.51	8.04	4.89	6.75	7.22
November	8.34	7.65	4.73	6.71	6.97
December	8.10	7.61	4.73	6.94	6.99
Average	8.46	7.86	4.88	6.73	7.21
2003					
January	7.98	7.77	4.67	6.68	7.02
February	8.00	7.76	4.82	6.90	7.02
March	8.31	7.84	4.89	7.19	7.14
April	8.82	8.03	4.86	7.20	7.14
May	9.00	8.15	4.92	7.17	7.40
-	9.00	8.52	5.07	7.17	7.40
June		8.52 8.60		6.98	
July	9.15		5.28		7.91
August	9.19	8.53	5.27	6.94	7.89
September	8.90	8.21	5.02	7.01	7.55
October	8.90	8.17	4.96	6.85	7.38
November	8.74	7.93	4.77	6.67	7.18
December	8.34	7.80	4.78	6.64	7.15
Average	8.71	8.13	4.95	6.95	7.40
Year to Date					
2001	8.62	7.93	5.04	7.03	7.32
2002	8.46	7.86	4.88	6.73	7.21
2003	8.71	8.13	4.95	6.95	7.40
Rolling 12 Months Ending in l	December				
2002	8.46	7.86	4.88	6.73	7.21
2003	8.71	8.13	4.95	6.95	7.40
	VI. 1	0110	, 0	0.50	

¹ Public street and highway lighting, other sales to public authorities, sales to railroads and railways, and interdepartmental sales.

Notes: *See Glossary for definitions.*Prices are calculated by dividing revenue by sales. Revenue may not correspond to sales for a particular month because of energy service provider billing and accounting procedures. That lack of correspondence could result in uncharacteristic increases or decreases in the monthly prices. *Geographic coverage is the 50 States and the District of Columbia.*Average Revenue values for 1996-2003 include power marketer data. *Values for 2003 are preliminary estimates based on a cutoff model sample. See Technical Notes for a discussion of the sample design for the Form EIA-826. *Values for 2002 and prior years are final. *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. *Values for 1996 in the commercial and industrial sectors reflect an electric utility's reclassification for this information by Standard Industrial Classification. *Changes from year to year in consumer counts, sales and revenues, particularly involving the commercial and industrial consumer sectors, may result from respondent implementation of changes in the definitions of consumers, and reclassifications. *Retail sales and net generation may not correspond exactly for a particular month for a variety of reasons (i.e., sales data may include imported electricity). *Totals may not equal sum of components because of independent rounding. *Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the nonutility sector. This affects comparisons of current and historical data.

Sources: 2002-2003: Energy Information Administration, Form EIA-826, "Monthly Electric Sales and Revenue Report with State Distributions Report;" 1990-2002: Form EIA-861, "Annual Electric Power Industry Report."

Table 5.4.A. Retail Sales of Electricity to Ultimate Customers by Sector, by State, December 2003 and 2002 (Million Kilowatthours)

	Resid	ential	Comn	iercial	Indu	strial	Otl	ier ¹	All S	ectors
Census Division and State	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002
New England	4,395	4,405	4,311	4,230	1,850	1,665	148	207	10,704	10,507
Connecticut	1,307	1,267	1,015	1,046	375	400	55	52	2,752	2,765
Maine	404	444	342	350	268	96	5	3	1,019	893
Massachusetts	1,798	1,792	2,146	2,032	797	727	63	96	4,804	4,648
New Hampshire	413	451	359	374	165	195	12	43	950	1,062
Rhode Island	268 204	254 204	285 164	265 166	110 135	104 139	9 4	27 4	672 507	649 513
Vermont		11,425	11,799	11,979	6,224	6,450	1,391		30,579	
Middle Atlantic	11,166 2,341	2,616	2,954	2,998	911	891	53	1,286 61	6,259	31,142 6,566
New York	4,043	3,981	5,210	5,121	1,589	1,946	1,226	1,098	12,068	12,145
Pennsylvania	4,782	4,831	3,635	3,863	3,724	3,614	112	129	12,252	12,437
East North Central	16,900	16,803	13,241	13,442	16,327	15,814	1,509	1,488	47,977	47,547
Illinois	4,009	4,016	3,562	3,605	3,017	2,733	766	972	11,354	11,326
Indiana	2,927	2,952	1,608	1,801	3,875	3,889	238	56	8,648	8,698
Michigan	3,110	3,041	3,065	3,155	2,869	2,575	83	91	9,128	8,862
Ohio	4,849	4,774	3,380	3,252	4,449	4,609	358	307	13,035	12,943
Wisconsin	2,005	2,021	1,626	1,629	2,117	2,010	64	62	5,812	5,722
West North Central	8,510	8,358	6,800	6,509	6,453	6,092	515	566	22,278	21,524
Iowa	1,141	1,101	690	710	1,369	1,312	139	209	3,339	3,333
Kansas	1,045	961	1,073	1,068	824	819	34	29	2,976	2,877
Minnesota	1,895 2,863	1,813 2,992	1,633 2,209	1,643 1,939	1,855 1,281	1,764 1,238	58 110	64 103	5,441 6,462	5,284
Missouri Nebraska	2,863 828	2,992 770	616	578	725	600	100	95	2,269	6,272 2,043
North Dakota	382	380	306	318	259	225	41	38	987	961
South Dakota	356	339	273	254	141	133	NM	NM	804	760
South Atlantic	28,171	27,790	19,648	19,095	14,250	14,080	1,891	1,936	63,960	62,901
Delaware	343	362	301	322	323	252	5	8	972	943
District of Columbia	145	179	624	659	25	23	26	29	820	889
Florida	8,545	8,181	6,337	6,033	1,537	1,557	498	466	16,917	16,237
Georgia	4,320	4,208	3,158	2,984	2,667	2,603	143	140	10,288	9,936
Maryland	2,416	2,616	1,416	1,534	2,293	2,280	87	67	6,212	6,497
North Carolina	4,748	4,612	3,205	3,093	2,460	2,399	166	168	10,579	10,272
South Carolina	2,474	2,402	1,434	1,397	2,458	2,534	70	73	6,436	6,407
Virginia	4,122	4,126	2,568	2,413	1,582	1,501	888	979	9,160	9,019
West Virginia	1,056	1,105	606	629	904	938	8	8	2,575	2,679
East South Central	9,686 2,624	10,044 2,648	5,740 1,485	5,634 1,480	10,248 2,642	10,045 2,530	487 65	495 65	26,161 6,816	26,218 6,722
Alabama Kentucky	2,406	2,504	1,231	1,194	3,724	3,858	279	268	7,640	7,824
Mississippi	1,348	1,347	960	876	1,281	1,259	56	58	3,646	3,539
Tennessee	3,308	3,546	2,063	2,084	2,600	2,409	87	105	8,059	8,143
West South Central	14,325	12,027	10,508	8,495	12,851	12,352	1,575	1,277	39,259	34,152
Arkansas	1,280	1,203	879	705	1,385	1,353	46	42	3,589	3,303
Louisiana	2,071	1,940	1,619	1,415	2,270	2,452	186	194	6,147	6,000
Oklahoma	1,884	1,543	1,188	960	1,115	1,050	380	304	4,568	3,857
Texas	9,090	7,341	6,822	5,402	8,080	7,496	963	737	24,955	20,977
Mountain	7,008	6,354	6,313	6,076	5,390	5,317	NM	518	19,564	18,264
Arizona	2,022	1,829	1,734	1,666	929	927	NM	180	4,988	4,601
Colorado	1,535	1,391	1,581	1,508	898	848	129	96	4,143	3,843
Idaho	773	742	474	443	529	495	27	27	1,803	1,706
Montana	445	427	364	350 502	369	375	21	20	1,199	1,171
Nevada	773 542	691 456	598 582	592 531	904 484	921 456	52 NM	38 98	2,327 1,858	2,242 1,541
New Mexico Utah	693	597	715	722	484 595	436 674	NM 61	98 52	2,065	2,045
Wyoming	224	222	265	263	681	623	11	8	1,180	1,116
Pacific Contiguous	13,268	11,445	12,755	12,154	6,619	5,808	769	743	33,411	30,149
California	7,681	6,378	9,234	8,668	4,037	3,495	413	NM	21,365	18,924
Oregon	1,945	1,837	1,265	1,303	928	1,045	38	42	4,176	4,228
Washington	3,642	3,231	2,257	2,179	1,654	1,249	317	286	7,870	6,946
Pacific Noncontiguous	475	437	478	461	402	393	37	27	1,391	1,318
Alaska	215	190	211	201	84	81	31	22	541	494
Hawaii	259	247	267	260	318	312	5	4	849	823
U.S. Total	113,903	109,085	91,592	88,076	80,612	78,032	9,176	8,546	295,283	283,738

¹ Public street and highway lighting, other sales to public authorities, sales to railroads and railways, and interdepartmental sales.

Notes: •See Glossary for definitions.•Values for 2003 are preliminary estimates based on a cutoff model sample. See Technical Notes for a discussion of the sample design for the Form EIA-826.•Values for 2002 are final.•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.•Netail sales and net generation may not correspond exactly for a particular month for a variety of reasons (i.e., sales data may include imported electricity).•Net generation is for the calendar month while retail sales and associated revenue accumulate from bills collected for periods of time (28 to 35 days) that vary dependent upon customer class and consumption occurring in and outside the calendar month.•Totals may not equal sum of components because of independent rounding.•Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the nonutility sector. This affects comparisons of current and historical data.

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

Table 5.4.B. Retail Sales of Electricity to Ultimate Customers by Sector, by State, Year-to-Date through December 2003 and 2002

(Million Kilowatthours)

	Resid	lential	Comn	nercial	Indu	ıstrial	Oth	ier¹	All S	ectors
Census Division and State	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002
New England	46,455	44,411	51,639	49,285	23,275	20,769	1,577	2,149	122,946	116,614
Connecticut	13,185	12,459	12,863	12,532	5,194	5,367	579	548	31,821	30,906
Maine	4,206	4,486	3,891	3,950	3,356	1,160	57	40	11,510	9,636
Massachusetts	19,667 4,253	18,548 4,045	25,352 4,174	23,680 4,014	9,656 2,253	9,077	659 142	1,105	55,334 10,822	52,410
New Hampshire Rhode Island	2,998	2,826	3,424	3,164	1,279	2,288 1,285	94	143 269	7,795	10,490 7,544
Vermont	2,147	2.047	1,935	1,946	1,537	1,592	46	45	5,665	5,629
Middle Atlantic	123,779	122,292	140,530	141,292	81,436	80,672	15,884	14,555	361,629	358,811
New Jersey	27,333	27,183	36,264	35,684	11,319	11,016	546	578	75,461	74,460
New York	46,898	46,234	61,603	60,493	23,217	24,290	13,965	12,547	145,684	143,564
Pennsylvania	49,547	48,876	42,664	45,115	46,900	45,367	1,374	1,430	140,484	140,787
East North Central	178,554	183,121	161,861	164,452	205,600	203,719	16,759	18,111	562,773	569,403
IllinoisIndiana	43,043 30,594	45,030 31,568	43,975 20,925	44,957 21,790	38,710 47,260	35,802 47,481	9,520 1,339	11,876 589	135,248 100,118	137,666 101,429
Michigan	33,875	34,336	36,986	37,969	35,418	34,046	861	960	107,140	107,311
Ohio	49,523	50,612	40,806	40,593	57,657	60,855	4,274	3,940	152,260	155,999
Wisconsin	21,520	21,575	19,169	19,144	26,554	25,534	764	746	68,007	66,999
West North Central	94,178	94,154	82,448	82,298	78,971	75,402	6,354	7,737	261,951	259,591
Iowa	13,011	12,921	8,669	8,803	17,066	16,548	1,752	2,626	40,498	40,898
Kansas	12,693	12,745	13,754	13,392	10,243	10,195	417	381	37,107	36,714
Minnesota	20,770	20,451	19,346	19,457	22,607	21,515	681	740	63,404	62,162
Missouri	31,374	31,684	26,773	26,796	15,632	15,341	1,233	1,179	75,011	75,001
Nebraska North Dakota	8,884 3,691	8,956 3,664	7,371 3,406	7,384 3,404	8,585 3,078	7,563 2,636	1,321 509	1,758 516	26,162 10,683	25,661 10,219
South Dakota	3,756	3,733	3,128	3,062	1,760	1,604	442	538	9,086	8,937
South Atlantic	319,134	315,929	242,233	246,960	178,114	167,735	23,347	22,700	762,827	753,324
Delaware	4,131	4,020	3,793	3,994	3,858	3,452	88	90	11,871	11,557
District of Columbia	1,754	1,901	8,544	8,474	285	282	381	409	10,964	11,066
Florida	111,726	108,164	79,092	77,561	19,334	18,959	6,080	5,789	216,231	210,474
Georgia	47,936	48,600	39,023	38,887	34,533	34,603	1,766	1,699	123,258	123,789
Maryland ²	26,315	25,770	16,113	23,578	27,052	16,740	860	841	70,341	66,928
North Carolina	49,530	49,854	39,722	39,277	31,807	31,381	2,236	2,174	123,295	122,686
South Carolina	26,633 40,719	26,787 40,389	18,295 30,523	18,157 29,993	31,328 19,304	31,926 19,489	930 10,926	950 10,669	77,185 101,473	77,819 100,541
Virginia West Virginia	10,389	10,444	7,129	7,039	19,504	10,902	78	78	28,209	28,463
East South Central	110,082	111,964	73,532	72,707	123,542	123,294	6,004	6,053	313,160	314,019
Alabama	29,652	30,022	19,824	19,666	33,212	32,615	802	764	83,490	83,067
Kentucky	24,621	25,347	14,757	14,745	42,625	43,812	3,375	3,362	85,378	87,267
Mississippi	17,739	17,844	12,635	11,773	15,085	15,021	782	815	46,240	45,452
Tennessee	38,071	38,752	26,316	26,523	32,619	31,845	1,045	1,113	98,052	98,233
West South Central	188,052	185,047	132,215	128,833	154,462	161,697	18,454	16,465	493,184	492,042
Arkansas	15,721	15,527	10,553	9,304	16,451	16,887	657	731	43,382	42,450
Louisiana Oklahoma	28,392 20,574	28,157 19,927	20,473 13,618	18,686 13,097	27,102 13,157	29,662 12,898	2,535 4,259	2,756 3,564	78,502 51,608	79,261 49,485
Texas	123,365	121,435	87,571	87,746	97,752	102,251	11,003	9,414	319,691	320,846
Mountain	80,679	77,034	78,059	77,507	65,124	63,722	10,896	8,101	234,758	226,364
Arizona	28,154	26,413	23,124	22,371	10,898	11,026	4,096	2,791	66,272	62,601
Colorado	15,933	15,425	18,780	18,438	10,453	10,672	1,673	1,401	46,839	45,937
Idaho	7,109	7,056	5,666	6,963	8,129	6,352	354	329	21,258	20,700
Montana	4,098	4,030	4,058	3,707	3,743	4,511	280	326	12,180	12,575
Nevada	10,304	9,702	7,855	7,538	11,380	11,373	600	592	30,138	29,204
New Mexico	5,595	5,238	7,075	7,000	5,202	5,316	2,684	1,653	20,556	19,207
Utah Wyoming	7,221 2,266	6,938 2,232	8,304 3,198	8,463 3,027	7,561 7,757	7,019 7,453	1,081 129	846 162	24,167 13,349	23,267 12,874
Pacific Contiguous	134,012	128,176	149,200	147,506	76,010	70,299	9,869	11,014	369,091	356,996
California	84,094	78,556	109,011	108,295	48,237	41,124	5,885	7,274	247,227	235,249
Oregon	17,744	17,554	15,090	14,902	11,063	12,296	505	503	44,402	45,255
Washington	32,174	32,066	25,099	24,310	16,710	16,880	3,479	3,237	77,462	76,492
Pacific Noncontiguous	4,982	4,831	7,532	5,406	4,825	4,858	308	262	17,648	15,357
Alaska	2,030	1,932	4,303	2,238	1,066	1,088	244	207	7,643	5,465
Hawaii	2,952	2,898	3,229	3,168	3,760	3,770	64	55	10,005	9,892
U.S. Total	1,279,907	1,266,959	1,119,250	1,116,248	991,359	972,168	109,452	107,146	3,499,968	3,462,521

¹ Public street and highway lighting, other sales to public authorities, sales to railroads and railways, and interdepartmental sales.

Notes: •See Glossary for definitions. •Values for 2003 are preliminary estimates based on a cutoff model sample. See Technical Notes for a discussion of the sample design for the Form EIA-826. •Values for 2002 are final. •Utilities and energy service providers may classify commercial and industrial customers based on either NAICS codes or demands or usage falling within specified limits by rate schedule. •Changes from year to year in consumer counts, sales and revenues, particularly involving the commercial and industrial consumer sectors, may result from respondent implementation of changes in the definitions of consumers, and reclassifications. •Retail sales and net generation may not correspond exactly for a particular month for a variety of reasons (i.e., sales data may include imported electricity). •Net generation is for the calendar month while retail sales and associated revenue accumulate from bills collected for periods of time (28 to 35 days) that vary dependent upon customer class and consumption occurring in and outside the calendar month. •Totals may not equal sum of components because of independent rounding. •Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the nonutility sector. This affects comparisons of current and historical data.

² In Maryland a major electric company reclassified its customers from commercial to Industrial in July 2002. This reclassification distorts the Industrial and Commercial sector data comparison.

Table 5.5.A. Revenue from Retail Sales of Electricity to Ultimate Customers by Sector, by State, December 2003 and 2002

(Million Dollars)

	Resid	ential	Comn	Commercial		strial	Other ¹		All Sectors	
Census Division and State	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002
New England	518	485	443	412	148	150	22	22	1,130	1,070
Connecticut	144	134	99	97	30	31	5	5	279	266
Maine	51	52	36	38	11	12	1	1	99	103
Massachusetts	214	196	221	198	69	69	11	10	515	473
New Hampshire	49	52	37	38	16	19	2	3	103	113
Rhode Island	34	26	31	23	10	8	2	2	78	60
Vermont	26	26	19	18	11	12	1	1	56	57
Middle Atlantic	1,240 249	1,225 258	1,188 251	1,170 253	381 76	379 67	107	117	2,916 587	2,891 586
New York	550	525	629	615	90	96	84	94	1,353	1,330
Pennsylvania	441	442	308	303	215	216	13	14	977	974
East North Central	1,299	1,269	928	927	717	724	84	89	3,028	3,009
Illinois	303	299	250	256	128	132	37	53	718	741
Indiana	195	193	98	104	150	150	14	5	457	453
Michigan	259	252	222	222	135	136	8	8	624	618
Ohio	372	356	250	240	207	215	19	17	849	827
Wisconsin	169	169	109	107	97	92	5	5	381	372
West North Central	575	560	384	353	259	245	31	31	1,249	1,189
Iowa	90	86	42	43	54	47	8	10	195	185
Kansas	74	69	64	63	37	37	3	3	178	171
Minnesota	138	129	96	90	77	72	4	4	315	295
Missouri	177	183	115	93	47	52	7	6	346	335
Nebraska	48	46	33	31	30	23	6	5	118	105
North Dakota	22	23	17	18	NM	NM	2	1	49	51
South Dakota	25	24	17	15	6	6	1	1	49	47
South Atlantic	2,182	2,045	1,316	1,198	599	560	133	122	4,231	3,925
Delaware	28	29	21	20	12	12	1	1	62	62
District of Columbia	11	12	38	43	1	1	1	2	51	59
Florida	747	654	468	400	86	80	39	34	1,341	1,167
Georgia	295	275	201	185	104	97	12	11 7	612	568
Maryland	172 374	178 360	99 208	91 198	79	70 109	12 12	11	363 705	346
North Carolina	191	178	208 98	90	111 96	94	5	5	391	678 366
Virginia	301	292	150	138	66	61	50	51	566	542
West Virginia	63	67	33	34	43	36	1	1	139	137
East South Central	649	631	385	354	385	350	33	32	1,451	1,368
Alabama	189	178	105	98	106	90	5	5	405	370
Kentucky	137	134	67	62	112	109	13	12	329	317
Mississippi	98	94	69	60	56	53	6	5	229	212
Tennessee	225	225	144	135	111	99	9	10	489	468
West South Central	1,147	899	743	570	638	530	102	81	2,630	2,081
Arkansas	87	81	46	37	53	50	3	3	189	171
Louisiana	152	138	111	99	122	114	13	15	398	366
Oklahoma	111	96	62	53	43	40	16	14	231	203
Texas	797	584	524	381	421	326	70	49	1,812	1,341
Mountain	529	475	416	388	249	245	47	33	1,239	1,141
Arizona	153	137	120	114	47	45	12	10	332	305
Colorado	123	101	102	82	44	38	9	7	278	228
Idaho	45	48	25	26	18	20	1	1	89	96
Montana	33	30	23	23	16	14	2	2	74	69
Nevada	70	66	53	53	57	60	3	3	184	181
New Mexico	45	38	43	39	23	20	15	7	126	105
Utah	46	39	39	38	23	26	3	3	111	105
Wyoming	14	15	10	15	20	22	1	1	45	52
Pacific Contiguous	1,293	1,197	1,280	1,274	431	468	48	65	3,052	3,004
California	927	865	1,058	1,053	328	356	30	46	2,342	2,320
Oregon	137 230	129 200	80 142	85 134	41 62	50 63	3 15	4 15	260 449	268 413
Washington Pacific Noncontiguous	69	63	64	59	46	43	4	3	183	168
Alaska	26	22	23	19	7	6	4	3	60	50
Hawaii	43	41	41	39	38	37	1	1	123	118

¹ Public street and highway lighting, other sales to public authorities, sales to railroads and railways, and interdepartmental sales.

Notes: •See Glossary for definitions. •Values for 2003 are preliminary estimates based on a cutoff model sample. See Technical Notes for a discussion of the sample design for the Form EIA-826. •Values for 2002 are final. •Utilities and energy service providers may classify commercial and industrial customers based on either NAICS codes or demands or usage falling within specified limits by rate schedule. •Changes from year to year in consumer counts, sales and revenues, particularly involving the commercial and industrial consumer sectors, may result from respondent implementation of changes in the definitions of consumers, and reclassifications. •Retail sales and net generation may not correspond exactly for a particular month for a variety of reasons (i.e., sales data may include imported electricity). •Net generation is for the calendar month while retail sales and associated revenue accumulate from bills collected for periods of time (28 to 35 days) that vary dependent upon customer class and consumption occurring in and outside the calendar month. •Totals may not equal sum of components because of independent rounding. •Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the nonutility sector. This affects comparisons of current and historical data.

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

Table 5.5.B. Revenue from Retail Sales of Electricity to Ultimate Customers by Sector, by State, Year-to-Date through December 2003 and 2002

(Million Dollars)

	Resid	ential	Comm	ercial	Indu	ıstrial	Otl	ier¹	All Sectors	
Census Division and State	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002
New England	5,434	4,963	5,209	4,887	1,834	1,770	229	226	12,705	11,845
Connecticut	1,493	1,366	1,252	1,172	424	412	58	57	3,227	3,007
Maine	541	537	361	414	119	130	14	13	1,034	1,095
Massachusetts	2,267	2,034	2,617	2,400	843	796	108	108	5,835	5,338
New Hampshire	509	476	427	405	214	202	18	17	1,168	1,100
Rhode Island	349	289	334	280	112	103	22	22	817	693
Vermont	275	262	217	216	122	126	9	9	623	612
Middle Atlantic	14,359	13,847	14,993	14,328	4,822	4,863	1,405	1,376	35,578	34,414
New York	2,931	2,821	3,281 8,059	3,166	889	862	101	81	7,202 17,093	6,930
Pennsylvania	6,675 4,753	6,278 4,747	3,653	7,540 3,623	1,216 2,716	1,254 2,747	1,144 160	1,136 159	17,093	16,208 11,276
East North Central	14,574	14,763	11,951	11,837	9,354	9,329	1,003	1,103	36,882	37,032
Illinois	3,610	3,778	3,507	3,367	1,890	1,792	517	660	9,525	9,597
Indiana	2,149	2,183	1,274	1,303	1,863	1,877	95	57	5,381	5,420
Michigan	2,874	2,845	2,705	2,794	1,671	1,684	97	100	7,347	7,423
Ohio	4,091	4,193	3,141	3,119	2,685	2,845	229	225	10,147	10,383
Wisconsin	1,850	1,765	1,324	1,253	1,245	1,131	64	60	4,483	4,209
West North Central	6,998	6,939	5,018	4,943	3,428	3,185	411	443	15,854	15,509
Iowa	1,107	1,079	577	578	714	672	112	129	2,511	2,458
Kansas	987	977	888	841	478	462	41	35	2,393	2,315
Minnesota	1,590	1,531	1,181	1,143	993	900	53	54	3,817	3,630
Missouri	2,187	2,238	1,550	1,576	677	679	78	73	4,493	4,565
Nebraska	603	603	420	415	357	294	89	112	1,469	1,424
North Dakota	241	234	200	199	127	105	21	19	588	557
South Atlantia	283 25,894	276 24,965	202 16,385	191 15,882	7,670	73 7,119	17 1.581	20 1,457	584 51,530	560 49,424
South Atlantic Delaware	355	350	278	279	162	177	1,561	1,457	806	815
District of Columbia	145	149	624	626	14	14	12	27	796	815
Florida	9,604	8,823	5,616	5,150	1,059	991	470	430	16,749	15,394
Georgia	3,712	3,706	2,570	2,513	1,392	1,366	150	141	7,824	7,726
Maryland	2,047	1,986	1,258	1,436	1,025	650	120	86	4,450	4,158
North Carolina	4,098	4,085	2,618	2,559	1,492	1,474	154	146	8,362	8,263
South Carolina	2,108	2,069	1,241	1,177	1,255	1,229	64	61	4,667	4,537
Virginia	3,179	3,146	1,794	1,761	818	805	590	549	6,381	6,262
West Virginia	647	651	387	381	453	415	8	8	1,495	1,455
East South Central	7,444	7,352	4,794	4,602	4,752	4,580	401	383	17,390	16,917
Alabama	2,164	2,138	1,352	1,305	1,326	1,244	56	57	4,898	4,745
Kentucky	1,430	1,431	808	782	1,359	1,353	163	155	3,760	3,721
Mississippi	1,357	1,299	905	804	669	661	78	71	3,009	2,835
Tennessee	2,493	2,483	1,729	1,712	1,399	1,322	103	99	5,724	5,616
West South Central	16,285 1,157	14,246 1,126	9,963 602	8,617 528	8,021 687	7,240 678	1,340 48	1,039 48	35,609 2,495	31,142 2,380
ArkansasLouisiana	2,255	2,000	1,511	1,242	1,509	1,310	202	48 194	2,493 5,477	2,380 4,746
Oklahoma	1,534	1,341	909	753	607	491	238	180	3,288	2,765
Texas	11,338	9,778	6,941	6,095	5,217	4,761	852	616	24,348	21,251
Mountain	6,442	6,065	5,348	5,149	3,264	3,095	580	452	15,634	14,760
Arizona	2,350	2,185	1,687	1,629	584	573	169	127	4,791	4,514
Colorado	1,273	1,137	1,215	1,045	533	483	118	93	3,139	2,758
Idaho	447	465	312	398	324	276	19	17	1,102	1,156
Montana	311	291	262	242	168	167	23	23	765	724
Nevada	927	915	695	683	834	824	39	39	2,495	2,460
New Mexico	483	445	530	505	252	238	157	103	1,422	1,292
Utah	491	471	466	474	284	269	47	40	1,288	1,255
Wyoming	158	156	181	173	285	264	8	10	632	602
Pacific Contiguous	13,268	13,403	16,254	16,788	5,386	5,805	611	693	35,520	36,690
California	10,009	10,136	13,761	14,321	4,152	4,454	400	486	28,322	29,398
Oregon	1,252	1,249	955	982	517 716	581	43 168	48	2,766	2,859
Washington Pacific Noncontiguous	2,007 745	2,018 686	1,539	1,485 674	716 533	770 499	43	160 38	4,431	4,433
Alaska	256	233	1,068 580	227	81	83	34	38 29	2,389 951	1,897 572
Hawaii	489	453	488	447	452	415	9	9	1,438	1,325
* *** */ WII	111,443	107,229	90,983	87,706	49,062	47,485	7,603	7,208	259,091	249,629

¹ Public street and highway lighting, other sales to public authorities, sales to railroads and railways, and interdepartmental sales.

Notes: *See Glossary for definitions.*Values for 2003 are preliminary estimates based on a cutoff model sample. See Technical Notes for a discussion of the sample design for the Form EIA-826.*Values for 2002 are final.*Utilities and energy service providers may classify commercial and industrial customers based on either NAICS codes or demands or usage falling within specified limits by rate schedule.*Changes from year to year in consumer counts, sales and revenues, particularly involving the commercial and industrial consumer sectors, may result from respondent implementation of changes in the definitions of consumers, and reclassifications. *Retail sales and net generation may not correspond exactly for a particular month for a variety of reasons (i.e., sales data may include imported electricity). *Net generation is for the calendar month while retail sales and associated revenue accumulate from bills collected for periods of time (28 to 35 days) that vary dependent upon customer class and consumption occurring in and outside the calendar month. *Totals may not equal sum of components because of independent rounding.*Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the nonutility sector. This affects comparisons of current and historical data.

Table 5.6.A. Average Retail Price of Electricity to Ultimate Customers by Sector, by State, December 2003 and 2002

(Cents per kilowatthour)

	Resid		Comn	iercial	Indu	strial	Oth	ier¹	All Sectors	
Census Division and State	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002	Dec 2003	Dec 2002
New England	11.79	11.02	10.27	9.75	7.99	9.01	14.59	10.49	10.56	10.18
Connecticut	11.03	10.56	9.76	9.24	8.04	7.73	9.36	9.54	10.12	9.63
Maine	12.63	11.72	10.49	10.91	4.21	11.99	26.60	32.58	9.76	11.51
Massachusetts	11.90	10.92	10.32	9.75	8.66	9.45	17.16	10.69	10.72	10.18
New Hampshire	11.78	11.60	10.19	10.14	9.80	9.74	12.65	7.99	10.85	10.60
Rhode Island	12.81 12.69	10.38	10.94	8.88	9.37	8.09	22.77 18.57	8.18 19.77	11.59	9.31
Vermont Middle Atlantic	12.69	12.72 10.72	11.32 10.07	11.08 9.77	8.13 6.13	8.44 5.88	7.68	9.08	11.08 9.54	11.08 9.28
New Jersey	10.63	9.86	8.48	8.43	8.39	7.50	20.22	14.51	9.37	8.93
New York	13.61	13.19	12.07	12.01	5.68	4.94	6.82	8.58	11.21	10.95
Pennsylvania	9.22	9.15	8.49	7.83	5.76	5.98	11.19	10.58	7.97	7.83
East North Central	7.69	7.55	7.01	6.90	4.39	4.58	5.54	5.95	6.31	6.33
Illinois	7.57	7.46	7.01	7.09	4.24	4.84	4.87	5.49	6.33	6.54
Indiana	6.67	6.54	6.08	5.79	3.87	3.87	5.77	8.67	5.28	5.20
Michigan	8.34	8.27	7.23	7.04	4.69	5.28	9.88	9.01	6.83	6.97
Ohio	7.67	7.45	7.40	7.37	4.65	4.66	5.35	5.63	6.51	6.39
Wisconsin	8.43	8.36	6.72	6.55	4.60	4.57	8.21	7.86	6.55	6.50
West North Central	6.76 7.90	6.70 7.83	5.64 6.12	5.42 6.05	4.01 3.93	4.03 3.55	6.00 6.00	5.47 4.60	5.60 5.83	5.52 5.56
IowaKansas	7.90 7.08	7.83 7.14	5.98	5.88	3.93 4.43	3.55 4.50	9.14	10.10	5.83	5.95
Minnesota	7.30	7.14	5.89	5.47	4.43	4.10	7.10	6.58	5.79	5.58
Missouri	6.20	6.11	5.19	4.82	3.67	4.23	6.01	5.87	5.35	5.33
Nebraska	5.85	6.04	5.35	5.33	4.16	3.80	5.97	5.65	5.18	5.16
North Dakota	5.70	6.03	5.53	5.62	3.28	3.70	3.75	3.65	4.93	5.25
South Dakota	6.95	7.03	6.06	6.06	4.50	4.50	3.70	NM	6.08	6.12
South Atlantic	7.75	7.36	6.70	6.27	4.21	3.98	7.01	6.31	6.61	6.24
Delaware	8.15	8.01	7.04	6.34	3.77	4.79	14.97	10.15	6.38	6.59
District of Columbia	7.52	6.99	6.14	6.53	4.63	4.34	3.30	6.89	6.25	6.58
Florida	8.74	7.99	7.39	6.63	5.62	5.13	7.87	7.30	7.93	7.19
Georgia	6.83 7.13	6.53 6.81	6.36 7.00	6.18 5.96	3.90 3.46	3.74 3.06	8.21 14.36	7.72 9.82	5.95 5.85	5.71 5.32
Maryland North Carolina	7.13	7.81	6.50	6.39	4.51	4.54	7.11	9.82 6.77	6.67	6.60
South Carolina	7.72	7.39	6.86	6.41	3.91	3.70	7.32	6.67	6.07	5.71
Virginia	7.29	7.09	5.83	5.71	4.15	4.07	5.62	5.24	6.18	6.01
West Virginia	5.93	6.06	5.38	5.34	4.79	3.80	9.00	9.00	5.41	5.11
East South Central	6.70	6.29	6.70	6.29	3.75	3.49	6.72	6.37	5.55	5.22
Alabama	7.21	6.71	7.06	6.64	4.01	3.55	7.11	7.19	5.94	5.51
Kentucky	5.68	5.34	5.43	5.19	3.01	2.82	4.68	4.51	4.30	4.05
Mississippi	7.28	7.00	7.18	6.81	4.36	4.23	10.56	9.19	6.28	6.00
Tennessee	6.79	6.36	6.98	6.46	4.26	4.10	10.44	9.09	6.06	5.75
West South Central	8.01	7.47	7.07	6.71	4.96	4.29	6.46	6.37	6.70	6.09
Arkansas Louisiana	6.81 7.33	6.75 7.12	5.22 6.87	5.27 6.97	3.79 5.36	3.71 4.66	6.83 7.03	5.97 7.92	5.25 6.47	5.18 6.10
Oklahoma	5.90	6.21	5.18	5.48	3.84	3.84	4.11	4.65	5.06	5.26
Texas	8.77	7.96	7.68	7.06	5.21	4.35	7.25	6.69	7.26	6.39
Mountain	7.54	7.48	6.58	6.39	4.61	4.61	5.48	6.29	6.34	6.25
Arizona	7.56	7.51	6.93	6.83	5.03	4.80	NM	5.34	6.65	6.63
Colorado	8.03	7.23	6.45	5.42	4.86	4.49	7.20	7.29	6.71	5.92
Idaho	5.82	6.47	5.18	5.92	3.48	4.14	5.39	5.57	4.96	5.64
Montana	7.32	7.14	6.41	6.48	4.39	3.80	8.80	7.93	6.17	5.88
Nevada	9.07	9.55	8.89	8.88	6.36	6.52	6.54	7.35	7.91	8.09
New Mexico	8.24	8.39	7.41	7.38	4.77	4.42	6.08	7.16	6.79	6.79
Utah Wyoming	6.70 6.11	6.59 6.74	5.44 3.93	5.22 5.61	3.88 2.92	3.82 3.57	4.57 6.52	4.77 6.28	5.39 3.78	5.15 4.70
Pacific Contiguous	9.75	10.45	10.03	10.48	6.51	8.06	6.32 6.24	8.77	9.13	9.96
California	12.07	13.57	11.45	12.15	8.12	10.17	7.19	NM	10.96	12.26
Oregon	7.02	7.01	6.31	6.55	4.39	4.76	8.35	9.97	6.23	6.34
Washington	6.30	6.20	6.30	6.16	3.78	5.04	4.76	5.36	5.71	5.94
Pacific Noncontiguous	14.57	14.42	13.36	12.69	11.34	10.90	12.03	12.76	13.15	12.73
Alaska	12.03	11.55	10.90	9.62	8.66	7.25	11.60	11.70	11.05	10.06
Hawaii	16.67	16.64	15.30	15.10	12.05	11.87	14.62	18.03	14.50	14.35
U.S. Total	8.34	8.10	7.80	7.61	4.78	4.73	6.64	6.94	7.15	6.99

¹ Public street and highway lighting, other sales to public authorities, sales to railroads and railways, and interdepartmental sales.

Notes: •See Glossary for definitions. •Values for 2003 are preliminary estimates based on a cutoff model sample. See Technical Notes for a discussion of the sample design for the Form EIA-826. •Values for 2002 are final. •Utilities and energy service providers may classify commercial and industrial customers based on either NAICS codes or demands or usage falling within specified limits by rate schedule. •Changes from year to year in consumer counts, sales and revenues, particularly involving the commercial and industrial consumer sectors, may result from respondent implementation of changes in the definitions of consumers, and reclassifications. •Retail sales and net generation may not correspond exactly for a particular month for a variety of reasons (i.e., sales data may include imported electricity). •Net generation is for the calendar month while retail sales and associated revenue accumulate from bills collected for periods of time (28 to 35 days) that vary dependent upon customer class and consumption occurring in and outside the calendar month. •Totals may not equal sum of components because of independent rounding. •Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the nonutility sector. This affects comparisons of current and historical data.

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

Table 5.6.B. Average Retail Price of Electricity to Ultimate Customers by Sector, by State, Year-to-Date through December 2003 and 2002

(Cents per kilowatthour)

	Reside	ential	Comm	ercial	Indu	strial	Oth	ier ¹	All Se	ectors
Census Division and State	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002
New England	11.70	11.18	10.09	9.91	7.88	8.52	14.49	10.50	10.33	10.16
Connecticut	11.32	10.96	9.74	9.35	8.16	7.68	10.01	10.36	10.14	9.73
Maine	12.85	11.98	9.29	10.47	3.53	11.24	24.26	32.82	8.99	11.36
Massachusetts	11.53	10.97	10.32	10.14	8.74	8.77	16.35	9.79	10.55	10.18
New Hampshire	11.98	11.77	10.24	10.09	9.49	8.83	12.53	12.07	10.80	10.49
Rhode Island	11.63	10.21	9.75	8.84	8.76	8.04	23.92	8.09	10.48	9.19
Vermont Middle Atlantic	12.79	12.78 11.32	11.22 10.67	11.10	7.97 5.92	7.90	19.02 8.84	19.26 9.45	11.00 9.84	10.87
New Jersey	11.60 10.72	10.38	9.05	10.14 8.87	7.86	6.03 7.83	18.53	14.04	9.54	9.59 9.31
New York	14.23	13.58	13.08	12.46	5.24	5.16	8.19	9.05	11.73	11.29
Pennsylvania	9.59	9.71	8.56	8.03	5.79	6.06	11.65	11.10	8.03	8.01
East North Central	8.16	8.06	7.38	7.20	4.55	4.58	5.99	6.09	6.55	6.50
Illinois	8.39	8.39	7.98	7.49	4.88	5.01	5.43	5.56	7.04	6.97
Indiana	7.02	6.91	6.09	5.98	3.94	3.95	7.10	9.75	5.37	5.34
Michigan	8.48	8.28	7.31	7.36	4.72	4.95	11.30	10.43	6.86	6.92
Ohio	8.26	8.29	7.70	7.68	4.66	4.68	5.37	5.70	6.66	6.66
Wisconsin	8.60	8.18	6.91	6.54	4.69	4.43	8.38	8.08	6.59	6.28
West North Central	7.43	7.37	6.09	6.01	4.34	4.22	6.47	5.72	6.05	5.97
Iowa	8.51	8.35	6.65	6.56	4.19	4.06	6.42	4.92	6.20	6.01
Kansas	7.78	7.67	6.45	6.28	4.66	4.53	9.88	9.30	6.45	6.31
Minnesota	7.66	7.49	6.10	5.88	4.39	4.19	7.77	7.36	6.02	5.84
Missouri	6.97	7.06	5.79 5.70	5.88	4.33	4.42	6.33	6.20	5.99	6.09
Nebraska North Dakota	6.78 6.52	6.73 6.39	5.88	5.62 5.85	4.16 4.12	3.89 3.98	6.74 4.03	6.37 3.68	5.61 5.51	5.55 5.45
South Dakota	7.54	7.40	6.46	6.24	4.63	4.54	3.81	3.63	6.42	6.26
South Atlantic	8.11	7.90	6.76	6.43	4.31	4.24	6.77	6.42	6.76	6.56
Delaware	8.60	8.70	7.34	6.98	4.19	5.11	12.42	10.62	6.79	7.05
District of Columbia	8.27	7.82	7.30	7.38	5.09	4.95	3.23	6.60	7.26	7.37
Florida	8.60	8.16	7.10	6.64	5.48	5.23	7.74	7.43	7.75	7.31
Georgia	7.74	7.63	6.59	6.46	4.03	3.95	8.48	8.31	6.35	6.24
Maryland	7.78	7.71	7.81	6.09	3.79	3.88	14.00	10.18	6.33	6.21
North Carolina	8.27	8.19	6.59	6.51	4.69	4.70	6.91	6.70	6.78	6.74
South Carolina	7.91	7.72	6.79	6.48	4.00	3.85	6.87	6.44	6.05	5.83
Virginia	7.81	7.79	5.88	5.87	4.24	4.13	5.40	5.15	6.29	6.23
West Virginia	6.23	6.23	5.43	5.41	4.27	3.81	10.49	10.01	5.30	5.11
East South Central	6.76	6.57	6.52	6.33	3.85	3.71	6.68	6.32	5.55	5.39
Alabama	7.30	7.12	6.82	6.63	3.99	3.82	7.04	7.46	5.87	5.71
Kentucky	5.81	5.65	5.48	5.30	3.19	3.09	4.84	4.61	4.40	4.26
Mississippi	7.65 6.55	7.28 6.41	7.16 6.57	6.83 6.45	4.43 4.29	4.40 4.15	10.02 9.87	8.76 8.92	6.51 5.84	6.24 5.72
West South Central	8.66	7.70	7.54	6.69	5.19	4.13	7.26	6.31	7.22	6.33
Arkansas	7.36	7.25	5.71	5.68	4.18	4.01	7.32	6.52	5.75	5.61
Louisiana	7.94	7.10	7.38	6.64	5.57	4.42	7.97	7.05	6.98	5.99
Oklahoma	7.46	6.73	6.67	5.75	4.62	3.81	5.58	5.06	6.37	5.59
Texas	9.19	8.05	7.93	6.95	5.34	4.66	7.74	6.55	7.62	6.62
Mountain	7.98	7.87	6.85	6.64	5.01	4.86	5.33	5.57	6.66	6.52
Arizona	8.35	8.27	7.30	7.28	5.36	5.20	4.13	4.56	7.23	7.21
Colorado	7.99	7.37	6.47	5.67	5.10	4.52	7.03	6.64	6.70	6.00
Idaho	6.29	6.59	5.50	5.71	3.99	4.34	5.45	5.18	5.19	5.58
Montana	7.60	7.23	6.46	6.53	4.50	3.70	8.33	7.14	6.28	5.75
Nevada	9.00	9.43	8.85	9.06	7.32	7.25	6.49	6.54	8.28	8.42
New Mexico	8.63	8.50	7.49	7.22	4.85	4.48	5.86	6.23	6.92	6.73
Utah	6.80	6.79	5.61	5.60	3.76	3.84	4.34	4.69	5.33	5.39
Wyoming	6.99	6.97	5.66	5.71	3.67	3.55	6.17	5.93	4.73	4.68
Pacific Contiguous	9.90	12.90	10.89	11.38 13.22	7.09	8.26 10.83	6.19	6.29	9.62	10.28
California	11.90 7.05	12.90 7.12	12.62 6.33	6.59	8.61 4.67	10.83 4.72	6.80 8.47	6.68 9.44	11.46 6.23	12.50 6.32
Oregon Washington	6.24	6.29	6.13	6.11	4.67	4.72	4.84	9.44 4.94	5.72	5.80
Pacific Noncontiguous	14.96	14.20	14.18	12.46	11.04	10.26	13.87	14.63	13.54	12.35
Alaska	12.62	12.05	13.48	10.13	7.60	7.65	13.79	14.04	12.44	10.46
Hawaii	16.57	15.63	15.12	14.11	12.01	11.02	14.20	16.85	14.37	13.39
U.S. Total	8.71	8.46	8.13	7.86	4.95	4.88	6.95	6.73	7.40	7.21

¹ Public street and highway lighting, other sales to public authorities, sales to railroads and railways, and interdepartmental sales.

Notes: *See Glossary for definitions.*Values for 2003 are preliminary estimates based on a cutoff model sample. See Technical Notes for a discussion of the sample design for the Form EIA-826.*Values for 2002 are final.*Utilities and energy service providers may classify commercial and industrial customers based on either NAICS codes or demands or usage falling within specified limits by rate schedule.*Changes from year to year in consumer counts, sales and revenues, particularly involving the commercial and industrial consumer sectors, may result from respondent implementation of changes in the definitions of consumers, and reclassifications. *Retail sales and net generation may not correspond exactly for a particular month for a variety of reasons (i.e., sales data may include imported electricity). *Net generation is for the calendar month while retail sales and associated revenue accumulate from bills collected for periods of time (28 to 35 days) that vary dependent upon customer class and consumption occurring in and outside the calendar month. *Totals may not equal sum of components because of independent rounding.*Due to restructuring of the electric power industry, electric utilities are selling/transferring plants to the nonutility sector. This affects comparisons of current and historical data.

Appendices

- A. Relative Standard Error
- B. Major Disturbances and Unusual Occurrences
- C. Technical Notes
- D. Estimating and Presenting Power Sector Fuel Use

Appendix A **Relative Standard Error**

Relative Standard Error for Net Generation by Fuel Type: Total (All Sectors) by Census Division and Table A1.A. State, December 2003 (Percent)

	ercent)	1		1		ı		1	
Census Division and State	Coal ¹	Petroleum ²	Natural Gas ³	Other Gases ⁴	Nuclear	Hydro- electric ⁵	Other Renewables ⁶	Other ⁷	Total
New England	1	2	3	0	0	2	2	0	1
Connecticut	0	4	7	0	0	7	1		1
Maine	0	6	8	0		4	3	0	4
Massachusetts	3	3	2		0	3	2		1
New Hampshire	0	4	343		0	4	8		1
Rhode Island		212	1			145	0		3
Vermont		290	0		0	10	4		2
Middle Atlantic	1	1	3	31	0	1	2	-	*
New Jersey	0	13	6	125	0	6	5		1
New York	2	1	3	115	0	1	4		l
Pennsylvania	1	3	8 5	31	0	5	3		*
East North Central	1	17 57	25	66	0	45	9	0	1
Illinois Indiana	1 *	9	7	1	U	0	7		*
Michigan	1	13	4	0	0	5	3		1
Ohio	*	9	98	69	0	0	39		*
Wisconsin	1	24	17		0	14	14	0	1
West North Central	*	7	15	145	0	2	2	0	*
Iowa	2	53	97		0	4	2		2
Kansas	0	11	41		0	90	0		1
Minnesota	1	6	23		0	14	3	0	1
Missouri	1	44	7	0	0	6	6		*
Nebraska	1	245	67	0	0	*	32		1
North Dakota	1	92	1,885	150		0	33		1
South Dakota	0	0	0			0	0		0
South Atlantic	*	5	2	0	0	*	2		*
Delaware	10	25	0	0					7
District of Columbia		0							0
Florida	0	*	1	0	0	0	3		*
Georgia	*	21	54		0	1	3		1
Maryland	0	45	23	0	0	0	3		2
North Carolina	*	51	16	0	0	*	6		*
South Carolina	*	17	8	0	0	1	4		*
Virginia	1 *	20	21	0	0	1	5		2
West Virginia	*	1	43	0		6	0		*
East South Central	*	4 47	7 7	94 97	0	0	3	-	1
Alabama	*	0		9/	U	0	4		1
Kentucky	1	9	75 16	0	0	0	9		3
Mississippi Tennessee	1	7	159	0	0	0	6		1
West South Central	*	3	2	5	0	3	1	0	1
Arkansas	0	1	12		0	4	1	0	1
Louisiana	0	*	8	3	0	0	2	ő	3
Oklahoma	0	137	2	126		0	3		1
Texas	*	6	2	9	0	32	1		1
Mountain	*	67	4	143	0	2	3		1
Arizona	0	40	2		0	0	48		*
Colorado	1	776	10	0		5	14		2
Idaho	354	0	141			6	6		8
Montana	2	10	0	0		1	0		2
Nevada	0	0	0	0		5	7		*
New Mexico	*	164	25			55	5		2
Utah	*	113	114			23	11		2
Wyoming	1	72	205	446		9	9		1
Pacific Contiguous	2	19	4	*	0	*	1	-	1
California	9	20	5	*	0	1	1		2
Oregon	3	4	1			1	15		1
Washington	2	39	3	0	0	*	4		*
Pacific Noncontiguous	29	13	14	166		13	7		8
Alaska	102	22	14	166		11	213		13
Hawaii	6	14	0	166		116	7		11

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

Notes: *See Glossary for definitions. Relative Standard Error is designed to indicate error due to sampling. However, nonsampling error is important for all surveys, census or sample. See Technical Notes for further information. •Estimates for 2003 are preliminary.

² Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

³ Natural gas, including a small amount of supplemental gaseous fuels.

⁴ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.
⁵ Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.

⁶ Wood, black liquor, other wood waste, municipal solid waste, landfill gas, sludge waste, tires, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic energy, and wind.

⁷ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Source: Energy Information Administration, Form EIA-906, "Power Plant Report."

Relative Standard Error for Net Generation by Fuel Type: Total (All Sectors) by Census Division and State, Year-to-Date through December 2003 (Percent)

New England	* 0 0	2				electric ⁵	Renewables ⁶		
Connecticut	0	4	1	0	0	1	1	0	*
Massachusetts		4	2	0	0	4	1		1
		5	3	0		1	2	0	2
New Hampshire	1	2	1		0	1	1		*
	0	4	100		0	2	8		1
Rhode Island		139	1			68	0		2
Vermont		95	0		0	4	7		1
Middle Atlantic	*	1	1	26	0	*	1	-	*
New Jersey	0	7	2	115	0	2	1		1
New York	1	1	1	108	0	*	1		*
Pennsylvania	*	3	2	24	0	1	1		*
East North Central	*	4	3	9	0	2	3	0	*
Illinois	*	9	13	62	0	16	4		*
Indiana	*	5	3	4		0	2		*
Michigan	*	6	2	0	0	2	3		*
Ohio	*	6	9	68	0	0	26		*
Wisconsin	*	17	6		0	4	9	0	*
West North Central		5	5	136	0		2	0	*
Iowa	1	58	23		0	1	2		l *
Kansas	0	4	9		0	31	0		•
Minnesota	*	5	11		0	4	4	0	l *
Missouri	*	20	4	0	0	2	3		*
Nebraska	*	70	26	0	0	•	11		*
North Dakota	•	72	544	141		0	14		•
South Dakota	0	0	0			0	0		0
South Atlantic		1		6	0	•	1		
Delaware	4	5	5	15					3
District of Columbia	*	0	*	0	0	0			0
Florida	*	0	4	U	0	0	2 4		*
Georgia	0	8	2	0	0	0	3		1
Maryland	U *	9	4	0	0	0	3		I *
North Carolina	*	6 5	4	0	0	*	2		*
Virginia	*	7	3	0	0	*	4		1
West Virginia	*	3	15	0	U	2	1		*
East South Central	*	1	2	17	0	0	3		*
Alabama	*	11	3	18	0	0	4		*
Kentucky	*	0	22			0	7		*
Mississippi	*	2	2	0	0	0	7		1
Tennessee	*	8	27	0	0	0	8		*
West South Central	*	1	2 / *	2	Ŏ	1	1	0	*
Arkansas	0	1	2		0	i	1	0	*
Louisiana	*	*	1	2	0	0	3	0	1
Oklahoma	0	11	1	40		0	9		*
Texas	*	3	*	4	0	4	1		*
Mountain	*	11	1	75	0	*	2		*
Arizona	0	24	1		0	0	13		*
Colorado	*	141	4	0		ĺ	8		1
Idaho	108	0	39			1	9		2
Montana	1	2	0	0		*	0		1
Nevada	0	0	*	0		1	2		*
New Mexico	*	33	8			14	7		1
Utah	*	43	14			7	5		1
Wyoming	*	40	15	419		1	5		*
Pacific Contiguous	1	7	1	*	0	*	1	-	*
California	4	7	1	*	0	*	1		1
Oregon	1	15	*			*	9		*
Washington	1	75	1	0	0	*	4		*
Pacific Noncontiguous	9	3	9	53		4	5		3
Alaska	33	25	9			3	110		7
Hawaii	2	2	0	53		33	5		2

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

Notes: *See Glossary for definitions. *Relative Standard Error is designed to indicate error due to sampling. However, nonsampling error is important for all surveys, census or sample. See Technical Notes for further information. •Estimates for 2003 are preliminary.

² Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

³ Natural gas, including a small amount of supplemental gaseous fuels.

⁴ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁵ Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.
6 Wood, black liquor, other wood waste, municipal solid waste, landfill gas, sludge waste, tires, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic renergy, and wind.

Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Relative Standard Error for Net Generation by Fuel Type: Electric Utilities by Census Division and State, December 2003

(Percent)

Census Division and State	Coal ¹	Petroleum ²	Natural Gas³	Other Gases ⁴	Nuclear	Hydro- electric ⁵	Other Renewables ⁶	Other ⁷	Total
New England	0	10	37		0	16	0	-	4
Connecticut		1,160				182			184
Maine						429			429
Massachusetts		46	45			692			45
New Hampshire	0	1	0		0	0			*
Rhode Island		454							454
Vermont		290	0			35	0		22
Middle Atlantic	0	*	*		0	1	-	_	*
New Jersey	0	0	0			0			0
New York	0	*	*		0	1			*
Pennsylvania	0	10	246		0	2			*
East North Central	*	29	3		0	5	0		*
Illinois	4	1,210	66			83	0		4
Indiana	*	9	*			0			*
Michigan	*	9	4		0	5	0		*
Ohio	*	4	2		0	0	0		*
Wisconsin	*	14	1		0	17	0		*
West North Central	*	5	7	0	Ŏ	1	1		*
Iowa	1	49	5		0	2	13		*
Kansas	0	7	23		ő		0		*
Minnesota	1	4	6		0	10	0		1
Missouri	0	44	3	0	0	6	0		*
Nebraska	0	291	24	0	0	*	0		*
North Dakota	0	0	0	U	U	0	0		0
South Dakota	0	0	0			0	0		0
	*	6	1		0	*	0		*
South Atlantic		32	0		-			-	
Delaware			-						31
District of Columbia		*	 *						
Florida	0				0	0	0		*
Georgia		18	95		0	1			*
Maryland		2,806	310						2,771
North Carolina	0	7	42		0	1			*
South Carolina	0	*	0		0	1	0		*
Virginia	1	20	35		0	1	0		2
West Virginia	0	0	0			0	0		0
East South Central	*	*	3		0	0	0	-	*
Alabama	0	0	6		0	0			*
Kentucky	*	0	0			0	0		*
Mississippi	1	1	1		0				*
Tennessee	0	0	0		0	0	0		0
West South Central	*	3	*	0	0	3	0	_	*
Arkansas	0	1	0		0	4			*
Louisiana	0	1	1	0	0				*
Oklahoma	0	1,335	*			0			*
Texas	1	10	1		0	36	0		1
Mountain	*	17	3	0	0	1	0	_	*
Arizona	0	0	0		0	0	0		0
Colorado	0	14	3	0		1	0		*
Idaho		0	0			2			2
Montana	0	1,881	ő			1			1
Nevada	0	0	0			0			0
New Mexico	*	0	15	 		55			1
Utah	0	113	56			21	0		1
Wyoming	0	0	0			9	0		*
	0	0	1		0	*	*		*
Pacific Contiguous	-	0	2	-	0	1	*	-	*
California	0	0	0			1 *	0		*
Oregon						*			*
Washington	0	0	0		0		0		•
Pacific Noncontiguous	0	3	2			11	110		2
Alaska	0	24	2			11	213		5
Hawaii		0				0	0		0

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

Notes: *See Glossary for definitions. *Relative Standard Error is designed to indicate error due to sampling. However, nonsampling error is important for all surveys, census or sample. See Technical Notes for further information. •Estimates for 2003 are preliminary.

² Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

³ Natural gas, including a small amount of supplemental gaseous fuels.

⁴ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁵ Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.
6 Wood, black liquor, other wood waste, municipal solid waste, landfill gas, sludge waste, tires, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic energy, and wind.

7 Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Relative Standard Error for Net Generation by Fuel Type: Electric Utilities by Census Division and State, Year-to-Date through December 2003 (Percent)

	icent)	1		1	1			1	
Census Division and State	Coal ¹	Petroleum ²	Natural Gas ³	Other Gases ⁴	Nuclear	Hydro- electric ⁵	Other Renewables ⁶	Other ⁷	Total
New England	0	4	10		0	7	0		1
Connecticut		735				61			78
Maine						143			143
Massachusetts		28	10			231			16
New Hampshire	0	1	0		0	0			*
Rhode Island		288							288
Vermont		95	0			13	0		8
Middle Atlantic	0	*	1		0	*			*
New Jersey	0	0	0			0			0
New York	0	*	1		0	*			*
Pennsylvania	0	20	521		0	1			*
East North Central	*	6	11		0	2	0		*
Illinois	1	199	135			31	0		3
Indiana	*	3	1			0	<u></u>		*
Michigan	*	5	10		0	2	0		*
Ohio	*	2	5		0	0	0		*
Wisconsin	*	10	3		0	4	0		*
West North Central	*	4	5	0	Ŏ	*	1	_	*
Iowa	*	56	11		0	1	7		*
Kansas	0	4	9		0		Ó		*
Minnesota	*	3	16		0	2	0		*
Missouri	0	18	5	0	0	2	0		*
Nebraska	0	54	26	0	0	*	0		*
North Dakota	0	0	0		U	0	0		0
South Dakota	0	0	0			0	0		0
	*	1	*		0	*	0		*
South Atlantic		15	0	-					14
Delaware District of Columbia		13							14
	0	*	 *		0	0	0		
Florida	*					0	U		*
Georgia		13	13		0	T			(20
Maryland		651	655						638
North Carolina	0	2	11		0	*			*
South Carolina	0	1	0		0	*	0		•
Virginia	*	8	2		0	•	0		1
West Virginia	0	0	0			0	0		0
East South Central			2		0	0	0	-	*
Alabama	0	0	4		0	0			
Kentucky	*	0	0			0	0		*
Mississippi	*	1	*		0				*
Tennessee	0	0	0		0	0	0		0
West South Central	*	1	*	0	0	1	0	-	*
Arkansas	0	1	0		0	1			*
Louisiana	0	*	*	0	0				*
Oklahoma	0	5	*			0			*
Texas	*	3	*		0	4	0		*
Mountain	*	21	2	0	0	*	0		*
Arizona	0	0	1		0	0	*		*
Colorado	0	13	2	0		*	0		*
Idaho		0	0			1			1
Montana	0	397	0			*			*
Nevada	0	0	0			0			0
New Mexico	*	0	8			14			1
Utah	0	93	12			6	0		*
Wyoming	0	0	0			1	0		*
Pacific Contiguous	0	0	1		0	*	*		*
California		0	1		0	*	*		*
Oregon	0	0	0			*	0		*
Washington	0	0	0		0	*	0		*
Pacific Noncontiguous	0	3	10			3	55	-	3
Alaska	0	24	10			3	110		7
Hawaii		0				0	0		0
		-				-	-		-

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

Notes: *See Glossary for definitions. *Relative Standard Error is designed to indicate error due to sampling. However, nonsampling error is important for all surveys, census or sample. See Technical Notes for further information. •Estimates for 2003 are preliminary.

² Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

³ Natural gas, including a small amount of supplemental gaseous fuels.

⁴ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁵ Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.
6 Wood, black liquor, other wood waste, municipal solid waste, landfill gas, sludge waste, tires, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic energy, and wind.

Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Relative Standard Error for Net Generation by Fuel Type: Independent Power Producers by Census Division and State, December 2003 (Percent)

Census Division and State	Coal ¹	Petroleum ²	Natural Gas ³	Other Gases ⁴	Nuclear	Hydro- electric ⁵	Other Renewables ⁶	Other ⁷	Total
	0	*	2		0	2	2		•
New England Connecticut	0	*	1	0	0	4	1		*
Maine	0	1	9	0	U	4	5		5
Massachusetts	0	*	1	U	0	3	2		*
New Hampshire		673	1		0	5	8		1
Rhode Island		0	0			145	0		*
Vermont					0	5	0		1
Middle Atlantic	1	1	2	0	0	2	3		*
New Jersey	0	5	3	0	0	60	5		1
New York	2	1	3		0	3	5		1
Pennsylvania	1	*	3	0	0	2	3		*
East North Central	*	3	5	110	Ö	35	6		*
Illinois	*	0	9		0	53	9		*
Indiana	1	251	10	499			39		2
Michigan	0	0	4	0		49	4		3
Ohio	4	76	182	113			54		7
Wisconsin	0	6	42			129	46		31
West North Central	22	36	35			56	1		8
Iowa	276	305				117	2		26
Kansas						90	0		6
Minnesota	0	0	39			89	2		8
Missouri			0						0
Nebraska			3,095				143		313
North Dakota			5,075				143		313
South Dakota									
South Atlantic	*	5	5	0	0	2	2	_	*
Delaware	0	0	0			<u>-</u>			0
District of Columbia		0							0
Florida	0	0	1	0			2		1
Georgia		0	45			173	147		44
Maryland	0	ő	0	0	0	0	3		*
North Carolina	4	441	5	ő		83	12		3
South Carolina		0	0			43			43
Virginia	0	43	11	0		41	5		3
West Virginia	ő	0	0			20	0		*
East South Central	0	1	4			0	10		1
Alabama	0	256	4				0		4
Kentucky	0	0	0						0
Mississippi	0		7			0			2
Tennessee		0	0				63		63
West South Central	0	*	3	0	0	2	1	-	2
Arkansas		0	0			2,574	0		*
Louisiana	0	0	23			0	0		9
Oklahoma	0		0				0		0
Texas	0	*	3	0	0	40	1		1
Mountain	2	47	4	0		10	4	_	2
Arizona			0						0
Colorado	67	637	12			377	25		12
Idaho			235			101	80		91
Montana	2	0	0	0		2			2
Nevada		0	0	0		575	7		1
New Mexico		0	22				5		10
Utah	0	604	0			607	199		14
Wyoming	0		0				9		4
Pacific Contiguous	2	21	4	0	_	52	1	-	3
California	8	21	5	0		58	1		3
Oregon			1			67	19		3
Washington	2	25	5	0		154	8		2
Pacific Noncontiguous	28	6	0			119	3		12
Alaska	198	312							197
Hawaii	7	6	0			119	3		4

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

Notes: *See Glossary for definitions. *Relative Standard Error is designed to indicate error due to sampling. However, nonsampling error is important for all surveys, census or sample. See Technical Notes for further information. •Estimates for 2003 are preliminary.

² Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

³ Natural gas, including a small amount of supplemental gaseous fuels.

⁴ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁵ Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.
6 Wood, black liquor, other wood waste, municipal solid waste, landfill gas, sludge waste, tires, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic renergy, and wind.

Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Relative Standard Error for Net Generation by Fuel Type: Independent Power Producers by Census Division and State, Year-to-Date through December 2003 (Percent)

G 5:			N I	0.0		** *	0.0		
Census Division and State	Coal ¹	Petroleum ²	Natural Gas³	Other Gases ⁴	Nuclear	Hydro- electric ⁵	Other Renewables ⁶	Other ⁷	Total
New England	0	1	1	0	0	1	1		*
Connecticut	0	1	1	0	0	2	1		*
Maine	0	2	4	0		2	4		2
Massachusetts	0	*	*		0	1	1		*
New Hampshire		35			0	3	2		*
Rhode Island		0	1			68	0		1
Vermont		<u></u>			0	2	0		*
Middle Atlantic	*	1	1	76	0	1	1		*
New Jersey	0	4	1	0	0	28	1		*
New York	1	i	1		0	1	1		*
Pennsylvania	*	1	1	108	0	1	1		*
East North Central	*	1	2	101	0	12	3		*
Illinois	*	0	3		0	18	4		*
Indiana	5	19	4	468			15		4
	0	0	2	0			4		2
Michigan						17	•		2
Ohio	1	80	11	106			19		3
Wisconsin	0	20	12			45	11		9
West North Central	20	146	7	-	-	19	1		3
lowa	84	607				41	2		11
Kansas						31	0		2
Minnesota	0	0	15			31	1		5
Missouri			0						0
Nebraska			904				54		115
North Dakota									
South Dakota									
South Atlantic	*	1	1	0	0	1	1		*
Delaware	4	2	5						2
District of Columbia		0							0
Florida	0	*	2	0			1		1
Jeorgia		49	3			81	72		3
Maryland	0	*	0	0	0	0	1		*
North Carolina	1	8	1	0	U	39	6		1
	1 	0	0			20			1
South Carolina		7	· ·						3
Virginia	0	/	4	0		19	3		1
West Virginia	0	0	0			7	1		•
East South Central	0	1	1			0	3	-	*
Alabama	0	128	1				0		1
Kentucky	0	0	0						0
Mississippi	0		1			0			*
Γennessee		763	53				25		50
West South Central	*	2	*	2	0	1	1		*
Arkansas		0	0			894	0		*
ouisiana	0	1	3			0	0		1
Oklahoma	0		1				0		1
Гехая	*	4	*	2	0	13	1		*
Mountain	1	2	1	0		3	3		1
Arizona			1						1
Colorado	24	125	6			69	14		6
		123	69			14	130		
daho			69 0			14 *	130		17
Montana	1	0	U	0					1
Nevada		0	1	0		105	2		1
New Mexico		0	5				7		4
Jtah	0	7	0			111	97		4
Wyoming	0		0				6		2
Pacific Contiguous	1	9	1	1	-	10	1		1
California	4	9	1	281		10	*		1
Oregon			*			19	12		1
Washington	1	78	1	0		28	7		1
Pacific Noncontiguous	8	2	0			48	2		4
	61	622							60
Alaska									

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

² Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

³ Natural gas, including a small amount of supplemental gaseous fuels.

⁴ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁵ Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.

⁶ Wood, black liquor, other wood waste, municipal solid waste, landfill gas, sludge waste, tires, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic energy, and wind.

7 Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".) Notes: •See Glossary for definitions.•Data for 2002 are final, and data for 2003 are preliminary.•Estimates for 2003 are preliminary.

Relative Standard Error for Net Generation by Fuel Type: Commercial Combined Heat and Power Producers by Census Division and State, December 2003 (Percent)

Census Division	a -1		Natural	Other		Hydro-	Other	0.2.7	
and State	Coal ¹	Petroleum ²	Gas ³	Gases ⁴	Nuclear	electric ⁵	Renewables ⁶	Other ⁷	Total
New England		47	121			0	8		44
Connecticut		230	511						441
/laine		0	35,810				9		9
Massachusetts		22	123			0	0		60
New Hampshire		285							285
Rhode Island		244	1,796						245
Vermont									
Middle Atlantic	548	124	107		-	8,112	3	_	48
New Jersey		321	232				213		223
New York	596	131	128			8,112	4		55
Pennsylvania	1,402	203	215				0		81
East North Central	82	141	164	-	-	171	11	_	53
Illinois	532	297	213			261	136		187
ndiana	129	409	964				60		108
Michigan	0	717	315				5		14
Ohio	1,301	452	829				1,079		669
Wisconsin	474	188	365			226	77		220
West North Central	171	349	244		_		59	-	120
owa	316	587	675				110		256
Kansas		0	4,035						4,035
Minnesota		596	283				85		217
Missouri	0	482	76				0		6
Nebraska		308	1,177				143		412
North Dakota									
South Dakota									
South Atlantic	117	1,496	361			174	25		123
Delaware									
District of Columbia									
Florida			705				105		385
Georgia		7,683	0						7,683
Maryland		680					78		7,083
North Carolina	117	2,005	2,525			200	76		139
South Carolina		9,731	3,498			356	92		228
	0						27		
Virginia		1,577	430				27 		174
West Virginia					-				
East South Central	424	10,499	579	-	-	-	124	-	326
Alabama									
Kentucky		10.400	0						0
Mississippi		10,499	1,264						1,331
Tennessee	424		513				124		304
West South Central	-	5,842	145	-			38		136
Arkansas			3,182				281		949
Louisiana			1,180						1,180
Oklahoma		11,161	1,168						1,216
Гехаs		6,855	138				0		130
Mountain		16,661	350				36		296
Arizona		16,661	1,441				346		1,128
Colorado			431				0		343
daho									
Montana									
Nevada									
New Mexico			772						772
Jtah			1,271						1,271
Wyoming			,						
Pacific Contiguous	1,175	12,180	93	9,316	_	230	21	-	71
California		14,453	94	9,316			21		73
Oregon		1,529	1,316						1,286
Washington	1,175	0	580			230			242
Pacific Noncontiguous	257	184							248
Alaska	257	184							248
Hawaii									

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

² Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

³ Natural gas, including a small amount of supplemental gaseous fuels.

⁴ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁵ Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.

⁶ Wood, black liquor, other wood waste, municipal solid waste, landfill gas, sludge waste, tires, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic energy, and wind.

Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

Notes: •See Glossary for definitions.•Relative Standard Error is designed to indicate error due to sampling. However, nonsampling error is important for all surveys, census or sample. See Technical Notes for further information. •Estimates for 2003 are preliminary.

Source: Energy Information Administration, Form EIA-906, "Power Plant Report."

Relative Standard Error for Net Generation by Fuel Type: Commercial Combined Heat and Power Producers by Census Division and State, Year-to-Date through December 2003 (Percent)

Census Division			Natural	Other		Hydro-	Other		
and State	Coal ¹	Petroleum ²	Gas ³	Gases ⁴	Nuclear	electric ⁵	Renewables ⁶	Other ⁷	Total
New England		45	36			0	3		21
Connecticut		457	149						147
//aine		0	10,457				4		4
Massachusetts		24	37			0	0		23
New Hampshire		220							220
Rhode Island		182	524						175
Vermont									
Middle Atlantic	168	122	36			3,815	1		20
New Jersey		640	68				80		67
New York	182	130	55			3,815	2		28
Pennsylvania	429	401	63				0		28
East North Central	23	266	49			59	4	_	16
llinois	163	591	62			91	51		56
ndiana	41	627	246				23		35
Aichigan	0	1,430	120				2		5
Ohio	398	901	242				1,762		205
Wisconsin	150	375	107			79	31		70
West North Central	47	234	67				21		35
	97	202	197				41		77
OWa	97	0	829				41		829
Cansas									
Minnesota	0	445	83				32		71
Missouri		894	11				0		12
Nebraska		613	344				54		190
North Dakota									
South Dakota									
South Atlantic	41	59	73	-		82	12		18
Delaware									
District of Columbia									
Florida			145				51		90
Georgia		1,020	0						1,020
Maryland		1,355					90		95
North Carolina	41	545	519			94			45
South Carolina		1,371	719			167	48		66
Virginia	0	51	65				12		16
West Virginia									
East South Central	130	1,394	136				47		87
Alabama									
Kentucky			0						0
Mississippi		1,394	260						258
Tennessee	130	·	150				47		90
West South Central	-	776	16				19		15
Arkansas			654				137		246
ouisiana			9						9
Oklahoma		1,482	240						239
Гехаs		910	32				0		30
Mountain		2,212	72				23		63
Arizona		2,212	296				168		240
Colorado		2,212	89				17		74
daho		 							/
Aontana			 						
Vevada									
New Mexico			159						159
Jtah			261						261
Vyoming	250	1.615		2.050					
Pacific Contiguous	359	1,615	22	2,950	-	42	10	_	17
California		1,919	23	2,950			10		18
Oregon		3,047	384						384
Washington	359	6,627	129			42			51
Pacific Noncontiguous	79	288							77
Alaska	79	288							77
Iawaii									

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

² Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

³ Natural gas, including a small amount of supplemental gaseous fuels.

⁴ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁵ Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.

⁶ Wood, black liquor, other wood waste, municipal solid waste, landfill gas, sludge waste, tires, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic energy, and wind.

Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

Notes: •See Glossary for definitions.•Relative Standard Error is designed to indicate error due to sampling. However, nonsampling error is important for all surveys, census or sample. See Technical Notes for further information. Data for 2002 are final, and data for 2003 are preliminary.

Relative Standard Error for Net Generation by Fuel Type: Industrial Combined Heat and Power Producers by Census Division and State, December 2003 (Percent)

(10	ercent)	•		1	1	, ,		1	
Census Division and State	Coal ¹	Petroleum ²	Natural Gas ³	Other Gases ⁴	Nuclear	Hydro- electric ⁵	Other Renewables ⁶	Other ⁷	Total
New England	47	22	28	-	_	8	3	0	8
Connecticut		259	206						170
Maine	0	21	8			8	2	0	4
Massachusetts	478	60	251			92	184		98
New Hampshire		201	343			27	49		56
Rhode Island		1,097							1,097
Vermont				32		69	121		62
Middle Atlantic New Jersey	28	29 35	30 67	125		33	6 101		15 53
New York	36	50	48	115		33	17		24
Pennsylvania	36	51	21	31			5		18
East North Central	28	35	44	8		25	5	0	12
Illinois	33	320	76	66			37		27
Indiana	431	8	78	0			0		8
Michigan	87	143	141			88	3		40
Ohio	193	677	496	80			55		113
Wisconsin	43	36	63			26	12	0	22
West North Central	36	537	167	150	-	34	16	0	29
Iowa	46	764	276				1,562		46
Kansas		15,102	944						960
Minnesota	43	517	114			34	16	0	27
Missouri	236	1,127	1,043				123		221
Nebraska	465		1,704	150			460		451
North Dakota	341	447	1,885	150			468		191
South Dakota	10	18	45	0		1	3		5
Delaware	340	37	0	0					38
District of Columbia	340						 		
Florida	0	42	51	0			6		12
Georgia	19	23	176			47	3		12
Maryland	0	834	435				0		29
North Carolina	16	81	997			*	7		6
South Carolina	29	0	0	0			0		8
Virginia	28	136	66			220	6		15
West Virginia	13	13	150	0		3			8
East South Central	25	113	66	94		0	3		12
Alabama	48	102	50	97			3		11
Kentucky			189				4		58
Mississippi	0	900	212	0			9		52
Tennessee	29	48 17	196	0		0	6	0	15
West South Central Arkansas	0	0	5 82	5			0	0	4 9
Louisiana	0	0	10	3			3	0	7
Oklahoma	0	0	33	126			9		13
Texas	2	25	6	10			3		5
Mountain	76	2,245	202	446			5		52
Arizona	0	8,809	11,520						16
Colorado		3,195	719						811
Idaho	354	0	60				5		33
Montana			0				0		0
Nevada									
New Mexico		4,406	407						406
Utah	118	1.026	417						237
Wyoming	198	1,036	400	446		1 215	41		140
Pacific Contiguous	33	41	18	0	-	1,315	6	-	13
California	26 850	50 0	19 0	0			7		14 17
Oregon Washington	850	44	0			1,315	7		9
Pacific Noncontiguous	0	620	106	166		275	32		122
Alaska		63	106						97
Hawaii	0	880		166		275	32		266
	•	500		.00		-73	22		_00

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

Notes: *See Glossary for definitions. *Relative Standard Error is designed to indicate error due to sampling. However, nonsampling error is important for all surveys, census or sample. See Technical Notes for further information. •Estimates for 2003 are preliminary.

² Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

³ Natural gas, including a small amount of supplemental gaseous fuels.

⁴ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁵ Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.

⁶ Wood, black liquor, other wood waste, municipal solid waste, landfill gas, sludge waste, tires, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic energy, and wind.

7 Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Relative Standard Error for Net Generation by Fuel Type: Industrial Combined Heat and Power Producers by Census Division and State, Year-to-Date through December 2003 (Percent)

Census Division and State	Coal ¹	Petroleum ²	Natural Gas ³	Other Gases ⁴	Nuclear	Hydro- electric ⁵	Other Renewables ⁶	Other ⁷	Total
New England	13	18	8			2	4	0	4
Connecticut		194	60						60
Maine	0	12	2			2	2	0	2
Massachusetts	146	59	58			43	69		39
New Hampshire		246	100			16	115		46
Rhode Island		819							819
Vermont						33	197		87
Middle Atlantic	8	25	9	26	-	21	4		5
New Jersey		56	17	117			38		17
New York	10	22	16	108		21	18		10
Pennsylvania	10	40	7	24			2		7
East North Central	8	22	13	8	_	8	7	0	4
Illinois	8	80	22	62			14		9
Indiana	132	15	25	4			0		4
Michigan	28	181	45			31	5		13
Ohio	59	324	138	83			89		41
Wisconsin	14	24	18			8	19	0	8
West North Central	8	260	36	141	_	12	21	0	7
Iowa	16	1,523	77				2,551		16
Kansas		1,352	58				_,		58
Minnesota	6	422	45			12	21	0	5
Missouri	72	2,246	305				46		67
Nebraska	131	2,210	498						127
North Dakota	103	334	550	141			186		80
South Dakota									
South Atlantic	4	9	14	9		*	2		2
Delaware	104	37	0	15					23
District of Columbia									23
	14	25	18	0			4		5
Florida	8	10	41			22	4		4
Georgia	0	623	127				0		11
Maryland						*	5		2
North Carolina	6	21	202						3
South Carolina	12	0	0	0		104	0		-
Virginia	10	55	21			104	8		6
West Virginia	13	99	58	0		1			7
East South Central	8	27	15	17	-	0	3		3
Alabama	17	29	13	18			4		4
Kentucky		122	62				7		21
Mississippi	0	123	39	0			7		10
Tennessee	9	39	59	0		0	9		5
West South Central	*	4	1	3	-		2	0	1
Arkansas	0	0	26				1	0	3
Louisiana	10	3	3	2			3	0	2
Oklahoma	0	0	9	40			11		4
Texas	1	5	2	4			2		1
Mountain	22	319	36	419	-		3		14
Arizona	0	487	391						3
Colorado		424	148						144
Idaho	108	0	29				4		13
Montana			0				0		0
Nevada									
New Mexico		768	85						84
Utah	42		86						56
Wyoming	61	784	33	419			16		33
Pacific Contiguous	10	14	4	0	_	241	5		3
California	9	13	4	0			8		3
Oregon	260	229	4				10		7
Washington	0	92	0			241	9		10
Pacific Noncontiguous	53	88	18	53		48	18		20
		125	18						20
Alaska									

¹ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

² Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

³ Natural gas, including a small amount of supplemental gaseous fuels.

⁴ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

⁵ Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.

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Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".) Notes: •See Glossary for definitions.•Data for 2002 are final, and data for 2003 are preliminary.•Estimates for 2003 are preliminary.

Source: Energy Information Administration, Form EIA-906, "Power Plant Report."

Table A6.A. Relative Standard Error for Retail Sales of Electricity to Ultimate Customers by Sector, Census Division, and State, December 2003
(Percent)

Census Division					
	Residential	Commercial	Industrial	Other ¹	All Sectors
and State					
New England	*	*	1	3	*
Connecticut	*	*	0	3	*
Maine	*	*	0	2	*
Massachusetts	*	1	2	2	1
New Hampshire	*	*	1	*	*
Rhode Island	*	*	0	*	*
Vermont	1	1	1	5	1
Middle Atlantic	*	*	0	*	*
New Jersey	*	*	1	1	*
New York	*	*	1	*	*
Pennsylvania	*	*	0	*	*
East North Central	*	*	1	1	*
Illinois	*	*	1	*	1
Indiana	1	1	1	1	ĺ
Michigan	*	1	1	5	*
Ohio	1	*	1	1	1
Wisconsin	1	1	3	5	1
West North Central	1	1	3	13	11
lowa	1	1	5	20	1
Kansas	1	2	5	10	1
Minnesota	1	<i>3</i>	2	10	1
	1	Z *	3	5	1
Missouri	1		7		2
Nebraska	1	4	21	26	3
North Dakota	1	3	31	32	8
South Dakota	l	4	12	68	0
South Atlantic	I .	1	1	2	I
Delaware	•	1	1	2	1
District of Columbia	0	0	0	0	0
Florida	2	1	3	3	1
Georgia	2	1	1	8	1
Maryland	l	1	0	3	1
North Carolina	2	1	1	4	1
South Carolina	2	1	1	3	1
Virginia	1	*	1	1	1
West Virginia	*	*	0	1	*
East South Central	1	1	1	2	1
Alabama	2	1	3	11	1
Kentucky	1	1	2	1	1
Mississippi	2	4	2	8	1
Tennessee	1	1	3	2	2
West South Central	1	4	2	6	1
Arkansas	1	3	5	6	1
Louisiana	1	3	0	2	1
Oklahoma	1	3	2	1	1
Гехаs	1	5	1	7	1
Mountain	3	3	7	60	4
Arizona	4	3	9	82	6
Colorado	9	6	22	44	11
ldaho	1	2	1	40	1
Montana	1	3	3	38	4
Nevada	1	13	0	8	1
New Mexico	11	11	28	50	16
Jtah	6	6	4	47	7
Wyoming	1	3	2	43	3
Pacific Contiguous	1	4	4	20	1
	1	5	3	36	1
California	2	3	5	23	2
Oregon					-
Washington	3	4	10	11	2
Pacific Noncontiguous			0	27	*
Alaska	1	1	2	31	1
Hawaii	0	*	0	9	*

¹ Public street and highway lighting, other sales to public authorities, sales to railroads and railways,and interdepartmental sales.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Notes: *See Glossary for definitions. *Relative Standard Error is designed to indicate error due to sampling. However, nonsampling error is important for all surveys, census or sample. See Technical Notes for further information. *Estimates for 2003 are preliminary. *It should be noted that such things as large changes in retail sales, reclassification of retail sales, or changes in billing procedures can contribute to unusually high relative standard error.

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

Table A6.B. Relative Standard Error for Retail Sales of Electricity to Ultimate Customers by Sector, Census Division, and State, Year-to-Date through December 2003
(Percent)

Census Division					
	Residential	Commercial	Industrial	Other ¹	All Sectors
and State					
New England	*	*	0	1	*
Connecticut	*	*	0	1	*
Maine	*	*	0	1	*
Massachusetts	*	*	1	1	*
New Hampshire	*	*	0	*	*
Rhode Island	*	*	0	*	*
Vermont	*	*	1	2	*
Middle Atlantic	*	*	1	7	*
New Jersey	*	*	0	*	*
New York	*	*	3	5	1
Pennsylvania	*	*	0	*	*
East North Central	*	*	0	*	*
Illinois	*	*	0	*	*
Indiana	*	*	Õ	1	*
Michigan	*	*	0	1	*
Ohio	*	*	0	*	*
Wisconsin	*	*	1	1	*
West North Central	*	*	2	5	*
Iowa	*	1	2	5	*
Kansas	*	1	1	2	*
	*	1	1	2	*
Minnesota	*	1 *	1	3	*
Missouri	*		1	1	1
Nebraska	*	1	22	11	1
North Dakota	1	1	23	13	2
South Dakota	l	1	8	27	l
South Atlantic	*	*	U	*	
Delaware	•	•	0	•	•
District of Columbia	0	0	0	0	0
Florida	*	*	1	1	*
Georgia	1	*	0	2	*
Maryland	*	*	0	1	*
North Carolina	*	*	0	1	*
South Carolina	*	*	0	1	*
Virginia	*	*	0	*	*
West Virginia	*	*	0	*	*
East South Central	*	*	0	*	*
Alabama	*	*	1	2	*
Kentucky	*	*	0	*	*
Mississippi	*	1	1	2	*
Tennessee	*	*	1	*	*
West South Central	*	1	0	2	*
Arkansas	*	1	1	1	*
Louisiana	*	1	0	1	*
Oklahoma	*	1	1	*	*
Texas	*	1	0	2	*
Mountain	1	*	1	34	1
Arizona	*	*	1	40	1
Colorado	2	1	3	25	2
Idaho	*	1	0	10	*
Montana	*	*	2	14	1
Nevada	*	1	0	5	*
New Mexico	2	2	5	31	3
Utah	1	1	1	22	í
Wyoming	*	1	1	18	1
Pacific Contiguous	*	1	1	12	*
California	*	1	1	20	*
Oregon	1	1	2	6	1
č	1	1	<u> </u>		1
Washington	l	I	5	3	I
Pacific Noncontiguous	*	*	U	5	× ×
Alaska		÷	0	6	τ -
Hawaii	0	*	0	4	•

¹ Public street and highway lighting, other sales to public authorities, sales to railroads and railways,and interdepartmental sales.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Notes: *See Glossary for definitions. *Relative Standard Error is designed to indicate error due to sampling. However, nonsampling error is important for all surveys, census or sample. See Technical Notes for further information. *Estimates for 2003 are preliminary. *It should be noted that such things as large changes in retail sales, reclassification of retail sales, or changes in billing procedures can contribute to unusually high relative standard error.

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

Table A7.A. Relative Standard Error for Revenue from Retail Sales of Electricity to Ultimate Customers by Sector, Census Division, and State, December 2003
(Percent)

Census Division					
	Residential	Commercial	Industrial	Other ¹	All Sectors
and State					
New England	*	*	2	1	*
Connecticut	*	*	1	1	*
Maine	*	*	1	*	*
Massachusetts	*	*	3	1	1
New Hampshire	*	*	1	*	*
Rhode Island	*	*	1	*	*
Vermont	1	1	2	2	1
Middle Atlantic	*	*	*	*	*
New Jersey	*	*	1	*	*
New York	*	*	1	*	*
Pennsylvania	*	*	*	*	*
East North Central	*	*	1	1	*
Illinois	1	*	1	*	*
Indiana	1	1	1	1	1
Michigan	*	1	2	3	*
Ohio	1	*	1	ĺ	1
Wisconsin	*	1	3	3	*
West North Central	1	1	5	7	1
Iowa	1	3	6	15	1
Kansas	1	3	5	5	1
Minnesota	1	2	1	4	1
Missouri	1	*	4	2	1
	2	4	16	18	6
Nebraska	2	4	16 60		7
North Dakota	2	3		13	1
South Dakota	2	4	17 2	28	0
South Atlantic		1	2	<u>Z</u>	
Delaware		1	2	1	1
District of Columbia	0	0	0	0	0
Florida	2	1	4	3	2
Georgia	4	1	2	1	3
Maryland	1	1	1	1	1
North Carolina	3	1	2	4	2
South Carolina	3	1	1	4	2
Virginia	2	1	1	1	1
West Virginia	*	*	*	l	*
East South Central	1	1	1	2	1
Alabama	3	1	4	9	2
Kentucky	1	1	1	*	1
Mississippi	1	3	3	5	1
Tennessee	1	1	2	1	1
West South Central	1	4	2	4	1
Arkansas	1	3	5	5	1
Louisiana	1	3	1	3	1
Oklahoma	1	3	3	1	1
Texas	1	4	2	4	1
Mountain	3	3	7	34	4
Arizona	4	3	9	38	5
Colorado	8	5	22	32	10
Idaho	2	2	1	35	1
Montana	2	2	6	15	4
Nevada	1	5	*	6	*
New Mexico	11	11	25	46	15
Utah	7	7	6	40	8
Wyoming	2	4	6	28	4
Pacific Contiguous	1	2	3	9	1
California	1	3	4	12	1
Oregon	2	3	5	18	2
U1CEU11		3	3 11	10	2
2					,
Washington	2	3			
Washington Pacific Noncontiguous Alaska	1 1	1 2	* 2	25 30	1 2

¹ Public street and highway lighting, other sales to public authorities, sales to railroads and railways,and interdepartmental sales.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Notes: *See Glossary for definitions. *Relative Standard Error is designed to indicate error due to sampling. However, nonsampling error is important for all surveys, census or sample. See Technical Notes for further information. *Estimates for 2003 are preliminary. *It should be noted that such things as large changes in retail sales, reclassification of retail sales, or changes in billing procedures can contribute to unusually high relative standard error.

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

Table A7.B. Relative Standard Error for Revenue from Retail Sales of Electricity to Ultimate Customers by Sector, Census Division, and State, Year-to-Date through December 2003 (Percent)

Census Division					
	Residential	Commercial	Industrial	Other ¹	All Sectors
and State					
New England	*	*	1	*	*
Connecticut	*	*	*	1	*
Maine	*	*	*	*	*
Massachusetts	*	*	1	1	*
New Hampshire	*	*	*	*	*
Rhode Island	*	*	*	*	*
Vermont	*	*	1	1	*
Middle Atlantic	*	*	*	6	*
New Jersey	*	*	*	*	*
New York	*	*	1	5	*
Pennsylvania	*	*	*	*	*
East North Central	*	*	*	*	*
Illinois	*	*	*	*	*
Indiana	*	*	*	*	*
Michigan	*	*	1	1	*
Ohio	*	*	*	*	*
Wisconsin	*	*	1	1	*
West North Central	*	*	2	2	*
Iowa	1	1	2	3	*
Kansas	*	1	1	2	*
Minnesota	1	1	1	1	*
Missouri	*	*	1	1	*
Nebraska	*	1	7	6	1
North Dakota	1	1	23	5	1
South Dakota	1	1	8	0	1
South Atlantic	*	*	*	*	*
Delaware	*	*	1	*	*
District of Columbia	0	0	0	0	0
Florida	*	*	1	1	*
	1	*	1	1	· sk
Georgia	! *	*	*	1	*
Maryland	*	*	*	1	
North Carolina	τ •	*	*	<u>l</u>	· •
South Carolina	T		*	Į,	*
Virginia	*	*	*	·	*
West Virginia	*	*	*	•	
East South Central	*	*	*	1	*
Alabama	*	*	l .	2	*
Kentucky	*	*	*	*	*
Mississippi	1	1	1	2	*
Tennessee	*	*	*	*	*
West South Central	*	1	*	2	*
Arkansas	1	1	1	2	*
Louisiana	1	1	*	1	*
Oklahoma	1	1	1	1	*
Texas	*	1	*	2	*
Mountain	1	*	1	12	1
Arizona	1	*	1	12	1
Colorado	2	1	3	13	2
Idaho	1	*	*	9	*
Montana	1	*	3	5	1
Nevada	*	1	*	4	*
New Mexico	2	2	4	18	2
Utah	1	1	1	12	1
Wyoming	*	*	2	11	1
Pacific Contiguous	*	*	1	5	*
California	*	*	1	8	*
Oregon	1	1	2	5	1
Washington	1	i 1	4	3	1
Pacific Noncontiguous	*	*	*	4	*
Alaska	*	*	1	5	*
Hawaii	0	*	0	2	*
			d interdenartmental cales		

¹ Public street and highway lighting, other sales to public authorities, sales to railroads and railways,and interdepartmental sales.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Notes: *See Glossary for definitions. *Relative Standard Error is designed to indicate error due to sampling. However, nonsampling error is important for all surveys, census or sample. See Technical Notes for further information. *Estimates for 2003 are preliminary. *It should be noted that such things as large changes in retail sales, reclassification of retail sales, or changes in billing procedures can contribute to unusually high relative standard error.

Relative Standard Error for Average Retail Price of Electricity to Ultimate Costumers by Sector, Census Division, and State, December 2003 (Percent)

Census Division	Residential	Commercial	Industrial	Other ¹	All Sectors
and State	Residential	Commercial	mustriai	Other	All Sectors
New England	*	*	1	3	*
Connecticut	*	*	*	3	*
Maine	*	*	*	2	*
Massachusetts	*	*	1	2	*
New Hampshire	*	*	*	*	*
Rhode Island	*	*	*	*	*
Vermont	1	*	1	4	*
Middle Atlantic	*	*	*	*	*
New Jersey	*	*	*	1	*
New York	*	*	*	*	*
Pennsylvania	*	*	*	*	*
East North Central	*	*	*	*	*
llinois	*	*	*	*	*
ndiana	*	*	1	1	*
	*	*	1	2	*
Michigan	· **	*	1	3	*
Ohio	1	*	1	1	*
Visconsin	I	•	1	3	*
West North Central	1	*	3	9	1
owa	1	1	2	8	1
Kansas	1	1	2	6	1
Minnesota	1	*	1	8	*
Missouri	1	*	3	4	1
Nebraska	2	2	10	17	3
North Dakota	2	2	34	22	4
South Dakota	3	2	9	47	3
South Atlantic	1	1	1	1	1
Delaware	*	*	1	1	*
District of Columbia	0	0	0	0	0
Florida	1	1	3	1	1
Georgia	2	1	1	5	2
Maryland	*	*	*	2	*
-	2	1	1	2	
North Carolina	2	1	1	2	1
South Carolina	2	1	1	2	1
Virginia	l *	1	l m	•	I de
West Virginia	*	*	*	1	*
East South Central	1	*	1	1	1
Alabama	2	1	3	5	1
Kentucky	1	*	1	1	1
Mississippi	1	1	1	4	1
Tennessee	*	*	1	2	1
West South Central	1	1	1	3	1
Arkansas	1	1	2	3	1
_ouisiana	1	1	*	2	*
Oklahoma	1	1	1	1	1
Texas	1	1	1	3	1
Mountain	1	1	1	38	1
Arizona	1	1	2	56	3
Colorado	2	2	4	19	2
	1	<u>4</u> 1	1		<u> </u>
daho	1	1	1	15	1
Aontana	<i>L</i>	1	4	29	2
levada	*	8	•	4	l
New Mexico	2	4	6	13	3
Jtah	1	3	2	23	2
Vyoming	2	2	4	28	2
Pacific Contiguous	1	2	2	14	1
California	*	3	1	26	1
Oregon	1	2	3	13	1
Washington	1	2	6	4	1
Pacific Noncontiguous	*	1	*	15	*
Alaska	1	2	2	18	1

¹ Public street and highway lighting, other sales to public authorities, sales to railroads and railways,and interdepartmental sales.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Notes: *See Glossary for definitions.*Relative Standard Error is designed to indicate error due to sampling. However, nonsampling error is important for all surveys, census or sample. See Technical Notes for further information.*Estimates for 2003 are preliminary.*It should be noted that such things as large changes in retail sales, reclassification of retail sales, or changes in billing procedures can contribute to unusually high relative standard error.

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

Table A8.B. Relative Standard Error for Average Retail Price of Electricity to Ultimate Costumers by Sector, Census Division, and State, Year-to-Date through December 2003 (Percent)

Census Division					
Census Division	Residential	Commercial	Industrial	Other ¹	All Sectors
and State					
New England	*	*	*	1	*
Connecticut	*	*	*	2	*
Maine	*	*	*	1	*
Massachusetts	*	*	1	1	*
New Hampshire	*	*	*	*	*
Rhode Island	*	*	*	*	*
Vermont	*	*	*	2	*
Middle Atlantic	*	*	*	2	*
New Jersey	*	*	*	*	*
New York	*	*	*	1	*
Pennsylvania	*	*	*	*	*
East North Central	*	*	*	*	*
Illinois	*	*	*	*	*
Indiana	*	*	*	1	*
Michigan	*	*	*	2	*
Ohio	*	*	*	*	*
Wisconsin	*	*	*	1	*
West North Central	*	*	1	1 E	*
	1	1	1	3	*
Iowa	1	1	1	4 2	*
Kansas	1	1 *	1	3	*
Minnesota	1	*	1	4	*
Missouri	1	1	2	10	1
Nebraska	l 1	1	0	10	1
North Dakota	l	1	18	13	2
South Dakota	l	1	5	27	2
South Atlantic	1	*	1	1	1
Delaware	*	*	l	1	*
District of Columbia	0	0	0	0	0
Florida	1	1	1	1	1
Georgia	1	1	1	3	1
Maryland	*	*	*	1	*
North Carolina	1	1	1	1	1
South Carolina	1	*	*	1	1
Virginia	1	*	1	*	*
West Virginia	*	*	*	1	*
East South Central	*	*	*	1	*
Alabama	1	1	1	3	1
Kentucky	*	*	*	*	*
Mississippi	1	1	1	2	*
Tennessee	*	*	1	1	*
West South Central	*	1	*	2	*
Arkansas	1	1	1	2	1
Louisiana	1	1	*	1	*
Oklahoma	i	1	1	*	*
Texas	*	1	*	2	*
Mountain	*	1	1	22	1
Arizona	*	1	1	32	1
Colorado	1	1	2	12	1
daho	1	1	*	8	*
	1	1	2	17	1
Montana	*	1 A	*	2	*
Nevada	1	4 2	2	3	2
New Mexico	1	2	3 1	12	<u>Z</u>
Utah	1	<u> </u>	1	13	1
Wyoming	ا پ	1		17	I
Pacific Contiguous		1	1	9	*
California	1	2	1	16	1
Oregon	1	l	2	7	1
Washington	1	2	4	2	1
Pacific Noncontiguous	*	*	*	8	*
Alaska	1	1	1	9	1
Hawaii	0	*	0	2	*

¹ Public street and highway lighting, other sales to public authorities, sales to railroads and railways,and interdepartmental sales.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

Notes: •See Glossary for definitions.•Relative Standard Error is designed to indicate error due to sampling. However, nonsampling error is important for all surveys, census or sample. See Technical Notes for further information.•Estimates for 2003 are preliminary.•It should be noted that such things as large changes in retail sales, reclassification of retail sales, or changes in billing procedures can contribute to unusually high relative standard error.

Appendix B

Major Disturbances and Unusual Occurrences Table B.1. Major Disturbances and Unusual Occurrences, 2003

Date	Utility/Power Pool (NERC Region)	Time	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected	Restoration Date/Time
January							
1/25/03	Cinergy Corporation (ECAR)	2:00 PM	Cincinnati, Ohio	Cyber Threat From Internet	NA	NA	1/26/03, 2:00 AM
February							
2/27/03	Duke Energy Corporation (SERC)	11:32 AM	Piedmont, North Carolina	Winter Ice Storm	1,000	over 340,000	3/01/03, 8:00 AM
March							
None							
April							
4/03/03 4/04/03	Consumers Energy (ECAR) Niagara Mohawk Power Corporation (NPCC)	7:00 PM 3:11 AM	Lower Michigan Peninsula New York, Upstate New York	Ice Storm Severe Storm	300 200-250	425,000 160,000	4/06/03, 5:00 PM 4/05/03, 2:00 PM
4/15/03	Bryan Texas Utilities (ERCOT)	11:00 AM	Cities of Bryan, College Station and surrounding areas	Relaying Malfunction	212	68,530	4/15/03, 2:06 PM
4/28/03	American Transmission Company (MAIN)	3:41 PM	County of Waukesha, Wisconsin, Town of Lisbon, Wisconsin	Vandalism	0	0	4/29/03, 12:00 noon
May							
5/02/03	Duke Energy Company/ Duke Power Control Area (SERC)	5:00 PM	Piedmont, North and South Carolina	Severe Thunderstorms	1,500	139,000	5/04/03, 12:00 noon
5/02/03	Southern Company (SERC)	8:00 PM	Central Georgia, Alabama	Severe Thunderstorms	130	102,842 (Georgia) 12,897 (Alabama)	5/03/03, 8:00 AM
5/15/03	Center Point Energy (ERCOT)	2:52 AM	North Texas	Interruption of Firm Power	476	192,000	5/15/03, 3:29 AM
5/15/03	We Energies (MAIN)	2:00 PM	Upper Michigan Peninsula	Flood	240	2	6/16/03, 2:00 PM
June							
6/15/03	Idaho Power Company Control Area (WSCC)	3:12 PM	Idaho	Public Appeal	0	0	6/16/03, 5:00 PM
6/30/03	Entergy Corporation (SPP)	1:00 PM	Coastal areas of Southwest Louisiana entire New Orleans metropolitan area	Tropical Storm Bill	NA	179,299	6/30/03, 12:00 AM
July							
7/01/03	Arizona Public Service Company (WSCC)	3:15 PM	Phoenix, Arizona	Breaker Failure	1,000	47,000	7/01/03, 3:50 PM
7/02/03	Pacific Gas and Electric Company (WSCC)	1:54 PM	Northern California	Unit Tripped	200	1	7/02/03, 3:59 PM
7/04/03	We Energies (MAIN)	6:00 AM	Southeast Wisconsin	Severe Thunderstorms	150	52,000	7/04/03, 10:00 AM
7/04/03	Consumers Energy (ECAR)	9:00 AM	Lower Michigan Peninsula	Severe Thunderstorms	75-90	131,000	7/06/03, 4:00 PM
7/04/03	Cinergy (ECAR)	11:41 PM	Southwest Ohio, portions of Indiana	Severe Storms	200	55,142	7/06/03, 9:00 PM
7/05/03	Com Ed (MAIN)	3:00 AM	Northern Illinois	Severe Storms	80	130,000	7/05/03, 7:00 AM
7/07/03	Com Ed (MAIN)	9:00 AM	Northern Illinois	Severe Thunderstorms	NA	72,000	7/07/03, 3:00 PM
7/08/03	American Electric Power (ECAR)	4:00 AM	Ohio	Severe Thunderstorms	11,000	134,500	7/11/03, 4:00 PM
7/09/03	Dominion Virginia/North Carolina Power (SERC)	5:14 PM	Northern Central and Eastern Virginia	Severe Thunderstorms	120	80,000	7/09/03, 7:09 PM
7/15/03	American Electric Power-Texas Central Company (ERCOT)	8:24 AM	Texas	Hurricane Claudette	230-300	108,000	7/21/03, 10:30 AM
7/21/03	PPL Electric Utilities (MAAC)	5:15 PM	Pennsylvania	Severe Storms	500-1000	185,000	7/24/03, 5:33 AM
7/28/03	Arizona Public Service (WSCC)	6:55 PM	Arizona	Breaker Closed	440	90,000	7/28/03, 8:35 PM

Table B.1. Major Disturbances and Unusual Occurrences, 2003 (Continued)

Date	Utility/Power Pool (NERC Region)	Time	Area	Type of Disturbance	Loss (megawatts)	Number of Customers Affected	Restoration Time
August	L		l	L		1111000	
8/14/03	Midwest Independent System Operator (ECAR)	Approximately 3:00 PM	Geographic areas for MISO Reliability Coordination footprint: Michigan and Ohio	Unknown *	Approx. 18,500 MW, in MISO area: First Energy 7,500 Detroit Edison 9,200 Consumers Energy 1,800	NA	Approximately 8/17/03, 5:00 PM
8/14/03	Detroit Edison (ECAR)	4:09 PM	Southeastern Michigan including all of Detroit	Unknown *	11,000	2,100,000	8/16/03, 7:00 AM
8/14/03	Consumers Power (ECAR)	4:09 PM	Southern Lower Michigan and small areas near Flint, Alma, Saginaw, and Lansing Michigan	Unknown *	1,007	101,000	8/16/03, 1:03 PM
8/14/03	First Energy Corporation (ECAR)	4:10 PM	Northeast, Ohio	Unknown *	7,000	1,203,000	8/16/03, 8:27 PM
8/14/03	ISO New England (NPCC)	4:10 PM	Southwestern Connecticut and a small portion of Western Massachusetts and Vermont	Unknown *	2,500	NA	8/16/03, 3:45 AM Restoration ended; 8/17/03, 7:00 PM, incident ended
8/14/03	New York Independent System Operator (NPCC)	4:10 PM	New York State	Unknown *	22,934	unknown	8/18/03, 12:03 AM
8/14/03	Niagara Mohawk (NPCC)	4:10 PM	New York- Buffalo to Albany; Ontario, Canada to Pennsylvania	Unknown *	NA	840,137	8/14/03, 11:48 PM
8/14/03	PJM Interconnection, LLC (MAAC)	4:10 PM	Northern New Jersey Erie, Pennsylvania area	Unknown *	4,100 MW (Northern NJ) and 400 MW, (Erie, PA) area	NA	Approximately 8/15/03, 6:00 AM
8/14/03	Consolidated Edison Co of New York (NPCC)	4:11 PM	Entire Con Edison System (five boroughs of NYC and Westchester County)	Unknown *	11,202	3,125,350	8/15/03, 9:03 PM
8/26/03	Baltimore Gas and Electric (MAAC)	4:00 PM	Maryland: Anne Arundel County, Baltimore County, Calvert County, Carroll County, Howard County, Montgomery County, Prince George's and Baltimore City.	Severe Thunderstorms	625	93,000 at peak 133,000 cumulative	8/29/03, 12:00 noon
8/26/03	Potomac Electric Power Company (Pepco) (MAAC)	4:22 PM	Washington, D.C., Montgomery County, Prince Georges County, Maryland	Severe Thunderstorms	1,500	153,000	8/31/03, 6:00 PM
September							
9/07/03	American Transmission Company, LLC (MAIN)	5:19 AM	Upper Michigan Peninsula	Transmission Equipment	310	4 (industrial)	9/07/03, 6:00 PM
9/18/03	Dominion-Virginia Power/ North Carolina Power (SERC)	8:20 AM	North Eastern North Carolina, Eastern Central, and Northern Virginia	Hurricane Isabel	6,512	1.8 million	9/29/03, 10:42 PM
9/18/03	Carolina Power and Light (SERC)	11:45 AM	Eastern North Carolina	Hurricane Isabel	peak 1655	peak 320,00 9/18/03 7:00 PM	9/18/03, 12:00 midnight
9/18/03	Baltimore Gas and Electric (MAAC)	12:00 noon	Central Maryland (Baltimore City, Baltimore County, Anne Arundel County, Hartford County, Montgomery County, Calvert County, Prince George's County, Carroll County and Howard County)	Hurricane Isabel	2,000	650,000	9/26/03, 10:50 PM
9/18/03	Allegheny Power (MAAC)	2:00 PM	Maryland, West Virginia, Virginia and Pennsylvania	Hurricane Isabel	3,085	237,366	9/24/03, 12:00 midnight
9/18/03	Duke Energy Company/Duke Power Control Area (SERC)	3:32 PM	Triangle and Tridad (Greensboro – High Point) Areas North Carolina - Northern Region	Hurricane Isabel	500-700	Under 50,000	9/19/03, 5:00 PM

Table B.1. Major Disturbances and Unusual Occurrences, 2003 (Continued)

	(Commucu)	1					
Date	Utility/Power Pool (NERC Region)	Time	Area	Type of Disturbance	Loss (megawatts)	Number of Customers Affected ¹	Restoration Time
9/18/03	Potomac Electric Power Company (Pepco) (MAAC)	4:20 PM	District of Columbia, Montgomery and Prince George's Counties, Maryland	Hurricane Isabel	NA	Over 530,000 peak on 9/19/03	9/28/03, 6:00 PM
9/18/03	PPL Electric Utilities (MAAC)	9:00 PM	All PPL including: Williamsport, Harrisburg, Lancaster, Scranton and Allentown areas	Hurricane Isabel	1,300	425,000	9/21/03, 5:00 PM
October							
10/26/03	San Diego Gas and Electric Company (WECC)	1:44 AM	San Diego County, California	Wild Fire	N/A	108,000 (Dist. And Trans. Combined)	11/18/03, 10:54 AM (Trans. Only)
November							
11/05/03	PJM Interconnection (MAAC)	3:16 PM	Maryland/Virginia border	Tornado	350	1	11/05/03, 3:54 PM
1/12/03	Consumers Energy (ECAR)	5:00 PM	Lower Michigan Peninsula	Wind Storm	75-90	245,000	11/16/03, 6:00 PM
11/12/03	Com Ed (MAIN)	5:00 PM	Northern Illinois	High Winds	Est. 371.1	51,000	11/12/03, 7:00 PM
11/12/03	DTE Energy (ECAR)	6:00 PM	Southeastern Michigan	Storm with High Winds	Est. 75	160,000	11/16/03, 5:00 PM
11/13/03	Baltimore Gas and Electric (MAAC)	6:00 AM	Central Maryland (Baltimore City, Baltimore County, Anne Arundel County, Hartford County, Montgomery County, Calvert County, Prince George's County, Carroll County and Howard County)	High Winds	375	110,000	11/16/03, 4:00 PM
11/13/03	Niagara Mohawk (NPCC)	7:30 AM	New York	Storm with High Winds	Approx. 180	50,280	11/14/03, 6:30 AM
11/13/03	Potomac Electric Power Company (Pepco) (MAAC)	11:00 AM	Washington, D.C., Montgomery County, Prince Georges County, Md	Major Wind Storm	Est. 400	104,195 at 5:23 PM 11/13/03	11/14/03, 7:30 AM
11/13/03	Dominion-Virginia Power/ North Carolina Power (SERC)	1:40 PM	Northern Virginia, Richmond area, Eastern Virginia	Wind Storm	300	67,000	11/13/03, 3:51 PM
December							
12/01/03	REMVEC (NPCC)	6:16 PM	Cape Cod and part of SE Massachusetts	Wild Fire – Transmission Equipment	630	300,000	12/01/03, 8:11 PM
12/04/03	Puget Sound Energy (WECC)	7:00 AM	Eastern portions of King County and Pierce County	High Winds	175	200,000 (Peak)	12/08/03, 7:00 AM
12/04/03	American Transmission Company, LLC (MAIN)	10:34 PM	Northeast Wisconsin and Central/Western Upper Peninsula of Michigan	Fault on 138 KV line	650	6 (utilities)	12/07/03, 8:30 AM
12/04/03	Wisconsin Electric Power Company (MAIN)	10:15 PM	Upper Peninsula of Michigan and Northeastern Wisconsin	Fault on 138 KV line	500	36,000	12/08/03, 8:30 AM
12/05/03	City of Homestead (FRCC)	4:49 AM	State of Florida - Dade County	Transmission Equipment	27	16,500	12/05/03, 6:25 AM
12/05/03	Upper Peninsula Power Company (MAIN)	7:00 AM	Northeast Wisconsin and Central/Western Upper Peninsula of Michigan	Transmission Equipment	14	2	12/05/03, 8:00 PM
12/20/03	Pacific Gas and Electric (WECC)	3:51 PM	San Francisco, California	Cable Failure	150	120,000	12/21/03, 11:45 PM
12/22/03	Pacific Gas and Electric (WECC)	11:15 AM	Central California Coast	Earthquake	220	109,750	12/22/03, 11:16 AM
12/28/03	Pacific Gas and Electric (WECC)	9:00 PM	Northern California	Winter Storm	160	241,000	1/01/04, 11:30 AM

¹ = Estimated Values.

R = Revised.

^{*} Information as provided by the respondent. The occurrence is, however, associated with the massive blackout of August 14, 2003. For further information, refer to the *Interim Report: Causes of the August 14 Blackout in the United States and Canada, November 2003* at http://www.energy.gov/engine/content.do.
Note: North American Electric Reliability Council region acronyms are defined in the glossary.
Source: Form EIA-417, "Electric Emergency Incident and Disturbance Report."

Table B.2. Major Disturbances and Unusual Occurrences, 2002

Date	Utility/Power Pool (NERC Region)	Time	Area	Type of Disturbance	Loss (megawatts)	Number of Customers Affected	Restoration Time
January							
1/30/02	Oklahoma Gas & Electric (SPP)	6:00 am	Oklahoma	Ice Storm	500	1,881,134	12:00 pm, February 7
1/29/02	Kansas City Power & Light (SPP)	Evening	Metropolitan Kansas City Area	Ice Storm	500-600	270,000	NA
1/30/02	Missouri Public Service (SPP)	4:00 pm	Missouri	Ice Storm	210	95,000	9:00 pm, February 10
February							
2/27/02	San Diego Gas & Electric (WSCC)	10:48 am	California	Interruption of Firm Load	300	255,000	11:35 am, February 27
March							
3/09/02	Consumers Energy Co. (ECAR)	12:00 am	Lower Peninsula of Michigan	Severe Weather	190	190,000	12:00 pm, March 11
April							
4/08/02	Arizona Public Service (WSCC)	3:00 pm	Arizona	Vandalism/ Insulators	0	0	April 9
July	7						
7/09/02	Pacific Gas & Electric (WSCC)	12:27 pm	California	Interruption of Firm Power	240	1 PG&E	7:54 pm, July 9
7/19/02	Pacific Gas & Electric (WSCC)	11:51 am	California	Interruption of Firm Power (Unit Tripped)	240	1 PG&E	4:30 pm, July 19
7/20/02	Consolidated Edison Co. of New York (NPCC)	12:40 pm	New York	Fire	278	63,500	8:12 pm, July 20
August							
8/02/02	Central Illinois Light Co. (MAIN)	12:43 pm	Illinois	Interruption of Firm Power	232	53,565	6:36 pm, August 2
8/09/02	Lake Worth Utils (SERC)	8:23 am	Florida	Interruption of Firm Power	51	25,000	12:13 pm, August 9
8/25/02	Pacific Gas & Elec. (WSCC)	3:41 am	California	Interruption of Firm Power	120	1 PG&E	9:17 am, August 25
8/28/02	Lakeworth Utils (SERC)	2:09 pm	Florida	Severe Weather	67.6	25,000	3:38 pm, August 28
October							
10/03/02	Entergy Corporation (SPP)	3:33 am	Coastal Areas of Southern Louisiana	Hurricane Lily	NA	242,910	9:00 am, October 4
November							
11/06/02	Pacific Gas & Electric Co. (WSCC)	10:00 pm	Northern and Central California	Winter Storm	270	939,000	Noon November 10
11/17/02	Long Island Power Authority (NPPC)	3:48 pm	Northport, NY Norwalk, CT	Cable Tripped	0	0	Unknown
11/17/02	Northeast Utilities (NPCC)	6:00 am	Northwest and North Central Connecticut	Ice Storm	NA	224,912	8:00 am, November 21
December							
12/03/02	Entergy Corporation (SPP)	6:30 pm	Arkansas	Ice Storm	NA	43,000	8:00 am, December 5
12/11/02	Dominion-Virginia Power/North Carolina Power (SERC)	1:09 pm	Northern Virginia to Fredericksburg Staunton to Harrisonburg	Winter Storm	63	130,000	1:45 pm, December 11
12/14/02	Pacific Gas & Electric (WSCC)	11:00 am	Northern and Central California	Winter Storm	180	1.5 million	4:00 pm, December 18
12/19/02	Pacific Gas & Electric (WSCC)	6:00 am	Northern and Central California	Winter Storm	56	385,000	5:00 pm, December 20
12/25/02 12/25/02	PPL Corporation (MAAC) Metropolitan Edison Co./First Energy (MAAC)	5:00 pm 10:00 am	Eastern Pennsylvania Reading, York, Hanover, Hamburg Pennsylvania	Winter Storm Winter Storm	250 NA	106,000 95,630	5:00 am, December 26 8:30 am, December 27

Note: North American Electric Reliability Council region acronyms are defined in the glossary. Source: Form EIA-417, "Electric Emergency Incident and Disturbance Report"

Appendix C

Technical Notes

The Energy Information Administration (EIA) has comprehensively reviewed and revised how it collects, estimates, and reports fuel use for facilities producing electricity. Appendix B provides detail on these changes and describes the reasoning behind the changes and their effects on EIA forms and publications. Following is a description of the ongoing data quality efforts and sources of data for the *Electric Power Monthly*.

Data Quality

The Electric Power Monthly is prepared by the Electric Power Division, Office of Coal, Nuclear, Electric and Alternate Fuels (CNEAF), Energy Information Administration (EIA), U.S. Department of Energy. Quality statistics begin with the collection of the correct data. To assure this, CNEAF performs routine reviews of the data collected and the forms on which it is collected. Additionally, to assure that the data is collected from the correct parties, CNEAF routinely reviews the frames for each data collection.

Automatic, computerized verification of keyed input, review by subject matter specialists, and follow-up with non-respondents 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 non-respondents are identified and contacted.

Reliability of Data

There are two types of errors possible in an estimate based on a sample survey: sampling and nonsampling. 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 nonsampling errors. Monthly sample survey data have both sampling and nonsampling error. The annual series for a monthly sample is not subject to sampling error because it is a census.

Nonsampling 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.

Although no direct measurement of the biases due to nonsampling 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 nonsampling errors are handled in each case.

Data Revision Procedure

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

- 1. Annual survey data collected by CNEAF are published either as preliminary or final when first appearing in a data report. Data initially released as preliminary will be so noted in the report. These data will be revised, if necessary, and declared final in the next publication of the data.
- 2. All monthly and quarterly survey data collected by this office are published as preliminary. These data are typically revised only after the completion of the 12-month cycle of the data. No revisions are made to the published data before this unless major errors are discovered that may affect the national total.
- 3. The magnitudes of changes due to revisions experienced in the past will be included in the data reports, so that the reader can assess the accuracy of the data.
- 4. After data are published as final, corrections will be made only in the event of a difference of one percent or greater at the national level. Corrections for differences that are less than the one percent or greater threshold are left to the discretion of the Office Director.

In accordance with policy statement number 3, above, the mean value (unweighted average) for the absolute values of the 12 monthly revisions of each item are provided at the U.S. level for the past four years (Table C2). For example, the mean of the 12 monthly absolute errors (absolute differences between preliminary and final monthly data) for coal-fired generation in 1999 was 288. That is, on average, the absolute value of the change made each month to coal-fired generation was 288 million kilowatthours.

Data Sources For Electric Power Monthly

Data published in the EPM 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-826, "Monthly Electric Utility Sales and Revenues with State Distributions Report," Form EIA-860, "Annual Electric Generator Report," Form EIA-861, "Annual Electric Power Industry Report," and the Form EIA-906, "Power Plant Report.

In addition to the above-named forms, the historical data published in the EPM are compiled from the following sources: Form EIA-759, "Monthly Power Plant Report," Form EIA-860A, "Annual Electric Generator Report—Utility," Form EIA-860B, "Annual Electric Generator Report—Nonutility," and Form EIA-900, "Monthly Nonutility Power Report." A brief description of each of these forms can be found on the EIA website on the Internet with the following URL:

http://tonto.eia.doe.gov/FTPROOT/electricity/epatech.pdf.

Rounding Rules for Data. Given a number with r digits to the left of the decimal and d+t digits in the fraction part, with d being the place to which the number is to be rounded and t being the remaining digits which will be truncated, this number is rounded to r+d digits by adding 5 to the (r+d+1)th digit when the number is positive or by subtracting 5 when the number is negative. The t digits are then truncated at the (r+d+1)th digit. The symbol for a number rounded to zero is (*).

Percent Difference. The following formula is used to calculate percent differences.

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

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

Form EIA-423

As of January 2002, the EIA began collecting data on the cost and quality of fuel associated with the production of electricity by unregulated generators. Similar to the FERC Form 423, the EIA-423 is used to collect data from approximately 600 unregulated generators that have a fossil-fired generating nameplate capacity of 50 or more megawatts. The cutoff threshold sample includes

independent power producers (including those facilities that formerly reported on the FERC Form 423), commercial, and industrial combined heat and power producers.

Formulas and Methodologies. Data for the Form EIA-423 are collected at the facility level. These data are then used in the following formulas to produce aggregates and averages for each fuel type at the State, Census division, and U.S. levels. For these formulas, receipts and average heat content are at the facility level. For each geographic region, the summation sign, \sum , represents the sum of all facilities in that geographic region.

For coal, units for fuel consumption, fuel stocks and receipts are in tons, units for average heat content (A) are in million Btu per ton.

For petroleum, units for fuel consumption, fuel stocks and receipts are in barrels, units for average heat content (A) are in million Btu per barrel.

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

For fuel receipts (*R*), the following holds true:

Total Btu =
$$\sum_{i} (R_i \times A_i)$$
,

where *i* denotes a facility; R_i = receipts for facility *i*; A_i = average heat content for receipts at facility *i*;

Weighted Average Btu =
$$\frac{\sum_{i} (R_i \times A_i)}{\sum_{i} R_i},$$

where *i* denotes a facility; R_i = receipts for facility *i*; and, A_i = average heat content for receipts at facility *i*.

The weighted average cost in cents per million Btu is calculated using the following formula:

Weighted Average Cost =
$$\frac{\sum_{i} (R_i \times A_i \times C_i)}{\sum_{i} (R_i \times A_i)},$$

where *i* denotes a facility; R_i = receipts for facility *i*; A_i average heat content for receipts at facility *i*; and C_i = cost in cents per million Btu for facility *i*.

The weighted average cost in dollars per unit (i.e., tons, barrels, or Mcf) is calculated using the following formula:

Weighted Average Cost =
$$\frac{\sum_{i} (R_i \times A_i \times C_i)}{10^2 \sum_{i} R_i},$$

where *i* denotes a facility; R_i = receipts for facility *i*; A_i = average heat content for receipts at facility *i*; and, C_i = cost in cents per million Btu for facility *i*.

Confidentiality of the Data. Facility fuel cost data collected on the survey are considered confidential and will not be made available to the public. State and national level aggregations will be published in this report if sufficient data are available to avoid disclosure of individual company and facility level costs.

FERC Form 423

The Federal Energy Regulatory Commission (FERC) Form 423 is a monthly record of delivered-fuel purchases, submitted by approximately 200 respondents for each regulated electric generating plant with a total steam-electric and combined-cycle nameplate capacity of 50 or more megawatts.

On July 7, 1972, the 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 from fossil-steam plants, but was amended in 1974 to include data on internal combustion and combustion turbines. When the FERC Form 423 replaced the FPC Form 423 in January 1983, peaking units were eliminated from the form and the generator nameplate capacity threshold was changed from 25 megawatts to 50 megawatts. This reduction in coverage eliminated approximately 50 utilities and 250 plants. Historical FPC Form 423 data in this publication were revised to reflect the new generator nameplate capacity threshold of 50 or more megawatts. 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.

Formulas and Methodologies. Data for the FERC Form 423 are collected at the plant level. These data are then used in the same formulas shown under the "Formulas and Methodologies" section for the Form EIA-423 to produce aggregates and averages for each fuel type at the State, Census division, and U.S. levels.

Confidentiality of the Data. Data collected on FERC Form 423 are not considered to be confidential.

Form EIA-826

The Form EIA-826 is a monthly collection of data from approximately 450 of the largest electric utilities (primarily investor-owned and publicly owned) as well as a census of energy service providers with retail sales in deregulated States. A model is then applied to the collected data to estimate for the entire universe of U.S. electric utilities.

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. (See previous issues of this publication for details.) The sample for the Form EIA-826 was designed to obtain estimates of electricity sales and revenue per kilowatthour 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 EIA-826 form. Schedule 1, Part A is for full service utilities that operate as in the past. Schedule 1, Part B is for electric service providers

¹ Knaub, J.R., Jr. (1989), "Ratio Estimation and Approximate Optimum Stratification in Electric Power Surveys," <u>Proceedings of the Section on Survey Research Methods</u>, American Statistical Association, pp. 848-853.

² Knaub, J.R., Jr. (1993), "Alternative to the Iterated Reweighted Least Squares Method: Apparent Heteroscedasticity and Linear Regression Model Sampling," <u>Proceedings of the International Conference on Establishment Surveys</u>, American Statistical Association, pp. 520-525.

³ Knaub, J.R., Jr. (1994), "Relative Standard Error for a Ratio of Variables at an Aggregate Level Under Model Sampling," Proceedings of the Section on Survey Research Methods, American Statistical Association, pp. 310-312.

only, and Schedule 1, Part C is for those utilities providing distribution service for those on Schedule 1, Part B. 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.)

Data Processing and Data System Editing. The forms are mailed each year to the electric utilities with State-parts selected in the sample. The completed form is to be returned to the EIA by the last calendar day of the month following the reporting month. Nonrespondents are telephoned to obtain the data. Imputation, in model sampling, is an implicit part of the estimation. That is, data that are unavailable, either because respondents were not part of the sample or because of nonresponse, are estimated using a model. The data are edited and entered into the computer where additional checks are completed. After all forms have been received from the respondents. the final automated edit is submitted. Following verification, tables and text of the aggregated data are produced for inclusion in the EPM.

Formulas and Methodologies. The Form EIA-826 data are collected at the utility level by end-use sector (residential, commercial, industrial, and other) and State. Form EIA-861 data were used as the frame from which the sample was selected and also as regressor data. Updates have been made to the frame to reflect mergers that affect data processing.

Data from the Form EIA-826 are used to determine estimates by sector at the State, Census Division, and national level for the entire corresponding State, Census Division, or national category. State level sales and revenues estimates are calculated. A ratio estimation procedure is used for estimation of revenue per kilowatthour at the State level. The estimates are accumulated separately to produce the Census Division and U.S. level estimates.

Some electric utilities provide service in more than one State. Thus, the State-service area is actually 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 revenue per kilowatthour by end-use sector at State, Census division, and national level. Estimation procedures include imputation to account for nonresponse.

Nonsampling error must also be considered. The nonsampling error is not estimated directly, although attempts are made to minimize the nonsampling error. ^{4 5 6}

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

The electric revenue used to calculate the average revenue per kilowatthour 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 revenue per kilowatthour 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.

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

⁴ Knaub, J.R., Jr. (2000), "Using Prediction-Oriented Software for Survey Estimation - Part II: Ratios of Totals," <u>InterStat</u>, June 2000, http://interstat.stat.vt.edu/InterStat/. (<u>Note shorter, more recent version in ASA Survey Research Methods Section proceedings, 2000</u>.)

⁵ Knaub, J.R., Jr. (1999), "Using Prediction-Oriented Software for Survey Estimation," <u>InterStat</u>, August 1999, http://interstat.stat.vt.edu/InterStat/, partially covered in "Using Prediction-Oriented Software for Model-Based and Small Area Estimation," in ASA Survey Research Methods Section proceedings, 1999, and partially covered in "Using Prediction-Oriented Software for Estimation in the Presence of Nonresponse," presented at the International Conference on Survey Nonresponse, 1999.

⁶ Knaub, J.R., Jr. (2001), "Using Prediction-Oriented Software for Survey Estimation - Part III: Full-Scale Study of Variance and Bias," <u>InterStat</u>, June 2001, http://interstat.stat.vt.edu/InterStat/. (<u>Note shorter, more recent version in ASA Survey Research Methods Section proceedings, 2001.)</u>

The sampling error may be less than the nonsampling error. In fact, large RSE estimates found in preliminary work with these data have often indicated nonsampling errors, which were then identified and corrected. Nonsampling 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 nonsampling errors also occur in complete censuses. In a complete census, this problem may become unmanageable. One indicator of the magnitude of possible nonsampling error may be gleaned by examining the history of revisions to data for a survey (Table C2).

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 sampling error is less than the corresponding RSE. Note that reported RSEs are always estimates, themselves, and are usually, as here, reported as percents. As an example, suppose that a revenue-per-kilowatthour value is estimated to be 5.13 cents per kilowatthour with an estimated RSE of 1.6 percent. This means that, ignoring any nonsampling error, there is approximately a 68-percent chance that the true average revenue per kilowatthour is within approximately 1.6 percent of 5.13 cents per kilowatthour (that is, between 5.05 and 5.21 cents per kilowatthour). There is approximately a 95-percent chance of a true sampling error being 2 RSEs or less.

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

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.

Confidentiality of the Data. Most of the data collected on the Form EIA-826 are not considered confidential. However, revenue, sales, and customer data collected from energy service providers (Schedule 1, Part B), which do not also provide energy delivery, are considered confidential 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

Beginning with data collected for the year 2001, the Forms EIA-860A and EIA-860B are obsolete. The infrastructure data collected on those forms are now collected on the Form EIA-860 and the monthly and annual versions of the Form EIA-906.

The Form EIA-860 is a mandatory 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 5-year plans for constructing new plants, generating unit additions, modifications, and retirements in existing plants. Data on the survey are collected at the generator unit level.

Instrument and Design History. The Form EIA-860 was originally implemented in January 1985 to collect data as of year-end 1984. In January 1999, the Form EIA-860 was renamed the Form EIA-860A and was implemented to collect data as of January 1, 1999.

In 1989, the Form EIA-867 was lowered to include all facilities with a combined 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 -Non-utility." 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. 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.

Beginning with data collected for the year 2001, the infrastructure data collected on the Form EIA-860A and the Form EIA-860B were combined into the new Form EIA-860 and the monthly and annual versions of the Form EIA-906. The Federal Energy Administration Act of 1974

⁷ Knaub, J.R., Jr. (2002), "Practical Methods for Electric Power Survey Data," InterStat, July 2002, http://interstat.stat.vt.edu/InterStat/.

(Public Law 93-275) defines the legislative authority to collect these data.

Data Processing and Data System Editing. The Form EIA-860 is mailed to approximately 3,000 respondents to collect data as of January 1 of the reporting year. Respondents have the option of filing Form EIA-860 directly with the EIA or through an agent, such as the respondent's regional electric reliability council. Data reported through the regional electric reliability councils are submitted to the EIA electronically from the North American Electric Reliability Council (NERC).

Data for each respondent are preprinted. Respondents are instructed to verify all preprinted data and to supply missing data. Computer programs containing edit checks are run to identify errors. Respondents are telephoned to obtain correction or clarification of reported data and to obtain missing data, as a result of the editing process.

Confidentiality of the Data. Most of the data collected on the Form EIA-860 are not considered confidential. However, plant latitudes and longitudes and tested heat rate data are considered confidential 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-861

The Form EIA-861 is a mandatory census of electric power industry participants in the United States. The survey is used to collect information on power production and sales data from approximately 4,900 respondents. About 3,300 are electric utilities, and the remainder are nontraditional entities such as independent power producers, power marketers, and the unregulated subsidiaries of electric utilities. The data collected are used to maintain and update the EIA's electric power industry participant frame database.

Instrument and Design History. The Form EIA-861 was implemented in January 1985 for collection of data as of year-end 1984. The Federal 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 mailed 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 Forms EIA-826 and the EIA-412, "Annual Electric Industry Financial Report." 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 publication are for the United States only.

Average revenue per kilowatthour represents the cost per unit of electricity sold and is calculated by dividing retail electric revenue by the corresponding sales of electricity. The average revenue per kilowatthour is calculated for all consumers and for each end-use sector. A ratio estimation procedure is used for estimation of revenue per kilowatthour at the State level.

The electric revenue used to calculate the average revenue per kilowatthour 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 taxes other than income taxes paid by the utility.

The average revenue per kilowatthour 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 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.

Confidentiality of the Data. Data collected on the Form EIA-861 are not considered to be confidential.

Form EIA-906

As of January 2001, Form EIA-906 superseded Forms EIA-759 and 900. The Form EIA-906 is used to collect monthly plant-level data on generation, fuel consumption, stocks, fuel heat content, and useful thermal output from electric utilities and nonutilities from a model-based sample of approximately 260 electric utilities and 900 nonutilities. Fuel consumption for combined heat and power facilities is apportioned between fuel for generation

of electricity and fuel for production of useful thermal output, by assuming they are additive. Fuel usage for these facilities is assumed to have an efficiency of 80 percent. The consumption for useful thermal output is obtained by dividing the reported or estimated value for useful thermal output by 0.8. This value is then subtracted from total fuel consumption by facility to arrive at the fuel consumption to be associated with the generation of electricity. Consumption values that are imputed, either because observed data failed edit, or because data were not collected (not part of a sample) are not imputed by regression directly. Historical ratios for generation to consumption are applied to the imputed generation numbers to arrive at the consumption values to be used. The form is also used to collect these statistics from the rest of the frame on an annual basis.

Instrument and Design History. In January 2001, Form EIA-906 superseded Forms EIA-759 and EIA-900. The Federal Administration Act of 1974 (Public Law 93-275) defines the legislative authority to collect these data.

Relating to the Form EIA-759, 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 define 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 useful thermal output data.

Data Processing and Data System Editing. In 2001 and 2002 the Form EIA-906 was received by the EIA as a hard copy, typically via fax, and manually entered into a computerized database. Anomalous data were identified via range checks, comparisons with historical data, and consistency checks (for example, whether the fuel consumption and generation numbers for a given facility and month are consistent).

The review of the Form EIA-906 filings for non-regulated facilities in 2001 uncovered widespread problems with the data reporting. The most prevalent problems were reported fuel consumption inconsistent with generation and, most significantly, incorrect reporting of useful

thermal output (UTO) by combined heat and power (CHP) facilities.

UTO is the thermal output from a CHP facility applied to a production process other than electricity generation. Many facilities either misunderstood EIA's definition or did not meter internally such that they could easily estimate CHP. This was an important problem in the data collection effort because within the Form EIA-906 schema for CHP facilities, the intent is to calculate fuel used for electricity as the residual after subtracting UTO (adjusted assuming an 80 percent efficiency factor) from total heat (fuel) input to the plant. If UTO is reported incorrectly, then the reported data cannot be used to estimate fuel for electricity.

EIA's preferred means of resolving any questionable response is via direct communication with the respondent, usually via phone or e-mail. In cases where the reported data appeared to be incorrect or was missing, and EIA was unable to resolve the matter with the respondent, the following estimation approaches were used for the 2001 data:

- In cases where electric generation appeared reasonable but fuel consumption was inconsistent with generation, fuel consumption by prime mover was estimated using 2000 heat rates and the assumption that the fuel shares for that prime mover in 2001 were the same as in 2000.
- If the reported electric generation data appeared to be in error, or if the facility was a nonrespondent, a regression methodology was used to estimate generation and fuel consumption for the facility. The regression methodology relied on 2000 and 2001 data for other facilities to make estimates for erroneous or missing responses. The basic technique employed is described in the paper Model-Based Sampling and Inference, found on the EIA web site http://www.eia.doe.gov/cneaf/electricity/page/for ms.html.
- UTO was estimated by applying the power to steam ratio calculated for the facility in 2000 to 2001.

Overall, of the approximately 2600 facilities in the Form EIA-906 frame for 2001, some estimation was performed for 803 facilities. These facilities account for approximately 4% of the generation in the frame and about 20% of the fuel consumption.

Relative Standard Error. The relative standard error (RSE) statistic, usually given as a percent, describes the magnitude of sampling error that might reasonably be incurred. The RSE is the square root of the estimated variance, divided by the variable of interest. The variable

of interest may be the ratio of two variables, or a single variable. (See footnotes number 4, 5, and 6.)

The sampling error may be less than the nonsampling error. In fact, large RSE estimates found in preliminary work with these data have often indicated nonsampling errors, which were then identified and corrected. (See footnote number 7.) Nonsampling 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 nonsampling errors also occur in complete censuses. In a complete census, this problem may become unmanageable.

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 sampling error is less than the corresponding RSE. Note that reported RSEs are always estimates, themselves, and are usually, as here, reported as percents. As an example, suppose that a net generation from coal value is estimated to be 1,507 million kilowatthours with an estimated RSE of 4.9 percent. This means that, ignoring any nonsampling 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). There is approximately a 95-percent chance of a true sampling error being 2 RSEs or less.

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

Finalization of the Monthly Data and Annual Totals.

The EIA-906 data is finalized once data has been collected from the annual respondents who are not part of the monthly sample. The data from annual responses that pass edit checks are proportioned to the monthly (by state, fuel and sector) using the ratio of the monthly data actually collected to the sum of that monthly data. In the case of annual facilities which are non-respondents, or whose data fails edit checks and have data problems that cannot be resolved, generation and consumption is imputed monthly. The sum of the revised monthly data are the final annual totals for each state, fuel and sector combination.

Average Heat Content. The average heat content values collected on the Form EIA-906 were used to convert the consumption data into Btu. Therefore, the results may not be completely representative.

Confidentiality of the Data. Most of the data collected on the Form EIA-906 are not considered confidential. However, the reported fuel stocks at the end of the reporting period are considered confidential 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)).

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). Coke from petroleum has a heating value of 6.024 million Btus.

Business Classification

The nonutility industry consists of all manufacturing, agricultural, forestry, transportation, finance, service and administrative industries, based on the Office of Management and Budget's Standard Industrial Classification (SIC) Manual.17 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

115 Agricultural services

114 Fishing, hunting, and trapping

113 Forestry

Mining

2122 Metal mining

2121 Coal mining

211 Oil and gas extraction

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

321 Lumber and wood products, except furniture

337 Furniture and fixtures

322 Paper and allied products (other than 322122 or 32213)

322122 Paper mills, except building paper

32213 Paperboard mills

323 Printing and publishing

325 Chemicals and allied products (other than

325188, 325211, 32512, or 325311)

325188 Industrial Inorganic Chemicals

325211 Plastics materials and resins

32512 Industrial organic chemicals

325311 Nitrogenous fertilizers

324 Petroleum refining and related industries (other than

32411)

32411 Petroleum refining

326 Rubber and miscellaneous plastic products

316 Leather and leather 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

335 Electronic and other electrical equipment and

components except computer equipment

336 Transportation equipment

3345 Measuring, analyzing, and controlling instruments, photographic, medical, and optical goods, watches and

clocks

339 Miscellaneous manufacturing industries

Transportation and Public Utilities

482 Railroad transportation

485 Local and suburban transit and interurban highway passenger transport

484 Motor freight transportation and warehousing

491 United States Postal Service

483 Water transportation

481 Transportation by air

486 Pipelines, except natural gas

487 Transportation services

513 Communications

22 Electric, gas, and sanitary services

2212 Natural gas transmission

2213 Water supply

22132 Sewerage systems

562212 Refuse systems

22131 Irrigation systems

Wholesale Trade

421 to 422

Retail Trade

441 to 454

Finance, Insurance, and Real Estate

521 to 533

Services

721 Hotels

812 Personal services

514 Business services

8111 Automotive repair, services, and parking

811 Miscellaneous repair services

512 Motion pictures

713 Amusement and recreation services

622 Health services

541 Legal services

611 Education services

624 Social services

712 Museums, art galleries, and botanical and zoological

gardens

813 Membership organizations

561 Engineering, accounting, research, management, and

related services

814 Private households

514199 Miscellaneous services **92 Public Administration**

Table C1. Average Heat Content of Fossil-Fuel Receipts, November 2003

Census Division and State	Coal (Million Btu per Ton) ¹	Petroleum (Million Btu per Barrel) ² Natural Gas (Millio Thousand Cubic		
New England	24.87	6.36	1.03	
Connecticut	24.49	6.24	1.01	
Maine	26.39	6.37	1.04	
Massachusetts	24.48	6.33	1.03	
			1.03	
New Hampshire	26.20	6.47		
Rhode Island			1.03	
Vermont				
Middle Atlantic	24.39	6.25	1.03	
New Jersey	25.88	6.17	1.04	
New York	24.62	6.30	1.02	
	24.20	5.56	1.04	
Pennsylvania				
ast North Central	20.07	5.94	1.01	
Illinois	18.02	6.55	1.01	
Indiana	21.06	5.62	1.01	
Michigan	19.93	5.74	1.01	
Ohio	24.66	5.81	1.03	
	17.86	5.62	1.01	
Wisconsin				
Vest North Central	16.67	6.15	1.01	
Iowa	17.26	5.87	1.00	
Kansas	17.31	6.59	1.01	
Minnesota	17.72	5.88	1.01	
Missouri	17.69	5.76	1.01	
Nebraska	17.25			
		5.80	1.00	
North Dakota	13.07	5.85		
South Dakota	17.02			
outh Atlantic	24.48	6.11	1.00	
Delaware	25.64	6.21	1.04	
District of Columbia				
Florida	24.54	6.11	1.00	
Georgia	23.33	5.78	1.02	
Maryland	25.32	6.27	1.06	
North Carolina	24.71	5.47	1.04	
South Carolina	25.26	6.29	1.04	
Virginia	25.51	6.28	1.04	
West Virginia	24.21	5.89	1.02	
East South Central	22.54	5.93	1.04	
Alabama	23.79	5.83	1.04	
Kentucky	22.78	5.55	1.01	
Mississippi	17.89	6.57	1.03	
	22.87	5.88	1.03	
Tennessee				
Vest South Central	15.77	5.87	1.03	
Arkansas	17.49	5.90	1.02	
Louisiana	16.46	5.91	1.03	
Oklahoma	17.70		1.03	
Texas	14.86	5.82	1.03	
Iountain				
	19.30	5.73	1.02	
Arizona	20.48		1.01	
Colorado	19.61	5.14	1.01	
Idaho			1.02	
Montana	16.95	5.49	1.06	
Nevada	21.63		1.04	
New Mexico	19.42	5.71	.99	
** 1			.99	
Utah	21.39	5.88		
Wyoming	17.62	5.89	1.04	
acific Contiguous	17.26	5.89	1.02	
California	24.11	5.78	1.02	
Oregon	16.95	5.76	1.02	
Washington	15.60	6.29	1.03	
acific Noncontiguous	22.41	5.89	1.00	
Alaska			1.00	
Hawaii	22.41	5.89		
.S. Total	20.08	6.13	1.02	

¹ Data represents weighted values. Lignite, bituminous coal, subbituminous coal, anthracite, waste coal and synthetic coal..

oil.

Notes: *See Glossary for definitions.*Data for 2003 are preliminary.

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

² Includes distillate fuel oil, residual fuel oil, jet fuel, kerosene, and petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste

Table C2. Comparison of Preliminary Versus Final Published Data at the U.S. Level, 1995 Through 1999

14	Mean Absolute Value of Change				
Item	1995	1996	1997	1998	1999
nutility					
Generation (million kilowatthours)					
Coal	NA	NA	NA	NA	2,272
Petroleum	NA	NA	NA	NA	1,205
	NA NA	NA NA	NA NA	NA NA	811
Gas					
Hydroelectric	NA	NA	NA	NA	936
Nuclear	NA	NA	NA	NA	28
Other ¹	NA	NA	NA	NA	504
Total	NA	NA	NA	NA	4,559
Consumption					
Coal (thousand short tons)	NA	NA	NA	NA	1,767
Petroleum (thousand barrels)	NA	NA	NA	NA	2,694
Gas (million cubic feet)	NA	NA	NA	NA	17,168
Stocks ¹	11/1	11/1	11/1	11/1	17,100
	NIA	N. A	NT A	NT A	217
Coal (thousand short tons)	NA	NA	NA	NA	316
Petroleum (thousand barrels)	NA	NA	NA	NA	40
tility					
Generation (million kilowatthours)					
Coal	49	162	201	201	288
Petroleum	6	64	53	39	103
Gas	38	84	168	102	147
Hydroelectric	6	298	325	322	354
	0	4	65	0	0
Nuclear					
Other	0	0	0	0	0
Total	11	462	285	504	695
Consumption					
Coal (thousand short tons)	27	105	169	114	147
Petroleum (thousand barrels)	1	94	43	76	228
Gas (million cubic feet)	300	899	1,243	1,084	1,668
Stocks1			, -	,	,
Coal (thousand short tons)	310	233	501	229	118
,	239	201	130	98	165
Petroleum (thousand barrels)	239	201	130	98	103
Retail Sales (million kilowatthours)		2.45			
Residential	79	345	350	626	454
Commercial	780	476	1,265	175	2,233
Industrial	141	1,129	257	771	654
Other ²	167	267	363	33	553
Total	694	1,153	1,724	1,466	3,894
Revenue (million dollars)		-,	-,	-,.00	2,071
Residential	17	2	3	42	27
Commercial	51	29	60	17	214
Industrial	23	46	32	30	34
Other ²	5	1	31	2	3
Total	22	46	62	79	277
Average Revenue per Kilowatthour (cents) ³					
Residential	.01	.03	.03	.02	.01
Commercial	.01	.01	.05	.01	.06
Industrial	.03	.01	.02	.01	.01
Other ³	.20	.22	.07	.02	.39
Total	.01	.01	.02	.01	.03
Receipts			_	_	
Coal (thousand short tons)	34	61	71	84	148
Petroleum (thousand barrels)	2	77	28	20	89
Gas (million cubic feet)	227	566	122	365	157
Cost (cents per million Btu) ³	•				
	10	06	16	23	22
CoalPetroleum	.10 .01	.06 .01	.16	.23	.22 .01

Stocks are end of month values.

Includes public street and highway lighting, other sales to public authorities, sales to railroads and railways, and interdepartmental sales.

Data represents weighted values.

^{* =} For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less that 0.05 percent.

NA = Not Available.

Notes: • Change refers to the difference between estimates or preliminary monthly data published in the *Electric Power Monthly* (EPM) and the final monthly data published in the EPM. • Mean absolute value of change is the unweighted average of the absolute changes.

Sources: • Energy Information Administration: Form EIA-900, "Monthly Nonutility Power Plant Report;" Form EIA-759, "Monthly Power Plant Report," Form EIA-826,

[&]quot;Monthly Electric Utility Sales and Revenue Report with State Distributions;" and Form EIA-861, "Annual Electric Utility Report."

Table C3. Comparison of Sample Versus Census Published Data at the U.S. Level, 1998 and 1999

	1998			1999		
Item	Sample	Census	Difference (percent)	Sample	Census	Difference (percent)
Utility						
Generation (million kilowatthours)						
Coal	1.808.070	1,807,480	*	1,773,499	1.767.679	-0.3
Petroleum	105.743	105,440	-0.3	85,737	82,981	-3.3
Gas	308,858	309,222	0.1	297,346	296,381	-0.3
Other ¹	990,948	990.029	-0.1	1,026,354	1,026,632	*
Total	3,213,620	3,212,171	*	3,182,936	3,173,674	-0.3
Consumption	-,,	-,,		-,,	-,,	
Coal (1,000 short tons)	912.060	910.867	-0.1	896.616	894.120	-0.3
Petroleum (1,000 barrels)	179,401	178,614	-0.4	148,868	143,830	-3.5
Gas (1,000 Mcf)	326,268	3,258,054	-0.1	3,125,417	3,113,419	-0.4
Stocks ²	,	-,,		-, -, -	-, -, -	
Coal (1,000 short tons)	121.384	120.501	-0.7	128.929	129.041	0.1
Petroleum (1,000 barrels)	53,893	53,790	-0.2	45,191	44,312	-2.0
Retail Sales (million kilowatthours)	,	,		-,-	,-	
Residential	1,131,520	1,127,735	-0.3	1,139,481	1,140,761	0.1
Commercial	950.476	968,528	1.9	975.196	970.601	-0.5
Industrial	1,055,459	1,040,038	-1.5	1,050,363	1,017,783	-3.2
Other ³	100,260	103,518	3.1	100,316	106,754	6.0
All Sectors	3,237,715	3,239,818	0.1	3,265,356	3,235,899	-0.9
Revenue (million dollars)	, ,	, ,				
Residential	93,511	93,164	-0.4	93,148	93,142	*
Commercial	70,630	71,769	1.6	70,190	70,492	0.4
Industrial	47,391	46,550	-1.8	46,442	45,056	-3.1
Other ³	6,814	6,863	0.7	6,763	6,783	0.3
All Sectors	218,346	218,346	*	216,544	215,473	-0.5
Average Revenue per Kilowatthour (cents)4						
Residential	8.26	8.26	*	8.17	8.16	-0.1
Commercial	7.43	7.41	-0.3	7.20	7.26	0.8
Industrial	4.49	4.48	-0.3	4.42	4.43	0.1
Other ³	6.80	6.63	-2.5	6.74	6.35	-6.1
All Sectors	6.74	6.74	-0.1	6.63	6.66	0.4

¹ Includes geothermal, wood, waste, wind, and solar.

Sources: Energy Information Administration, Form EIA-900, "Monthly Nonutility Power Report;" Form EIA-867, "Annual Nonutility Power Producer Report;" Form EIA-759, "Monthly Power Plant Report;" Form EIA-861, "Annual Electric Utility Report;" and Form EIA-826, "Monthly Electric Utility Sales and Revenue Report with State Distributions"

Stocks are end-of-month values.

Includes public street and highway lighting, other sales to public authorities, sales to railroads and railways, and interdepartmental sales.

Data represent weighted values.

^{* =} For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute values is less than 0.05 percent. NA = Not Available.

Notes: • The average revenue per kilowatthour is calculated by dividing revenue by sales. • Totals may not equal sum of components because of independent rounding. • Percent difference is calculated before rounding.

Sources: Energy Information Administration, Form EIA-900, "Monthly Nonutility Power Report;" Form EIA-867, "Annual Nonutility Power Producer Report;" Form EIA-867, "Annual Nonutility Power Report;" Form

Table C4. Unit-of-Measure Equivalents for Electricity

Table C4. Cinc-of-reasure Equivalents for Electricity					
Unit	Equivalent				
Kilowatt (kW)	. 1,000 (One Thousand) Watts . 1,000,000 (One Million) Watts . 1,000,000,000 (One Billion) Watts . 1,000,000,000,000 (One Trillion) Watts				
Gigawatt	.1,000,000 (One Million) Kilowatts .1,000,000,000 (One Billion) Kilowatts				
Kilowatthours (kWh) Megawatthours (MWh) Gigawatthours (GWh) Terawatthours (TWh)	.1,000 (One Thousand) Watthours .1,000,000 (One Million) Watthours .1,000,000,000 (One Billion) Watthours .1,000,000,000,000 (One Trillion) Watthours				
Gigawatthours					

Source: Energy Information Administration.

Appendix D

Estimating and Presenting Power Sector Fuel Use

I. Background

The Energy Information Administration (EIA) has comprehensively reviewed and revised how it collects, estimates, and reports fuel use for facilities producing electricity. The review addressed inconsistent reporting of the fuels used for electric power and changes in the electric power marketplace that have been inconsistently represented in various EIA survey forms and publications. For example:

- In some cases fuel use by combined-heat-and-power (CHP) plants¹ has been reported as industrial sector fuel use, while in other cases it has been reported as electric power sector fuel use.
- Electricity generation and fuel consumption have been categorized and reported in several different ways, such as (1) utility only; (2) utility and independent power producers; or (3) utility, independent power producers, and CHP plants. The restructuring of the power industry is making some of these categories less meaningful.

The goal of EIA's comprehensive review was to improve the quality and consistency of its electric power data throughout all data and analysis products. Because power facilities operate in all sectors of the economy (e.g., in commercial buildings, such as hospitals and college campuses, and industrial facilities, such as paper mills and refineries) and use many fuels, any change to electric power data affects data series in nearly all fuel areas and causes changes in a wide variety of EIA publications.

As a result of the comprehensive review, EIA has made the following changes:

- EIA has adjusted all presentations of data on electric power to a consistent format and defined the electric power sector to include electricity-only plants and CHP plants whose primary business is to sell electricity, or electricity and heat, to the public.
- EIA is providing details within the electric power sector, commercial sector, and industrial sector on fuel used by CHP plants in those sectors.
- EIA has changed the sources of data on fuel used by components of the electric power sector. All tabulations and publications will use data obtained from EIA's surveys of electric power generators. This change in data source contributes to changes in total fuel consumption of natural gas.
- EIA has revised its historical data on electric power to resolve data anomalies. The revisions contribute to changes in EIA's electricity series as well as the fuel-use series.

Appendix D describes the reasoning behind the changes and their effect on electric power publications. It is organized as follows:

- Section II provides an overview of the key changes.
- Section III provides specific information for electric power publications.

The Annual Energy Review (AER) 2001, the first of the annual publications to be released with the new formats, provides details on changes for publications on coal, natural gas, petroleum, renewable energy, and greenhouse gas emissions.

II. Overview of Key Changes

The many changes that will occur because of the fuel review generally fall into three broad categories: (1) the categorization of electric power facilities, (2) the reporting of combined-heat-and-power plant fuel use, and (3) data series revisions resulting from revised electric power fuel use estimates. Each of these areas is discussed below.

Categorization of Electric Power Facilities

Until the 1990s, most electric power generation and fuel use data could be meaningfully categorized into electric utilities and nonutility power producers.² Electric utilities were generally structured as vertically integrated³ power companies that were responsible for generating, transmitting, and distributing power to consumers within their franchised service territory.

¹ Combined-heat-and-power plants (CHPs) produce both electricity and useful thermal output. EIA formerly referred to these plants as cogenerators, but has determined that CHP better describes the facilities because some of the plants included in EIA's data 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).

² For an example of this, see *Electric Power Annual 1998, Volume II*, DOE/EIA-0348(98)/2, December 1999.

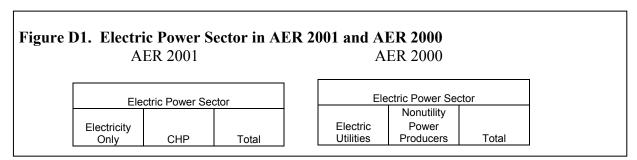
³ In this context "integrated" means that the company is involved in the three main sectors of the electric power business—generation, transmission, and distribution.

Nonutility power producers were generally independent generators—mostly combined-heat-and-power plants—that produced some power for their own use and sold the remainder to utilities for distribution to consumers. However, in recent years, many formerly integrated utilities have split apart, spinning off the generating part of their business into separate companies. Independent developers have built most of the new generating capacity that has been installed in recent years. As a result, the distinction between utility and nonutility power plants has become much less meaningful. In fact, a large portion of the growth in nonutility generation in recent years is due to the reclassification of utility power plants as nonutility power plants.

To reflect the changing industry structure, EIA is now organizing electric power generation and fuel use data into two new categories: electricity-only and combined-heat-and-power (CHP) plants. These categories separate power plants by function; i.e., power only or power plus thermal, rather than by ownership class.

Electricity-only plants represent all plants, whether owned by utilities or nonutilities that produce only electricity. CHP plants represent entities that produce both electricity and some form of thermal energy. Both categories will have some facilities that are owned by traditional utilities and independent companies.

In addition, EIA is now presenting data for an electric power sector that includes electricity-only plants and CHP plants whose primary business is to sell electricity, or electricity and heat, to the public (North American Industry Classification System code 22). This contrasts with some previous data presentations in which the electric power sector included non-NAICS code 22 industrial and commercial CHP plants. Figure D1 provides an example from the Annual Energy Review (AER).



In some tables and publications, the electric power sector will continue to be broken down into electric utilities and independent power producers for customers who have expressed an interest in this breakout. For example, Table 8.1 of AER 2001 presents an electricity overview and shows data on net generation for electric utilities and independent power producers separately. It is the only table in AER 2001 that has this break-out (Figure D2).

Figure D2. Electric Utilities and Independent Power Producers are shown separately in Electricity Overview

Table 8.1 Electricity Overview, 1949-2001

(Billion Kilowatthours)

	Electric Power Sector 1			Commercial	Industrial	
Year	Electric Utilities	Independent Power Producers	Total	Sector ²	Sector ³	Total

The electric power sector (electric utilities and independent power producers) comprises 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., NAICS 22 plants. Due to the restructuring of the electric power sector, the sale of generation assets is resulting in a reclassification of plants from electric utilities to independent power producers.

Commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See Appendix G for commercial sector NAICS codes.
Industrial combined-heat-and-power (CHP) and industrial electricity-only plants. Through 1988, includes industrial hydroelectric power only. See Appendix G for industrial sector NAICS codes.

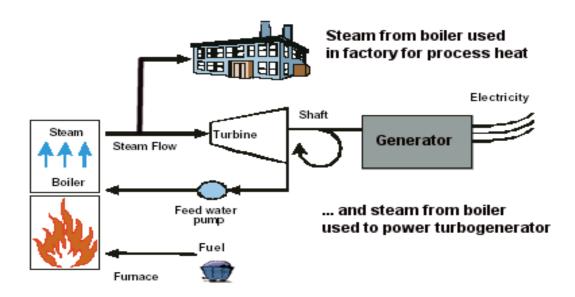
Reporting of CHP Facility Fuel Use

Historically, fuel consumption in CHP plants has been combined with other uses in many EIA publications. For example, in some tables the use of natural gas in commercial and industrial CHP plants was included with other commercial and industrial uses. Further, some of the fuel consumption (the portion associated with electricity production) at these same facilities was also reported under the column labeled "Nonutility Power Producers." Based on questions received, it became clear that this categorization led to confusion for many EIA customers.

EIA is now distinguishing within the industrial, commercial, and electric power sectors what portion of fuel consumption is used in CHP facilities and non-CHP facilities. For example:

- In tabulations of energy use by economic sector, if a commercial or industrial facility has a CHP unit, the total fuel consumption for that unit will be reported under commercial or industrial, but it will be identified separately from other commercial or industrial consumption. CHP plants that report their primary business is generating and selling power to others will be reported in a separate column in the electric power sector.
- In tabulations of energy use to produce electric power, the total fuel consumption reported by CHP plants will be further separated into that which is used to produce electricity and that which is used to produce thermal energy. Figure D3 shows a schematic for combined heat and power producers.

Figure D3. Schematic for Combined Heat and Power Plant



The separation between electricity and thermal uses is being done because many EIA data users have expressed interest in knowing how much fuel is used to produce electricity in the United States.

Data Series Revisions Resulting From Changes in Electric Power Fuel Use Estimates

The revisions to electric power data affect many areas. For example, to estimate natural gas use EIA has historically surveyed natural gas pipeline-companies and local gas utilities to obtain data on natural gas used by residential, commercial, industrial, and electric utility, and nonutility generators.5 However, EIA also surveyed electric utilities on their natural gas use. These data obtained directly from the end user were generally thought to be more accurate than the data obtained from natural gas suppliers. As a result, total natural gas use was estimated by adding together the data from natural gas companies on residential, commercial, industrial, and nonutility power producer use to the amount reported directly by electric utilities. The data collected for nonutility power producers were included with industrial use in previous EIA natural gas publications.

With the changing structure of the electricity sector, this reporting approach no longer appears reasonable. EIA has decided to follow the procedure described for electric utilities and use data obtained from its direct surveys of nonutility electric generators rather than the natural gas supplier surveys.6

Data changes are also occurring because of the extensive review of reported data that was undertaken in this process. Since it was decided that data reported directly by utilities and nonutility power generators would be the primary source of fuel consumption data for the power sector, an examination of heat rates, 7 capacity factors, 8 and power-to-steam ratios across 12 years of reported data was conducted. As a result, data for nonutility power producers for 1989 through 2000 have been

⁴ For the method used to separate the fuel used at CHP plants between electricity and useful thermal energy production, see Section III.

⁵ Energy Information Administration, Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition."

⁶ Energy Information Administration, Form EIA-759, "Monthly Power Plant Report" for electric utilities and Forms EIA-867 and EIA-860B, "Annual Electric Generator Report-Nonutility" for nonutilities. Starting with 2001, data for both utilities and nonutilities are collected on a new survey, Form EIA-906, "Power Plant Report."

Heat rates are computed by dividing the heat content of the fuel burned to generate electricity by the resulting net kilowatthour generation.

⁸ Capacity factors are the ratio of the electrical energy produced by a generating unit for the period of time considered to the electrical energy that could have been produced at continuous full power operation during the same period.

revised. The data review procedure is described in Section III under the heading "Efforts to Improve Data." As a result of the review by expert EIA analysts, anomalous values have been investigated and resolved and the result is higher quality data at aggregated levels.

Revisions resulting from changing the source of fuel consumption data for nonutilities and from EIA's data review affect data beyond the category of nonutilities. Appendix H of AER 2001 provides examples.

III. Electric Power Surveys and Publications

Summary of Key Changes

EIA previously presented data on electric power, such as generation and fuel consumption, in the following categories:

- Electric utilities,
- Nonutility power producers (independent power producers and combined-heat-and power plants),
- Electric power industry (sum of electric utilities and nonutility power producers).

Now EIA is organizing data using the following new categories:

- Electricity-only plants,
- Combined-heat-and-power (CHP) plants.

Data on electricity-only plants are disaggregated for utilities and independent power producers, as there are customers who are interested in maintaining this distinction. Data on CHP plants are disaggregated by the end-use category (commercial, industrial, electric power) they report as their major line of business. The categorization is based on their North American Industrial Classification System code. For example, a CHP plant that is part of a hospital will be classified as "commercial." Similarly, a CHP plant that reports that it is part of a paper mill will be classified as "industrial," and a CHP plant that reports that its primary business is selling power to others will be classified as "electric power." In addition, EIA is defining the electric power sector to include electricity-only plants and CHP plants whose primary business is to sell electricity, or electricity and heat, to the public.

EIA is presenting data for the following categories:

- Electric Power Sector,
- Commercial and industrial CHP plants,
- Total (sum of Electric Power Sector plus commercial and industrial CHP plants and equal to the prior "electric power industry" category).

Another change is that, EIA has estimated and is presenting data on the amount of fuel used to generate electricity and the amount of fuel used for useful thermal output. Furthermore, during the course of recategorizing the data, EIA performed a thorough data quality review and revised data to resolve anomalies.

Efforts to Improve Data

EIA reviewed electric power data from 1989 through 2001 to determine whether there were anomalies. The 1989–2000 data for nonutilities were from Form EIA-860B, "Annual Electric Generator Report-Nonutility," and its predecessor, Form EIA-867, "Annual Nonutility Power Producer Report." The 2001 data are from Form EIA-906, "Power Plant Report." These forms collect data on fuel consumption, generation, and, with the exception of 1995 through 1997, useful thermal output. When anomalies were identified in the data for the more recent years (1998–2001), EIA contacted selected respondents to resolve the inconsistencies. For the older data it was not practical to contact respondents. In this situation EIA made data adjustments to resolve the anomalies.

The review included an examination of both respondent-level data and aggregate-level data. EIA reviewed data for facilities with heat rates greater than 40,000 Btu per kilowatthour and less than 5,000 Btu per kilowatthour. The upper limit was chosen to allow for the heat rates of older non-electricity boilers. In addition, EIA reviewed data for facilities with overall efficiency of greater than 100 percent and identified facilities with thermal output that were not designated as CHP plants. To ensure consistency, EIA compared North American Industry Classification System (NAICS) codes, cogenerator status, fuel consumption, electric generation, and thermal output levels over time.

EIA analysts reviewed and evaluated aggregate-level data by State, NAICS code, fuel type, and generator type. For the historical data (1989–1997), EIA also:

- Estimated a value for useful thermal output for 1995 through 1997 (when useful thermal output was not included on the survey form) that produced a heat rate and an efficiency consistent with that observed in other years (see discussion below on CHP fuel use methodology).
- Corrected errors in units reported for fuel consumption.
- Compared data on fuel consumption with data on electric generation and adjusted data on fuel consumption or generation to maintain a consistent ratio.
- Adjusted data on useful thermal output for those respondents with heat rates outside the 5,000-to-40,000 Btu per kilowatthour range and an efficiency consistent with other years.

For the 1998-2000 data, the review also included a comparison for consistency with data reported by manufacturing plants on Form EIA-3, "Quarterly Coal Consumption—Manufacturing Plants," since a subset of the EIA-3 manufacturing plants generate electricity and also reported on the electric generator survey Form EIA-860B. In general, there was good correspondence between the data submissions. In situations where there were inconsistencies, selected respondents were contacted to explain the differences.

Allocating CHP Fuel Use

EIA developed the following method for estimating how the total fuel consumed in the boiler is split between electricity generation and useful thermal output:

- First, a steam boiler efficiency rate of 80 percent was assumed.⁹
- Then the reported or estimated value for useful thermal output (in Btu) was divided by 0.8 to estimate the fuel used to generate this amount of thermal output.
- Next, this value was subtracted from total fuel consumption and the remainder was assumed to be the amount used for electric generation.

Electric Power Publication Tables Affected

In both the *Electric Power Monthly* and the *Monthly Energy Review*:

- Data will be shown for the following categories throughout most of the report: (1) all U.S. power producers, (2) electric power sector, and (3) commercial and industrial CHP plants. Data on fuel consumption are shown for both electric generation and thermal output.
- The lowest level of aggregation is at the State level.
- Data on petroleum coke are converted to barrels and included in petroleum consumption and stocks tables.
- Fuel types are revised to be consistent with the *Annual Energy Review*.

⁹ Arthur D. Little, Report to the Energy Information Administration, *Industrial Model: Update on Energy Use and Industrial Characteristics*, (September 2001), Appendix C, "Average Boiler Efficiencies."

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 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;
- 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.

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 abovementioned 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.
- 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 retail 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 a retail or end-use customer.

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: Retail sales services for which the company provided only the energy consumed, where another entity provides delivery services.

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

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

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

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

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

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

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

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

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

Geothermal: Pertaining to heat within the Earth.

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

Gigawatt (GW): One billion watts.

Gigawatthour (GWh): One billion watthours.

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

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

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

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

auxiliaries and the losses in the transformers that are considered integral parts of the station are deducted.

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

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

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

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

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

- 1) Wet Natural Gas: A mixture of hydrocarbon compounds and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in porous rock formations at reservoir conditions. The principal hydrocarbons normally contained in the mixture are methane, ethane, propane, butane, and pentane. Typical nonhydrocarbon gases that may be present in reservoir natural gas are water vapor, carbon dioxide, hydrogen sulfide, nitrogen and trace amounts of helium. Under reservoir conditions, natural gas and its associated liquefiable portions occur either in a single gaseous phase in the reservoir or in solution with crude oil and are not distinguishable at the time as separate substances. Note: The Securities and Exchange Commission and the Financial Accounting Standards Board refer to this product as natural gas.
 - Associated-dissolved natural gas: Natural gas that occurs in crude oil reservoirs either as free gas (associated) or as gas in solution with crude oil (dissolved gas).
 - Nonassociated natural gas: Natural gas that is not in contact with significant quantities of crude oil in the reservoir.
- 2) Dry Natural Gas: Natural gas which remains after: 1) the liquefiable hydrocarbon portion has been removed from the gas stream (i.e., gas after lease, field, and/or plant separation); and 2) any volumes of nonhydrocarbon gases have been removed where they occur in sufficient quantity to render the gas unmarketable. Note: Dry natural gas is also known as consumer-grade natural gas. The parameters for measurement are cubic feet at 60 degrees Fahrenheit and 14.73 pounds per square inch absolute.

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

Net Summer Capacity: The maximum output, commonly expressed in megawatts (MW), that generating equipment can supply to system load, as demonstrated by a multi-hour test, at the time of

summer peak demand (period of May 1 through October 31). This output reflects a reduction in capacity due to electricity use for station service or auxiliaries.

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

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

- ECAR East Central Area Reliability Coordination Agreement
- 2) ERCOT Electric Reliability Council of Texas
- 3) FRCC Florida Reliability Coordinating Council
- 4) MAIN Mid-America Interconnected Network
- 5) MAAC Mid-Atlantic Area Council
- 6) MAPP Mid-Continent Area Power Pool
- 7) NPCC Northeast Power Coordinating Council
- 8) SERC Southeastern Electric Reliability Council
- 9) SPP Southwest Power Pool
- 10) WSCC Western Systems Coordinating Council

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 asreceived basis (i.e., containing both inherent moisture and mineral matter).

Sulfur: A vellowish nonmetallic element, sometimes known as "brimstone." It is present at various levels of concentration in many fossil fuels whose combustion releases sulfur compounds that are considered harmful to the environment. Some of the most commonly used fossil fuels are categorized according to their sulfur content, with lower sulfur fuels usually selling at a higher price. Note: No. 2 Distillate fuel is currently reported as having either a 0.05 percent or lower sulfur level for on-highway vehicle use or a greater than 0.05 percent sulfur level for off-highway use, home heating oil, and commercial and industrial uses. Residual fuel, regardless of use, is classified as having either no more than 1 percent sulfur or greater than 1 percent sulfur. Coal is also classified as being low- sulfur at concentrations of 1 percent or less or high-sulfur at concentrations greater than 1 percent.

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

Supplemental Gaseous Fuel Supplies: Synthetic natural gas, propane-air, coke oven gas, refinery gas,

biomass gas, air injected for Btu stabilization, and manufactured gas commingled and distributed with natural gas.

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

Terrawatt: One trillion watts.

Terrawatthour: One trillion kilowatthours.

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

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

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

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

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

Waste Gases: As a fuel for electric power generation, waste gasses are those gasses that are produced from gasses recovered from a solid-waste or wastewater treatment facility, or the gaseous by-products of oil-refining processes.

Waste Oil: As a fuel for electric power generation, waste oil includes recycled motor oil, and waste oil from transformers.

Watt (W): The unit of electrical power equal to one ampere under a pressure of one volt. A Watt is equal to 1/746 horsepower.

Watthour (Wh): The electrical energy unit of measure equal to one watt of power supplied to, or taken from, an electric circuit steadily for one hour.

Wind Energy: The kinetic energy of wind converted into mechanical energy by wind turbines (i.e., blades rotating from the hub) that drive generators to produce electricity.

Year to Date: The cumulative sum of each month's value starting with January and ending with the current month of the data.