# Electric Power Monthly April 2003

With Data for January 2003

#### **Energy Information Administration**

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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

http://www.eia.doe.gov/cneaf/electricity/page/forms.html. A detailed description of these forms and associated algorithms are found in Appendix B, "Technical Notes."

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## **Executive Summary**

## **Generation and Consumption of Fuels for Electricity Generation**

- From January 2002 to January 2003, the independent power producer (IPP) sector increased its share of the total electric power generation. In January 2003, IPPs provided 31 percent of electric power generated, while utilities provided 65 percent. In January 2002, IPPs and utilities provided 27 and 68 percent, respectively.
- Comparing January 2002 to January 2003, the IPP sector increased its natural gas-fired generation by nearly 8 percent, but increased its consumption of natural gas for electric power generation by only 2 percent. This reflects the increased efficiencies and utilization of new gas-fired capacity that began operations over the past year.
- Electricity generators increased their use of fuel oil and coal, supplied in part by drawing down inventories from October 2002 through January 2003.

### Receipts and Cost of Fossil Fuels

#### **Electric Utility Sector**

- **Receipts.** Coal receipts in December 2002 were down 14 percent from December 2001. For the same time period petroleum receipts increased 16.5 percent, and natural gas receipts decreased 16 percent.
- Costs. The year 2002 12-month weighted average costs for the three major fuels (in dollars per million Btu) were \$1.22 for coal, \$3.25 for petroleum and \$3.67 for gas.

## Independent Power Producers (IPPs) and Combined Heat and Power Producers (CHPs)

- Receipts. Receipts of fossil fuels at IPPs and CHPs were not collected prior to 2002. Therefore, comparisons to the same time period in 2001 cannot be made. In December 2002, receipts of coal by the utility sector represented 79 percent compared to 21 percent from the independent power producers and combined heat and power producers, collectively. For petroleum receipts, the percentage share was 58 and 42 percent, respectively. However, the percentage share for gas receipts showed the opposite pattern in that the utility sector represented 27 percent, while the percentage share from the independent power producer and combined heat and power producer sectors was 73 percent.
- Costs. The year 2002 12-month weighted average costs for the three major fuels (in dollars per million Btu) for IPPs were \$1.36 for coal, \$3.79 for oil, and \$3.55 for gas; for commercial CHPs they were \$2.28 for coal, \$5.38 for oil, and \$2.41 for gas; and for industrial CHPs they were \$1.52 for coal, \$3.24 for oil, and \$3.35 for gas.

## Retail Sales, Revenue, and Average Revenue

- Sales. January 2003 retail electricity sales and revenue grew by 5.1 percent and 6.0 percent respectively, compared to January 2002, mainly due to colder weather. Overall in 2002, the residential, commercial, and industrial sectors all experienced sales growth.
- Revenue. Revenue values for 2002 were re-estimated using data from the Form EIA-861, "Annual Electric Power Industry Report." As a result, total revenue for this time period grew by \$3.16 billion over 2001, a growth of 1.3 percent. The commercial sector revenue growth of 1.2 percent and the residential growth of 3.4 percent were the results of increased retail sales. However in the industrial sector, revenue dropped by 1 percent. Contributing to this decline was the ability of larger industrial customers to negotiate better rates from power marketers. In January 2003, the rise in total revenue continued, up \$0.1 billion from the prior January, the largest increase in magnitude occurring in the commercial sector.
- **Price.** Based on the re-estimation of revenue, average electricity prices declined 1.8 percent in 2002, compared to 2001. The industrial sector showed the largest decline in price of 4.2 percent during the period, while the residential sector and commercial sector prices fell by 2.0 and 0.5 percent, respectively. In contrast, during January 2003, the average electricity price for all sectors increased 1 percent from the same period a year ago, led by a 4-percent rise in the commercial average electricity price.

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Table ES1.A. Total Electric Power Industry Summary Statistics

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				Janu	ary 2003 and	1 2002						
			Ne	t Generation	and Consu	mption of Fu	ıels					
					Electric Po	wer Sector <sup>1</sup>		Combine	ed Heat and	d Power Pr	oducers	
Items	Total (All Sectors)			Electric	Electric Utilities		Independent Power Producers		Commercial <sup>2</sup>		Industrial <sup>3</sup>	
	Jan 2003	Jan 2002	%	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002	
Net Generation (Thousand N	MWh)											
Coal <sup>4</sup>	180,632	164,255	10.0	139,501	131,240	39,024	31,190	90	88	2,017	1,737	
Petroleum <sup>5</sup>	. 12,338	6,079	103.0	6,204	4,005	5,449	1,604	98	27	587	442	
Natural Gas <sup>6</sup>	. 48,721	48,656	.1	13,994	15,797	27,101	25,196	376	364	7,250	7,299	
Other Gases <sup>7</sup>	. 913	995	-8.2	1	*	111	179	*		802	816	
Nuclear	. 69,211	70,926	-2.4	42,871	46,960	26,340	23,966					
Hydroelectric8	. 18,954	20,893	-9.3	17,153	19,585	1,382	1,024	6	5	413	279	
Other Renewables <sup>9</sup>		7,168	-10.3	209	167	3,861	4,266	133	146	2,229	2,589	
Other Energy Sources <sup>10</sup>	. 344	415	-17.0			47	45	*		297	370	
All Energy Sources	. 337,545	319,385	5.7	219,933	217,754	103,314	87,470	703	630	13,595	13,531	
Consumption of Fossil Fuels												
Coal (1000 ton) <sup>4</sup>		83,361	10.4	70,475	66,705	20,425	15,657	48	48	1,082	951	
Petroleum (1000 bbls) <sup>5</sup>	. 21,941	11,327	93.7	10,643	6,763	9,879	3,638	228	51	1,192	875	
Natural Gas (1000 Mcf) <sup>6</sup>	. 407,786	422,849	-3.6	131,815	150,756	210,863	206,837	3,165	2,995	61,943	62,261	
Fuel Stocks (end-of-month) <sup>R</sup>												
Coal (1000 ton)11	. 135,771	140,236	-3.2	113,149	116,501	22,622	23,735	NA	NA	NA	NA	
Petroleum (1000 bbls) <sup>5</sup>	. 38,051	55,641	-31.6	26,778	33,516	11,272	22,125	NA	NA	NA	NA	

**December 2002 and 2001** 

	Receipts and Cost of Fossil Fuels											
			. 13		Electric Po	wer Sector		Combined Heat and Power Producers				
Items	Total (All Sectors) <sup>13</sup>			Electric Utilities		Independent Power Producers		Commercial		Industrial		
	Dec 2002	Dec 2001	%	Dec 2002	Dec 2001	Dec 2002	Dec 2001	Dec 2002	Dec 2001	Dec 2002	Dec 2001	
Receipts												
Coal (1000 ton) <sup>4</sup>	72,254	65,380	NM	56,000	65,380	14,906		31		1,316		
Petroleum (1000 bbls) <sup>5</sup>	12,188	6,390	NM	7,443	6,390	4,246		19		480		
Natural Gas (1000 Mcf) <sup>6,7</sup>	377,857	123,295	NM	103,009	123,295	192,039		531		82,278		
Cost (cents/million Btu) <sup>14</sup>												
Coal <sup>4</sup>	121.96	122.04	NM	118.43	122.04	132.46		204.43		147.21		
Petroleum <sup>5</sup>	389.37	256.08	NM	372.34	256.08	420.69		630.42		371.00		
Natural Gas <sup>6,7</sup>	454.11	307.63	NM	471.47	307.63	458.84		420.43		418.19		

January 2003 and 2002

Retail Sales, Retail Revenue and Average Revenue per Kilowatthour										
Items	Total U.S. Electric Power Industry									
items	Residential	Commercial	Industrial	Other	All Sectors					
Retail Sales (Million kWh) <sup>15</sup>										
Jan 2003	125,307	93,712	80,351	8,743	308,113					
Jan 2002	117,854	88,712	78,304	8,162	293,032					
Percent Change	6.3	5.6	2.6	7.1	5.1					
Retail Revenue (Million Dollars)										
Jan 2003	10,005	7,286	3,754	584	21,629					
Jan 2002	9,526	6,628	3,705	541	20,400					
Percent Change	5.0	9.9	1.3	7.8	6.0					
Average Revenue/kWh (Cents)										
Jan 2003	7.98	7.77	4.67	6.68	7.02					
Jan 2002	8.08	7.47	4.73	6.63	6.96					
Percent Change	-1.2	4.0	-1.3	.8	.9					

<sup>&</sup>lt;sup>1</sup> 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.)

Notes:  $\bullet$ See Glossary for definitions.  $\bullet$ Values are estimates based on samples; they are preliminary - see Technical Notes for a discussion of the sample designs for Form EIA-826 and Form EIA-906.  $\bullet$ Values for 2001 have been adjusted to reflect the annual total from the Form EIA-861, and are reflected in the Form EIA-826 monthly values. See Technical Notes for the adjustment methodologies.  $\bullet$ Totals may not equal sum of components because of independent rounding.  $\bullet$ Percent difference is calculated before rounding.  $\bullet$ bbls = barrels. kWh = kilowatthours. Mcf = thousand cubic feet. MWh = megawatthours.  $\bullet$ Monetary values are expressed in nominal terms.  $\bullet$ 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."

<sup>&</sup>lt;sup>2</sup> Commercial combined-heat-and-power (CHP) with NAICS other than 22.

<sup>&</sup>lt;sup>3</sup> Industrial combined-heat-and-power (CHP) with NAICS other than 22.

<sup>&</sup>lt;sup>4</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

<sup>&</sup>lt;sup>5</sup> Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

<sup>&</sup>lt;sup>6</sup> Natural gas, including a small amount of supplemental gaseous fuels.

<sup>&</sup>lt;sup>7</sup> Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

<sup>8</sup> Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.

<sup>&</sup>lt;sup>9</sup> 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

energy, and wind.

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

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

<sup>&</sup>lt;sup>12</sup> Receipts and costs of fossil fuel data prior to 2002 were collected from utilities only. Data for 2002 and beyond include data collected from utilities as well as independent power producers and combined heat and power producers.

<sup>&</sup>lt;sup>13</sup> 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 power producers are included in this data dissemination. Prior to 2002 these data were not collected; the data for 2001 and previous years include only data collected from electric utilities via the FERC Form 423.

<sup>&</sup>lt;sup>14</sup> Average cost of fuel delivered to electric generating plants; cost values are weighted values.

<sup>15</sup> 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.

NA = Not available. R = Revised. NM = Not meaningful.

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

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

				Janu	ary 2003 and	2002					
			Net	Generation	and Consu	mption of Fu	iels				
					Electric Po	wer Sector <sup>1</sup>	Combine	Combined Heat and Power Producers			
Items	Total (All Sectors)			Electric Utilities		Independent Power Producers		Commercial <sup>2</sup>		Industrial <sup>3</sup>	
	2003	2002	%	2003	2002	2003	2002	2003	2002	2003	2002
Net Generation (Thousand M	Wh)										
Coal <sup>4</sup>	180,632	164,255	10.0	139,501	131,240	39,024	31,190	90	88	2,017	1,737
Petroleum <sup>5</sup>	12,338	6,079	103.0	6,204	4,005	5,449	1,604	98	27	587	442
Natural Gas <sup>6</sup>	48,721	48,656	.1	13,994	15,797	27,101	25,196	376	364	7,250	7,299
Other Gases <sup>7</sup>	913	995	-8.2	1	*	111	179	*		802	816
Nuclear	69,211	70,926	-2.4	42,871	46,960	26,340	23,966				
Hydroelectric8	18,954	20,893	-9.3	17,153	19,585	1,382	1,024	6	5	413	279
Other Renewables9	6,432	7,168	-10.3	209	167	3,861	4,266	133	146	2,229	2,589
Other Energy Sources <sup>10</sup>	344	415	-17.0		0	47	45	*		297	370
All Energy Sources	337,545	319,385	5.7	219,933	217,754	103,314	87,470	703	630	13,595	13,531
Consumption of Fossil Fuels											
Coal (1000 ton) <sup>4</sup>	92,030	83,361	10.4	70,475	66,705	20,425	15,657	48	48	1,082	951
Petroleum (1000 bbls) <sup>5</sup>	21,941	11,327	93.7	10,643	6,763	9,879	3,638	228	51	1,192	875
Natural Gas (1000 Mcf) <sup>6</sup>	407,786	422,849	-3.6	131,815	150,756	210,863	206,837	3,165	2,995	61,943	62,261

January through December 2002 and 2001

Receipts and Cost of Fossil Fuels<sup>11</sup> **Electric Power Sector Combined Heat and Power Producers** Total (All Sectors)12 **Independent Power** Items **Electric Utilities** Commercial Industrial **Producers** 2002 2001 % 2002 2001 2002 2002 2001 2002 Receipts Coal (1000 ton)<sup>4</sup> 687 747 177 921 880 060 762 815 NM 762 815 399 13 993 Petroleum (1000 bbls)5 121,084 124,618 NM 77,194 124,618 38,615 91 5,184 Natural Gas (1000 Mcf)<sup>6,7</sup> 5,433,65 2,152,366 NM 1,640,650 2,152,366 2,803,711 16,889 972,405 Cost (cents/million Btu)13 125.32 123.15 121.81 123.15 135.70 227.71 Coal NM 151.56 Petroleum5 345.21 369.27 NM 369.27 378.94 538.19 354.73 448.73 Natural Gas6 NM 367.03 448.73 354.67 241.21 334.86

January 2003 and 2002

	Retail Sales, Ret	ail Revenue and Average	Revenue per Kilowattl	nour						
Items	Total U.S. Electric Power Industry									
Items	Residential	Commercial	Industrial	Other	All Sectors					
Retail Sales (Million kWh)14										
2003	125,307	93,712	80,351	8,743	308,113					
2002	117,854	88,712	78,304	8,162	293,032					
Percent Change	6.3	5.6	2.6	7.1	5.1					
Retail Revenue (Million Dollars)										
2003	10,005	7,286	3,754	584	21,629					
2002	9,526	6,628	3,705	541	20,400					
Percent Change	5.0	9.9	1.3	7.8	6.0					
Average Revenue/kWh (Cents)										
2003	7.98	7.77	4.67	6.68	7.02					
2002	8.08	7.47	4.73	6.63	6.96					
Percent Change	-1.2	4.0	-1.3	.8	.9					

<sup>&</sup>lt;sup>1</sup> 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.)

#### NM = Not meaningful.

Notes: •See Glossary for definitions. •Values are estimates based on samples; they are preliminary - see Technical Notes for a discussion of the sample designs for Form EIA-826 and Form EIA-906. •Values for 2001 have been adjusted to reflect the annual total from the Form EIA-861, and are reflected in the Form EIA-826 monthly values. See Technical Notes for the adjustment methodologies. •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."

<sup>&</sup>lt;sup>2</sup> Commercial combined-heat-and-power (CHP) with NAICS other than 22...

<sup>&</sup>lt;sup>3</sup> Industrial combined-heat-and-power (CHP) with NAICS other than 22...

<sup>&</sup>lt;sup>4</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

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

<sup>&</sup>lt;sup>6</sup> Natural gas, including a small amount of supplemental gaseous fuels.

<sup>&</sup>lt;sup>7</sup> Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

<sup>8</sup> Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.

<sup>9</sup> 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

energy and wind.

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

<sup>11</sup> Receipts and costs of fossil fuel data prior to 2002 were collected from utilities only. Data for 2002 and beyond include data collected from utilities as well as independent power producers and combined heat and power producers.

12 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

<sup>&</sup>lt;sup>12</sup> 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 power producers are included in this data dissemination. Prior to 2002 these data were not collected; the data for 2001 and previous years include only data collected from electric utilities via the FERC Form 423.

<sup>&</sup>lt;sup>13</sup> Average cost of fuel delivered to electric generating plants; cost values are weighted values.

<sup>&</sup>lt;sup>14</sup> 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.

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

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

			All Co	mbined Heat a	nd Power Prod	ucers1		
Items	Total Fuel C	onsumption	Fuel Consu Electric G		Fuel Consu Useful Ther		Fuel Stocks End-of-Month	
	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002
Current Month								
Coal (1000 ton) <sup>2</sup> Petroleum (1000 bbls) <sup>3</sup> Natural Gas (1000 Mcf) <sup>4</sup>	23,264 13,149 347,789	18,356 6,021 345,061	21,555 11,299 275,971	16,656 4,563 272,093	1,709 1,850 71,818	1,700 1,457 72,968	23,950 12,390 NA	25,554 24,120 NA
Year to Date								
Coal (1000 ton) <sup>2</sup> Petroleum (1000 bbls) <sup>3</sup> Natural Gas (1000 Mcf) <sup>4</sup>	23,264 13,149 347,789	18,356 6,021 345,061	21,555 11,299 275,971	16,656 4,563 272,093	1,709 1,850 71,818	1,700 1,457 72,968	NA NA NA	NA 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** Jan 2003 Jan 2002 Jan 2003 Jan 2002 Jan 2003 Jan 2002 Jan 2003 Jan 2002 **Current Month** 227 171 Coal (1000 ton) 20,634 20,425 22,622 Petroleum (1000 bbls)<sup>3</sup> 10,122 235,237 3,809 226,346 9,879 210,863 3,638 206,837 242 24,374 11,272 NA 22,125 Natural Gas (1000 Mcf) 4

Year to Date 19,510 NA Coal (1000 ton)<sup>2</sup> 20,634 10,122 235,237 NA NA NA 15,884 20,425 15,657 209 242 227 171 Petroleum (1000 bbls)<sup>3</sup>. 3,809 226,346 9.879 3,638 206,837 NA Natural Gas (1000 Mcf) 210,863 24,374 19,510

			Commercia	al Combined H	eat and Power	Producers			
Items	Total Fuel Consumption		Fuel Consu Electric G	1	Fuel Consu Useful Ther		Fuel Stocks End-of-Month		
	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002	
Current Month									
Coal (1000 ton) <sup>2</sup>	146	132	48	48	98	84	149	95	
Petroleum (1000 bbls) 3	322	81	228	51	94	30	85	192	
Natural Gas (1000 Mcf) 4	6,489	6,346	3,165	2,995	3,323	3,351	NA	NA	
Year to Date									
Coal (1000 ton) <sup>2</sup>	146	132	48	48	98	84	NA	NA	
Petroleum (1000 bbls) <sup>3</sup>	322	81	228	51	94	30	NA	NA	
Natural Gas (1000 Mcf) 4	6,489	6,346	3,165	2,995	3,323	3,351	NA	NA	

			Industrial	Combined He	at and Power P	Producers			
Items	Total Fuel Co	onsumption	Fuel Consu Electric G		Fuel Consu Useful Ther		Fuel Stocks End-of-Month		
	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002	
Current Month									
Coal (1000 ton) 2	2,484	2,340	1,082	951	1,402	1,389	1,179	1,724	
Petroleum (1000 bbls) 3	2,705	2,131	1,192	875	1,514	1,256	1,033	1,803	
Natural Gas (1000 Mcf) 4	106,063	112,369	61,943	62,261	44,121	50,107	NA	NA	
Year to Date									
Coal (1000 ton) 2	2,484	2,340	1,082	951	1,402	1,389	NA	NA	
Petroleum (1000 bbls) 3	2,705	2,131	1,192	875	1,514	1,256	NA	NA	
Natural Gas (1000 Mcf) 4	106,063	112,369	61,943	62,261	44,121	50,107	NA	NA	

<sup>&</sup>lt;sup>1</sup> 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 are 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. MWh = megawatthours.

<sup>&</sup>lt;sup>2</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

<sup>&</sup>lt;sup>3</sup> Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

<sup>&</sup>lt;sup>4</sup> Natural gas, including a small amount of supplemental gaseous fuels.

NA = Not available.

Table ES3. New and Planned U.S. Electric Generating Units by Operating Company, Plant and Month, 2003

Voor/Month/C	Producer	DI 4	64-4-	Generating	Net Summer	Energy	Duima M
Year/Month/Company	Type	Plant	State	Unit ID	Capacity (megawatts) 1	Source	Prime Mover
2003							
January							
Basin Electric Power Coop	Elec. Utility	Minot Wind Project	ND	MWP	26	WND	WT
Black Hills Corp	Elec. Utility	WYGEN	WY	1	85	SUB	ST
Black Hills Nevada Ops LLC	IPP	Las Vegas Cogeneration LP II	NV	GEN3	52	NG	CT
Black Hills Nevada Ops LLC	IPP	Las Vegas Cogeneration LP II	NV	GEN4	52 52	NG	CT
Black Hills Nevada Ops LLC	IPP IPP	Las Vegas Cogeneration LP II Las Vegas Cogeneration LP II	NV NV	GEN5 GEN6	52 52	NG NG	CT CT
Black Hills Nevada Ops LLC Black Hills Nevada Ops LLC	IPP	Las Vegas Cogeneration LP II	NV	GEN7	24	NG	CA
Black Hills Nevada Ops LLC	IPP	Las Vegas Cogeneration LP II	NV	GEN8	24	NG	CA
Calpine Corp-Yuba City	IPP	Creed Energy Facility	CA	CT1	40	NG	GT
Calpine Corp-Yuba City	IPP	Feather River -Peaker	CA	CTG1	40	NG	GT
Calpine Corp-Yuba City	IPP	Goose Haven Energy Facility	CA	CT1	40	NG	GT
Calpine Corp-Yuba City	IPP	Lambie Energy Facility	CA	CT1	40	NG	GT
Calpine Corp-Yuba City	IPP	Wolfskill Energy Center	CA	CTG1	40	NG	GT
Conectiv Bethlehem Inc	IPP	Bethlehem Power Plant	PA	CTG5	102	NG	CT
Granger Electric Co	IPP	Grand Blanc	MI	4-5	1	LFG	IC
La Paloma Generating Co LLC	IPP	La Paloma Generating	CA	GEN1	258	NG	GT
La Paloma Generating Co LLC	IPP	La Paloma Generating	CA	GEN3	258	NG	GT
Mirant Las Vegas LLC	IPP	Apex Generating Station	NV	CTG1	150	NG	CT
Mirant Las Vegas LLC	IPP	Apex Generating Station	NV	CTG2	150	NG	CT
Mirant Las Vegas LLC	IPP	Apex Generating Station	NV	STG1	195	NG	CA
Panda Gila River LP	IPP	Panda Union Power Partners LP	AZ	CTG7	150	NG	GT
Panda Gila River LP	IPP	Panda Union Power Partners LP	AZ	CTG8	150	NG	GT
Panda Gila River LP	IPP	Panda Union Power Partners LP	AZ	ST12	237	NG	GT
RS Cogen	CHP	RS Cogen	LA	RS-4	60	NG	GT
RS Cogen	CHP	RS Cogen	LA	RS-5	168	NG	GT
TPS-Arkansas Operations	IPP	Union Power	AR	CTG1	151	NG	CT
TPS-Arkansas Operations	IPP	Union Power	AR	CTG2	151	NG	CT
TPS-Arkansas Operations	IPP	Union Power	AR	STG1	219	NG	CA
February Conectiv Bethlehem Inc	IPP	Dathlaham Daman Dlant	PA	CTG6	120	NG	CT
Deer Park Energy Center LP	IPP	Bethlehem Power Plant Deer Park Energy Center	TX	CTG1	155	NG	CT
Oglethorpe Power Corp	Elec. Utility	Chattahoochee Energy	GA	1	151	NG	CT
Oglethorpe Power Corp	Elec. Utility	Chattahoochee Energy	GA	2	151	NG	CT
Oglethorpe Power Corp	Elec. Utility	Chattahoochee Energy	GA	3	161	NG	CA
University of Massachusetts	CHP	University of Massachusetts Me	MA	GEN3	5	NG	ST
March							
AES Granite Ridge	IPP	AES Granite Ridge	NH	CT11	262	NG	CT
AES Granite Ridge	IPP	AES Granite Ridge	NH	CT12	262	NG	CT
AES Granite Ridge	IPP	AES Granite Ridge	NH	STG	273	NG	CA
Calpine Corp	IPP	Los Esteros Critical Energy Ct	CA	CTG1	38	NG	GT
Calpine Corp	IPP	Los Esteros Critical Energy Ct	CA	CTG2	38	NG	GT
Calpine Corp	IPP	Los Esteros Critical Energy Ct	CA	CTG3	38	NG	GT
Calpine Corp	IPP	Los Esteros Critical Energy Ct	CA	CTG4	38	NG	GT
La Paloma Generating Co LLC	IPP	La Paloma Generating	CA	GEN2	258	NG	GT
La Paloma Generating Co LLC	IPP	La Paloma Generating	CA	GEN4	255	NG	GT
Sierra Pacific Industries Inc	CHP	Aberdeen	WA	GEN1	17	WDS	ST
Tri-State G & T Assn Inc	Elec. Utility	Pyramid	NM	1	40	NG	GT
Tri-State G & T Assn Inc	Elec. Utility	Pyramid	NM	2	40	NG	GT
Wood Scott	IPP	Scott Wood	VA	ST2	1	WDS	ST
Wood Scott	IPP	Scott Wood	VA	ST3	3	WDS	ST
April							
Anita City of	Elec. Utility	Anita	IA	6	2	DFO	IC
Colorado Springs City of	Elec. Utility	Front Range Power Co., LLC	CO	1	132	NG	CT
Colorado Springs City of	Elec. Utility	Front Range Power Co., LLC	CO	2	132	NG	CT
Colorado Springs City of	Elec. Utility	Front Range Power Co., LLC	CO	3	200	NG	CA
Conectiv Bethlehem Inc	IPP	Bethlehem Power Plant	PA	CTG7	120	NG	CT
Grand Island City of	Elec. Utility	C W Burdick	NE	GT2	34	NG	GT
	T21 T.T. 111.	CWD LL	3.77				
Grand Island City of GWF Power Systems LP	Elec. Utility IPP	C W Burdick Tracy Peaker	NE CA	GT3 TPP1	34 85	NG NG	GT GT

Table ES3. New and Planned U.S. Electric Generating Units by Operating Company, Plant and Month, 2003 (Continued)

Year/Month/Company	Producer Type	Plant	State	Generating Unit ID	Net Summer Capacity (megawatts) <sup>1</sup>	Energy Source	Prime Mover
High Desert Power Project	IPP	High Desert Power Project LLC	CA	CTG1	149	NG	CT
High Desert Power Project	IPP	High Desert Power Project LLC	CA	CTG2	149	NG	CT
High Desert Power Project	IPP	High Desert Power Project LLC	CA	CTG3	149	NG	CT
High Desert Power Project	IPP	High Desert Power Project LLC	CA	STG1	284	NG	CA
Sithe New England Holdings LLC	IPP	Mystic	MA	G81	224	NG	CT
Sithe New England Holdings LLC	IPP	Mystic	MA	G82	224	NG	CT
Sithe New England Holdings LLC	IPP	Mystic	MA	G85	241	NG	CA
Tri-State G & T Assn Inc TPS-Arkansas Operations	Elec. Utility IPP	Pyramid Union Power	NM AR	4 CTG3	40 151	NG NG	GT CT
TPS-Arkansas Operations TPS-Arkansas Operations	IPP IPP	Union Power Union Power	AR AR	CTG4 STG2	151 219	NG NG	CT CA
Year-to-Date Capacity of New U					8,079		
Year-to-Date Capacity of Retire Year-to-Date U.S. Capacity				 	910,893		
Planned							
2003							
May June		 			13,560 26,955		
July					5,685		
August					2,605		
September					2,737		
October					4,937		
November		<del></del>			1,278		
December2004					2,156		
					1.604		
January					1,604 304		
February March		 			3,384		
April					3,078		

<sup>&</sup>lt;sup>1</sup> 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.htm.

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 January 2003 (Thousand Megawatthours)

(	Thousand III	egawatinouis	)	,	1	•	,		
Period	Coal <sup>1</sup>	Petroleum <sup>2</sup>	Natural Gas	Other Gases <sup>3</sup>	Nuclear	Hydro- electric <sup>4</sup>	Other Renewables <sup>5</sup>	Other <sup>6</sup>	Total
1990	1,594,011	126,621	372,765	10,383	576,862	289,358	64,372	3,616	3,037,988
1991		119,752	381,553	11,336	612,565	284,453	68,779	4,739	3,073,799
1992		100,154	404,074	13,270	618,776	248,911	73,770	3,720	3,083,882
1993		112,788	414,927	12,956	610,291	276,458	76,213	3,487	3,197,191
1994		105,901	460,219	13,319	640,440	256,748	76,535	3,667	3,247,522
1995	, ,	74,554	496,058	13,870	673,402	308,108	73,965	4,104	3,353,487
1996		81,411	455,056	14,356	674,729	344,074	75,796	3,571	3,444,188
1997		92,555	479,399	13,351	628,644	352,413	77,183	3,612	3,492,172
1998		128,800	531,257	13,492	673,702	318,868	77,088	3,571	3,620,295
1999		118,061	556,396	14,126	728,254	313,439	79,423	4,024	3,694,810
2000		111,221	601,038	13,955	753,893	270,034	80,906	4,794	3,802,105
	1,700,203	111,221	001,030	13,733	733,673	270,034	00,700	4,774	3,002,103
2001	177 207	10 112	42.200	710	69.707	10.262	6.625	201	222 402
January		18,112	42,389	718	68,707	18,263	6,635	381	332,493
February		10,342	37,967	676	61,272	16,766	5,850	332	282,940
March		11,733	44,364	769	62,141	19,704	6,386	341	300,707
April		10,863	45,843	698	56,003	17,217	6,422	362	278,079
May		10,390	50,934	785	61,512	18,553	6,353	371	300,492
June		11,823	57,603	733	68,023	19,954	6,580	362	327,694
July		11,042	73,030	840	69,166	17,208	6,872	394	357,614
August		14,229	78,410	848	68,389	18,199	6,913	428	370,533
September		7,342	60,181	767	63,378	14,328	6,356	417	306,929
October	. 148,931	6,534	56,376	737	60,461	14,619	6,644	431	294,734
November	. 144,117	5,931	44,491	699	62,342	14,602	6,305	448	278,934
December	. 157,402	6,539	47,541	770	67,431	18,724	6,667	423	305,496
Total	. 1,903,956	124,880	639,129	9,039	768,826	208,138	77,985	4,690	3,736,644
2002									
January	. 164,255	6,079	48,656	995	70,926	20,893	7,168	415	319,385
February	. 141,769	5,314	44,343	809	61,658	19,552	6,282	391	280,118
March	. 153,359	7,924	50,975	969	63,041	20,360	6,977	391	303,995
April	. 141,669	7,497	48,793	1,000	58,437	23,900	6,928	379	288,603
May		7,826	50,064	1,078	63,032	26,491	7,168	394	307,063
June	. 164,530	7,473	65,567	1,073	66,372	27,489	7,336	397	340,238
July		9,395	84,595	1,175	70,421	24,410	7,413	648	380,161
August		9,186	82,621	1,203	70,778	19,892	7,320	415	369,442
September		7,625	67,886	1,064	64,481	15,866	6,922	604	329,566
October		7,829	54,480	972	60,493	16,246	6,853	727	305,777
November		6,164	43,931	908	61,520	18,940	6,587	366	294,041
December		7,545	43,928	872	68,905	20,834	6,856	426	320,162
Total		89,856	685,840	12,116	<b>780,064</b>	254,873	<b>83,809</b>	5,552	3,838,552
2003	. 1,720,772	07,030	303,040	12,110	700,004	234,073	05,007	3,332	3,030,332
January	. 180,632	12,338	48,721	913	69,211	18,954	6,432	344	337,545
		12,338	48,721	913	69,211	18,954	6,432	344	337,545
Total	. 100,032	12,330	40,741	713	07,411	10,734	0,434	J44	331,343
Year to Date	177 207	10 112	42 200	710	(0.707	10.262	( (25	201	222 402
2001	,	18,112	42,389	718	68,707	18,263	6,635	381	332,493
2002		6,079	48,656	995	70,926	20,893	7,168	415	319,385
2003		12,338	48,721	913	69,211	18,954	6,432	344	337,545
Rolling 12 Months									
2002		112,847	645,396	9,316	771,045	210,768	78,517	4,724	3,723,536
2003	1,942,820	96,116	685,905	12,034	778,349	252,933	83,073	5,482	3,856,712

<sup>&</sup>lt;sup>1</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

Notes: •See Glossary for definitions.•Values for 2002 and 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 2001 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.

<sup>&</sup>lt;sup>2</sup> Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

<sup>&</sup>lt;sup>3</sup> Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

<sup>4</sup> Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.

<sup>&</sup>lt;sup>5</sup> 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.

<sup>&</sup>lt;sup>6</sup> Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

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

(	THOUSAND IV	iegawaiiiiouis	)			1	1		
Period	Coal <sup>1</sup>	Petroleum <sup>2</sup>	Natural Gas	Other Gases <sup>3</sup>	Nuclear	Hydro- electric <sup>4</sup>	Other Renewables <sup>5</sup>	Other <sup>6</sup>	Total
1990	1,559,606	117,017	264,089		576,862	279,926	10,651		2,808,151
1991		111,463	264,172		612,565	275,519	10,137		2,825,023
1992		88,916	263,872		618,776	239,559	10,200		2,797,219
1993		99,539	258,915		610,291	265,063	9,565		2,882,525
1994		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	, ,	67,346	262,730		674,729	327,970	7,214		3,077,442
1997		77,753	283,625		628,644	337,234	7,462		3,122,523
1998		110,158	309,222		673,702	304,403	7,206		3,212,171
1999		86,929	296,381		725,036	293,932	3,716		3,173,674
2000		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		5,985	13,533		43,547	15,099	184		199,802
March		6,742	16,649		43,477	17,865	206		211,942
April		6,822	20,528		39,042	15,107	199		197,499
May		6,968	22,552		43,312	16,682	153		215,508
June		7,753	25,724		47,850	18,097	178		233,622
July	,	7,215	34,660		48,447	15,816	168		253,400
August		8,929	34,997		48,266	17,032	183		258,901
September		5,204	25,258		43,857	13,343	171		214,236
October		4,245	23,085		41,177	13,634	181		204,307
November		3,746	15,778		41,415	13,555	155		192,518
December		3,925	16,117		44,941	17,278	157		211,742
Total		78,908	264,434		534,207	190,100	2,152		2,629,946
2002	,,,,,,		, ,		, -				, ,-
January	. 131,240	4,005	15,797	*	46,960	19,585	167		217,754
February	. 112,621	3,140	14,198	*	40,348	17,839	156		188,303
March	. 119,116	4,960	16,548	*	42,230	18,249	183		201,286
April	. 110,735	5,155	16,996	*	39,054	21,164	135		193,239
May	. 120,212	5,532	17,993	*	40,469	23,521	143		207,869
June	. 130,582	5,055	23,795	*	42,988	25,073	126		227,620
July	. 143,690	5,696	29,810	*	46,101	22,914	151		248,363
August	. 140,629	5,663	29,789	*	45,960	18,875	178		241,094
September	. 129,329	5,174	23,252	*	41,859	14,964	193		214,772
October	. 123,692	5,003	17,776	*	39,233	15,007	199		200,909
November		3,695	13,027	*	38,577	17,100	196		193,240
December		4,318	11,960	*	43,601	18,730	212		211,466
Total	. 1,515,137	57,394	230,943	3	507,380	233,021	2,039		2,545,917
2003									
January		6,204	13,994	1	42,871	17,153	209		219,933
Total	. 139,501	6,204	13,994	1	42,871	17,153	209	-	219,933
Year to Date									
2001	,	11,374	15,553	-	48,876	16,591	217	-	236,467
2002		4,005	15,797	*	46,960	19,585	167		217,754
2003		6,204	13,994	1	42,871	17,153	209		219,933
Rolling 12 Months		•							
2002		71,539	264,678	*	532,292	193,093	2,102		2,611,233
2003	. 1,523,398	59,594	229,140	3	503,290	230,589	2,081		2,548,095

<sup>&</sup>lt;sup>1</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

Notes: •See Glossary for definitions.•Values for 2002 and 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 2001 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.

<sup>&</sup>lt;sup>2</sup> Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

<sup>&</sup>lt;sup>3</sup> Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

<sup>&</sup>lt;sup>4</sup> 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.

<sup>&</sup>lt;sup>6</sup> Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

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

(1		iegawatiiiouis	<i>)</i>	1		1	1	1	
Period	Coal <sup>1</sup>	Petroleum <sup>2</sup>	Natural Gas	Other Gases <sup>3</sup>	Nuclear	Hydro- electric <sup>4</sup>	Other Renewables <sup>5</sup>	Other <sup>6</sup>	Total
1990	12,503	1,847	45,397	621		6,319	26,471	12	93,171
1991	17,679	1,335	53,602	719		5,959	30,842	403	110,538
1992	21,818	3,322	70,403	1,212		6,280	33,640	480	137,154
1993	26,313	5,886	83,307	967		8,425	36,067	408	161,372
1994	30,783	7,638	94,574	1,092		6,934	36,753	239	178,013
1995	33,142	7,302	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	206,699
1997	32,955	8,726	115,971	1,533		9,375	38,228	63	206,852
1998	42,713	12,053	140,070	2,315		8,997	38,937	159	245,245
1999	90,938	24,610	176,615	1,607	3,218	14,635	44,548	139	356,309
2000	246,492	33,012	227,263	2,028	48,460	17,604	47,162	125	622,146
2001									
January	31,447	6,022	19,707	40	19,831	1,431	3,789		82,269
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	18,200	1,570	3,936		72,658
June	26,868	3,660	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	738	3,816		79,646
October	25,234	1,836	26,062	44	19,284	775	3,849		77,084
November	24,603	1,774	21,716	46	20,927	846	3,725		73,637
December	26,386	2,157	24,031	60	22,490	1,176	4,022		80,320
Total	322,681	40,241	290,506	586	234,619	14,826	46,648		950,107
2002	022,001	10,211	2,0,000		20.,017	1.,020	10,010		, , , , , , , , , , , , , , , , , , , ,
January	31,190	1,604	25,196	179	23,966	1,024	4,266	45	87,470
February	27,564	1,784	23,271	98	21,310	1,399	3,687	68	79,181
March	32,474	2,518	26,923	141	20,810	1,785	4,289	27	88,968
April	29,249	1,934	25,287	105	19,383	2,335	4,222	*	82,516
May	29,096	1,885	25,167	112	22,564	2,574	4,497	17	85,910
June	32,096	2,015	34,598	95	23,384	2,093	4,601	36	98,918
July	36,386	3,224	46,466	125	24,319	1,222	4,546	88	116,376
August	35,508	3,059	44,695	142	24,818	776	4,511	46	113,556
September	33,972	2,062	37,281	105	22,622	691	4,085	56	100,873
October	32,632	2,367	30,317	154	21,260	916	4,046	21	91,712
November	33,187	2,030	24,625	124	22,943	1,377	3,829	13	88,128
December	36,248	2,739	25,755	73	25,305	1,551	4,169	37	95,878
Total	389,602	27,221	369,581	1,453	272,684	17,742	50,748	454	1,129,486
2003	,	,	,	-,	,	,	2.,		-,,
January	39,024	5,449	27,101	111	26,340	1,382	3,861	47	103,314
Total	39,024	5,449	27,101	111	26,340	1,382	3,861	47	103,314
Year to Date									
2001	31,447	6,022	19,707	40	19,831	1,431	3,789		82,269
2002	31,190	1,604	25,196	179	23,966	1,024	4,266	45	87,470
2003	39,024	5,449	27,101	111	26,340	1,382	3,861	47	103,314
Rolling 12 Months E						,	. ,		- /-
2002	322,423	35,823	295,995	724	238,753	14,419	47,125	45	955,308
2003	397,436	31,065	371,485	1,385	275,059	18,101	50,343	456	1,145,330

<sup>&</sup>lt;sup>1</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

Notes: •See Glossary for definitions.•Values for 2002 and 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 2001 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.

<sup>&</sup>lt;sup>2</sup> Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

<sup>&</sup>lt;sup>3</sup> Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

<sup>&</sup>lt;sup>4</sup> Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.

<sup>&</sup>lt;sup>5</sup> 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.

<sup>&</sup>lt;sup>6</sup> Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

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

(Thousand Megawatthours)

Period	Coal <sup>1</sup>	Petroleum <sup>2</sup>	Natural Gas	Other Gases <sup>3</sup>	Nuclear	Hydro- electric <sup>4</sup>	Other Renewables <sup>5</sup>	Other <sup>6</sup>	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	1,077	732	7,202		<del></del>	100	2,012		7,703
	00	61	261				112		620
January	88 86	61 39	361 311	*		6 6	112 106		629 548
February				T					
March	83	38	321			7	104	*	553
April	65	32	331			7	116		550
May	73	33	334			7	129	*	575
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									
January	88	27	364			5	146		630
February	72	29	307			5	120	*	533
March	90	32	380	*		7	137	*	646
April	66	22	329			14	143	*	575
May	69	24	309	*		14	150		566
June	87	27	406			9	145		674
July	106	43	887			8	156	*	1,200
August	107	41	829			7	138	*	1,121
September	91	29	665			4	164		953
October	81	29	390			3	178		681
November	83	26	267			3	149		528
December	91	49	309			4	154		607
Total	1,031	379	5,442	*		84	1,778	*	8,714
2003	,,,,								-,
January	90	98	376	*		6	133	*	703
Total	90	98	376	*		6	133	*	703
Year to Date							100		
2001	88	61	361			6	112		629
2002	88	27	364			5	146		630
2003	90	98	376	*		6	133	*	703
			3/0			U	133		703
Rolling 12 Months En			4.425	*			1.515	*	7.417
2002	995	404	4,437	*		66	1,515	*	7,417
2003	1,033	449	5,455	×		85	1,766	×	8,788

<sup>&</sup>lt;sup>1</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

Notes: • See Glossary for definitions. • Values for 2002 and 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 2001 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.

<sup>&</sup>lt;sup>2</sup> Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

<sup>&</sup>lt;sup>3</sup> Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

<sup>&</sup>lt;sup>4</sup> Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.
<sup>5</sup> 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.

<sup>6</sup> Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

<sup>\*=</sup>For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

**Table 1.5.** Net Generation by Energy Source: Industrial Combined Heat and Power Sector, 1990 through January 2003

(Thousand Megawatthours)

Period	Coal <sup>1</sup>	Petroleum <sup>2</sup>	Natural Gas	Other Gases <sup>3</sup>	Nuclear	Hydro- electric <sup>4</sup>	Other Renewables <sup>5</sup>	Other <sup>6</sup>	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
	22,056	5,597	78,798	11,927	 	4,736	29,491	3,005 4,669	156,673
2000	22,050	5,597	/8,/98	11,927		4,135	29,491	4,009	150,073
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		316	2,472	428	13,566
September	1,625	386	6,782	720		243	2,240	417	12,412
October	1,640	417	6,845	693		206	2,488	431	12,721
November	1.576	381	6,670	653		198	2,305	448	12,230
December	1,614	425	7,040	710		265	2,345	423	12,822
Total	20,135	5,293	79,755	8,454		3,145	27,703	4,690	149,175
2002	20,133	5,293	19,133	0,434		3,145	27,703	4,090	149,175
January	1,737	442	7,299	816		279	2,589	370	13,531
February	1,512	361	6,566	710		309	2,319	323	12,100
March	1,679	415	7,124	828		318	2,368	364	13,095
April	1,618	386	6,181	894		387	2,429	379	12,274
May	1,634	384	6,596	966		382	2,378	378	12,717
		376		978		313		361	
June	1,765		6,768				2,464		13,026
July	1,924	431	7,433	1,049		266	2,561	559	14,222
August	1,783	424	7,307	1,061		234	2,493	370	13,671
September	1,727	361	6,688	959		207	2,480	548	12,968
October	1,773	430	5,996	817		320	2,432	706	12,475
November	1,709	413	6,012	784		460	2,413	353	12,144
December	1,812	438	5,904	798		550	2,320	389	12,211
Total	20,672	4,863	79,874	10,659		4,025	29,244	5,098	154,435
2003									
January	2,017	587	7,250	802		413	2,229	297	13,595
Total	2,017	587	7,250	802		413	2,229	297	13,595
Year to Date									
2001	1,895	654	6,767	678		234	2,518	381	13,128
2002	1,737	442	7,299	816		279	2,589	370	13,531
2003	2,017	587	7,250	802	 	413	2,229	297	13,595
			1,230	002		413	4,449	471	13,393
Rolling 12 Months E			00.20	0.501		2.100	2	4.650	440.
2002	19,976	5,081	80,287	8,591		3,190	27,775	4,678	149,578
2003	20,953	5,007	79,825	10,646		4,158	28,884	5,026	154,499

<sup>&</sup>lt;sup>1</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

Notes: • See Glossary for definitions. • Values for 2002 and 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 2001 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.

<sup>&</sup>lt;sup>2</sup> Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

<sup>&</sup>lt;sup>3</sup> Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

<sup>4</sup> 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.

<sup>6</sup> Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

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

			,		Electric Pov	ver Sector		Comb	ined Heat an	d Power Pro	ducers
Census Division and State	Tota	al (All Sector		Electric	Utilities	Independe Produ		Com	mercial	Indus	trial
	Jan 2003	Jan 2002	Percent Change	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002
New England	11,430	10,266	11.3	726	1,700	9,930	7,863	NM	95	703	608
Connecticut		2,804	-2.6	NM	2	2,705	2,780	NM	3	NM	20
Maine		1,740	20.9	NM	*	1,468	1,199	12	14	624	527
Massachusetts		3,097	25.5	40	15	3,758	2,971	44	75	NM	37
New Hampshire		1,420	13.2	623	1,267	968	130	NM	1	NM	22
Rhode Island		741 463	-22.8 14.0	NM 59	1 416	565 466	739 44	NM 	2	NM NM	3
Vermont Middle Atlantic	37,174	33,992	9.4	<b>6,492</b>	6,266	29,955	26,865	NM	83	641	777
New Jersey		5,014	11.4	222	48	5,221	4,659	NM	15	130	292
New York		11,498	5.7	3,633	3,430	8,310	7,852	NM	33	172	184
Pennsylvania		17,480	11.1	2,637	2,788	16,424	14,354	NM	36	339	302
East North Central	57,010	52,030	9.6	38,486	37,119	17,485	13,790	88	95	952	1,027
Illinois	17,541	14,583	20.3	1,982	2,675	15,275	11,653	NM	21	264	234
Indiana		10,719	4.5	10,570	9,992	327	323	NM	20	285	384
Michigan		9,211	8.1	8,594	7,781	1,232	1,240	35	40	NM	150
Ohio		12,746	4.5	12,738	12,230	543	469	NM	2	NM 260	46
Wisconsin		4,771	4.6	4,601	4,441	108	104	NM	12	268	213
West North Central	27,109	25,316	7.1	26,324	24,654	268 NM	326	NM NM	33 10	482 106	303
Iowa Kansas		3,642 4,166	4.3 5.1	3,626 4,282	3,436 4,115	NM 31	98 48	NM NM	10	106 65	98 3
Minnesota	,	4,589	3.1	4,311	4,232	135	178	NM	11	273	167
Missouri		6,872	14.1	7,768	6,844	45	178	NM	10	NM	17
Nebraska		2,687	6.9	2,865	2,679	NM	1	NM	1	5	5
North Dakota		2,801	3.5	2,884	2,789					NM	12
South Dakota		559	5.1	587	559						
South Atlantic	69,519	63,414	9.6	55,209	52,128	12,433	9,282	120	62	1,758	1,943
Delaware		266	186.7	16	10	704	224			NM	32
District of Columbia		-1	-1061.6			10	-1				
Florida		15,499	.9	13,940	13,660	1,399	1,280	NM	9	299	549
Georgia		10,243	6.0	9,965	9,624	444	107	NM	*	450	511
Maryland		3,718	38.2	NM	2	5,086	3,714	NM	2	44	0
North Carolina South Carolina		10,395 8,408	16.6 7.8	11,073 8,885	9,445 8,170	606 45	571 64	NM NM	11 5	431 131	368 170
Virginia		6,586	9.1	5,625	5,830	1,268	548	98	35	196	173
West Virginia		8,300	5.2	5,699	5,386	2,871	2,775			164	139
East South Central	32,904	32,056	2.6	30,755	29,633	1,122	1,293	NM	19	1,017	1,111
Alabama		11,254	6.9	11,210	10,630	305	50			516	574
Kentucky		8,153	7.7	8,016	7,144	717	951		8	49	50
Mississippi	3,663	4,304	-14.9	3,444	3,818	93	289	NM	2	125	196
Tennessee		8,346	1.0	8,085	8,042	7	3	NM	9	327	291
West South Central	48,638	46,052	5.6	22,884	23,934	19,571	16,196	NM	41	6,109	5,881
Arkansas		4,191	-7.3	3,432	3,908	240	100	NM	1	211	183
Louisiana		6,974	9.9	3,733	3,813	2,012	1,494	33	2	1,885	1,665
Oklahoma	,	4,515	2.9 6.8	4,146	4,064 12,149	366 16,954	341 14,260	NM NM	2 36	134 3,879	107 3,926
Texas Mountain	26,445 26,476	30,372 <b>26,555</b>	3	11,573 <b>23,345</b>	23,267	2,918	3,063	NM NM	25	190	201
Arizona	,	7,622	-5.6	6,831	6,965	334	626	NM	2	26	28
Colorado		3,991	-2.8	3,628	3,724	227	244	NM	17	NM	6
Idaho	520	651	-17.2	437	543	NM	50			59	58
Montana		1,857	8.2	372	488	1,630	1,363			7	6
Nevada		2,766	-6.3	2,059	2,126	532	640				
New Mexico	2,811	2,427	15.8	2,748	2,348	46	47	NM	4	NM	27
Utah		3,388	-1.5	3,277	3,333	36	38	NM	2	NM	16
Wyoming		3,853	6.8	3,993	3,739	70	54			NM	60
Pacific Contiguous	25,723	28,141	-8.6	14,664	17,977	9,282	8,434	178	165	1,599	1,565
California		14,154	8	5,586	6,206	6,844	6,396	168	156	1,438	1,396
Oregon Washington		4,763 9,225	-6.3 -21.7	3,335 5,744	4,037 7,734	1,051 1,387	670 1,369	NM NM	1 8	77 84	56 114
Pacific Noncontiguous	1,561	9,223 <b>1,563</b>	-21./ <b>1</b>	1,048	1,077	350	358	NM NM	12	NM	115
Alaska		689	-1.3	550	578	NM	20	NM	12	NM	79
Hawaii		874	.8	499	500	325	338			NM	36
	001	· · ·	5.7	219,933	217,754	103,314	87,470	703	630		

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

Notes: • See Glossary for definitions. • Values for 2002 and 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. • 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 1.6.B.** Net Generation by State, Year-to-Date through January (Thousand Megawatthours)

					Electric Pov	ver Sector		Comb	ined Heat and	d Power Pro	ducers
Census Division and State	Tota	al (All Sector	,	Electric	Utilities	Independe Produ		Comi	mercial	Indus	trial
	2003	2002	Percent Change	2003	2002	2003	2002	2003	2002	2003	2002
New England	11,430	10,266	11.3	726	1,700	9,930	7,863	NM	95	703	608
Connecticut	2,731	2,804	-2.6	NM	2	2,705	2,780	NM	3	NM	20
Maine	2,104	1,740	20.9	NM	*	1,468	1,199	12	14	624	527
Massachusetts	3,887	3,097	25.5	40	15	3,758	2,971	44	75	NM	37
New Hampshire	1,608	1,420	13.2	623	1,267	968	130	NM	1	NM	22
Rhode Island Vermont	572 528	741 463	-22.8 14.0	NM 59	1 416	565 466	739 44	NM 	2	NM NM	3
Middle Atlantic	37,174	33,992	9.4	6,492	6,266	29,955	26,865	NM	83	641	777
New Jersey	5,587	5,014	11.4	222	48	5,221	4,659	NM	15	130	292
New York	12,159	11,498	5.7	3,633	3,430	8,310	7,852	NM	33	172	184
Pennsylvania	19,429	17,480	11.1	2,637	2,788	16,424	14,354	NM	36	339	302
East North Central	57,010	52,030	9.6	38,486	37,119	17,485	13,790	88	95	952	1,027
Illinois	17,541	14,583	20.3	1,982	2,675	15,275	11,653	NM	21	264	234
Indiana	11,200	10,719	4.5	10,570	9,992	327	323	NM	20 40	285 NM	384
Michigan	9,957 13,321	9,211 12,746	8.1 4.5	8,594 12,738	7,781 12,230	1,232 543	1,240 469	35 NM	40 2	NM NM	150 46
Wisconsin	4,990	4,771	4.5	4,601	12,230 4,441	108	104	NM	12	268	213
West North Central	27,109	25,316	7.1	26,324	24,654	268	326	NM	33	482	303
Iowa	3,800	3,642	4.3	3,626	3,436	NM	98	NM	10	106	98
Kansas	4,379	4,166	5.1	4,282	4,115	31	48	NM	*	65	3
Minnesota	4,730	4,589	3.1	4,311	4,232	135	178	NM	11	273	167
Missouri	7,843	6,872	14.1	7,768	6,844	45	1	NM	10	NM	17
Nebraska	2,872	2,687	6.9	2,865	2,679	NM	1	NM	1	5	5
North Dakota	2,898	2,801	3.5	2,884	2,789					NM 	12
South Atlantic	587 <b>69,519</b>	559 <b>63,414</b>	5.1 <b>9.6</b>	587 <b>55,209</b>	559 <b>52,128</b>	12,433	9,282	120	62	1,758	1,943
Delaware	763	266	186.7	16	10	704	224	120		NM	32
District of Columbia	10	-1	-1061.6			10	-1				
Florida	15,646	15,499	.9	13,940	13,660	1,399	1,280	NM	9	299	549
Georgia	10,859	10,243	6.0	9,965	9,624	444	107	NM	*	450	511
Maryland	5,137	3,718	38.2	NM	2	5,086	3,714	NM	2	44	0
North Carolina	12,121	10,395	16.6	11,073	9,445	606	571	NM	11	431	368
South Carolina	9,062	8,408	7.8	8,885	8,170	45	64	NM	5	131	170
Virginia	7,187	6,586	9.1	5,625	5,830	1,268	548	98	35	196	173
West Virginia  East South Central	8,734 <b>32,904</b>	8,300 <b>32,056</b>	5.2 <b>2.6</b>	5,699 <b>30,755</b>	5,386 <b>29,633</b>	2,871 <b>1,122</b>	2,775 <b>1,293</b>	NM	19	164 <b>1,017</b>	139 <b>1,111</b>
Alabama	12,031	11,254	6.9	11,210	10,630	305	50			516	574
Kentucky	8,782	8,153	7.7	8,016	7,144	717	951		8	49	50
Mississippi	3,663	4,304	-14.9	3,444	3,818	93	289	NM	2	125	196
Tennessee	8,427	8,346	1.0	8,085	8,042	7	3	NM	9	327	291
West South Central	48,638	46,052	5.6	22,884	23,934	19,571	16,196	NM	41	6,109	5,881
Arkansas	3,884	4,191	-7.3	3,432	3,908	240	100	NM	1	211	183
Louisiana	7,663	6,974	9.9	3,733	3,813	2,012	1,494	33	2	1,885	1,665
Oklahoma Texas	4,648 32,443	4,515 30,372	2.9 6.8	4,146 11,573	4,064 12,149	366 16,954	341 14,260	NM NM	2 36	134 3,879	107 3,926
Mountain	26,476	26,555	3	23,345	23,267	2,918	3,063	NM	25	190	201
Arizona	7,193	7,622	-5.6	6,831	6,965	334	626	NM	2	26	28
Colorado	3,879	3,991	-2.8	3,628	3,724	227	244	NM	17	NM	6
Idaho	539	651	-17.2	437	543	NM	50			59	58
Montana	2,009	1,857	8.2	372	488	1,630	1,363			7	6
Nevada	2,591	2,766	-6.3	2,059	2,126	532	640				
New Mexico	2,811	2,427	15.8	2,748	2,348	46	47	NM	4	NM	27
Utah	3,338	3,388	-1.5	3,277	3,333	36	38	NM	2	NM	16
Wyoming Pacific Contiguous	4,116 <b>25,723</b>	3,853	6.8	3,993	3,739 <b>17,977</b>	70	54 9 121	178	165	NM 1,599	60 1 565
California	14,036	<b>28,141</b> 14,154	- <b>8.6</b> 8	<b>14,664</b> 5,586	6,206	<b>9,282</b> 6,844	<b>8,434</b> 6,396	168	156	1,438	<b>1,565</b> 1,396
Oregon	4,462	4,763	-6.3	3,335	4,037	1,051	670	NM	130	77	56
Washington	7,224	9,225	-21.7	5,744	7,734	1,387	1,369	NM	8	84	114
Pacific Noncontiguous	1,561	1,563	1	1,048	1,077	350	358	NM	12	NM	115
Alaska	680	689	-1.3	550	578	NM	20	NM	12	NM	79
Hawaii	881	874	.8	499	500	325	338			NM	36
U.S. Total	337,545	319,385	5.7	219,933	217,754	103,314	87,470	703	630	13,595	13,531

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

Notes: • See Glossary for definitions. • Values for 2002 and 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. • 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 1.7.A. Net Generation from Coal by State, January 2003 and 2002 (Thousand Megawatthours)

					Electric Pov	ver Sector		Comb	ined Heat an	d Power Pro	ducers
Census Division and State	Tot	al (All Sector		Electric	Utilities	Independe Produ		Com	mercial	Indus	trial
	Jan 2003	Jan 2002	Percent Change	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002
New England	1,891	1,737	8.8	363	380	1,490	1,306			38	52
Connecticut		313	25.2			392	313				
Maine		69	-28.5			15	22			34	47
Massachusetts		976	11.4			1,083	971			NM	5
New Hampshire Rhode Island		380	-4.6	363	380						
Vermont											
Middle Atlantic	14,431	12,557	14.9	1,632	1,666	12,587	10,700	NM	3	209	188
New Jersey	1,046	725	44.3	208	57	838	668				
New York	2,312	1,932	19.7	144	101	2,097	1,764	NM	2	68	65
Pennsylvania		9,900	11.9	1,280	1,509	9,653	8,269	NM	*	141	122
East North Central	41,045	36,790	11.6	33,199	31,560	7,424	4,848	NM	42	385	339
Illinois		6,896	26.9	1,944	2,630	6,626	4,113	NM	3	182	151
Indiana		10,055 5,624	6.3 6.7	10,402 5,894	9,774 5,510	265 40	261 32	NM 13	16 19	NM NM	4 64
Michigan Ohio		11,023	11.2	11,739	10,559	494	443	NM	*	NM	21
Wisconsin		3,191	4.8	3,219	3,088		0	NM	4	121	100
West North Central	21,292	19,568	8.8	20,920	19,356	NM	10	NM	17	341	185
Iowa	,	3,011	7.4	3,116	2,905	NM	10	NM	8	98	88
Kansas	3,270	3,090	5.8	3,270	3,090						
Minnesota		3,006	3.1	2,887	2,936					213	70
Missouri		5,697	18.0	6,695	5,672			11	9	NM	16
Nebraska		1,747	8.6	1,893	1,742					4	5
North DakotaSouth Dakota		2,684 334	2.1 -2.2	2,733 326	2,678 334					NM 	6
South Atlantic	38,739	34,938	10.9	30,772	28,398	7,563	6,142	NM	10	394	389
Delaware		143	179.6	50,772	20,376	393	137			8	7
District of Columbia											
Florida		5,775	-4.6	5,088	5,291	424	462				23
Georgia		6,597	1.0	6,592	6,539					75	58
Maryland		2,110	39.8			2,924	2,110			26	0
North Carolina		6,014	20.6	6,843	5,627	321	277	NM	10	78	101
South Carolina		2,886	22.5	3,493	2,841		425			43	45
Virginia		3,243 8,169	19.2 4.7	3,107 5,650	2,753 5,347	688	425			71 93	64 90
West Virginia  East South Central	8,557 <b>21,147</b>	19,453	4.7 <b>8.7</b>	20,226	18,309	2,813 <b>725</b>	2,731 <b>963</b>	NM	4	190	178
Alabama		5,582	16.6	6,454	5,534	18	14	14141		NM	34
Kentucky		7,814	6.6	7,623	6,865	707	949				
Mississippi	,	1,075	24.0	1,333	1,075						
Tennessee	4,973	4,983	2	4,816	4,835			NM	4	152	144
West South Central	21,221	19,217	10.4	14,419	14,090	6,460	4,844			342	283
Arkansas		2,273	-23.5	1,730	2,266					9	7
Louisiana		1,937	15.8	1,064	914	1,150	1,019			29	4
Oklahoma		3,303	.7	3,082	3,091	195	171			50 254	40
Texas Mountain	13,912 19,137	11,704 <b>18,264</b>	18.9 <b>4.8</b>	8,543 <b>17,589</b>	7,819 <b>17,064</b>	5,115 <b>1,482</b>	3,653 1,131			254 NM	232 <b>69</b>
Arizona	,	3,283	1.4	3,304	3,255	1,462	1,131			25	28
Colorado		3,246	-2.9	3,124	3,221	NM	25				
Idaho	1	6								NM	6
Montana		1,100	31.6	30	31	1,418	1,069				
Nevada		1,537	-4.4	1,468	1,537						
New Mexico		2,153	19.3	2,568	2,153						
Utah		3,236	-1.5	3,144	3,184	34	36			NM	16
Wyoming		3,703	7.4	3,952	3,683	1 121	1 001	NM		NM	20
Pacific Contiguous	<b>1,534</b> 221	1,542 205	<b>5</b> 7.9	364	400	<b>1,121</b> 176	<b>1,091</b> 161	NM 	1	<b>48</b> 45	51 44
California Oregon		398	-8.2	364	400	1/0	101			NM	-2
Washington		939	-6.2 .9		400	945	930	NM	1	2	-2 9
Pacific Noncontiguous	195	189	3.1	17	18	160	156	NM	12	NM	4
Alaska		50		17	18	NM	20	NM	12		
Hawaii		140	.3			136	136			NM	4
U.S. Total	180,632	164,255	10.0	139,501	131,240	39,024	31,190	90	88	2,017	1,737

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

Notes: ◆See Glossary for definitions. ◆Values for 2002 and 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. ◆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. ◆Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

**Table 1.7.B.** Net Generation from Coal by State, Year-to-Date through January (Thousand Megawatthours)

	_				Electric Pov	ver Sector		Comb	ined Heat and	d Power Prod	lucers
Census Division and State	Tota	al (All Sector	,	Electric	Utilities	Independe Produ		Com	mercial	Indust	rial
	2003	2002	Percent Change	2003	2002	2003	2002	2003	2002	2003	2002
New England	1,891	1,737	8.8	363	380	1,490	1,306	1		38	52
Connecticut	392	313	25.2			392	313				
Maine	49	69	-28.5			15	22			34	47
Massachusetts	1,087	976	11.4	262		1,083	971			NM	5
New Hampshire Rhode Island	363	380	-4.6 	363	380						
Vermont											
Middle Atlantic	14,431	12,557	14.9	1,632	1,666	12,587	10,700	NM	3	209	188
New Jersey	1,046	725	44.3	208	57	838	668				
New York	2,312	1,932	19.7	144	101	2,097	1,764	NM	2	68	65
Pennsylvania	11,074	9,900	11.9	1,280	1,509	9,653	8,269	NM	*	141	122
East North Central	41,045	36,790	11.6	33,199	31,560	7,424	4,848	NM	42	385	339
IllinoisIndiana	8,755 10,689	6,896 10,055	26.9 6.3	1,944 10,402	2,630 9,774	6,626 265	4,113 261	NM NM	3 16	182 NM	151 4
Michigan	5,999	5,624	6.7	5,894	5,510	40	32	13	19	NM	64
Ohio	12,258	11,023	11.2	11,739	10,559	494	443	NM	*	NM	21
Wisconsin	3,344	3,191	4.8	3,219	3,088		0	NM	4	121	100
West North Central	21,292	19,568	8.8	20,920	19,356	NM	10	NM	17	341	185
Iowa	3,235	3,011	7.4	3,116	2,905	NM	10	NM	8	98	88
Kansas	3,270	3,090	5.8	3,270	3,090						
Minnesota	3,101	3,006	3.1	2,887	2,936					213	70
Missouri	6,722	5,697	18.0	6,695	5,672			11	9	NM	16
Nebraska North Dakota	1,898	1,747	8.6 2.1	1,893	1,742					4 NM	5 6
South Dakota	2,741 326	2,684 334	-2.2	2,733 326	2,678 334					INIVI	
South Atlantic	38,739	34,938	10.9	30,772	28,398	7,563	6,142	NM	10	394	389
Delaware	401	143	179.6			393	137			8	7
District of Columbia											
Florida	5,512	5,775	-4.6	5,088	5,291	424	462				23
Georgia	6,666	6,597	1.0	6,592	6,539					75	58
Maryland	2,950	2,110	39.8		5 627	2,924	2,110			26	0
North Carolina	7,252	6,014	20.6	6,843	5,627	321	277	NM 	10	78 43	101
South Carolina Virginia	3,535 3,866	2,886 3,243	22.5 19.2	3,493 3,107	2,841 2,753	688	425		*	43 71	45 64
West Virginia	8,557	8,169	4.7	5,650	5,347	2,813	2,731			93	90
East South Central	21,147	19,453	8.7	20,226	18,309	725	963	NM	4	190	178
Alabama	6,510	5,582	16.6	6,454	5,534	18	14			NM	34
Kentucky	8,331	7,814	6.6	7,623	6,865	707	949				
Mississippi	1,333	1,075	24.0	1,333	1,075						
Tennessee	4,973	4,983	2	4,816	4,835			NM	4	152	144
West South Central	21,221	19,217	10.4	14,419	14,090	6,460	4,844			342	283
Arkansas Louisiana	1,739 2,243	2,273 1,937	-23.5 15.8	1,730 1,064	2,266 914	1,150	1,019			9 29	7 4
Oklahoma	3,326	3,303	.7	3,082	3,091	1,130	1,019			50	40
Texas	13,912	11,704	18.9	8,543	7,819	5,115	3,653			254	232
Mountain	19,137	18,264	4.8	17,589	17,064	1,482	1,131		_	NM	69
Arizona	3,329	3,283	1.4	3,304	3,255					25	28
Colorado	3,153	3,246	-2.9	3,124	3,221	NM	25				
Idaho	NM	6								NM	6
Montana	1,448	1,100	31.6	30	31	1,418	1,069				
Nevada	1,468	1,537	-4.4	1,468	1,537						
New Mexico	2,568 3,188	2,153 3,236	19.3 -1.5	2,568 3,144	2,153 3,184	34	36			NM	16
Utah Wyoming	3,100	3,703	-1.3 7.4	3,952	3,683	34				NM	20
Pacific Contiguous	1,534	1,542	5	364	400	1,121	1,091	NM	1	48	51
California	221	205	7.9			176	161			45	44
Oregon	365	398	-8.2	364	400					NM	-2
Washington	948	939	.9			945	930	NM	1	2	9
Pacific Noncontiguous	195	189	3.1	17	18	160	156	NM	12	NM	4
Alaska	NM	50		17	18	NM	20	NM	12	 ND 4	
Hawaii	140	140	.3	120 501	121 240	136	136			NM 2 017	1 737
U.S. Total	180,632	164,255	10.0	139,501	131,240	39,024	31,190	90	88	2,017	1,737

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

Notes: •See Glossary for definitions. •Values for 2002 and 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. •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. •Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

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

					Electric Pov	ver Sector		Comb	ined Heat an	d Power Pro	ducers
Census Division and State	Tota	al (All Sector	s)	Electric	Utilities	Independe Produ		Com	mercial	Indus	trial
	Jan 2003	Jan 2002	Percent Change	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002
New England	1,948	570	241.6	286	16	1,514	455	NM	17	NM	82
Connecticut	381	281	35.5	NM	*	374	280	NM	*	NM	1
Maine		61	523.5			302	*	*	*	80	61
Massachusetts		211	336.7	38	2	837	175	NM	14	NM	19
New Hampshire		14	1719.6	241	12		*	NM	1	NM	1
Rhode Island		3		NM	1	1	*	NM	1	NM	*
Vermont		1		NM	1						
Middle Atlantic	2,949	969	204.3	1,106	599	1,751	315	NM	3	NM	52
New Jersey		14	2793.1	25	1	346 707	6	NM		NM	6
New York Pennsylvania		814 141	123.9 419.4	1,078 NM	596 2	698	201 108	NM NM	3	25 NM	14 31
East North Central	455	213	113.3	192	138	222	32	NM	1	NM	42
Illinois		37	504.0	NM	3	219	32	NM	*	NM	2
Indiana		61	-3.9	46	44	2 2		NM	*	9	16
Michigan		49	105.3	99	48		*	NM	*	NM	1
Ohio		31	-5.3	27	31	NM	*	NM	*	NM	*
Wisconsin		35		16	12			NM	*	NM	23
West North Central	212	164	29.8	206	162	NM	1	NM	1	NM	1
Iowa	NM	4		NM	3	NM	*	NM	1	NM	*
Kansas		54	107.8	112	54					*	*
Minnesota		53	27.8	65	52		1	NM	*	NM	*
Missouri	NM	50		15	50			NM	*	NM	*
Nebraska	NM	1		NM	1			NM	*		
North Dakota	NM	2		3	2					NM	*
South Dakota	1	*	1933.3	1	*						
South Atlantic	5,092	2,744	85.6	3,613	2,381	1,266	201	43	4	170	158
Delaware		39	651.1	16	10	261	18			NM	11
District of Columbia		-1	-1061.6			10	-1				
Florida		2,017	34.8	2,525	1,913	186	79		<del></del>	7	24
Georgia		118	74.6	65	32	52	2	NM	*	88	83
Maryland		89	480.1	NM	2	514	87	NM	*	NM	
North Carolina		87	98.5	95	64	42	*	NM	*	36	24
South Carolina		18	235.8	40	10	10		NM	*	11	9
Virginia		356	204.0	847	330	185	14	42	4	NM	7
West Virginia	29	20	42.1	21	19	6	1	 ND4		NM	
East South Central	118	78	51.5	89	61	7	*	NM		NM	16
Alabama		39	52.5	43	27	NM 7	*			NM	12
Kentucky		11 2	122.4	17 6	11 1	/ 		NM	*	NM	1
Mississippi		26	3.6	23	23	*		INIVI		NM	3
Tennessee West South Central	509	308	65.1	119	34	348	264	NM	*	42	10
Arkansas		27	80.2	48	27	340	204	14141		1	*
Louisiana		165	16.0	28	4	156	159			7	2
Oklahoma		3	1145.6	35	1			NM	*	4	2
Texas		113	103.0	NM	2	192	105	NM	*	29	6
Mountain	59	80	-26.3	NM	20	40	58	NM	*	NM	2
Arizona		6		1	6			NM	*	NM	*
Colorado		2		1	1	NM	*			NM	1
Idaho		*	-77.8	*	*						
Montana		58	-29.4	NM	*	40	58				
Nevada		4	-66.3	1	4						
New Mexico		4		4	3		*			NM	1
Utah		3		NM	3	NM	*				
Wyoming		3		2	3					NM	*
Pacific Contiguous	249	226	10.0	4	4	185	156	NM	*	NM	66
California		211	13.3	4	3	185	156	NM	*	NM	52
Oregon		1		1	1			NM	*		*
Washington		15		*	1	NM	*	NM	*	NM	14
Pacific Noncontiguous	747	726	2.9	573	591	115	123	NM	1	NM	12
Alaska		97	2.6	NM	92	NM	*	NM	1	NM	4
Hawaii		629	2.6	498	499	114	122			NM 597	8
U.S. Total	12,338	6,079	103.0	6,204	4,005	5,449	1,604	98	27	587	442

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

Notes: •See Glossary for definitions. •Values for 2002 and 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. •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. •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 January (Thousand Megawatthours)

Census Division and State  New England Connecticut Maine. Massachusetts. New Hampshire. Rhode Island Vermont  Middle Atlantic New Jersey New York Pennsylvania East North Central Illinois Indiana Michigan Ohio. Wisconsin West North Central Iowa Kansas Minnesota Missouri Nebraska North Dakota South Dakota	2003  1,948 381 382 920 251 NM NM 2,949 393 1,823 734 455 226 58 100 29 NM 212 NM 112	2002  570 281 61 211 14 3 1 969 14 814 141 213 37 61 49 31 35	Percent Change 241.6 35.5 523.5 336.7 1719.6 	2003  286 NM 38 241 NM NM 1,106 25 1,078 NM 192	2002  16  * 2 12 1 1 599 1 596 2	1,514 374 302 837  1  1,751 346 707		2003  NM NM * NM	2002 17 * * 14 1 1  3	2003  NM NM 80 NM NM NM NM NM NM NM NM	2002  82  1 61 19 1 *
Connecticut Maine. Massachusetts. New Hampshire. Rhode Island Vermont Middle Atlantic New Jersey New York Pennsylvania East North Central Illinois Indiana Michigan Ohio. Wisconsin. West North Central Ilowa Kansas Minnesota Missouri Nebraska North Dakota.	1,948 381 382 920 251 NM NM 2,949 393 1,823 734 455 226 58 100 29 NM 212 NM	570 281 61 211 14 3 1 969 14 814 141 213 37 61 49 31	241.6 35.5 523.5 336.7 1719.6 	286 NM  38 241 NM NM 1,106 25 1,078 NM	16 * 2 12 1 1 599 1 596	1,514 374 302 837  1 1,751 346	455 280 * 175 * * 315	NM NM * NM NM NM NM	17 * 14 1 1  3	NM NM 80 NM NM NM	82 1 61 19 1 *
Connecticut Maine Massachusetts New Hampshire Rhode Island Vermont Middle Atlantic New Jersey New York Pennsylvania East North Central Illinois Indiana Michigan Ohio Wisconsin West North Central Iowa Kansas Minnesota Missouri Nebraska North Dakota	381 382 920 251 NM NM 2,949 393 1,823 734 455 226 58 100 29 NM 212 NM	281 61 211 14 3 1 969 14 814 141 213 37 61 49 31	35.5 523.5 336.7 1719.6 	NM 38 241 NM NM 1,106 25 1,078 NM 192	* 2 12 1 1 599 1 596	374 302 837  1  1,751 346	280 * 175 * *  315	NM * NM NM NM  NM	* 14 1 1 3	NM 80 NM NM NM	1 61 19 1
Maine	382 920 251 NM NM 2,949 393 1,823 734 455 226 58 100 29 NM 212 NM	61 211 14 3 1 <b>969</b> 14 814 141 <b>213</b> 37 61 49	523.5 336.7 1719.6 	38 241 NM NM 1,106 25 1,078 NM	2 12 1 1 599 1 596	302 837  1  1,751 346	* 175 * * * 315	* NM NM NM NM	* 14 1 1 3	80 NM NM NM	61 19 1 *
Massachusetts New Hampshire Rhode Island Vermont  Middle Atlantic  New Jersey New York Pennsylvania East North Central Illinois Indiana Michigan Ohio Wisconsin West North Central Iowa Kansas Minnesota Missouri Nebraska North Dakota	920 251 NM NM 2,949 393 1,823 734 455 226 58 100 29 NM 212 NM	211 14 3 1 969 14 814 141 213 37 61 49 31	336.7 1719.6 	38 241 NM NM 1,106 25 1,078 NM	2 12 1 1 599 1 596	837  1  1,751 346	175 * *  315	NM NM NM  NM	14 1 1  3	NM NM NM	19 1 *
New Hampshire	251 NM NM 2,949 393 1,823 734 455 226 58 100 29 NM 212 NM	14 3 1 969 14 814 141 213 37 61 49 31	1719.6  204.3 2793.1 123.9 419.4 113.3 504.0 -3.9	241 NM NM <b>1,106</b> 25 1,078 NM <b>192</b>	12 1 1 <b>599</b> 1 596	1  1,751 346	* *  315	NM NM  NM	1 1  3	NM NM 	1 *
Rhode Island Vermont  Middle Atlantic New Jersey New York Pennsylvania  East North Central Illinois Indiana Michigan Ohio. Wisconsin.  West North Central Iowa Kansas Minnesota Missouri Nebraska North Dakota	NM NM 2,949 393 1,823 734 455 226 58 100 29 NM 212 NM	3 1 969 14 814 141 213 37 61 49 31	204.3 2793.1 123.9 419.4 113.3 504.0 -3.9	NM NM 1,106 25 1,078 NM 192	1 1 <b>599</b> 1 596	1,751 346	*  315	NM  <b>NM</b>	3	NM 	*
Vermont  Middle Atlantic  New Jersey New York Pennsylvania  East North Central  Illinois Indiana Michigan Ohio Wisconsin  West North Central  Iowa Kansas Minnesota Missouri Nebraska North Dakota	NM 2,949 393 1,823 734 455 226 58 100 29 NM 212 NM	1 969 14 814 141 213 37 61 49 31	204.3 2793.1 123.9 419.4 113.3 504.0 -3.9	NM 1,106 25 1,078 NM 192	1 <b>599</b> 1 596	1,751 346	315	NM	3		
Middle Atlantic New Jersey New York Pennsylvania  East North Central Illinois Indiana Michigan Ohio Wisconsin  West North Central Iowa Kansas Minnesota Missouri Nebraska North Dakota	2,949 393 1,823 734 455 226 58 100 29 NM 212 NM	969 14 814 141 213 37 61 49 31	204.3 2793.1 123.9 419.4 113.3 504.0 -3.9	1,106 25 1,078 NM 192	<b>599</b> 1 596	346				NM	
New York Pennsylvania East North Central Illinois Indiana Michigan Ohio Wisconsin West North Central Iowa Kansas Minnesota Missouri Nebraska North Dakota	1,823 734 <b>455</b> 226 58 100 29 NM <b>212</b>	814 141 <b>213</b> 37 61 49 31	123.9 419.4 <b>113.3</b> 504.0 -3.9	1,078 NM <b>192</b>	596		6				52
Pennsylvania  East North Central  Illinois Indiana Michigan Ohio Wisconsin  West North Central Iowa Kansas Minnesota Missouri Nebraska North Dakota	734 455 226 58 100 29 NM 212 NM	141 213 37 61 49 31	419.4 <b>113.3</b> 504.0 -3.9	NM 192		707	O	NM	*	NM	6
East North Central Illinois Indiana Michigan Ohio Wisconsin West North Central Iowa Kansas Minnesota Missouri Nebraska North Dakota	455 226 58 100 29 NM 212 NM	213 37 61 49 31	113.3 504.0 -3.9	192	2		201	NM	3	25	14
Illinois	226 58 100 29 NM 212 NM	37 61 49 31	504.0 -3.9			698	108	NM	*	NM	31
Indiana	58 100 29 NM 212 NM	61 49 31	-3.9		138	222	32	NM	1 *	NM	42
Michigan Ohio. Wisconsin.  West North Central Iowa Kansas Minnesota Missouri Nebraska North Dakota	100 29 NM <b>212</b> NM	49 31		NM 46	3 44	219 2	32	NM NM	*	NM 9	2 16
Ohio	29 NM <b>212</b> NM	31	105.3	99	44		*	NM	*	NM	10
Wisconsin	NM 212 NM		-5.3	27	31	NM	*	NM	*	NM	*
Iowa	NM	33		16	12			NM	*	NM	23
Kansas		164	29.8	206	162	NM	1	NM	1	NM	1
Minnesota Missouri Nebraska North Dakota	112	4		NM	3	NM	*	NM	1	NM	*
Missouri Nebraska North Dakota		54	107.8	112	54					*	*
NebraskaNorth Dakota	67	53	27.8	65	52		1	NM	*	NM	*
North Dakota	NM	50		15	50			NM	*	NM	*
	NM NM	1 2		NM 3	2			NM 		NM	*
	1	*	1933.3	1	*					11111	
South Atlantic	5,092	2,744	85.6	3,613	2,381	1,266	201	43	4	170	158
Delaware	293	39	651.1	16	10	261	18			NM	11
District of Columbia	10	-1	-1061.6			10	-1				
Florida	2,719	2,017	34.8	2,525	1,913	186	79			7	24
Georgia	206	118	74.6	65	32	52	2	NM	*	88	83
Maryland	519	89	480.1	NM 05	2 64	514	87 *	NM	*	NM	24
North CarolinaSouth Carolina	174 62	87 18	98.5 235.8	95 40	10	42 10		NM NM	*	36 11	24 9
Virginia	1,082	356	204.0	847	330	185	14	42	4	NM	7
West Virginia	29	20	42.1	21	19	6	1			NM	*
East South Central	118	78	51.5	89	61	7	*	NM	*	NM	16
Alabama	59	39	52.5	43	27	NM	*			NM	12
Kentucky	24	11	122.4	17	11	7	*				
Mississippi	NM	2		6	1	*		NM	*	NM	1
Tennessee	27	26	3.6	23	23		264	NM	*	NM	3
West South Central Arkansas	<b>509</b> 49	<b>308</b> 27	<b>65.1</b> 80.2	119 48	34 27	348	264	NM	~	42	10
Louisiana	192	165	16.0	28	4	156	159			7	2
Oklahoma	39	3	1145.6	35	1			NM	*	4	2
Texas	229	113	103.0	NM	2	192	105	NM	*	29	6
Mountain	59	80	-26.3	NM	20	40	58	NM	*	NM	2
Arizona	NM	6		1	6			NM	*	NM	*
Colorado	NM	2		1	1	NM	*			NM	1
Idaho	41	£0	-77.8	NIM	*						
Montana Nevada	41 1	58 4	-29.4 -66.3	NM 1	4	40	58				
New Mexico	NM	4	-00.5	4	3		*			NM	1
Utah	NM	3		NM	3	NM	*				
Wyoming	NM	3		2	3					NM	*
Pacific Contiguous	249	226	10.0	4	4	185	156	NM	*	NM	66
California	239	211	13.3	4	3	185	156	NM	*	NM	52
Oregon	NM	1		1	1			NM	*		*
Washington	NM	15		*	1	NM	*	NM	*	NM	14
Pacific Noncontiguous	<b>747</b> NM	<b>726</b> 97	2.9	573 NM	<b>591</b> 92	115 NM	123	NM NM	1	NM	12
Alaska Hawaii		629	2.6	INIVI	92	INIVI				NIN I	1
U.S. Total	646		/ h	498	499	114	122	INIVI	1	NM NM	4 8

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

Notes: •See Glossary for definitions. •Values for 2002 and 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. •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. •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 1.9.A.** Net Generation from Natural Gas by State, January 2003 and 2002 (Thousand Megawatthours)

	_				Electric Pov	ver Sector		Comb	ined Heat an	d Power Pro	ducers
Census Division and State	Tota	al (All Sector		Electric	Utilities	Independe Produ		Comi	nercial	Indus	strial
	Jan 2003	Jan 2002	Percent Change	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002
New England	3,240	3,608	-10.2	NM	15	2,889	3,344	NM	62	320	188
Connecticut		570	-39.6			326	549	NM	3	NM	18
Maine		1,045	6.5			824	894	NM	*	289	151
Massachusetts		1,254	-2.5	NM	12	1,185	1,172	NM	59	NM	12
New Hampshire		8		*	2				*	NM	7
Rhode Island Vermont		730	-24.0 -82.1	*	*	554	730	NM 			
Middle Atlantic	3,504	4,457	-02.1 -21.4	498	660	2,731	3,358	NM	42	234	396
New Jersey	,	1,372	-19.6	2	2	988	1,108	NM	14	102	248
New York		2,805	-23.3	496	658	1,587	2,058	NM	10	55	79
Pennsylvania		279	-11.6	NM	*	156	192	NM	17	77	70
East North Central	2,010	1,880	6.9	354	322	1,455	1,366	NM	26	173	166
Illinois		280	17.4	NM	39	234	179	NM	17	52	46
Indiana		257	-13.1	100	128	54	55	NM	1	69	74
Michigan		1,183	1.8	139 9	115 4	1,049	1,046	7 NM	1 1	NM NM	21
Ohio Wisconsin		18 141	161.6 45.6	9 77	36	35 84	10 76	NM NM	6	NM 40	3 23
West North Central	492	480	2.4	296	389	102	48	NM	12	84	31
Iowa		47	-50.3	14	35			NM	2	8	10
Kansas		86	56.7	70	83			NM	*	65	3
Minnesota		93	30.1	46	20	57	47	NM	9	NM	17
Missouri		230	-13.0	155	229	45	1	NM	*	NM	*
Nebraska		23		NM	22	NM		NM	1	NM	*
North Dakota		*		*	*					NM	*
South Dakota South Atlantic	5,737		577.9	3,984		1 527	1.045	NM	8	182	242
Delaware		<b>5,341</b> 71	<b>7.4</b> -27.7	3,984	4,046	<b>1,537</b> 51	<b>1,045</b> 70	INIVI		182	242
District of Columbia		/ I	-27.7								
Florida		4,083	-2.4	3,384	3,468	482	453	NM	5	113	157
Georgia		175	153.0	NM	14	389	102			NM	58
Maryland		62	58.0	NM	*	95	62			NM	
North Carolina		261	38.4	158	6	201	253	NM	1	NM	2
South Carolina		410	-22.2	287	341	31	62	NM	*	*	7
Virginia		263 16	77.2 -15.0	130	217	281 7	34 8	28	2	NM NM	11
West Virginia  East South Central	2,842	3,543	-13.0 - <b>19.8</b>	2,280	2,985	372	308	NM	14	NM 185	8 <b>236</b>
Alabama		1,335	.6	969	1,172	273	18			101	145
Kentucky		43	47.1	45	14	3	2		8	NM	18
Mississippi		2,143	-37.5	1,191	1,800	93	288	NM	2	NM	54
Tennessee	. 95	22	335.4	74	*	4		NM	4	NM	18
West South Central	19,526	18,361	6.3	3,974	4,636	10,705	8,935	NM	39	4,777	4,751
Arkansas		166	72.0	15	45	240	100	NM	*	30	21
Louisiana		2,949	9.0	1,077	1,325	614	257	33	2	1,489	1,365
Oklahoma Texas	,	1,096 14,150	6.6 5.0	947 1,935	881 2,384	171 9,680	170 8,409	NM NM	2 35	48 3,209	42 3,322
Mountain	2,361	2,859	-17.4	1,259	1,335	1,020	1,428	NM	21	NM	76
Arizona		801	-38.5	157	173	334	626	NM	1	NM	*
Colorado		642	3	438	418	185	205	NM	14	NM	5
Idaho		28		2	2	NM	14			6	12
Montana		1	4.2	*	*		*			1	1
Nevada		1,007	-17.1	406	477	428	530				
New Mexico		240	-6.9	162	164	44	46	NM	4	NM	26
Utah		86 54	7.2 3.9	76 17	84 17	1 16	6	NM 	2	NM 24	32
Wyoming  Pacific Contiguous	. 56 <b>8,581</b>	54 <b>7,717</b>	3.9 11.2	1,021	1,108	6,252	5,332	NM	140	24 1,167	1,136
California		6,289	8.4	646	658	4,915	4,433	NM	136	1,121	1,062
Oregon		941	22.7	138	341	977	568	NM	130	39	31
Washington		487	25.0	237	110	360	331	NM	3	7	43
Pacific Noncontiguous	430	409	5.2	327	302	37	32	-	_	66	75
Alaska		377	4.2	327	302					66	75
Hawaii							25.104				
U.S. Total	48,721	48,656	.1	13,994	15,797	27,101	25,196	376	364	7,250	7,299

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

Notes: •Total includes small amount of generation from waste heat. •See Glossary for definitions. •Values for 2002 and 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. •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, including a small amount of supplemental gaseous fuels.

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

					Electric Pov	ver Sector		Comb	ined Heat and	l Power Prod	lucers
Census Division and State	Tota	l (All Sector	<u></u>	Electric	Utilities	Independe Produ		Com	mercial	Indust	rial
	2003	2002	Percent Change	2003	2002	2003	2002	2003	2002	2003	2002
New England	3,240	3,608	-10.2	NM	15	2,889	3,344	NM	62	320	188
Connecticut		570	-39.6			326	549	NM	3	NM	18
Maine	1,113	1,045	6.5			824	894	NM	*	289	151
Massachusetts	1,223	1,254	-2.5	NM	12	1,185	1,172	NM	59	NM	12
New Hampshire		8	24.0	*	2		720	 >D/4	*	NM	7
Rhode Island	555	730	-24.0			554	730	NM	*		
Vermont	3,504	4,457	-82.1 <b>-21.4</b>	498	660	2,731	3,358	NM	42	234	396
Middle Atlantic New Jersey	1,104	1,372	-19.6	2	2	988	1,108	NM	14	102	248
New York		2,805	-23.3	496	658	1,587	2,058	NM	10	55	79
Pennsylvania	247	279	-11.6	NM	*	156	192	NM	17	77	70
East North Central	2,010	1,880	6.9	354	322	1,455	1,366	NM	26	173	166
Illinois		280	17.4	NM	39	234	179	NM	17	52	46
Indiana	224	257	-13.1	100	128	54	55	NM	1	69	74
Michigan	1,204	1,183	1.8	139	115	1,049	1,046	7	1	NM	21
Ohio		18	161.6	9	4	35	10	NM	1	NM	3
Wisconsin	205	141	45.6	77	36	84	76	NM	6	40	23
West North Central	492	480	2.4	296	389	102	48	NM	12	84	31
Iowa	23	47	-50.3	14	35			NM	2	8	10
Kansas	135	86	56.7	70	83			NM	*	65	3
Minnesota	121	93	30.1	46	20	57	47	NM	9	NM	17
Missouri		230	-13.0	155	229	45	1	NM	*	NM	*
Nebraska		23		NM *	22	NM 		NM 	1	NM	*
North DakotaSouth Dakota	NM 1	*	577.9	1	*					NM 	•
South Atlantic	5,737	5,341	7.4	3,984	4,046	1,537	1,045	NM	8	182	242
Delaware	51	71	-27.7	3,704	*	51	70	14141		102	242
District of Columbia			-27.7								
Florida		4,083	-2.4	3,384	3,468	482	453	NM	5	113	157
Georgia	442	175	153.0	NM	14	389	102			NM	58
Maryland	98	62	58.0	NM	*	95	62			NM	
North Carolina		261	38.4	158	6	201	253	NM	1	NM	2
South Carolina	319	410	-22.2	287	341	31	62	NM	*	*	7
Virginia		263	77.2	130	217	281	34	28	2	NM	11
West Virginia	14	16	-15.0	*	*	7	8			NM	8
East South Central	2,842	3,543	-19.8	2,280	2,985	372	308	NM	14	185	236
Alabama		1,335	.6	969	1,172	273	18			101	145
Kentucky	63 1,340	2 142	47.1 -37.5	45 1,191	14 1,800	3 93	2 288	NM	8 2	NM NM	18 54
Mississippi Tennessee	95	2,143 22	335.4	74	1,000	4	200	NM	4	NM	18
West South Central	19,526	18,361	6.3	3,974	4,636	10,705	8,935	NM	39	4,777	4,751
Arkansas	286	166	72.0	15	45	240	100	NM	*	30	21
Louisiana	3,214	2,949	9.0	1,077	1,325	614	257	33	2	1,489	1,365
Oklahoma		1,096	6.6	947	881	171	170	NM	2	48	42
Texas	,	14,150	5.0	1,935	2,384	9,680	8,409	NM	35	3,209	3,322
Mountain	2,361	2,859	-17.4	1,259	1,335	1,020	1,428	NM	21	NM	76
Arizona	493	801	-38.5	157	173	334	626	NM	1	NM	*
Colorado	641	642	3	438	418	185	205	NM	14	NM	5
Idaho	NM	28		2	2	NM	14			6	12
Montana	1	1	4.2	*	*		*			1	1
Nevada	835	1,007	-17.1	406	477	428	530				
New Mexico	224	240	-6.9	162	164	44	46	NM	4	NM	26
Utah	92 56	86	7.2	76	84	1		NM	2	NM	
Wyoming	56	54	3.9	17	17	16	5 222	 NM	140	24	32
Pacific Contiguous	8,581	7,717	11.2	1,021	1,108	6,252	5,332	NM NM	140	1,167	1,136
California	6,818	6,289	8.4	646	658	4,915	4,433	NM NM	136	1,121	1,062
OregonWashington		941 487	22.7 25.0	138 237	341 110	977 360	568 331	NM NM	1 3	39 7	31 43
Washington Pacific Noncontiguous	430	409	5.2	327	302	37	32	INIVI	,	66	75
Alaska	393	377	4.2	327	302		32			66	75
		3//	4.2	321							13
Hawaii											

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

Notes: •Total includes small amount of generation from waste heat. •See Glossary for definitions. •Values for 2002 and 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. •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, including a small amount of supplemental gaseous fuels.

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

					Electric Pov	ver Sector		Comb	ined Heat an	d Power Pro	ducers
Census Division and State	Tot	al (All Sector		Electric	Utilities	Independe Produ		Com	mercial	Indus	trial
	Jan 2003	Jan 2002	Percent Change	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002
New England		*	_				*				
Connecticut		*					*				
Maine		*					*				
Massachusetts											
New Hampshire											
Rhode Island											
Vermont											
Middle Atlantic	NM	89	-			*	*			NM	89
New Jersey	NM	37					*			NM	37
New York	NM	9								NM	9
Pennsylvania	NM	43				*	*			NM	42
East North Central	235	345	-31.8			NM	11		-	227	334
Illinois	NM	29								NM	29
Indiana		290	-31.0			NM	*			199	289
Michigan	*	1	-43.7			*	1				
Ohio	12	25	-54.1			8	10			4	15
Wisconsin											
West North Central	4	5	-17.6	*						4	5
Iowa											
Kansas											
Minnesota											
Missouri				*							
Nebraska											
North Dakota		5	-20.5							4	5
South Dakota											
South Atlantic	66	66	5	-	-	33	42		-	32	24
Delaware		13	38.0							19	13
District of Columbia											
Florida		1	363.5			*	*			4	1
Georgia											
Maryland	33	42	-20.8			33	42				
North Carolina		*	-63.0			*	*				
South Carolina		*	-1.4							*	*
Virginia											
West Virginia		10	-2.1							10	10
East South Central	NM	23	-	-	-	-	_		-	NM	23
Alabama		22	-34.9							15	22
Kentucky											
Mississippi											
Tennessee		1	-80.0							*	1
West South Central	375	305	22.7			38	101			336	205
Arkansas											
Louisiana		39	93.3							76	39
Oklahoma		5								NM	5
Texas		261	11.4	*	*	38	101			252	160
Mountain	5	1	351.4			4					1
Arizona	*	*	250.6	*	*						
Colorado			378.6	*	•						
Idaho		*					*				
Montana			609.0			2	•				
Nevada	1					1					
New Mexico											
Utah		1								NM	
Wyoming	NM 151	1	2.0			27	25	NM.		NM	120
Pacific Contiguous	151	155	-2.8	-	-	27	25	NM *	-	125	130
California		130	-4.2							125	130
Oregon		25	12			26	25				
Washington		25	4.3			26	25				
Pacific Noncontiguous	5	4	3.8				-	-		5	4
Alaska										NM	
Hawaii	NM 012	4	 9.2	1	*		170	*		NM 802	916
U.S. Total	913	995	-8.2	1	^	111	179	^		802	816

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

Notes: •See Glossary for definitions. •Values for 2002 and 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. •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. •Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

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

					Electric Pov	ver Sector		Comb	ined Heat and	l Power Prod	lucers
Census Division and State	Tota	l (All Sector	<u></u>	Electric 1	U <b>tilities</b>	Independer Produ		Com	mercial	Indust	rial
	2003	2002	Percent Change	2003	2002	2003	2002	2003	2002	2003	2002
New England	1	*	-		-		*				-
Connecticut		*					*				
Maine		*					*				
Massachusetts											
New Hampshire											
Rhode Island											
Vermont											
Middle Atlantic	NM	89					*			NM	89
New Jersey	NM NM	37 9								NM NM	37 9
New York Pennsylvania	NM	43				*	*			NM	42
East North Central	235	345	-31.8			NM	11			227	334
Illinois	NM	29	-51.6							NM	29
Indiana	200	290	-31.0			NM	*			199	289
Michigan	*	1	-43.7			*	1				
Ohio	12	25	-54.1			8	10			4	15
Wisconsin											
West North Central	4	5	-17.6	*						4	5
Iowa											
Kansas											
Minnesota											
Missouri	*			*							
Nebraska											
North Dakota	4	5	-20.5							4	5
South Dakota											
South Atlantic	66	66	5			33	42			32	24
Delaware	19	13	38.0							19	13
District of Columbia											
Florida	4	1	363.5			*	*			4	1
Georgia											
Maryland	33	42	-20.8			33	42				
North Carolina	*	*	-63.0								*
South Carolina			-1.4 								
Virginia	10	10	-2.1							10	10
West Virginia  East South Central	NM	23	-2.1 							NM	23
Alabama	15	22	-34.9							15	22
Kentucky											
Mississippi											
Tennessee	*	1	-80.0							*	1
West South Central	375	305	22.7			38	101			336	205
Arkansas											
Louisiana	76	39	93.3							76	39
Oklahoma	NM	5								NM	5
Texas	291	261	11.4			38	101			252	160
Mountain	5	1	351.4	*	*	4	*			*	1
Arizona											
Colorado	*	*	378.6	*	*						
Idaho											
Montana	2	*	609.0			2	*				
Nevada	1					1					
New Mexico											
Utah	NIM									NIM	
Wyoming	NM	1	2.0			27	25	NM		NM	120
Pacific Contiguous	151	155	-2.8	-	-	27	25	NM *	-	125	130
California	125	130	-4.2							125	130
OregonWashington	26	25	4.3			26	25				
Washington Pacific Noncontiguous	5	25 <b>4</b>	3.8			26	25			5	4
Alaska			3.0								
Hawaii	NM	4								NM	4
U.S. Total	913	995	-8.2	1	*	111	179	*		802	816
C.S. Ittai	713	773	-0.2	1		111	117			002	310

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

Notes: • See Glossary for definitions. • Values for 2002 and 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. • 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. • Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

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

	usanu meg				Electric Pov	ver Sector		Comb	ined Heat an	d Power Pro	ducers
Census Division and State	Tota	al (All Sector	rs)	Electric	Utilities	Independe Produ		Comi	mercial	Indus	strial
	Jan 2003	Jan 2002	Percent Change	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002
New England	3,200	3,229	9		1,254	3,200	1,975		-		-
Connecticut	1,448	1,477	-2.0			1,448	1,477				
Maine											
Massachusetts	497	498	1			497	498				
New Hampshire Rhode Island		862	1 		862	861					
Vermont	394	392	.5		392	394					
Middle Atlantic	13,630	13,378	1.9	1,625	1,621	12,004	11,757				
New Jersey		2,769	6.3			2,943	2,769				
New York	3,726	3,768	-1.1	369	369	3,357	3,398				
Pennsylvania	6,961	6,841	1.8	1,256	1,251	5,705	5,589				
East North Central Illinois	<b>12,668</b> 8,139	<b>12,086</b> 7,268	4.8 12.0	4,529	4,818	<b>8,139</b> 8,139	<b>7,268</b> 7,268				
Indiana	0,139	7,208	12.0			6,139	7,206				
Michigan		2,091	17.4	2,454	2,091						
Ohio	,	1,583	-41.4	927	1,583						
Wisconsin	1,149	1,145	.3	1,149	1,145						
West North Central	4,309	4,162	3.5	4,309	4,162						
Iowa	426	419	1.7	426	419						
Kansas Minnesota	831 1,243	888 1,152	-6.4 7.9	831 1,243	888 1,152						
Missouri		847	3.0	873	847						
Nebraska	936	855	9.4	936	855						
North Dakota											
South Dakota											
South Atlantic	17,352	18,206	-4.7	16,060	16,918	1,293	1,288				
Delaware											
District of Columbia	2,914	2.064	 -1.7	2,914	2,964						
Florida		2,964 2,863	7.0	3,063	2,863						
Maryland		1,288	.3		2,005	1,293	1,288				
North Carolina	3,622	3,551	2.0	3,622	3,551						
South Carolina		4,928	.9	4,971	4,928						
Virginia		2,612	-43.0	1,490	2,612						
West Virginia	 ( 120	 ( 472	 5.2	 ( 120							
East South Central Alabama	<b>6,138</b> 2,812	<b>6,472</b> 2,950	- <b>5.2</b> -4.7	<b>6,138</b> 2,812	<b>6,472</b> 2,950				-		
Kentucky	2,012	2,750		2,012	2,750						
Mississippi		943	-3.1	913	943						
Tennessee	2,413	2,580	-6.5	2,413	2,580						
West South Central	5,653	6,459	-12.5	3,949	4,781	1,704	1,677				
Arkansas		1,334	4.4	1,392	1,334						
Louisiana		1,569	4	1,564	1,569						
Oklahoma Texas	2,697	3,555	-24.1	993	1,878	1,704	1,677				
Mountain	2,819	2,844	-24.1	2,819	2,844	1,704					
Arizona		2,844	9	2,819	2,844						
Colorado	´	,		,							
Idaho											
Montana											
Nevada											
New Mexico Utah											
Wyoming											
Pacific Contiguous	3,441	4,090	-15.9	3,441	4,090				-		
California		3,247	-19.6	2,611	3,247						
Oregon											
Washington		843	-1.4	831	843						
Pacific Noncontiguous			-				-				
Alaska Hawaii											
U.S. Total	69,211	70,926	-2.4	42,871	46,960	26,340	23,966				
	,=			.,	-,-	-,,-	- /- /- /-				

Notes: •See Glossary for definitions. •Values for 2002 and 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. •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.

**Table 1.11.B.** Net Generation from Nuclear Energy by State, Year-to-Date through January (Thousand Megawatthours)

					Electric Pov	ver Sector		Comb	ined Heat and	d Power Prod	lucers
Census Division and State	Tota	l (All Sector		Electric	Utilities	Independe Produ		Comi	nercial	Indust	rial
	2003	2002	Percent Change	2003	2002	2003	2002	2003	2002	2003	2002
New England	3,200	3,229	9		1,254	3,200	1,975	-			
Connecticut	1,448	1,477	-2.0			1,448	1,477				
Maine						407	400				
Massachusetts	497	498	1		962	497	498				
New Hampshire Rhode Island	861	862	1 		862	861					
Vermont	394	392	.5		392	394					
Middle Atlantic	13,630	13,378	1.9	1,625	1,621	12,004	11,757		-		
New Jersey	2,943	2,769	6.3			2,943	2,769				
New York	3,726	3,768	-1.1	369	369	3,357	3,398				
Pennsylvania	6,961	6,841	1.8	1,256	1,251	5,705	5,589				
East North Central	12,668	12,086	4.8	4,529	4,818	8,139	7,268				-
Illinois	8,139	7,268	12.0			8,139	7,268				
Indiana Michigan	2,454	2,091	 17.4	2,454	2,091						
Ohio	927	1,583	-41.4	927	1,583						
Wisconsin	1,149	1,145	.3	1,149	1,145						
West North Central	4,309	4,162	3.5	4,309	4,162					-	
Iowa	426	419	1.7	426	419						
Kansas	831	888	-6.4	831	888						
Minnesota	1,243	1,152	7.9	1,243	1,152						
Missouri	873	847	3.0	873	847						
Nebraska	936	855	9.4	936	855						
North DakotaSouth Dakota											
South Atlantic	17,352	18,206	-4.7	16,060	16,918	1,293	1,288				
Delaware	17,552				10,710	1,2/3	1,200	==			
District of Columbia											
Florida	2,914	2,964	-1.7	2,914	2,964						
Georgia	3,063	2,863	7.0	3,063	2,863						
Maryland	1,293	1,288	.3			1,293	1,288				
North Carolina	3,622	3,551	2.0	3,622	3,551						
South Carolina	4,971 1,490	4,928	.9 -43.0	4,971 1,490	4,928 2,612						
Virginia West Virginia	1,490	2,612	-43.0	1,490	2,012						
East South Central	6,138	6,472	-5.2	6,138	6,472						
Alabama	2,812	2,950	-4.7	2,812	2,950						
Kentucky											
Mississippi	913	943	-3.1	913	943						
Tennessee	2,413	2,580	-6.5	2,413	2,580						
West South Central	5,653	6,459	-12.5	3,949	4,781	1,704	1,677				
Arkansas	1,392	1,334	4.4	1,392	1,334						
Louisiana	1,564	1,569	4	1,564	1,569						
Oklahoma Texas	2,697	3,555	-24.1	993	1,878	1,704	1,677				
Mountain	2,819	2,844	-24.1 9	2,819	2,844	1,704	1,077				
Arizona	2,819	2,844	9	2,819	2,844						
Colorado		2,0		2,019	2,0						
Idaho											
Montana											
Nevada											
New Mexico											
Utah											
Wyoming	2 //1	4 000	15.0	 2 ///1	4 000						
Pacific Contiguous California	<b>3,441</b> 2,611	<b>4,090</b> 3,247	<b>-15.9</b> -19.6	<b>3,441</b> 2,611	<b>4,090</b> 3,247						
Oregon	2,011	3,247	-19.0	2,011	3,247						
Washington	831	843	-1.4	831	843						
Pacific Noncontiguous			-	-		_					
Alaska											
Hawaii											
U.S. Total	69,211	70,926	-2.4	42,871	46,960	26,340	23,966				

Notes: •See Glossary for definitions. •Values for 2002 and 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. •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.

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

	·				Electric Pov	ver Sector		Comb	ined Heat an	d Power Pro	ducers
Census Division and State	Tota	al (All Sector		Electric	Utilities	Independe Produ		Comi	mercial	Indus	trial
	Jan 2003	Jan 2002	Percent Change	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002
New England	371	266	39.5	46	31	268	172	*	-	56	63
Connecticut		29	43.3	NM	1	40	28				
Maine		143	22.7	NM	*	122	88	*		54	55
Massachusetts		-18 63	-123.7 3.2	NM 19	12	3 45	-19 45			NM NM	1 6
New Hampshire Rhode Island		*	3.2		12	NM	43 *			INIVI	
Vermont		48	73.5	24	17	57	30			NM	1
Middle Atlantic	2,097	2,009	4.4	1,631	1,720	465	286	NM	_	NM	3
New Jersey	-11	-10	6.5	-12	-11	NM	1				
New York	1,942	1,973	-1.6	1,546	1,705	395	265	NM		NM	3
Pennsylvania		46	264.8	98	26	68	20				
East North Central	224	286	-21.8	184	251	NM NM	16	NM NM	1 *	23	18
Illinois		11 46	-51.5	NM 22	4 46	NM 	7	NM 			
Indiana Michigan		27	-31.3 -34.7	7	16	NM	8			NM	2
Ohio		54	-33.7	36	54						
Wisconsin		149	-8.3	115	132	NM	1	NM	*	20	15
West North Central	559	570	-2.0	541	551	NM	6	-		NM	13
Iowa		71	-18.7	56	70	NM	1				
Kansas		2				NM	2				
Minnesota		63	-19.3	37	48	NM	2			NM	13
Missouri		41	-45.5	23 19	41						
Nebraska North Dakota		58 110	-67.5 35.3	148	58 110						
South Dakota		225	14.9	258	225						
South Atlantic	1,211	592	104.6	767	371	220	107	*	*	224	113
Delaware											
District of Columbia											
Florida		13	44.9	19	13						
Georgia		178	26.3	221	176	NM	*			NM	2
Maryland		67	169.8	256	100	182 NM	67	NM	*	160	01
North Carolina South Carolina		279 50	87.7 91.0	356 93	198 48	NM NM	1 2	NM NM	*	168	81
Virginia		-79	-170.3	52	-82	NM	2			NM	*
West Virginia		83	31.6	27	18	30	34			53	31
East South Central	2,114	1,871	13.0	2,021	1,806		1			94	65
Alabama	932	948	-1.6	932	948						
Kentucky		254	29.7	329	254						
Mississippi		1					1				
Tennessee		669	27.5	759	604					94	65
West South Central	<b>512</b> 247	<b>451</b> 236	<b>13.5</b> 4.5	<b>423</b> 247	<b>394</b> 236	89 NM	57				
Arkansas Louisiana		54	4.3 58.5	247	230	86	54				
Oklahoma		90	-8.8	82	90						
Texas		71	37.5	94	67	NM	4				
Mountain	1,834	2,245	-18.3	1,632	1,973	202	272		-	-	
Arizona		682	-19.6	548	682						
Colorado	60	79 574	-24.1	58	77	NM	2				
Idaho		574	-19.2	435	541	NM 170	33				
Montana Nevada		693 110	-26.2 67.1	341 183	457 109	170 NM	236 1				
New Mexico		28	07.1	NM	28	INIVI					
Utah		45	-25.1	33	45	NM	1				
Wyoming		34	-43.3	19	34						
Pacific Contiguous	9,895	12,431	-20.4	9,777	12,323	113	104	NM	5	NM	*
California		2,341	1.5	2,308	2,280	68	60				
Oregon		3,325	-13.9	2,832	3,295	NM	30				
Washington		6,765	-31.2	4,637	6,747	NM	13	NM	5	NM	*
Pacific Noncontiguous	137	173	-20.5	131	166	NM	3			NM	4
Alaska Hawaii		165 7	-20.9	131	165 1	NM	3			NM	4
U.S. Total	18,954	20,893	-9.3	17,153	19,585	1,382	1,024	6	5	413	279
I Ottal	10,757	20,075	-7.0	17,133	17,000	1,002	1,027	U	3	713	217

<sup>\*</sup> = For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

Notes: •See Glossary for definitions.•Values for 2002 and 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.•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.•Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.

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

			Electric Pov	ver Sector		Comb	ined Heat and	d Power Prod	ucers
l Sector	,	Electric	Utilities	Independer Produ		Com	mercial	Indust	rial
2002	Percent Change	2003	2002	2003	2002	2003	2002	2003	2002
266	39.5	46	31	268	172	*		56	63
29	43.3	NM	1	40	28				
143	22.7	NM	*	122	88			54	55
-18	-123.7	NM	*	3	-19	*		NM	1
63	3.2	19	12	45	45			NM	6
	72.5			NM	*			 ND 6	
48 <b>2,009</b>	73.5 <b>4.4</b>	24 1,631	17 <b>1,720</b>	57 <b>465</b>	30	NM		NM NM	1 3
-10	6.5	-12	-11	NM	<b>286</b>	INIVI		NM 	
1,973	-1.6	1,546	1,705	395	265	NM		NM	3
46	264.8	98	26	68	20				
286	-21.8	184	251	NM	16	NM	1	23	18
11		NM	4	NM	7	NM	*		
46	-51.5	22	46						
27	-34.7	7	16	NM	8			NM	2
54	-33.7	36	54						
149	-8.3	115	132	NM	1	NM	*	20	15
570	-2.0	541	551	NM	6			NM	13
71	-18.7	56	70	NM	1				
2				NM	2				
63	-19.3	37	48	NM	2			NM	13
41	-45.5	23	41						
58	-67.5	19	58						
110	35.3	148	110						
225	14.9	258	225						
592	104.6	767	371	220	107	*	*	224	113
13	44.9	19	13	 ND 6	*			 ND 4	
178	26.3	221	176	NM				NM	2
67 279	169.8 87.7	256	198	182	67 1	NIM	*	168	81
50	91.0	356 93	48	NM NM	2	NM NM	*	108	
-79	-170.3	52	-82	NM	2	18181	•	NM	*
83	31.6	27	18	30	34			53	31
1,871	13.0	2,021	1,806		1			94	65
948	-1.6	932	948						
254	29.7	329	254						
1					1				
669	27.5	759	604					94	65
451	13.5	423	394	89	57				
236	4.5	247	236	NM	*				
54	58.5			86	54				
90	-8.8	82	90						
71	37.5	94	67	NM	4				
2,245	-18.3	1,632	1,973	202	272				
682	-19.6	548	682						
79	-24.1	58	77	NM	2				
574	-19.2	435	541	NM	33				
693	-26.2	341	457	170	236				
110	67.1	183	109	NM	1				
28		NM	28						
45	-25.1	33	45	NM	1				
34	-43.3	19	34 12 222	112	104	NM		NM.	*
12,431	-20.4	9,777	12,323	113	104	NM	5	NM	
2,341	1.5	2,308	2,280	68 NM	60				
3,325 6,765	-13.9 -31.2	2,832 4,637	3,295 6,747	NM NM	30 13	NM	5	NM	*
									4
		*							4
20,893									279
20	173 165 7 0,893	165 -20.9 7	165 -20.9 131 7 *	165 -20.9 131 165 7 * 1	165 -20.9 131 165 7 * 1 NM	165 -20.9 131 165 7 * 1 NM 3	165 -20.9 131 165 7 * 1 NM 3	165 -20.9 131 165 7 * 1 NM 3	165 -20.9 131 165 7 * 1 NM 3 NM

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

Notes: • See Glossary for definitions. • Values for 2002 and 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. • 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. • Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.

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

	_				Electric Pov	ver Sector		Comb	ined Heat an	d Power Pro	ducers
Census Division and State	Tota	al (All Sector		Electric	Utilities	Independe Produ		Comi	mercial	Indus	trial
	Jan 2003	Jan 2002	Percent Change	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002
New England	781	855	-8.7	30	6	569	611	13	16	169	223
Connecticut		133	-6.5			125	133				
Maine		421	-8.8			206 153	195	11 2	14	167	213
Massachusetts New Hampshire		176 94	-11.8 -33.5			62	174 85		2	NM NM	8
Rhode Island		9	-33.3			9	9			11111	
Vermont		22	107.3	30	6	15	15			NM	2
Middle Atlantic	503	531	-5.3			417	449	28	36	58	46
New Jersey		107	-1.5			105	106	NM	*	NM	1
New York		196	*			167	166	15	18	15	12
Pennsylvania		227	-11.8			145	176	13	18	42	33
East North Central Illinois	<b>370</b> 57	<b>430</b> 61	<b>-13.8</b> -6.0	27	29	<b>219</b> 51	<b>248</b> 54	17 NM	<b>26</b>	107 NM	127 6
Indiana		11	-26.9			NM	7		3	2	*
Michigan		237	-23.5	2	1	135	154	15	20	30	62
Ohio		12				NM	5	NM	*	NM	7
Wisconsin		109	3.1	26	28	NM	27	NM	2	62	52
West North Central	236	364	-35.1	52	34	147	262	NM	3	34	65
Iowa		91	-45.1	8	4	42	87	NM	1	NM	
Kansas		46	-36.7			29	46				
Minnesota		219	-34.6	32	25	76	129	NM *	2	34	64
Missouri Nebraska		6 2	68.6 111.2	9	5 *	NM	1	NM	1	NM 	1
North Dakota		*				INIVI		11111	1 		*
South Dakota		*	137.5	1	*						
South Atlantic	1,169	1,347	-13.2	12	14	521	457	34	39	602	836
Delaware											
District of Columbia											
Florida		484	-26.1	10	12	306	286	NM	3	38	184
Georgia		312	-17.1			NM	2			257	310
Maryland		59 183	5.3 -7.9	 		46 41	57 40	NM 	2	14 128	143
North Carolina South Carolina		115	-7.9	1	1	41	40		4	77	143
Virginia		192	18.1			110	72	28	29	88	91
West Virginia		2	931.8	*	2	16					
East South Central	531	615	-13.7	2		17	21	NM	1	512	593
Alabama		378	-4.7			14	18			346	360
Kentucky		32	12.8	2						34	32
Mississippi		140	-50.8							69	140
Tennessee		65	1.6	*		NM	3	NM	1	63	61
West South Central Arkansas	<b>675</b> . 171	<b>741</b> 145	<b>-8.9</b> 17.9			180	272	3 NM	1 *	<b>491</b> 170	<b>467</b> 144
Louisiana		234	-7.2			6	6			211	228
Oklahoma		18	35.5							24	18
Texas		345	-23.7	*		174	267	3	1	86	77
Mountain	250	244	2.2	30	31	171	174	NM	3	46	36
Arizona		6		2	6			NM	*		
Colorado		22	-2.9	7	7	11	12	NM	3		
Idaho		34	27.3			NM	3			40	30
Montana		5	16.1			102	109			6	5
Nevada New Mexico		109 1	-7.0 			NM	109				
Utah		18	7.2	18	16	NM	1				
Wyoming		50	12.4	3	2	54	48			NM	
Pacific Contiguous	1,871	1,979	-5.5	57	52	1,584	1,726	32	20	199	181
California	. 1,646	1,730	-4.9	18	18	1,501	1,585	32	20	96	107
Oregon		98	-20.0	.==	<del></del>	42	72			37	27
Washington		151	-2.9	39	34	42	70			66	48
Pacific Noncontiguous	47	62 *	-23.6	NM	*	36	46			NM	16
Alaska		61	-23.7	NM *	*	36	46			NM	16
Hawaii	6,432	7,168	-23.7 - <b>10.3</b>	209	167	3,861	4,266	133	146	NM 2,229	16 <b>2,589</b>
C.D. I Otal	0,732	7,100	-10.5	207	107	3,001	7,200	133	170	2,22)	2,307

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

Notes: • See Glossary for definitions. • Values for 2002 and 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. 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. 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."

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

					Electric Pov	wer Sector		Comb	ined Heat and	l Power Prod	lucers
Census Division and State	Tota	l (All Sector	s)	Electric	Utilities	Independe Produ		Comi	mercial	Indust	rial
	2003	2002	Percent Change	2003	2002	2003	2002	2003	2002	2003	2002
New England	781	855	-8.7	30	6	569	611	13	16	169	223
Connecticut	125	133	-6.5			125	133				
Maine	384	421	-8.8			206	195	11	14	167	213
Massachusetts	155	176	-11.8			153	174	2	2	NM	8
New Hampshire Rhode Island	62 9	94 9	-33.5 .3			62 9	85 9			NM 	8
Vermont	46	22	107.3	30	6	15	15			NM	2
Middle Atlantic	503	531	-5.3			417	449	28	36	58	46
New Jersey	106	107	-1.5			105	106	NM	*	NM	1
New York	196	196	*			167	166	15	18	15	12
Pennsylvania	200	227	-11.8			145	176	13	18	42	33
East North Central	370	430	-13.8	27	29	219	248	17	26	107	127
Illinois	57	61	-6.0			51	54	NM	1	NM	6
Indiana	8	11	-26.9			NM	7		3	2	*
Michigan	182 NM	237	-23.5	2	1	135 NM	154	15 NM	20	30 NM	62
Ohio Wisconsin	NM 112	12 109	3.1	26	28	NM NM	5 27	NM NM	2	NM 62	7 52
West North Central	236	364	-35.1	52	34	147	262	NM	3	34	65
Iowa	50	91	-45.1	8	4	42	87	NM	1	NM	
Kansas	29	46	-36.7			29	46				
Minnesota	143	219	-34.6	32	25	76	129	NM	2	34	64
Missouri	10	6	68.6	9	5			*	*	NM	1
Nebraska	4	2	111.2	3	*	NM	1	NM	1		
North Dakota		*									*
South Dakota	1	*	137.5	1	*						
South Atlantic	1,169	1,347	-13.2	12	14	521	457	34	39	602	836
Delaware											
District of Columbia Florida	358	484	-26.1	10	12	306	286	NM	3	38	184
Georgia	258	312	-17.1		12	NM	2	11111		257	310
Maryland	62	59	5.3			46	57	NM	2	14	
North Carolina	169	183	-7.9			41	40			128	143
South Carolina	78	115	-31.8	1	1				4	77	109
Virginia	227	192	18.1			110	72	28	29	88	91
West Virginia	16	2	931.8	*	2	16					
East South Central	531	615	-13.7	2		17	21	NM	1	512	593
Alabama	360	378	-4.7			14	18			346	360
Kentucky	36 69	32 140	12.8 -50.8	2						34 69	32 140
Mississippi Tennessee	66	65	1.6			NM	3	NM	1	63	61
West South Central	675	741	-8.9	*		180	272	3	i	491	467
Arkansas	171	145	17.9					NM	*	170	144
Louisiana	217	234	-7.2			6	6			211	228
Oklahoma	24	18	35.5							24	18
Texas	263	345	-23.7	*		174	267	3	1	86	77
Mountain	250	244	2.2	30	31	171	174	NM	3	46	36
Arizona	NM	6		2	6			NM	*		
Colorado	21	22	-2.9	7	7	11	12	NM	3		
Idaho	43	34	27.3			NM	3			40	30
Montana	6 102	5 109	16.1			102	109			6	5
Nevada New Mexico	NM	109	-7.0 			NM	109				
Utah	19	18	7.2	18	16	NM	1				
Wyoming	56	50	12.4	3	2	54	48			NM	
Pacific Contiguous	1,871	1,979	-5.5	57	52	1,584	1,726	32	20	199	181
California	1,646	1,730	-4.9	18	18	1,501	1,585	32	20	96	107
Oregon	78	98	-20.0			42	72			37	27
Washington	147	151	-2.9	39	34	42	70			66	48
Pacific Noncontiguous	47	62	-23.6	NM	*	36	46			NM	16
Alaska	NM	*	22.7	NM *	*	26	46			NIM	16
Hawaii	47 6.432	61 7 169	-23.7			36	46	122	146	NM 2 220	16
U.S. Total	6,432	7,168	-10.3	209	167	3,861	4,266	133	146	2,229	2,589

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

Notes: • See Glossary for definitions. • Values for 2002 and 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. • 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. • 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."

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

Census Division and State				Electric Power Sector				Combined Heat and Power Producers			
	Total (All Sectors)			Electric Utilities		Independent Power Producers		Commercial		Industrial	
	Jan 2003	Jan 2002	Percent Change	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002
New England	*	-	_		-	-	-	-	-	*	-
Connecticut											
Maine	*									*	
Massachusetts New Hampshire											
Rhode Island											
Vermont											
Middle Atlantic	3	3	-13.6	-	-				-	3	3
New Jersey										*	
New York Pennsylvania	3	3	-13.8							3	3
East North Central	3		-13.0			*		*		3	
Illinois	*					*					
Indiana											
Michigan								*			
Ohio Wisconsin	3									3	
West North Central	5	4	23.6							5	4
Iowa											
Kansas											
Minnesota	5	4	23.6							5	4
Missouri											
Nebraska North Dakota											
South Dakota											
South Atlantic	153	180	-14.7	_					-	153	180
Delaware											
District of Columbia											
Florida		161	-16.0							136	161 *
Georgia Maryland		· 									<u>.</u>
North Carolina		18	-2.5							18	18
South Carolina											
Virginia											
West Virginia	 *	*								*	*
East South Central Alabama	*	*	<b>66.1</b> -2.3							*	*
Kentucky			-2.3								
Mississippi											
Tennessee	*	*	82.1							*	*
West South Central	168	209	-20.0	-		47	45		-	120	164
Arkansas Louisiana	72	10 27	170.4							72	10 27
Oklahoma			1/0.4							72	
Texas		173	-44.8			47	45			49	128
Mountain	12	17	-31.6							12	17
Arizona											
Colorado			25.5								
IdahoMontana	6	10	-35.5							6	10
Nevada											
New Mexico											
Utah											
Wyoming	5	7	-26.3							5	7
Pacific Contiguous	1	1	-11.7				_	-		1	1
California	1	1	-11.7 							1	1
Oregon Washington											
Pacific Noncontiguous									-		
Alaska											
Hawaii			17.0					 4			250
U.S. Total	344	415	-17.0		-	47	45	*	-	297	370

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

Notes: •See Glossary for definitions.•Values for 2002 and 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. 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. Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous

Table 1.14.B. Net Generation from Other Energy Sources by State, Year-to-Date through January (Thousand Megawatthours)

		awaunours			Electric Pov	wer Sector		Combi	ned Heat and	l Power Prod	lucers
Census Division and State	Tota	ll (All Sector	rs)	Electric	Utilities	Independer Produ		Comi	nercial	Indust	rial
	2003	2002	Percent Change	2003	2002	2003	2002	2003	2002	2003	2002
New England	*			-		-				*	-
Connecticut											
Maine											
Massachusetts	*									*	
New Hampshire											
Rhode Island Vermont											
Middle Atlantic	3	3	-13.6							3	3
New Jersey	*									*	
New York											
Pennsylvania	3	3	-13.8							3	3
East North Central	3					*		*		3	
Illinois	*					*					
Indiana	*							*			
Michigan											
Ohio Wisconsin	3									3	
West North Central	5	4	23.6							5	4
Iowa											
Kansas											
Minnesota	5	4	23.6							5	4
Missouri											
Nebraska											
North Dakota											
South Dakota South Atlantic	153	180	-14.7							153	180
Delaware	133	100	-14./			-				133	100
District of Columbia											
Florida	136	161	-16.0							136	161
Georgia		*									*
Maryland											
North Carolina	18	18	-2.5							18	18
South Carolina											
Virginia											
West Virginia  East South Central	*	*	66.1							*	*
Alabama	*	*	-2.3							*	*
Kentucky											
Mississippi											
Tennessee	*	*	82.1							*	*
West South Central	168	209	-20.0			47	45			120	164
Arkansas		10									10
Louisiana	72	27	170.4							72	27
Oklahoma	96	173	-44.8			 47	45			 49	128
Texas Mountain	12	173	-31.6			4/	43			12	17
Arizona			-51.0								
Colorado											
Idaho	6	10	-35.5							6	10
Montana											
Nevada											
New Mexico											
Utah			26.2								
Wyoming	5	7 1	-26.3 -11.7							5 1	7 1
Pacific Contiguous California	1	1	-11.7 -11.7							1	1
Oregon			-11./								
Washington											
Pacific Noncontiguous			-								-
Alaska											
Hawaii	344							*			
U.S. Total		415	-17.0			47	45			297	370

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

Notes: • See Glossary for definitions. • Values for 2002 and 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. 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. Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous

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

## Chapter 2. Consumption of Fossil Fuels

Table 2.1. Consumption of Fossil Fuels for Electricity Generation: Total (All Sectors), 1990 through January 2003

Period	Coal	Petroleum	Natural Gas
	(Thousand Tons)1	(Thousand Barrels) <sup>2</sup>	(Thousand Mcf) <sup>3</sup>
990	792,457	218,997	3,691,563
1991		203,669	3,764,778
1992	,	172,241	3,899,718
1993	,	192,462	3,928,653
1994		183,618	4,367,148
1995	,	132,578	4,737,871
996		144,626	4,312,458
1997		159.715	4,564,770
1998		222,640	5,081,384
1999		207,871	5,321,984
		195,228	
2000		195,228	5,691,481
2001 Tomporer	80 126	22 165	280 140
January	· · · · · · · · · · · · · · · · · · ·	32,165	380,140
February		18,020	347,941
March		20,256	402,384
April		19,039	422,489
May		17,931	473,897
June		20,555	532,482
July	92,001	18,829	678,339
August	93,954	24,532	732,862
September	79,751	12,659	552,781
October	76,326	11,191	509,007
November		10.271	389.977
December		11.224	410.003
Total	972,691	216,672	5,832,302
2002			
January	83,361	11,327	422,849
February	· · · · · · · · · · · · · · · · · · ·	9.095	379.447
March	,	13,492	445,852
April	*	12.429	437.164
May	, ,	13,506	454.088
June	*	13,032	585,404
July	- ,	16.549	778.760
August	, ,	16,277	741,928
	,	13,083	599,650
September	,	,	,
October		13,423	473,243 272,560
November		11,456	372,569
December		13,141	374,034
Total	985,374	156,809	6,064,989
2003	02.020	21.041	107.706
January	,	21,941	407,786
Γotal	92,030	21,941	407,786
Year to Date	20.425		200.440
2001		32,165	380,140
2002		11,327	422,849
2003	92,030	21,941	407,786
Rolling 12 Months Ending in January			
2002	966,917	195,834	5,875,012
2003		167,424	6,049,926

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

Notes: • See Glossary for definitions. • Values for 2002 and 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.

<sup>&</sup>lt;sup>2</sup> Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

<sup>&</sup>lt;sup>3</sup> Natural gas, including a small amount of supplemental gaseous fuels.

Table 2.2. Consumption of Fossil Fuels for Electricity Generation: Electric Utilities, 1990 through January 2003

Period	Coal (Thousand Tons) <sup>1</sup>	Petroleum (Thousand Barrels) <sup>2</sup>	Natural Gas (Thousand Mcf) <sup>3</sup>
1000		200.152	
1990			2,787,332
1991		188,494	2,789,014
992		152,329	2,765,608
993		168,556	2,682,440
994		155,377	2,987,146
995		105,956	3,196,507
996	874,681	116,680	2,732,107
997	900,361	132,147	2,968,453
998		187,461	3,258,054
999		151,868	3,113,419
000		125,788	3,043,094
001	002,000	120,700	2,012,051
January	73,362	20,280	156,992
February		10,240	143,270
	,	11,317	171,281
March			
April		11,512	210,340
May		11,739	233,213
June		13,044	260,189
July	,	11,966	353,857
August	77,714	15,071	359,379
September	65,984	8,655	255,221
October	63,130	7,083	229,562
November	61,267	6,112	154,920
December		6,436	158,063
otal	806,269	133,456	2,686,287
002		-55,155	_,,
January	66,705	6,763	150,756
February		5,264	137,136
March		8,248	160,521
April	*	8,516	169,337
May		9,307	182,382
June		8,404	232,386
July		9,609	297,947
August	,	9,766	291,080
September	65,914	8,725	227,475
October	62,864	8,396	173,187
November	61,546	6,195	122,691
December		7,326	115,317
otal	770,027	96,519	2,260,213
003	,		_,,
January	70,475	10,643	131,815
otal	70,475	10,643	131,815
ear to Date	10,713	10,075	131,013
	72.262	20.200	15( 002
001		20,280	156,992
002		6,763	150,756
003	70,475	10,643	131,815
colling 12 Months Ending in January			
002	799,612	119,939	2,680,051
003	773,797	100,398	2,241,272

Notes: • See Glossary for definitions. • Values for 2002 and 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.

<sup>&</sup>lt;sup>1</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

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

<sup>&</sup>lt;sup>3</sup> 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 January 2003

Period	Coal	Petroleum	Natural Gas
	(Thousand Tons) <sup>1</sup>	(Thousand Barrels) <sup>2</sup>	(Thousand Mcf) <sup>3</sup>
990	7,752	4,593	359,957
1991		2,316	427,042
1992	,	5,390	559,355
1993		10,478	661,800
1994		14,010	771,337
1995		13,707	897,266
1996	-,-	13,489	927,703
1997		15,056	934.742
1998	-,	21,986	1,157,759
[999		42,477	1,530,355
2000		58,158	1,970,977
2001	125,576	36,136	1,570,577
January	14,752	10,475	166,646
February	, ,	6.743	153.697
March	·········· <b>,</b> -	7,912	175,314
April	,	6,562	159,562
May		5,245	185,360
June	, ,	6.654	216,890
July	, ,	5,957	264,141
August	, ,	8,589	309,133
_	5		,
September		3,186	237,739
October	,	3,190	219,151
November		3,320	178,105
December	,	3,830	190,466 <b>2,456,206</b>
Total 2002	155,254	71,663	2,450,200
January	15,657	3,638	206,837
February	, ,	3,086	184,621
March	,	4,353	220,412
	, ,	3,122	211.601
April	, ,	3,400	208,747
May	, ,		
June	,	3,847 5.995	289,103 405.769
July			
August		5,581	379,506
September		3,580	307,439
October		4,106	244,584
November		4,436	196,349
December		4,772	205,880
Total	203,676	49,914	3,060,846
2003	20.425	9.879	210,863
January <b>Total</b>	20,425 <b>20,425</b>	9,879 <b>9,879</b>	210,863 <b>210,863</b>
Year to Date	20,423	7,017	210,003
2001	14,752	10,475	166,646
2002	,	3,638	206,837
2003		3,036 9,879	210,863
Rolling 12 Months Ending in January	20,723	2,017	210,003
2002	156,158	64,826	2,496,397
2003	,	56,156	3.064.873

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

Notes: • See Glossary for definitions. • Values for 2002 and 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.

<sup>&</sup>lt;sup>2</sup> Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

<sup>&</sup>lt;sup>3</sup> 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 January 2003

Period	Coal	Petroleum	Natural Gas
	(Thousand Tons) <sup>1</sup>	(Thousand Barrels) <sup>2</sup>	(Thousand Mcf) <sup>3</sup>
1990	417	953	27,544
1991	403	576	26,806
1992	371	429	32,674
1993	404	672	37,435
1994	404	694	40,828
1995	569	649	42,700
1996	656	645	42,380
997	630	790	38,975
998	440	802	40,693
1999	481	931	39,045
2000	514	823	37,029
2001	314	020	37,025
January	41	144	2,736
February	46	88	2.471
March	46	89	2,545
April	35	74	2.607
May	40	77	2.739
June	44	75	2,808
July	56	80	3,829
August	65	91	4,463
September	49	72	3,285
October	36	84	3,172
November	35	68	2,681
	38	88 82	2,001
December	532	1,023	36,248
2002	332	1,023	30,248
January	48	51	2,995
February	32	56	2.532
March	45	60	3,540
April	37	41	2,842
May	36	45	2,606
June	46	54	3,429
	46	88	7.103
July			.,
August	50 48	86 57	6,608 5,284
September	48	62	5,284
October	45 38		3,260 2,538
November		53	2,538
December	41	106	2,687
Fotal 2003	513	758	45,423
January	48	228	3,165
Fotal	48	228	3,165
Year to Date	70	220	3,103
2001	41	144	2,736
2002	48	51	2,730
2003	48	228	3,165
Rolling 12 Months Ending in January	70	220	3,103
2002	538	930	36,506
	538 513	930 935	36,506 45,593
2003	515	700	43,373

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

Notes: • See Glossary for definitions. • Values for 2002 and 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.

<sup>&</sup>lt;sup>2</sup> Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

<sup>&</sup>lt;sup>3</sup> Natural gas, including a small amount of supplemental gaseous fuels.

Consumption of Fossil Fuels for Electricity Generation: Industrial Combined Heat and Power Producers, 1990 through January 2003

Period	Coal	Petroleum	Natural Gas
	(Thousand Tons)1	(Thousand Barrels) <sup>2</sup>	(Thousand Mcf) <sup>3</sup>
1990		13,299	516,729
991		12,283	521,916
1992		14,093	542,081
1993	,	12,755	546,978
994		13,537	567,836
1995		12.265	601,397
996		13,813	610,268
997	,	11,723	622,599
1998		12,392	624,878
[999	,	12,595	639,165
2000		10,459	640,381
2001	11,700	10,437	040,301
January	980	1,266	53,766
February		949	48,502
March		937	53,245
April		892	49,979
May		871	52,585
June		782	52,595
July		826	56,512
August		781	59,886
September		747	56,536
October		833	57,122
		770	
November		876	54,270 58,564
December	10,636	10,530	58,564 <b>653,562</b>
2002	10,050	10,550	033,302
January	951	875	62,261
February		689	55,159
March		831	61,380
April		751	53,384
May		754	60,353
June		728	60,487
July		857	67,941
August		844	64,734
September		722	59,452
October		858	52,213
November		772	50,992
December		938	50,150
Total	11,157	9,618	698,507
2003	11,137	2,010	0,28,307
January	1,082	1,192	61,943
Total	1,082	1,192	61,943
Year to Date	1,002	1,1/2	01,710
2001	980	1,266	53,766
2002		875	62,261
2003		1,192	61,943
Rolling 12 Months Ending in January	1,002	1,1/2	01,770
2002	10,607	10,139	662.058
2003	,	9,935	698.188

Notes: • See Glossary for definitions. • Values for 2002 and 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.

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

<sup>&</sup>lt;sup>3</sup> Natural gas, including a small amount of supplemental gaseous fuels.

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

					Electric Po	wer Sector		Combin	ed Heat an	d Power P	roducers
Census Division and State	Tota	al (All Sector	s)	Electric	Utilities	Independe Produ		Comn	nercial	Indu	strial
	Jan 2003	Jan 2002	Percent Change	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002
New England	793	709	11.8	145	154	624	530	-	-	24	25
Connecticut	185	140	32.0			185	140				
Maine	25	31	-17.8			3	7			22	24
Massachusetts	437	384	13.8			436	383			1	1
New Hampshire	145	154	-5.6	145	154						
Rhode Island											
Vermont  Middle Atlantic	6,298	5,470	15.1	649	675	5,558	4,708	1	1	90	86
New Jersey	427	291	46.7	90	27	337	263				
New York	932	755	23.5	63	44	845	688	1	1	23	22
Pennsylvania	4,939	4,424	11.6	496	603	4,376	3,757	*	*	67	64
East North Central	20,406	18,332	11.3	15,963	15,453	4,220	2,703	19	17	203	158
Illinois	5,044	3,913	28.9	1,073	1,469	3,859	2,373	1	1	112	70
Indiana	5,163	4,914	5.1	5,021	4,770	132	134	6	7	4	3
Michigan	2,991	2,881	3.8	2,941	2,830	19	16	10	7	21	27
Ohio	5,185	4,703	10.3	4,963	4,514	210	180	*	*	12	8
Wisconsin	2,023	1,921	5.3	1,966	1,869			2	2	55	51
West North Central	13,687	12,613	8.5	13,475	12,480	6	5	10	14	197	113
Iowa	2,033	1,904	6.7	1,981	1,854	6	5	4	4	41	42
Kansas	2,105	1,953	7.8	2,105	1,953						
Minnesota	1,858	1,785	4.1	1,728	1,737					130	47
Missouri	3,970	3,369	17.8	3,956	3,350			6	11	8	8
Nebraska	1,151	1,076	7.0	1,149	1,073					2	3
North Dakota	2,372	2,323	2.1	2,357	2,310					15	13
South Dakota South Atlantic	198 <b>15,662</b>	203 <b>14,280</b>	-2.3 <b>9.7</b>	198 <b>12,368</b>	203 11,557		2,535	3	2	156	185
Delaware	180	66	171.9	12,306	11,557	<b>3,136</b> 177	2,535			3	2
District of Columbia	100		1/1.9			1//					
Florida	2,333	2,461	-5.2	2,164	2,261	169	187				13
Georgia	2,723	2,789	-2.4	2,683	2,758					39	30
Maryland	1,212	839	44.5	-,		1,212	839				
North Carolina	2,836	2,365	19.9	2,653	2,176	137	127	3	2	43	60
South Carolina	1,372	1,141	20.2	1,354	1,113					19	28
Virginia	1,564	1,309	19.5	1,246	1,110	294	175		*	24	24
West Virginia	3,444	3,310	4.0	2,267	2,138	1,148	1,145			28	27
East South Central	9,459	8,679	9.0	9,038	8,131	322	450	2	2	97	95
Alabama	2,980	2,539	17.4	2,940	2,509	10	7			31	23
Kentucky	3,804	3,560	6.9	3,492	3,116	312	443				
Mississippi	550	459	19.8	550	459						
Tennessee	2,124	2,121	.1	2,056	2,047			2	2	66	72
West South Central	14,270	12,329	15.7	9,286	8,946	4,724	3,154	-		261	229
Arkansas	1,087	1,390	-21.8	1,075	1,388	741				12	2
Louisiana	1,496	1,286	16.3	745	610	741	674			10	1
Oklahoma Texas	1,983 9,704	1,973 7,680	.5 26.4	1,862 5,604	1,858 5,090	91 3,891	83 2,397			30 209	32 194
Mountain	10,350	9,852	5.1	9,329	9,060	983	749			38	43
Arizona	1,705	1,665	2.4	1,697	1,654	765	747			8	11
Colorado	1,671	1,773	-5.7	1,657	1,761	14	12				
Idaho	4	3	20.4							4	3
Montana	953	719	32.5	30	31	923	689				
Nevada	680	772	-11.9	680	772						
New Mexico	1,450	1,200	20.8	1,450	1,200						
Utah	1,470	1,423	3.4	1,420	1,365	45	48			5	10
Wyoming	2,416	2,295	5.3	2,394	2,277					22	18
Pacific Contiguous	983	987	4	206	232	762	739	1	*	14	15
California	96	88	8.7			83	76			13	12
Oregon	206	232	-11.0	206	232					1	
Washington	681	667	2.1			680	663	1	*	1	3
Pacific Noncontiguous	123	111	10.2	17	18	91	81	13	11	2	2
Alaska	60	53	12.8	17	18	30	25	13	11		
Hawaii	63	58	7.7	70 475		61	56	 10		1 092	2
U.S. Total	92,030	83,361	10.4	70,475	66,705	20,425	15,657	48	48	1,082	951

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

Notes: •See Glossary for definitions. •Values for 2002 and 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, lignite, waste coal, and synthetic coal.

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

**Table 2.6.B.** Consumption of Coal for Electricity Generation by State, Year-to-Date through January (Thousand Tons)

					Electric Po	wer Sector		Combine	ed Heat an	d Power Pr	oducers
Census Division and State	Tota	l (All Sector	·s)	Electri	Utilities	Independe Produ		Comm	ercial	Indus	trial
	2003	2002	Percent Change	2003	2002	2003	2002	2003	2002	2003	2002
New England	793	709	11.8	145	154	624	530			24	25
Connecticut	185	140	32.0			185	140				
Maine	25	31	-17.8			3	7			22	24
Massachusetts	437	384	13.8			436	383			1	1
New Hampshire	145	154	-5.6	145	154						
Rhode Island											
Vermont  Middle Atlantic	6,298	5,470	15.1	649	675	5,558	4,708	 1	 1	90	86
New Jersey	427	291	46.7	90	27	337	263				
New York	932	755	23.5	63	44	845	688	1	1	23	22
Pennsylvania	4,939	4,424	11.6	496	603	4,376	3,757	*	*	67	64
East North Central	20,406	18,332	11.3	15,963	15,453	4,220	2,703	19	17	203	158
Illinois	5,044	3,913	28.9	1,073	1,469	3,859	2,373	1	1	112	70
Indiana	5,163	4,914	5.1	5,021	4,770	132	134	6	7	4	3
Michigan	2,991	2,881	3.8	2,941	2,830	19	16	10	7	21	27
Ohio	5,185	4,703	10.3	4,963	4,514	210	180	* 2	* 2	12	8
Wisconsin West North Central	2,023 <b>13,687</b>	1,921 <b>12,613</b>	5.3 <b>8.5</b>	1,966 <b>13,475</b>	1,869 <b>12,480</b>	6	5	10	14	55 <b>197</b>	51 113
Iowa	2,033	1,904	6.7	1,981	1,854	6	5	4	4	41	42
Kansas	2,105	1,953	7.8	2,105	1,953						
Minnesota	1,858	1,785	4.1	1,728	1,737					130	47
Missouri	3,970	3,369	17.8	3,956	3,350			6	11	8	8
Nebraska	1,151	1,076	7.0	1,149	1,073					2	3
North Dakota	2,372	2,323	2.1	2,357	2,310					15	13
South Dakota	198	203	-2.3	198	203						
South Atlantic	15,662	14,280	9.7	12,368	11,557	3,136	2,535	3	2	156	185
Delaware District of Columbia	180	66	171.9			177	64			3	2
Florida	2,333	2,461	-5.2	2,164	2,261	169	187				13
Georgia	2,723	2,789	-2.4	2,683	2,758					39	30
Maryland	1,212	839	44.5			1,212	839				
North Carolina	2,836	2,365	19.9	2,653	2,176	137	127	3	2	43	60
South Carolina	1,372	1,141	20.2	1,354	1,113					19	28
Virginia	1,564	1,309	19.5	1,246	1,110	294	175		*	24	24
West Virginia	3,444	3,310	4.0	2,267	2,138	1,148	1,145			28	27
East South Central	9,459	8,679	9.0	9,038	8,131	322	450	2	2	<b>97</b> 31	95
Alabama Kentucky	2,980 3,804	2,539 3,560	17.4 6.9	2,940 3,492	2,509 3,116	10 312	7 443			31	23
Mississippi	550	459	19.8	550	459	312	443				
Tennessee	2,124	2,121	.1	2,056	2,047			2	2	66	72
West South Central	14,270	12,329	15.7	9,286	8,946	4,724	3,154	-		261	229
Arkansas	1,087	1,390	-21.8	1,075	1,388					12	2
Louisiana	1,496	1,286	16.3	745	610	741	674			10	1
Oklahoma	1,983	1,973	.5	1,862	1,858	91	83			30	32
Texas	9,704	7,680	26.4	5,604	5,090	3,891	2,397			209	194
Mountain	10,350	9,852	5.1	9,329	9,060	983	749			38	43
Arizona Colorado	1,705 1,671	1,665 1,773	2.4 -5.7	1,697 1,657	1,654 1,761	14	12			8	11
Idaho	1,0/1	3	20.4	1,037	1,/01	14	12			4	3
Montana	953	719	32.5	30	31	923	689				
Nevada	680	772	-11.9	680	772						
New Mexico	1,450	1,200	20.8	1,450	1,200						
Utah	1,470	1,423	3.4	1,420	1,365	45	48			5	10
Wyoming	2,416	2,295	5.3	2,394	2,277					22	18
Pacific Contiguous	983	987	4	206	232	762	739	1	*	14	15
California	96 206	88	8.7	206	222	83	76			13	12
OregonWashington	206 681	232 667	-11.0 2.1	206	232	680	663	1	*	1 1	3
Washington  Pacific Noncontiguous	123	111	10.2	17	18	91	81	13	11	2	2
Alaska	60	53	12.8	17	18	30	25	13	11		
Hawaii	63	58	7.7			61	56			2	2
		83,361	10.4	70,475	66,705	20,425	15,657	48	48	1,082	951

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

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, January 2003 and 2002 (Thousand Barrels)

	_				Electric Po	wer Sector		Combin	ed Heat an	d Power P	roducers
Census Division and State	Tota	al (All Sector	s)	Electric	Utilities	Independe Produ		Comn	nercial	Indu	strial
	Jan 2003	Jan 2002	Percent Change	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002
New England	3,316	1,720	92.8	515	29	2,482	1,523	90	32	229	135
Connecticut	652	459	42.1	*	*	638	455	3	*	10	3
Maine	652	99	560.0			490	5	1	1	161	92
Massachusetts	1,526	1,127	35.4	75 425	5	1,352	1,062	49	21	49	39
New Hampshire	448 26	25 8	1686.5	425 3	20 2	2	*	16 22	4 6	8	1 *
Rhode Island Vermont	12	2	243.6 487.0	12	2		·				
Middle Atlantic	5,192	1,736	199.0	1,837	1,037	3,178	591	24	5	153	103
New Jersey	715	37	1815.9	46	2	626	22	1	*	41	13
New York	3,089	1,439	114.6	1,786	1,032	1,231	368	20	5	51	34
Pennsylvania	1,388	260	434.7	4	3	1,321	201	2	1	61	55
East North Central	927	435	113.2	414	283	443	91	8	1	62	60
Illinois	451	102	343.2	11	7	436	91	1	*	3	4
Indiana	115	93	23.1	96	87	5	*	1	*	13	6
Michigan Ohio	204 70	116 48	76.2 44.0	201 66	115 48	3	*	1	*	2 1	1
Wisconsin	88	76	15.8	40	26	3		4	1	43	49
West North Central	391	297	31.8	378	293	2	1	6	2	5	1
Iowa	18	8	109.5	14	7	2	*	1	1	*	*
Kansas	190	98	93.0	189	98					*	*
Minnesota	127	90	40.7	122	88		1	3	1	2	*
Missouri	34	92	-62.8	34	92			*	*	*	*
Nebraska	11	4	172.5	10	4			1	*		
North Dakota	8	4	119.4	5	3					3	1
South Dakota	3		738.7	3		2.496	358	92	9	206	240
South Atlantic Delaware	<b>9,036</b> 458	<b>4,580</b> 75	<b>97.3</b> 515.1	<b>6,073</b> 26	<b>3,865</b>	<b>2,486</b> 408	31	92		<b>386</b> 24	348 26
District of Columbia	34	/ 3 	313.1	20		34					20
Florida	4,530	3,287	37.8	4,189	3,109	328	134			12	44
Georgia	432	252	71.4	138	68	98	3	1	*	195	181
Maryland	1,161	163	611.8	9	4	1,152	159	1	*		
North Carolina	421	189	123.3	223	132	81	*	*	*	117	57
South Carolina	144	53	170.8	104	23	19		*	*	21	30
Virginia	1,802	533	238.4	1,347	485	357	28	89	9	9	11
West Virginia	55	29	92.1	36	27	11	2	1	*	7	*
East South Central Alabama	<b>253</b> 128	1 <b>53</b> 79	<b>65.1</b> 61.8	181 84	115 51	16	*	1 		55 44	38 28
Kentucky	49	23	107.3	34	23	15	*				
Mississippi	16	5	225.1	12	2			1	*	3	3
Tennessee	60	46	32.2	52	38	1				8	7
West South Central	981	616	59.3	203	61	668	515	1	*	109	39
Arkansas	82	48	70.4	82	47					*	1
Louisiana	359	281	27.9	49	8	296	268			14	5
Oklahoma	62	7	793.8	55	2			*	*	7	5
Texas	478	280	70.7	17	3	372	247	1	*	88	29
Mountain	132	165 11	<b>-20.2</b> -77.9	<b>30</b> 2	38 10	96	123	*	*	<b>6</b>	4
Arizona Colorado	7	3	109.7	3	2	*	*			4	1
Idaho	*	*	-64.9	*	*						
Montana	98	123	-20.7	2	*	96	123				
Nevada	3	6	-57.3	3	6						
New Mexico	7	9	-24.2	6	5		1			*	3
Utah	11	6	70.9	11	6	*	*				
Wyoming	5	7	-26.9	4	7					1	*
Pacific Contiguous	472	432	9.4	7	10	356	294	*	*	109	129
California	461	404	14.0	5	7	356	293	*	*	99	104
Oregon	2	2	-14.0	2	1	*	*	*	*	10	1
Washington  Pacific Noncontiguous	10 1,240	26 1,193	-61.0 <b>4.0</b>	1,005	1,033	153	142	5	1	10 77	24 18
Alaska	1,240	1,193	2.4	137	1,033	2	*	5	1	35	7
Hawaii	1,061	1,018	4.2	868	865	151	142			42	11
	21,941	11,327	93.7	10,643	6,763	9,879	3,638	228	51	1,192	875

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

Notes: •See Glossary for definitions. •Values for 2002 and 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. Source: Energy Information Administration, Form EIA-906, "Power Plant Report."

**Table 2.7.B.** Consumption of Petroleum for Electricity Generation by State, Year-to-Date through January (Thousand Barrels)

					Electric Po	ower Sector		Combine	ed Heat an	d Power Pi	oducers
Census Division and State	Tota	l (All Sector	rs)	Electri	c Utilities	Independer Produ		Comn	iercial	Indus	trial
	2003	2002	Percent Change	2003	2002	2003	2002	2003	2002	2003	2002
New England	3,316	1,720	92.8	515	29	2,482	1,523	90	32	229	135
Connecticut	652	459	42.1	*	*	638	455	3	*	10	3
Maine	652	99	560.0			490	5	1	1	161	92
Massachusetts	1,526	1,127	35.4	75	5	1,352	1,062	49	21	49	39
New Hampshire	448	25	1686.5	425	20		*	16	4	8	1
Rhode Island	26	8	243.6	3	2	2	*	22	6	*	*
Vermont	12	2	487.0	12	2						
Middle Atlantic	5,192	1,736	199.0	1,837	1,037	3,178	591	24	5	153	103
New Jersey	715	1 420	1815.9	46	1 022	626	22	1		41	13
New York	3,089	1,439	114.6 434.7	1,786 4	1,032	1,231	368 201	20 2	5 1	51 61	34 55
Pennsylvania	1,388 <b>927</b>	260 <b>435</b>	113.2	414	283	1,321 <b>443</b>	91	8	1	62	
East North Central Illinois	451	102	343.2	11	<b>283</b> 7	436	91	1	*	3	60 4
Indiana	115	93	23.1	96	87	5	71 *	1	*	13	6
Michigan	204	116	76.2	201	115	<i>-</i> -	*	1	*	2	1
Ohio	70	48	44.0	66	48	3	*	1	*	1	*
Wisconsin	88	76	15.8	40	26			4	1	43	49
West North Central	391	297	31.8	378	293	2	1	6	2	5	1
Iowa	18	8	109.5	14	7	2	*	1	1	*	*
Kansas	190	98	93.0	189	98					*	*
Minnesota	127	90	40.7	122	88		1	3	1	2	*
Missouri	34	92	-62.8	34	92			*	*	*	*
Nebraska	11	4	172.5	10	4			1	*		
North Dakota	8	4	119.4	5	3					3	1
South Dakota	3	*	738.7	3	*						
South Atlantic	9,036	4,580	97.3	6,073	3,865	2,486	358	92	9	386	348
Delaware	458	75	515.1	26	18	408	31			24	26
District of Columbia	34					34					
Florida	4,530	3,287	37.8	4,189	3,109	328	134			12	44
Georgia	432	252	71.4	138	68	98	3	1	*	195	181
Maryland	1,161	163	611.8	9	4	1,152	159	1	*		
North Carolina	421	189	123.3	223	132	81	*	*	*	117	57
South Carolina	144	53	170.8	104	23	19				21	30
Virginia	1,802	533	238.4	1,347	485	357	28	89	9	9	11
West Virginia	55 <b>253</b>	29 <b>153</b>	92.1 <b>65.1</b>	36 181	27 115	11 <b>16</b>	2	 1		7 55	38
Alabama	128	79	61.8	84	51	*	*			44	28
	49	23	107.3	34	23	15	*				
Kentucky Mississippi	16	5	225.1	12	23			1	*	3	3
Tennessee	60	46	32.2	52	38	1				8	7
West South Central	981	616	59.3	203	61	668	515	1	*	109	39
Arkansas	82	48	70.4	82	47					*	1
Louisiana	359	281	27.9	49	8	296	268			14	5
Oklahoma	62	7	793.8	55	2			*	*	7	5
Texas	478	280	70.7	17	3	372	247	1	*	88	29
Mountain	132	165	-20.2	30	38	96	123	*	*	6	4
Arizona	2	11	-77.9	2	10			*	*	1	1
Colorado	7	3	109.7	3	2	*	*			4	1
Idaho	*	*	-64.9	*	*						
Montana	98	123	-20.7	2	*	96	123				
Nevada	3	6	-57.3	3	6						
New Mexico	7	9	-24.2	6	5		1			*	3
Utah	11	6	70.9	11	6	*	*				
Wyoming	5	7	-26.9	4	7					1	*
Pacific Contiguous	472	432	9.4	7	10	356	294	*	*	109	129
California	461	404	14.0	5	7	356	293	*	*	99	104
Oregon	2	2	-14.0	2	1			*			1
Washington	10	26	-61.0	*	1	*	*	*	*	10	24
Pacific Noncontiguous	1,240	1,193	4.0	1,005	1,033	153	142	5	1	77	18
Alaska	179	175	2.4	137	167	2	1.40	5	1	35	7
Hawaii	1,061	1,018	4.2	868	865	151	142	220	 	42	11
U.S. Total	21,941	11,327	93.7	10,643	6,763	9,879	3,638	228	51	1,192	875

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

Notes: •See Glossary for definitions. •Values for 2002 and 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. Source: Energy Information Administration, Form EIA-906, "Power Plant Report."

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

					Electric Po	wer Sector		Combin	ed Heat an	d Power P	roducers
Census Division and State	Tota	al (All Sector	s)	Electric	Utilities	Independe Produ		Comn	nercial	Indu	strial
	Jan 2003	Jan 2002	Percent Change	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002
New England	24,216	27,946	-13.3	20	153	21,188	25,601	354	447	2,654	1,744
Connecticut	2,567	4,511	-43.1			2,389	4,300	25	30	153	181
Maine	8,131	7,660	6.1			5,768	6,261	*	*	2,362	1,400
Massachusetts	9,089	9,966	-8.8	19	131	8,664	9,327	324	411	83	97
New Hampshire	56	85	-33.8	*	18					56	66
Rhode Island	4,372	5,720	-23.6			4,367	5,714	5	6		
Vermont	28,113	4	-75.3 <b>-27.1</b>	1 000	6,942	20.706	27,418	429	414	1,991	3,789
Middle Atlantic New Jersey	8,294	<b>38,564</b> 11,864	-30.1	<b>4,988</b> 27	25	<b>20,706</b> 7,243	9,181	126	149	899	2,509
New York	17,908	24,583	-27.2	4,959	6,914	12,234	16,759	165	101	549	809
Pennsylvania	1,912	2,116	-9.7	2	3	1,229	1,478	138	164	542	472
East North Central	18,379	17,624	4.3	3,984	3,519	12,660	12,081	280	194	1,455	1,830
Illinois	3,554	2,659	33.7	251	364	2,550	1,700	108	128	644	467
Indiana	1,719	2,528	-32.0	731	1,005	704	722	6	4	278	798
Michigan	10,501	10,698	-1.8	1,837	1,525	8,435	8,927	121	11	109	234
Ohio	554	303	82.8	157	108	348	133	10	12	40	50
Wisconsin	2,050	1,436	42.8	1,008	517	623	599	35	39	384	280
West North Central Iowa	<b>5,328</b> 536	<b>5,092</b> 706	<b>4.6</b> -24.1	<b>3,072</b> 277	<b>3,932</b> 395	794	371	188 21	230 25	1,275 238	<b>559</b> 286
Kansas	1,688	1,105	-24.1 52.8	827	1,076			5	25 5	238 856	280
Minnesota	1,347	1,098	22.6	592	319	430	354	155	184	170	242
Missouri	1,596	1,894	-15.8	1,226	1,869	363	17	1	6	6	3
Nebraska	133	268	-50.4	124	256	1		6	10	2	3
North Dakota	2	2	-14.7	*						2	2
South Dakota	27	18	52.4	27	18						
South Atlantic	45,248	46,012	-1.7	31,194	35,348	12,397	8,770	268	59	1,389	1,835
Delaware	456	802	-43.2	2	6	454	796				
District of Columbia	30,822	35,166	-12.4	26.277	30,792	3,963	3,602	35	26	548	736
Florida Georgia	3,463	2,052	68.8	26,277 308	193	2,810	1,100		36	346	758
Maryland	681	599	13.7	1	1	636	598			44	
North Carolina	3,137	1,882	66.7	1,156	46	1,931	1,811	3	6	48	19
South Carolina	2,646	3,063	-13.6	2,334	2,470	303	469	2	2	7	122
Virginia	3,814	2,290	66.6	1,115	1,837	2,236	319	229	15	234	118
West Virginia	229	159	43.9	3	3	64	73			162	83
East South Central	26,204	29,281	-10.5	20,893	24,085	2,923	2,294	31	127	2,358	2,775
Alabama	10,976	11,103	-1.1	7,641	9,046	2,071	190			1,264	1,867
Kentucky	805	439	83.4	593	179	35	25	12	87	177	148
Mississippi Tennessee	13,237 1,187	17,503 236	-24.4 402.0	11,725 935	14,860	770 47	2,078	12 19	12 29	731 185	553 208
West South Central	168,868	164,301	2.8	43,376	49,949	83,746	74,357	544	338	41,202	39,657
Arkansas	2,366	1,307	81.0	246	495	1,677	582	2	3	440	227
Louisiana	30,442	29,383	3.6	12,732	14,593	4,512	1,918	261	28	12,938	12,843
Oklahoma	11,128	10,359	7.4	9,342	8,531	1,282	1,319	22	28	481	481
Texas	124,933	123,253	1.4	21,056	26,330	76,275	70,537	258	279	27,344	26,106
Mountain	18,693	24,498	-23.7	11,704	12,966	6,080	10,324	124	128	786	1,080
Arizona	2,496	6,366	-60.8	1,680	2,065	806	4,290	9	10	*	*
Colorado	5,174	5,174	*	3,502	3,320	1,553	1,729	71	73	49	52
Idaho	285	474	-39.9 10.2	25	29	99	118			161	328
Montana Nevada	16 7,007	14 8,416	10.3 -16.7	7 3,846	1 4,608	3,161	1 3,808			9	12
New Mexico	2,071	2,410	-16.7 -14.0	3,846 1,594	1,740	288	3,808	32	33	157	321
Utah	1,036	1,060	-2.3	856	1,047	9		12	13	158	J21 
Wyoming	609	584	4.3	194	156	164	61			252	367
Pacific Contiguous	68,529	65,759	4.2	9,218	10,990	50,369	45,620	948	1,057	7,994	8,091
California	55,764	54,335	2.6	6,379	6,790	40,811	39,112	902	1,023	7,672	7,409
Oregon	8,083	7,557	7.0	1,037	3,277	6,802	3,972	5	7	240	301
Washington	4,682	3,866	21.1	1,803	923	2,756	2,536	40	27	83	381
Pacific Noncontiguous	4,205	3,772	11.5	3,365	2,872		-			840	900
Alaska Hawaii	4,205	3,772	11.5	3,365	2,872					840	900
U.S. Total	407,786	422,849	-3.6	131,815	150,756	210,863	206,837	3,165	2,995	61,943	62,261
0.5. 10tai	407,700	722,077	-3.0	101,013	150,750	210,003	200,037	5,105	2,773	01,773	02,201

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

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

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. • Values for 2002 have been adjusted to reflect the Form EIA-861 census data and 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. • Mcf = thousand cubic feet. • Natural gas, including a small amount of supplemental gaseous fuels.

**Table 2.8.B.** Consumption of Natural Gas for Electricity Generation by State, Year-to-Date through January (Thousand Mcf)

					Electric Po	wer Sector		Combine	ed Heat an	d Power P	roducers
Census Division and State	Tota	ıl (All Sector	rs)	Electri	c Utilities	Independe Produ		Comn	iercial	Indu	strial
	2003	2002	Percent Change	2003	2002	2003	2002	2003	2002	2003	2002
New England	24,216	27,946	-13.3	20	153	21,188	25,601	354	447	2,654	1,744
Connecticut	2,567	4,511	-43.1			2,389	4,300	25	30	153	181
Maine	8,131	7,660	6.1			5,768	6,261	*	*	2,362	1,400
Massachusetts	9,089	9,966	-8.8	19	131	8,664	9,327	324	411	83	97
New Hampshire	56 4 272	85 5.720	-33.8		18	1 267	 5 714	5		56	66
Rhode Island Vermont	4,372 1	5,720 4	-23.6 -75.3	1	4	4,367	5,714		6		
Middle Atlantic	28,113	38,564	-27.1	4,988	6,942	20,706	27,418	429	414	1,991	3,789
New Jersey	8,294	11,864	-30.1	27	25	7,243	9,181	126	149	899	2,509
New York	17,908	24,583	-27.2	4,959	6,914	12,234	16,759	165	101	549	809
Pennsylvania	1,912	2,116	-9.7	2	3	1,229	1,478	138	164	542	472
East North Central	18,379	17,624	4.3	3,984	3,519	12,660	12,081	280	194	1,455	1,830
Illinois	3,554	2,659	33.7	251	364	2,550	1,700	108	128	644	467
Indiana	1,719	2,528	-32.0	731	1,005	704	722	6	4	278	798
Michigan	10,501	10,698	-1.8	1,837	1,525 108	8,435	8,927 133	121 10	11	109 40	234 50
Ohio Wisconsin	554 2,050	303 1,436	82.8 42.8	157 1,008	108 517	348 623	133 599	10 35	12 39	40 384	280
West North Central	5,328	5,092	42.8	3,072	3,932	794	371	188	230	1,275	559
Iowa	536	706	-24.1	277	395		3/1	21	25	238	286
Kansas	1,688	1,105	52.8	827	1,076			5	5	856	23
Minnesota	1,347	1,098	22.6	592	319	430	354	155	184	170	242
Missouri	1,596	1,894	-15.8	1,226	1,869	363	17	1	6	6	3
Nebraska	133	268	-50.4	124	256	1		6	10	2	3
North Dakota	2	2	-14.7	*						2	2
South Dakota	27	18	52.4	27	18						
South Atlantic	45,248	46,012	-1.7	31,194	35,348	12,397	8,770	268	59	1,389	1,835
Delaware District of Columbia	456	802	-43.2	2	6	454	796				
Florida	30,822	35,166	-12.4	26,277	30,792	3,963	3,602	35	36	548	736
Georgia	3,463	2,052	68.8	308	193	2,810	1,100			345	758
Maryland	681	599	13.7	1	1	636	598			44	
North Carolina	3,137	1,882	66.7	1,156	46	1,931	1,811	3	6	48	19
South Carolina	2,646	3,063	-13.6	2,334	2,470	303	469	2	2	7	122
Virginia	3,814	2,290	66.6	1,115	1,837	2,236	319	229	15	234	118
West Virginia	229	159	43.9	3	3	64	73			162	83
East South Central	26,204	29,281	-10.5	20,893	24,085	2,923	2,294	31	127	2,358	2,775
Alabama	10,976 805	11,103 439	-1.1 83.4	7,641 593	9,046 179	2,071 35	190 25		 87	1,264 177	1,867 148
Kentucky Mississippi	13,237	17,503	-24.4	11,725	14,860	770	2,078	12	12	731	553
Tennessee	1,187	236	402.0	935	14,600	47	2,076	19	29	185	208
West South Central	168,868	164,301	2.8	43,376	49,949	83,746	74,357	544	338	41,202	39,657
Arkansas	2,366	1,307	81.0	246	495	1,677	582	2	3	440	227
Louisiana	30,442	29,383	3.6	12,732	14,593	4,512	1,918	261	28	12,938	12,843
Oklahoma	11,128	10,359	7.4	9,342	8,531	1,282	1,319	22	28	481	481
Texas	124,933	123,253	1.4	21,056	26,330	76,275	70,537	258	279	27,344	26,106
Mountain	18,693	24,498	-23.7	11,704	12,966	6,080	10,324	124	128	786	1,080
Arizona	2,496	6,366	-60.8 *	1,680	2,065	806	4,290	9	10 73	49	52
Colorado Idaho	5,174 285	5,174 474	-39.9	3,502 25	3,320 29	1,553 99	1,729 118	71		161	328
Montana	16	14	10.3	7	1		1			9	12
Nevada	7,007	8,416	-16.7	3,846	4,608	3,161	3,808				
New Mexico	2,071	2,410	-14.0	1,594	1,740	288	316	32	33	157	321
Utah	1,036	1,060	-2.3	856	1,047	9		12	13	158	
Wyoming	609	584	4.3	194	156	164	61			252	367
Pacific Contiguous	68,529	65,759	4.2	9,218	10,990	50,369	45,620	948	1,057	7,994	8,091
California	55,764	54,335	2.6	6,379	6,790	40,811	39,112	902	1,023	7,672	7,409
Oregon	8,083	7,557	7.0	1,037	3,277	6,802	3,972	5	7	240	301
Washington	4,682	3,866	21.1	1,803	923	2,756	2,536	40	27	83	381
Pacific Noncontiguous Alaska	4,205	3,772	11.5	3,365	2,872					<b>840</b> 840	<b>900</b> 900
Hawaii	4,205	3,772	11.5	3,365	2,872					840	900
U.S. Total	407,786	422,849	-3.6	131,815	150,756	210,863	206,837	3,165	2,995	61,943	62,261

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

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

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. •Values for 2002 have been adjusted to reflect the Form EIA-861 census data and 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. •Mcf = thousand cubic feet. •Natural gas, including a small amount of supplemental gaseous fuels.

## Chapter 3. Fossil-Fuel Stocks for Electricity Generation

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

	Electric Po	ower Sector <sup>1</sup>	Electric	Utilities	Independent Powe	er Producers
Period	Coal (Thousand Tons) <sup>2</sup>	Petroleum (Thousand Barrels) <sup>3</sup>	Coal (Thousand Tons) <sup>2</sup>	Petroleum (Thousand Barrels) <sup>3</sup>	Coal (Thousand Tons) <sup>2</sup>	Petroleum (Thousand Barrels) <sup>3</sup>
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	114,623	48,146	114,623	48,146	NA	NA
1997	98,826	51,138	98,826	51,138	NA	NA
1998	120,501	56,591	120,501	56,591	NA	NA
1999	141,604	54,109	129,041	46,169	NA	NA
2000	102,296	40,932	90,115	30,502	12,180	10,430
2001	,		7 1,222		,	
January	96,545	43,775	84,903	30,795	11,642	12,980
February	98,220	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	130,490	37,031	117,147	37,300	21,549	19,723
January	140,236	55,641	116,501	33,516	23,735	22,125
February		53,279	118,994	32,501	25,079	20,779
March	· ·	49,495	121,854	29,702	25,548	19,792
April	,	48,301	124,147	29,729	26,945	18,572
May		48,669	126,581	30,526	28,095	18,143
June		50,347	123,424	31,086	28,102	19,261
July	,	45,111	115,886	28,688	26,220	16,422
August		44,503	111,934	29,294	21,078	15,209
September		41,916	109,678	27,003	25,743	14,913
October		43,226	115,101	28,112	26,657	14,913
November		43,944	,	29,040	· · · · · · · · · · · · · · · · · · ·	14,905
	,	· · · · · · · · · · · · · · · · · · ·	118,482	29,040 30,641	26,496 25,617	14,905
December 2003	142,020	44,837	116,409	30,041	23,017	14,190
January	135,771	38,051	113,149	26,778	22,622	11,272

<sup>&</sup>lt;sup>1</sup> 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

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 2002 and 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 2001 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.

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

electricity and heat to the public. <sup>2</sup> Anthracite, bituminous coal, subbituminous coal, and lignite.

<sup>&</sup>lt;sup>3</sup> 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.

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

Census Division and State	Elec	tric Power Sector	1	Electric	Utilities	Independent Po	wer Producers
and State	Jan 2003	Jan 2002	Percent Change	Jan 2003	Jan 2002	Jan 2003	Jan 2002
New England	665	960	-30.8	309	289	355	671
Connecticut, Maine,							
New Hampshire, Rhode Island,							
Vermont <sup>2</sup>	402	495	-18.8	W	W	W	W
Massachusetts	263	465	-43.5	W	W	W	W
Middle Atlantic	6,429	8,358	-23.1	1,457	1,381	4,972	6,977
New Jersey	666	786	-15.2	W	W	W	W
New York	624	1,336	-53.3	W	W	W	W
Pennsylvania	5,139	6,237	-17.6	W	W	W	W
East North Central	34,677	35,344	-1.9	29,569	30,257	5,108	5,087
Illinois	6,311	7,757	-18.6	W	W	W	W
Indiana	9,019	7,511	20.1	W	W	W	W
Michigan	8,026	9,786	-18.0	W	W	W	W
Ohio	6,204	5,995	3.5	W	W	W	W
Wisconsin	5,116	4,295	19.1	W	W	W	W
West North Central	22,457	22,105	1.6	22,457	22,105		
Iowa	4,169	3,927	6.2	W	W	W	W
Kansas	4,931	5,100	-3.3	W	W	W	W
Minnesota	1,962	2,149	-8.7	W	W	W	W
Missouri	6,764	6,219	8.8	W	W	W	W
Nebraska	2,822	2,633	7.2	W	W	W	W
North Dakota, South Dakota <sup>2</sup>	1,808	2,077	-13.0	W	W	W	W
South Atlantic	21,239	28,071	-24.3	17,955	24,442	3,284	3,628
Delaware, District of Columbia,							
Maryland <sup>2</sup>	1,440	2,026	-28.9	W	W	W	W
Florida	4,306	4,453	-3.3	W	W	W	W
Georgia	3,538	6,617	-46.5	W	W	W	W
North Carolina	3,371	5,805	-41.9	W	W	W	W
South Carolina	2,810	2,825	5	W	W	W	W
Virginia	1,642	2,224	-26.2	W	W	W	W
West Virginia	4,132	4,122	3	W	W	W	W
East South Central	13,667	13,530	1.0	11,361	12,212	2,306	1,317
Alabama	2,529	3,211	-21.2	W	W	W	W
Kentucky	7,187	6,425	11.9	W	W	W	W
Mississippi	1,152	1,451	-20.6	W	W	W	W
Tennessee	2,799	2,443	14.6	W	W	W	W
West South Central	22,854	18,797	21.6	17,632	13,788	5,221	5,009
Arkansas	1,989	1,274	56.1	W	W	W	W
Louisiana	3,585	3,040	17.9	W	W	W	W
Oklahoma	4,251	4,003	6.2	W	W	W	W
Texas	13,029	10,479	24.3	W	W	W	W
Mountain	12,859	12,356	4.1	12,248	11,826	611	530
Arizona	3,100	2,959	4.8	W	W	W	W
Colorado	2,793	2,659	5.0	W	W	W	W
Idaho	1 407	1 220		 W	***	 VV	 XX7
Montana, New Mexico <sup>2</sup>	1,407	1,338	5.2	W	W	W	W
Nevada	830	1,078	-23.0	W	W	W	W
Utah	3,066	3,052	.4	W	W	W	W
Wyoming	1,662	1,269	31.0	W	W	W	W
Pacific <sup>3</sup>	926	716	29.2	161	201	764	515
California, Oregon, Washington,	0.00	=4.5	• • •	***	***	***	
Hawaii, Alaska <sup>2</sup>	926	716	29.2	W	W	W	W
U.S. Total	135,771	140,236	-3.2	113,149	116,501	22,622	23,735

<sup>&</sup>lt;sup>1</sup> 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

Notes: •See Glossary for definitions. •Values for 2002 and 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, and lignite.

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

electricity and heat to the public.

<sup>2</sup> States were aggregated to protect individual states proprietary information.

<sup>3</sup> 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.

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

Census Division	Elec	tric Power Sector	1	Electric	Utilities	Independent Po	wer Producer
and State	Jan 2003	Jan 2002	Percent Change	Jan 2003	Jan 2002	Jan 2003	Jan 2002
New England	1,948	5,036	-61.3	276	768	1,672	4,268
Connecticut, Maine,							
New Hampshire, Rhode Island,							
Vermont <sup>2</sup>	1,250	3,014	-58.5	W	W	W	W
Massachusetts	698	2,022	-65.5	W	W	W	W
Middle Atlantic	5,589	11,564	-51.7	1,974	3,776	3,615	7,789
New Jersey	847	2,046	-58.6	W	W	W	W
New York	3,634	7,174	-49.3	W	W	W	W
Pennsylvania	1,108	2,345	-52.7	W	W	W	W
East North Central	3,195	5,012	-36.3	1,863	3,243	1,331	1,769
Illinois	1.260	1.894	-33.5	W	W	W	W
Indiana	335	586	-42.8	W	W	W	W
Michigan	892	1,747	-49.0	W	W	W	W
Ohio	435	442	-1.7	W	W	W	W
Wisconsin	274	343	-20.3	w	w	W	w
West North Central	2,034	2,265	-10.2	2,034	2,264		2
Iowa	91	122	-24.9	W W	W W	W	w
Kansas	825	975	-15.4	W	W	W	W
	398	296	34.4	W	W	W	W
Minnesota	347	454	-23.5	W	W	W	W
Missouri	232			W W	W W	W W	W W
Nebraska		248	-6.4				W W
North Dakota, South Dakota <sup>2</sup>	141	172	-18.0	W	W	W	
South Atlantic	15,253	18,881	-19.2	12,659	14,672	2,594	4,210
Delaware, District of Columbia,							
Maryland <sup>2</sup>	1,290	2,806	-54.0	W	W	W	W
Florida	10,119	10,740	-5.8	W	W	W	W
Georgia	889	1,116	-20.3	W	W	W	W
North Carolina	820	939	-12.7	W	W	W	W
South Carolina	525	633	-17.1	W	W	W	W
Virginia	1,436	2,510	-42.8	W	W	W	W
West Virginia	173	137	26.7	W	W	W	W
East South Central	1.826	2,221	-17.8	1,785	2,203	41	18
Alabama	236	277	-14.9	W	W	W	W
Kentucky	223	235	-5.4	W	W	W	W
Mississippi	640	965	-33.7	W	W	W	W
Tennessee	728	744	-2.3	W	W	W	W
West South Central	4,146	5,693	-27.2	3,025	3,242	1,120	2,451
Arkansas	162	340	-52.3	W	W	W	W
Louisiana	1,246	1,610	-22.6	w	w	W	w
Oklahoma	474	554	-14.4	w	w	W	W
Texas	2.264	3,189	-29.0	W	W	W	W
Mountain	1,217	1,414	-14.0	1,106	1,268	110	146
Arizona	425	491	-13.5	W W	W	W	W
Colorado	167	228	-26.6	W	W	W	W
Idaho	*	*	-28.0	W	W	W	W
Montana, New Mexico <sup>2</sup>	173	214	-19.3	W	W	W	W
Nevada	385	393	-19.3	W	W	W	W
Utah	31	46	-32.6	W	W	W	W
Wyoming	35	40	-32.0 -14.7	W	W	W	W
Pacific <sup>3</sup>	<b>2,845</b>	3,554	-20.0	2,056	2,082	789	1,472
	2,845	3,334	-20.0	4,050	2,082	/89	1,4/2
California, Oregon, Washington,	2.045	2.554	20.0	***	** 7	***	***
Hawaii, Alaska <sup>2</sup>	2,845	3,554	-20.0	W	W	W	W
U.S. Total	38,051	55,641	-31.6	26,778	33,516	11,272	22,125

<sup>&</sup>lt;sup>1</sup> 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

Notes: •See Glossary for definitions. •Values for 2002 and 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, and petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology).

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

electricity and heat to the public. <sup>2</sup> States were aggregated to protect individual states proprietary information.

<sup>&</sup>lt;sup>3</sup> 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.

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

## Chapter 4. Receipts and Cost of Fossil Fuels

Table 4.1. Receipts, Average Cost, and Quality of Fossil Fuels: Total (All Sectors), 2001 through December 2002

		Co	oal <sup>1</sup>	·		Petro	oleum <sup>2</sup>		Natura	al Gas³	All Fossil Fuels	
Period	Receipts	Avera	ge Cost	Avg. Sulfur	Receipts	Avera	ge Cost	Avg. Sulfur	Receipts	Average Cost	Average Cost	
	(1000 tons)	(cents/ 10 <sup>6</sup> Btu)	(dollars/ ton)	%	(1000 barrels)	(cents/ 10 <sup>6</sup> Btu)	(dollars/ barrel)	%	(1000 Mcf)	(cents/ 10 <sup>6</sup> Btu)	(cents/ 10 <sup>6</sup> Btu)	
2001												
January	. 67,470	122.33	24.73	.92	17,891	457.74	28.61	1.10	134,549	920.74	214.12	
February		123.88	25.10	.98	10,225	441.42	27.71	1.24	114,039	694.66	188.91	
March	. 64,359	122.63	24.64	.88	10,242	401.07	25.18	1.33	141,653	573.82	178.34	
April	. 60,277	123.94	24.73	.85	10,740	388.63	24.55	1.33	178,222	563.74	191.82	
May	. 68,369	124.47	25.02	.89	13,424	378.61	24.00	1.42	203,724	514.15	186.42	
June		124.78	25.04	.89	12,107	369.68	23.17	1.36	212,536	425.10	178.41	
July	. 65,920	122.50	24.42	.86	12,169	349.15	22.12	1.49	282,929	374.31	176.51	
August		123.28	24.71	.90	10,049	331.23	20.84	1.67	277,039	355.79	169.44	
September	. 57,998	123.44	24.53	.86	8,454	316.00	19.73	1.85	207,491	295.47	156.29	
October	. 64,442	121.00	24.15	.90	5,906	287.54	18.00	1.66	165,688	271.49	142.17	
November		123.68	25.00	.89	7,019	268.78	16.85	1.51	111,201	324.05	145.06	
December	. 65,380	122.04	24.11	.87	6,390	256.08	15.92	1.62	123,295	307.63	141.71	
Total	. 762,815	123.15	24.68	.89	124,618	369.27	23.20	1.42	2,152,366	448.73	173.03	
2002 <sup>4</sup>												
January	. 76,163	126.21	25.75	.98	8,933	254.09	15.75	1.72	375,673	299.91	162.77	
February		128.19	26.30	1.00	5,342	244.88	15.03	1.85	360,544	272.88	158.64	
March	. 72,214	125.32	25.70	.98	8,152	271.61	16.76	1.90	414,914	319.00	170.66	
April		125.48	25.46	.92	10,198	382.75	49.17	1.64	408,912	364.13	194.96	
May		126.01	25.58	.92	11,718	335.05	20.95	1.61	409,681	366.34	187.64	
June		126.33	25.54	.90	10,926	335.52	21.04	1.48	499,160	347.67	190.64	
July		124.76	25.34	.91	9,537	328.67	20.35	1.70	628,944	338.00	192.96	
August		127.34	26.26	.94	13,601	349.96	21.73	1.64	633,874	330.30	192.04	
September	. 74,504	125.74	25.71	.94	7,321	342.12	21.07	1.70	515,731	359.32	188.54	
October		122.17	28.29	.93	12,538	377.26	23.49	1.58	456,099	404.00	185.18	
November		125.07	25.51	.96	10,629	396.39	24.72	1.39	352,266	424.82	188.08	
December		121.96	24.46	.92	12,188	389.37	24.27	1.50	377,857	454.11	198.75	
Total		125.32	25.85	.94	121,084	345.21	23.38	1.62	5,433,655	354.73	184.55	
Year to Date												
2001	762,815	123.15	24.68	.89	124,618	369.27	23.20	1.42	2,152,366	448.73	173.03	
2002	880,060	125.32	25.85	.94	121,084	345.21	23.38	1.62	5,433,655	354.73	184.55	
Rolling 12 Months End	,				, , , , ,				,,			
2001	762,815	123.15	24.68	.89	124,618	369.27	23.20	1.42	2,152,366	448.73	173.03	
2002	880,060	125.32	25.85	.94	121,084	345.21	23.38	1.62	5,433,655	354.73	184.55	

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

Notes: • See Glossary for definitions. • Data for 2002 are preliminary; data for 2001 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.

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."

<sup>&</sup>lt;sup>2</sup> Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

A Beginning in 2002, data from the Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report" for independent power producers are included in this data dissemination. Prior to 2002 these data were not collected; the data for 2001 and previous years include only data collected from electric utilities via the FERC Form 423.

**Table 4.2.** Receipts, Average Cost, and Quality of Fossil Fuels: Electric Utilities, 2001 through December 2002

		Co	oal¹			Petro	oleum <sup>2</sup>		Natura	al Gas <sup>3</sup>	All Fossil Fuels
Period	Receipts	Avera	ge Cost	Avg. Sulfur	Receipts	Avera	ge Cost	Avg. Sulfur	Receipts	Average Cost	Average Cost
	(1000 tons)	(cents/ 10 <sup>6</sup> Btu)	(dollars/ ton)	%	(1000 barrels)	(cents/ 10 <sup>6</sup> Btu)	(dollars/ barrel)	%	(1000 Mcf)	(cents/ 10 <sup>6</sup> Btu)	(cents/ 10 <sup>6</sup> Btu)
2001		,								•	·
January	67,470	122.33	24.73	.92	17,891	457.74	28.61	1.10	134,549	920.74	214.12
February	57,397	123.88	25.10	.98	10,225	441.42	27.71	1.24	114,039	694.66	188.91
March		122.63	24.64	.88	10,242	401.07	25.18	1.33	141,653	573.82	178.34
April		123.94	24.73	.85	10,740	388.63	24.55	1.33	178,222	563.74	191.82
May		124.47	25.02	.89	13,424	378.61	24.00	1.42	203,724	514.15	186.42
June		124.78	25.04	.89	12,107	369.68	23.17	1.36	212,536	425.10	178.41
July		122.50	24.42	.86	12,169	349.15	22.12	1.49	282,929	374.31	176.51
August		123.28	24.71	.90	10,049	331.23	20.84	1.67	277,039	355.79	169.44
September		123.44	24.53	.86	8,454	316.00	19.73	1.85	207,491	295.47	156.29
October		121.00	24.15	.90	5,906	287.54	18.00	1.66	165,688	271.49	142.17
November	59,551	123.68	25.00	.89	7,019	268.78	16.85	1.51	111,201	324.05	145.06
December	65,380	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	448.73	173.03
2002 <sup>4</sup>											
January	60,026	121.90	24.72	.92	5,098	237.49	14.78	1.86	98,478	321.17	139.58
February	56,544	123.99	25.33	.93	2,927	231.50	14.27	1.87	97,866	296.98	139.20
March	57,216	121.13	24.75	.91	4,661	258.29	15.98	2.05	118,372	343.22	144.47
April	51,499	121.11	24.61	.86	7,289	324.42	20.29	1.56	120,934	379.77	155.21
May		121.37	24.60	.84	7,706	332.79	21.02	1.59	130,691	378.29	157.68
June	51,965	121.61	24.59	.82	7,328	340.56	21.55	1.37	165,341	357.90	161.37
July		120.77	24.51	.84	6,093	316.63	19.84	1.77	205,575	343.64	157.71
August		123.36	25.20	.87	8,770	326.12	20.46	1.82	205,148	338.41	160.34
September		123.03	25.09	.86	5,124	320.10	19.88	1.75	165,108	367.62	157.21
October		122.41	24.87	.87	8,479	359.67	22.42	1.71	134,776	414.73	158.80
November		122.22	24.85	.87	6,276	369.51	23.20	1.44	95,352	428.91	151.86
December		118.43	23.64	.85	7,443	372.34	23.31	1.68	103,009	471.47	157.23
Total		121.81	24.74	.87	77,194	325.13	20.35	1.68	1,640,650	367.03	153.52
Year to Date											
2001	762,815	123.15	24.68	.89	124,618	369.27	23.20	1.42	2,152,366	448.73	173.03
2002	687,747	121.81	24.74	.87	77,194	325.13	20.35	1.68	1,640,650	367.03	153.52
Rolling 12 Months E											
2001	762,815	123.15	24.68	.89	124,618	369.27	23.20	1.42	2,152,366	448.73	173.03
2002	687,747	121.81	24.74	.87	77,194	325.13	20.35	1.68	1,640,650	367.03	153.52

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

Notes: • See Glossary for definitions. • Data for 2002 are preliminary; data for 2001 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.

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."

<sup>&</sup>lt;sup>2</sup> Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

<sup>&</sup>lt;sup>3</sup> Natural gas, including a small amount of supplemental gaseous fuels.
<sup>4</sup> 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 power producers are included in this data dissemination. Prior to 2002 these data were not collected; the data for 2001 and previous years include only data collected from electric utilities via the FERC Form 423.

Table 4.3. Receipts, Average Cost, and Quality of Fossil Fuels: Independent Power Producers, January 2002 through December 2002

	8	Co				Petro	oleum <sup>2</sup>		Natura	ıl Gas³	All Fossil Fuels
Period	Receipts	Averaş	ge Cost	Avg.	Receipts	Avera	ge Cost	Avg.	Receipts	Average Cost	Average Cost
	(1000 tons)	(cents/ 10 <sup>6</sup> Btu)	(dollars /ton)	Sulfur %	(1000 barrels)	(cents/ 10 <sup>6</sup> Btu)	(dollars / barrel)	Sulfur %	(1000 Mcf)	(cents/ 10 <sup>6</sup> Btu)	(cents/ 10 <sup>6</sup> Btu)
2002											
January	14,957	140.93	29.31	1.2	3,305	276.91	17.09	1.5	192,296	294.77	203.37
February	13,205	143.78	29.88	1.2	1,928	260.13	15.84	1.8	184,809	270.36	196.93
March	13,961	140.59	29.13	1.2	2,843	282.67	17.32	1.8	211,409	322.00	220.22
April	14,031	139.85	28.13	1.1	2,473	417.86	139.82	1.8	203,040	366.90	262.24
May	14,789	140.19	28.43	1.2	3,681	342.57	20.99	1.6	192,323	366.21	234.48
June	15,392	140.49	28.26	1.1	3,249	324.51	19.94	1.7	254,983	346.85	237.75
July	15,287	138.53	28.10	1.1	3,003	353.16	21.40	1.5	339,476	335.14	250.75
August	15,606	140.74	29.95	1.2	4,501	399.89	24.36	1.3	339,224	331.12	244.18
September	15,145	134.48	27.66	1.2	1,826	396.55	23.87	1.5	269,842	359.77	243.03
October	15,720	116.82	40.37	1.2	3,661	417.90	25.98	1.2	242,728	405.59	213.11
November	14,921	135.11	27.88	1.3	3,900	443.60	27.37	1.3	181,542	426.34	253.73
December	14,906	132.46	26.86	1.2	4,246	420.69	26.03	1.1	192,039	458.84	268.80
Total	177,921	135.70	29.54	1.2	38,615	378.94	29.88	1.5	2,803,711	354.67	235.94
Year to Date											
2002	177,921	135.70	29.54	1.2	38,615	378.94	29.88	1.5	2,803,711	354.67	235.94

<sup>&</sup>lt;sup>1</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

Notes: •See Glossary for definitions. •Data for 2002 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. •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 power producers are included in this data dissemination. Prior to 2002 these data were not collected; the data for 2001 and previous years include only data collected from electric utilities via the FERC Form 423. 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;" Federal Energy Regulatory Commission, FERC Form 423, "Monthly Cost and Quality of Fuels for Electric Plants Report."

<sup>&</sup>lt;sup>2</sup> Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

<sup>&</sup>lt;sup>3</sup> Natural gas, including a small amount of supplemental gaseous fuels.

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

		Co	oal¹			Petro	leum <sup>2</sup>		Natura	l Gas³	All Fossil Fuels
Period	Receipts	Averaş	ge Cost	Avg.	Receipts	Avera	ge Cost	Avg.	Receipts	Average Cost	Average Cost
	(1000 tons)	(cents/ 10 <sup>6</sup> Btu)	(dollars /ton)	Sulfur %	(1000 barrels)	(cents/ 10 <sup>6</sup> Btu)	(dollars / barrel)	Sulfur %	(1000 Mcf)	(cents/ 10 <sup>6</sup> Btu)	(cents/ 10 <sup>6</sup> Btu)
2002											
January	41	294.33	69.92	2.2	19	486.80	26.92	*	588	327.70	318.19
February	34	285.44	68.08	2.2	8	486.80	26.92	*	646	283.36	290.31
March	35	250.66	60.45	2.2	5	480.80	26.59		1,715	342.13	314.30
April		207.20	49.20	2.5	0				1,228	368.12	303.54
May	32	216.27	52.06	2.5	11	460.00	26.04	*	593	379.26	294.43
June		211.38	50.39	2.4	3	544.10	30.09		887	362.48	301.11
July		207.42	50.39	3.8	4	553.63	30.62	*	3,281	175.18	183.17
August		204.73	48.96	4.3	13	561.60	31.06		3,595	151.99	168.11
September	31	210.98	51.63	2.0	0				2,692	126.41	144.70
October		212.11	51.74	2.0	0				609	386.59	291.82
November	34	205.77	49.09	2.4	10	578.00	30.81	*	524	382.74	288.05
December	31	204.43	48.34	2.5	19	630.42	34.86		531	420.43	321.40
Total	399	227.71	54.62	2.6	91	538.19	29.73	*	16,889	241.21	241.95
Year to Date											
2002	399	227.71	54.62	2.6	91	538.19	29.73	*	16,889	241.21	241.95

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

Notes: •See Glossary for definitions. •Data for 2002 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. •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 power producers are included in this data dissemination. Prior to 2002 these data were not collected; the data for 2001 and previous years include only data collected from electric utilities via the FERC Form 423. 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;" Federal Energy Regulatory Commission, FERC Form 423, "Monthly Cost and Quality of Fuels for Electric Plants Report."

<sup>&</sup>lt;sup>2</sup> Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

<sup>&</sup>lt;sup>3</sup> Natural gas, including a small amount of supplemental gaseous fuels.

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

Table 4.5. Receipts, Average Cost, and Quality of Fossil Fuels: Industrial Combined Heat and Power Producers, January 2002 through December 2002

		Co	al <sup>1</sup>			Petro	leum <sup>2</sup>		Natura	ıl Gas³	All Fossil Fuels
Period	Receipts	Averaş	ge Cost	Avg.	Receipts	Avera	ge Cost	Avg.	Receipts	Average Cost	Average Cost
	(1000 tons)	(cents/ 10 <sup>6</sup> Btu)	(dollars /ton)	Sulfur %	(1000 barrels)	(cents/ 10 <sup>6</sup> Btu)	(dollars / barrel)	Sulfur %	(1000 Mcf)	(cents/ 10 <sup>6</sup> Btu)	(cents/ 10 <sup>6</sup> Btu)
2002											
January	1,140	146.37	31.64	1.5	512	266.11	16.41	1.9	84,310	285.22	252.70
February	1,033	147.62	32.45	3.2	479	262.29	16.22	1.8	77,223	245.88	223.67
March	1,002	142.95	30.87	1.4	642	317.85	19.88	1.2	83,418	273.88	248.75
April		140.90	29.42	1.3	437	291.09	17.99	2.0	83,710	332.38	281.84
May		147.96	32.47	1.4	321	301.33	18.73	2.1	86,074	347.07	301.78
June	1,172	146.76	31.64	1.4	345	327.20	20.42	1.8	77,949	326.65	281.53
July	1,260	146.13	31.25	1.4	438	332.24	20.14	2.0	80,611	344.07	293.54
August	1,210	145.42	31.48	1.5	317	312.08	19.02	2.3	85,907	317.02	281.77
September	1,084	143.98	31.19	1.5	371	387.19	23.65	1.8	78,089	347.40	300.15
October	1,164	225.00	47.81	1.4	398	378.85	23.37	1.9	77,986	378.43	340.69
November	1,142	139.26	28.74	1.3	443	365.12	22.68	1.9	74,849	415.30	346.56
December	1,316	147.21	31.73	1.3	480	371.00	23.11	2.0	82,278	418.19	345.60
Total	13,993	151.56	32.52	1.5	5,184	324.40	20.05	1.8	972,405	334.86	291.21
Year to Date											
2002	13,993	151.56	32.52	1.5	5,184	324.40	20.05	1.8	972,405	334.86	291.21

<sup>&</sup>lt;sup>1</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

Notes: •See Glossary for definitions. •Data for 2002 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. •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 power producers are included in this data dissemination. Prior to 2002 these data were not collected; the data for 2001 and previous years include only data collected from electric utilities via the FERC Form 423. 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;" Federal Energy Regulatory Commission, FERC Form 423, "Monthly Cost and Quality of Fuels for Electric Plants Report."

<sup>&</sup>lt;sup>2</sup> Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

<sup>&</sup>lt;sup>3</sup> Natural gas, including a small amount of supplemental gaseous fuels.

Receipts of Coal Delivered for Electricity Generation by State, December 2002 and 2001 Table 4.6.A. (Thousand Tons)

	_		. 1		Electric Pov	ver Sector		Combin	ed Heat an	d Power P	roducers
Census Division and State	Tota	al (All Sectors	s)¹	Electric	Utilities <sup>2</sup>		ent Power ucers	Comn	nercial	Indu	strial
	Dec 2002	Dec 2001	Percent Change	Dec 2002	Dec 2001	Dec 2002	Dec 2001	Dec 2002	Dec 2001	Dec 2002	Dec 2001
New England	534	137	NM	196	137	329	-	-		10	
Connecticut	42					42					
Maine	23					14				10	
Massachusetts	301 168	127	NM	28 168	137	273					
New Hampshire Rhode Island	108	137	INIVI	108	137						
Vermont											
Middle Atlantic	4,408	207	NM	209	207	3,995				204	
New Jersey	390	42	NM	92	42	298					
New York	656	69	NM	57	69	545				54	
Pennsylvania	3,362	96	NM	60	96	3,152				150	
East North Central Illinois	<b>15,857</b> 4,729	<b>13,307</b> 1,387	NM NM	11,599 802	<b>13,307</b> 1,387	<b>3,963</b> 3,713		17	-	<b>277</b> 214	
Indiana	4,729	4,209	NM	4,326	4,209	111					
Michigan	2,625	2,670	NM	2,608	2,670			17			
Ohio	2,105	2,937	NM	1,938	2,937	140				27	
Wisconsin	1,961	2,104	NM	1,925	2,104					35	
West North Central	13,232	12,702	NM	13,049	12,702			14	-	170	
Iowa	2,061	1,699	NM	1,960	1,699					102	
Kansas	1,836	1,905	NM	1,836	1,905						
Minnesota Missouri	1,887 3,876	1,806 3,565	NM NM	1,820 3,863	1,806 3,565			14		68	
Nebraska	1,116	1,190	NM	1,116	1,190						
North Dakota	2,278	2,336	NM	2,278	2,336	<del></del>					
South Dakota	177	202	NM	177	202						
South Atlantic	10,039	10,419	NM	7,328	10,419	2,502	-	_	-	209	
Delaware	169					169					
District of Columbia	1.752		 >D.6	1.560							
Florida	1,753 1,823	2,256	NM NM	1,569 1,774	2,256 2,427	185				49	
Georgia Maryland	989	2,427	INIVI	1,//4	2,427	989				49	
North Carolina	178	2,331	NM		2,331	96				82	
South Carolina	1,026	1,285	NM	1,017	1,285					9	
Virginia	1,237	570	NM	948	570	267				23	
West Virginia	2,864	1,551	NM	2,020	1,551	797				47	
East South Central	8,011	8,146	NM	7,864	8,146	13			-	134	
Alabama	2,588	2,359	NM	2,575	2,359	13					
Kentucky Mississippi	2,474 472	3,016 478	NM NM	2,474 471	3,016 478	*					
Tennessee	2,478	2,294	NM	2,344	2,294					134	
West South Central	10,420	11,703	NM	7,089	11,703	3,109				223	
Arkansas	1,093	1,112	NM	1,093	1,112						
Louisiana	768	658	NM	768	658	0					
Oklahoma	2,184	1,737	NM	2,094	1,737	66				23	
Texas	6,376	8,195	NM	3,134	8,195	3,042				200	
Mountain Arizona	<b>8,786</b> 1,328	<b>8,538</b> 1,632	NM NM	<b>8,443</b> 1,313	<b>8,538</b> 1,632	327				16 16	
Colorado	1,528	1,632	NM NM	1,633	1,632					10	
Idaho	1,033	1,029		1,033	1,027						
Montana	742	29	NM	415	29	327					
Nevada	694	775	NM	694	775						
New Mexico	687	1,461	NM	687	1,461						
Utah	1,264	908	NM	1,264	908						
Wyoming	2,438	2,104	NM NM	2,438	2,104					75	
Pacific Contiguous California	<b>905</b> 144	220	NM 	224	220	<b>606</b> 69		-		<b>75</b> 75	
Oregon	224	220	NM	224	220						
Washington	537					537					
Pacific Noncontiguous	62					62		-			
Alaska											
Hawaii	62	 	 ND4			62				1 216	
U.S. Total	72,254	65,380	NM	56,000	65,380	14,906		31		1,316	-

<sup>&</sup>lt;sup>1</sup> 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 power producers are included in this data dissemination. Prior to 2002 these data were not collected; the data for 2001 and previous years include only data collected from electric utilities via the FERC Form 423.

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

NM = Not meaningful.

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

Notes: •See Glossary for definitions.•Data for 2002 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. • 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."

Receipts of Coal Delivered for Electricity Generation by State, Year-to-Date through December **Table 4.6.B.** (Thousand Tons)

					Electric Pow	er Sector		Combine	ed Heat an	d Power Pi	roducers
Census Division and State	Total	l (All Sectors	,	Electric	Utilities <sup>2</sup>		lent Power lucers	Comm	nercial	Indus	strial
	2002	2001	Percent Change	2002	2001	2002	2001	2002	2001	2002	2001
New England	7,138	1,710	NM	1,719	1,710	5,352	_	-	-	67	-
Connecticut	1,278					1,278					
Maine	214					147				67	
Massachusetts	4,132	1.710	NIM	204	1,710	3,927					
New Hampshire Rhode Island	1,515	1,710	NM 	1,515	1,/10						
Vermont											
Middle Atlantic	53,344	1,736	NM	2,187	1,736	49,812				1,344	
New Jersey	3,875	214	NM	598	214	3,277					
New York	8,606	772	NM	689	772	7,251				666	
Pennsylvania	40,863	750	NM	901	750	39,284				678	
East North Central	184,533	165,239	NM	141,080	165,239	39,728	-	261	-	3,464	
Illinois	50,825	16,281	NM	12,664	16,281	35,698				2,463	
Indiana	45,285 32,596	51,840	NM NM	43,888 32,168	51,840	1,398 167		261			
Michigan Ohio	32,396	33,466 39,764	NM	29,492	33,466 39,764	2,465		201		315	
Wisconsin	23,556	23,888	NM	22,869	23,888	2,403				686	
West North Central	141,758	139,709	NM	139,866	139,709			138		1,754	
Iowa	22,791	21,970	NM	21,577	21,970					1,214	
Kansas	20,982	21,286	NM	20,982	21,286						
Minnesota	18,927	18,059	NM	18,388	18,059					539	
Missouri	39,375	39,039	NM	39,237	39,039			138			
Nebraska	12,432	12,949	NM	12,432	12,949						
North Dakota	25,378	24,223	NM	25,378	24,223						
South Dakota South Atlantic	1,872 <b>158,416</b>	2,182 <b>136,547</b>	NM NM	1,872 <b>126,639</b>	2,182 <b>136,547</b>	29,635				2,142	
Delaware	1.169	24	NM	120,039	24	1,169				2,142	
District of Columbia	1,107					1,107					
Florida	24,122	26,192	NM	21,900	26,192	2,222					
Georgia	31,262	34,362	NM	30,876	34,362	,				385	
Maryland	10,827					10,827					
North Carolina	25,169	25,944	NM	22,345	25,944	1,938				886	
South Carolina	14,795	15,405	NM	14,619	15,405					177	
Virginia	15,600	10,825	NM	11,493	10,825	3,883				224	
West Virginia	35,473 <b>100,405</b>	23,795 <b>94,071</b>	NM NM	25,406 <b>96,372</b>	23,795 <b>94,071</b>	9,596				470 <b>1,627</b>	
East South Central Alabama	28,984	29,866	NM	28,855	29,866	<b>2,406</b> 128				1,027	
Kentucky	32,138	33,844	NM	32,138	33,844	120					
Mississippi	7,436	6,123	NM	5,158	6,123	2,278					
Tennessee	31,847	24,238	NM	30,220	24,238					1,627	
West South Central	121,588	125,473	NM	79,098	125,473	39,827			-	2,663	
Arkansas	13,728	14,582	NM	13,728	14,582						
Louisiana	12,248	8,113	NM	8,090	8,113	4,158					
Oklahoma	21,945	17,118	NM	20,628	17,118	865				452	
Texas	73,668	85,660	NM	36,653	85,660 05.747	34,804				2,211	
Mountain Arizona	<b>102,619</b> 17,613	<b>95,747</b> 19,297	NM NM	<b>98,717</b> 17,325	<b>95,747</b> 19,297	3,614		-	-	288 288	
Colorado	19,080	18,673	NM	19,080	18,673					266	
Idaho	17,000	10,075		17,000	10,075						
Montana	9,689	307	NM	6,075	307	3,614					
Nevada	7,573	8,055	NM	7,573	8,055						
New Mexico	9,718	11,543	NM	9,718	11,543						
Utah	14,689	13,709	NM	14,689	13,709						
Wyoming	24,256	24,163	NM	24,256	24,163						
Pacific Contiguous	9,662	2,583	NM	2,068	2,583	6,950	-			644	
California	1,454	2 592	NM	2.068	2 592	811				644	
Oregon Washington	2,068 6,140	2,583	NIVI	2,068	2,583	6,140					
Pacific Noncontiguous	597					597					
Alaska											
Hawaii	597					597					
U.S. Total	880,060	762,815	NM	687,747	762,815	177,921		399		13,993	

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 power producers are included in this data dissemination. Prior to 2002 these data were not collected; the data for 2001 and previous years include only data collected from electric utilities via the FERC Form 423.

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

NM = Not meaningful.

Notes: • See Glossary for definitions. • Data for 2002 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. • 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, December 2002 and 2001 (Thousand Barrels)

					Electric Pov	ver Sector		Combin	ed Heat an	d Power P	roducers
Census Division and State	Tota	al (All Sectors		Electric	: Utilities <sup>2</sup>	-	ent Power ucers	Comn	nercial	Indu	strial
	Dec 2002	Dec 2001	Percent Change	Dec 2002	Dec 2001	Dec 2002	Dec 2001	Dec 2002	Dec 2001	Dec 2002	Dec 2001
New England	2,179	2	NM	489	2	1,613		-	-	77	-
Connecticut	68					68					
Maine	386					309				77	
Massachusetts	1,251		 ND(	15		1,236					
New Hampshire Rhode Island	474 	2	NM 	474	2						
Vermont											
Middle Atlantic	2,464	729	NM	995	729	1,450				19	
New Jersey	55			1		54					
New York	2,118	729	NM	993	729	1,108				17	
Pennsylvania	291	*	NM	*	*	289				2	
East North Central	351	325	NM	215	325	16			-	120	
Illinois	18 100	7 84	NM NM	3 32	7 84	15				67	
Indiana Michigan	94	84 116	NM NM	32 94	84 116					0 / 	
Ohio	8	29	NM	5	29	1				1	
Wisconsin	132	90	NM	80	90					52	
West North Central	319	275	NM	319	275	_	-	_	_	_	
Iowa	88	12	NM	88	12						
Kansas	102	72	NM	102	72						
Minnesota	118	122	NM	118	122						
Missouri	4	65	NM NM	4	65						
Nebraska North Dakota	7	1 5	NM NM	7	1 5						
South Dakota	, 										
South Atlantic	5,940	4,846	NM	5,295	4,846	387		19		240	
Delaware	151	30	NM	1	30	80				70	
District of Columbia	14					14					
Florida	4,506	3,750	NM	4,424	3,750	4				77	
Georgia	12	10	NM	11	10	1				1	
Maryland	268 40	16	NM		 16	268 16				24	
North Carolina South Carolina	30	9	NM	2	9					29	
Virginia	855	1,003	NM	800	1,003	1		19		36	
West Virginia	64	28	NM	58	28	2				4	
East South Central	48	56	NM	45	56	-				2	
Alabama	10	11	NM	7	11					2	
Kentucky	25	23	NM	25	23						
Mississippi	*	1	NM		1						
Tennessee West South Central	13 <b>554</b>	20 <b>124</b>	NM NM	13 <b>6</b>	20 124	534				14	
Arkansas	2	4	NM	2	4					14	-
Louisiana	275	*	NM		*	264				12	
Oklahoma											
Texas	277	120	NM	4	120	270				2	
Mountain	86	32	NM	79	32	0			-	6	
Arizona	6	12	NM		12					6	
Colorado	3	4	NM	3	4						
Idaho Montana	2			2		0					
Nevada	55			55							
New Mexico	7	4	NM	7	4						
Utah	5	7	NM	5	7						
Wyoming	8	5	NM	8	5						
Pacific Contiguous	72	1	NM		1	71				*	
California	71	1	NM		1	71					
Oregon	*									*	
Washington	175					175				T	
Pacific Noncontiguous Alaska	175			<del></del>	<del></del>	1/5					
Hawaii	175					175					
						4,246		19			

<sup>&</sup>lt;sup>1</sup> 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 power producers are included in this data dissemination. Prior to 2002 these data were not collected; the data for 2001 and previous years include only data collected from electric utilities via the FERC Form 423.

Notes: •See Glossary for definitions. •Data for 2002 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. •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."

electric utilities via the FERC Form 423.

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

NM = Not Meaningful.

<sup>\*</sup> = For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

Table 4.7.B. Receipts of Petroleum Delivered for Electricity Generation by State, Year-to-Date through December

(Thousand Barrels)

		(1 <b>n</b> G	<b>1</b>		Electric Pow	ver Sector		Combine	ed Heat an	d Power Pr	oducers
Census Division and State	Total	(All Sectors		Electric	Utilities <sup>2</sup>	Independe Prod		Comm	ercial	Indus	trial
	2002	2001	Percent Change	2002	2001	2002	2001	2002	2001	2002	2001
New England	15,069	1,099	NM	1,243	1,099	12,582		11	-	1,233	-
Connecticut	2,515					2,515					
Maine	1,951					718				1,233	
Massachusetts	9,387	165	NM	27	165	9,349		11			
New Hampshire	1,215	934	NM	1,215	934						
Rhode Island Vermont											
Middle Atlantic	21,798	15,867	NM	10,916	15,867	10,786				96	
New Jersey	1,203	64	NM	416	64	787					
New York	17,301	15,164	NM	10,499	15,164	6,728				75	
Pennsylvania	3,293	638	NM	2	638	3,270				21	
East North Central	5,187	5,415	NM	3,493	5,415	188	-	-		1,506	
Illinois	234	185	NM	74	185	160					
Indiana	1,424	1,054	NM	633	1,054					790	
Michigan	1,513 276	2,480 548	NM NM	1,513 245	2,480 548	12				 19	
Ohio Wisconsin	1,740	1,148	NM NM	1,028	1,148	15				696	
West North Central	2,939	3,930	NM	2,939	3,930						
Iowa	170	153	NM	170	153						
Kansas	798	1,546	NM	798	1,546						
Minnesota	1,066	1,046	NM	1,066	1,046						
Missouri	845	1,123	NM	845	1,123						
Nebraska	10	11	NM	10	11						
North Dakota	49	51	NM	49	51						
South Dakota South Atlantic	65,088	72,343	NM	57,182	72,343	5,753		80		2,073	
Delaware	2,177	471	NM	300	471	874				1,003	
District of Columbia	614	4/1			4/1	614				1,005	
Florida	53,090	63,307	NM	51,176	63,307	1,815				98	
Georgia	199	323	NM	181	323	15				4	
Maryland	2,228					2,228					
North Carolina	789	439	NM	289	439	30				471	
South Carolina	202	138	NM	86	138					117	
Virginia	5,405	7,291	NM	4,850	7,291	145		80		329	
West Virginia	383	374	NM	300	374	31				51	
East South Central Alabama	<b>503</b> 106	<b>8,814</b> 93	NM NM	<b>481</b> 83	<b>8,814</b> 93	 			-	23 23	
Kentucky	207	158	NM	207	158					23	
Mississippi	31	8,466	NM	31	8,466						
Tennessee	160	97	NM	160	97						
West South Central	6,836	5,349	NM	403	5,349	6,354				80	
Arkansas	64	85	NM	64	85						
Louisiana	3,603	2,331	NM	63	2,331	3,478				62	
Oklahoma	10	242	NM	10	242						
Texas	3,159	2,692	NM	265	2,692	2,875				18	
Mountain	667	<b>758</b> 563	NM NM	<b>522</b> 46	<b>758</b> 563	114		-		<b>31</b> 31	
Arizona Colorado	76 14	43	NM NM	14	43					31 	
Idaho											
Montana	261			148		114					
Nevada	139	9	NM	139	9						
New Mexico	48	29	NM	48	29						
Utah	38	49	NM	38	49						
Wyoming	89	65	NM	89	65						
Pacific Contiguous	958	782	NM	16	782	800	-		-	143	-
California	798	445	NM	1	445	798					
Oregon Washington	15 144	337	NM 	15	337	2				143	
Pacific Noncontiguous	2,041	10,262	NM		10,262	2,041				143	
Alaska	2,041	10,202	INIVI		10,202	2,041					
Hawaii	2,041	10,262	NM		10,262	2,041					

<sup>&</sup>lt;sup>1</sup> 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 power producers are included in this data dissemination. Prior to 2002 these data were not collected; the data for 2001 and previous years include only data collected from electric utilities via the FERC Form 423.

Notes: •See Glossary for definitions. •Data for 2002 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. •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."

electric utilities via the FERC Form 423.

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

NM = Not meaningful.

Receipts of Natural Gas Delivered for Electricity Generation by State, December 2002 and 2001 **Table 4.8.A.** (Thousand Mcf)

					Electric Pov	ver Sector		Combin	ed Heat an	d Power P	roducers
Census Division and State	Tota	d (All Sectors		Electric	: Utilities²	_	ent Power ucers	Comn	nercial	Indu	strial
	Dec 2002	Dec 2001	Percent Change	Dec 2002	Dec 2001	Dec 2002	Dec 2001	Dec 2002	Dec 2001	Dec 2002	Dec 2001
New England	28,419	182	NM	226	182	28,193	-	-		-	-
Connecticut						3,915					
Maine	7,225 11,765	182	NM	128	182	7,225 11,637					
Massachusetts New Hampshire	98	162	INIVI	98	162	11,057					
Rhode Island		<del></del>				5,416					
Vermont											
Middle Atlantic	30,250	9,585	NM	2,381	9,585	25,743		157		1,969	
New Jersey		576	NM	2 201	576	9,203		167		14	
New York Pennsylvania	17,288 3,744	9,009	NM 	2,381	9,009	14,269 2,270		157		481 1,474	
East North Central	13,271	3,041	NM	1,254	3,041	10,097		36		1,884	
Illinois	2,259	730	NM	36	730	2,032				191	
Indiana	1,522	60	NM	8	60	4				1,510	
Michigan		2,058	NM	1,037	2,058	7,126		36			
Ohio		22	NM	15	22	41				61	
Wisconsin	1,176 <b>2,166</b>	171 <b>1,244</b>	NM NM	158 1,462	171 <b>1,244</b>	895 <b>704</b>				123 1	
West North Central Iowa	303	239	NM	227	239	76	-				
Kansas	420	681	NM	420	681						
Minnesota	705	48	NM	76	48	628				1	
Missouri		183	NM	173	183	0					
Nebraska	564	93	NM	564	93						
North Dakota											
South Dakota South Atlantic	43,688	26,095	NM	24,205	26,095	7,983		4		11,496	
Delaware	1,064	20,095	NM	3	20,095	330	-			732	
District of Columbia	1,004										
Florida	28,333	25,833	NM	23,775	25,833	3,527				1,031	
Georgia	306	14	NM	1	14	155				150	
Maryland	2,076					2,076					
North Carolina	356	64	NM	31	64	325					
South Carolina Virginia	36 2,306	2 145	NM NM	0 386	2 145	29 1,462		4		7 455	
West Virginia	9,211	15	NM	10	15	80				9,121	
East South Central	22,915	7,471	NM	21,023	7,471	707	_			1,185	
Alabama	6,053	893	NM	5,090	893	250				713	
Kentucky	51	114	NM	51	114						
Mississippi Tennessee	16,810 0	6,465	NM 	15,882	6,465	457				471 0	
West South Central	153,930	55,149	NM	31,370	55,149	67,499		335		54,726	
Arkansas	1,434	411	NM	52	411	1,382					
Louisiana	28,597	10,291	NM	10,584	10,291	1,309				16,704	
Oklahoma	8,774	8,752	NM	7,008	8,752	1,275		225		492	
Texas	115,124 <b>18,629</b>	35,695	NM NM	13,726	35,695	63,533 <b>9,942</b>		335		37,530 <b>393</b>	
Mountain Arizona	4,634	<b>13,292</b> 3,699	NM	<b>8,294</b> 1,267	<b>13,292</b> 3,699	3,223	<del>-</del>			144	
Colorado	5,707	3,425	NM	3,779	3,425	1,928					
Idaho	0					0					
Montana	1	1	NM	*	1	1					
Nevada	5,886	4,887	NM	1,642	4,887	4,245					
New Mexico	2,149	1,281	NM	1,604	1,281	545					
Utah Wyoming	252			3						249	
Wyoming Pacific Contiguous	56,701	5,236	NM	4,906	5,236	41,171				10,624	
California	49,158	3,420	NM	4,906	3,420	34,378				9,875	
Oregon		1,816	NM		1,816	4,065				582	
Washington	2,895					2,728				167	
Pacific Noncontiguous	7,887	1,999	NM	7,887	1,999	0	_	-			-
Alaska	7,887	1,999	NM	7,887	1,999	0					
Hawaii	277 957	122 205	NM	102 000	122 205	102 020		 521		82,278	
U.S. Total	377,857	123,295	NM	103,009	123,295	192,039		531		04,4/8	

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 power producers are included in this data dissemination. Prior to 2002 these data were not collected; the data for 2001 and previous years include only data collected from electric utilities via the FERC Form 423.

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

Notes: • See Glossary for definitions. • Data for 2002 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.

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."

NM = Not meaningful..

<sup>\*</sup> = For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

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

(Thousand Mcf)

			v1		Electric Pov	ver Sector		Combine	d Heat an	d Power Pr	oducers
Census Division and State	Tota	l (All Sectors	s)'	Electric	Utilities <sup>2</sup>	Independe Produ		Comm	ercial	Indus	trial
	2002	2001	Percent Change	2002	2001	2002	2001	2002	2001	2002	2001
New England	341,420	5,458	NM	5,037	5,458	336,383		-			-
Connecticut	58,457					58,457					
Maine	89,983	4.065		4.055	4.065	89,983					
Massachusetts	124,584 963	4,865	NM NM	4,057 963	4,865	120,527					
New Hampshire Rhode Island	67,417	495	NM 	903	495	67,417					
Vermont	17	99	NM	17	99	07,417					
Middle Atlantic	519,103	92,646	NM	75,385	92,646	403,726		1,914		38,078	
New Jersey	147,850	785	NM		785	138,517				9,332	
New York	308,475	91,741	NM	75,385	91,741	225,493		1,914		5,683	
Pennsylvania	62,778	120	NM		120	39,716				23,062	
East North Central	256,165	34,425	NM	28,749	34,425	196,595		251		30,569	
Illinois	81,805 28,722	4,021 1,447	NM NM	3,525 446	4,021 1,447	67,606 10,388				10,674	
Indiana Michigan	125,642	25,355	NM NM	21,571	25,355	103,819		251		17,887	
Ohio	5,839	433	NM	230	433	4,757		231		852	
Wisconsin	14,156	3,168	NM	2,976	3,168	10,024				1,156	
West North Central	51,286	28,238	NM	33,456	28,238	17,216		504	-	110	
Iowa	6,757	2,910	NM	3,418	2,910	3,339					
Kansas	14,573	17,721	NM	14,573	17,721						
Minnesota	8,930	1,436	NM	2,776	1,436	6,044				110	
Missouri	19,054 1,970	5,208 962	NM NM	10,718 1,970	5,208 962	7,832		504			
Nebraska North Dakota	1,970	1	NM	1,970	962						
South Dakota											
South Atlantic	654,925	270,233	NM	382,561	270,233	145,922	-	2,141		124,302	
Delaware	23,888	220	NM	253	220	14,877				8,758	
District of Columbia											
Florida	433,260	258,805	NM	367,507	258,805	50,915				14,837	
Georgia	19,686	1,241	NM	341	1,241	17,685				1,660	
Maryland North Carolina	20,598	746	NM	2,453	746	20,598 19,665					
South Carolina	22,118 4,773	746 798	NM	2,433	746 798	3,396				1,340	
Virginia	35,466	8,245	NM	11,790	8,245	17,302		2,141		4,233	
West Virginia	95,137	179	NM	179	179	1,483		-,		93,474	
East South Central	245,537	85,356	NM	185,137	85,356	44,473		2,322	-	13,605	
Alabama	86,681	12,952	NM	68,074	12,952	9,886				8,722	
Kentucky	6,597	353	NM	831	353	3,445		2,322			
Mississippi	150,287	72,051	NM	116,233	72,051	29,469				4,586	
West South Central	1,972 <b>2,314,116</b>	1,288,995	NM	649,755	1,288,995	1,674 <b>1,012,323</b>		9,758		298 <b>642,281</b>	
Arkansas	34,881	20,408	NM	17,216	20,408	17,665		7,730		042,261	-
Louisiana	491,026	224,186	NM	241,869	224,186	19,531		5,420		224.206	
Oklahoma	179,665	146,409	NM	152,286	146,409	21,623				5,756	
Texas	1,608,543	897,992	NM	238,383	897,992	953,504		4,337		412,319	
Mountain	306,367	200,531	NM	164,344	200,531	136,842			-	5,181	
Arizona	98,580	65,221	NM	41,421	65,221	56,242				917	
Colorado	71,102	40,041	NM	41,826	40,041	29,276					
Idaho Montana	5,886 32	11	NM	13	 11	5,886 19					
Nevada	93,368	46,935	NM	48,947	46,935	44,420					
New Mexico	28,168	36,836	NM	26,708	36,836	999				461	
Utah	5,224	11,083	NM	5,224	11,083						
Wyoming	4,008	405	NM	204	405					3,803	
Pacific Contiguous	719,299	128,834	NM	91,277	128,834	509,744				118,278	
California	627,627	85,688	NM	79,882	85,688	439,469				108,276	
Oregon	58,422	43,147	NM	11,395	43,147	41,040				5,987	
Washington	33,250 25,438	17 640	NM	24,951	17 649	29,235 <b>487</b>				4,015	
Pacific Noncontiguous Alaska	<b>25,438</b> 25,438	<b>17,649</b> 17,649	NM NM	24,951	<b>17,649</b> 17,649	<b>487</b> 487	-				
Hawaii	25,456	17,049		24,931	17,049						

<sup>&</sup>lt;sup>1</sup> 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 power producers are included in this data dissemination. Prior to 2002 these data were not collected; the data for 2001 and previous years include only data collected from electric utilities via the FERC Form 423.

Notes: •See Glossary for definitions. •Data for 2002 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. •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 power producers are included in this data dissemination. Prior to 2002 these data were not collected; the data for 2001 and previous years include only data collected from electric utilities via the FERC Form 423.

electric utilities via the FERC Form 423.

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

NM = Not Meaningful.

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

Table 4.9.A. Average Cost of Coal Delivered for Electricity Generation by State, December 2002 and 2001 (Cents per Million Btu)

	Т-4-	-1 (A II C4.	1		Electric I	Power Sector		Combined Power Pr		Combined Heat and Power Producers		
Census Division and State	100	al (All Secto	ors)	Electric	Utilities <sup>2</sup>		ent Power ucers	Comm			ıstrial	
	Dec 2002	Dec 2001	Percent Change	Dec 2002	Dec 2001	Dec 2002	Dec 2001	Dec 2002	Dec 2001	Dec 2002	Dec 2001	
New England	180.79	183.56	NM	184.79	183.56	175.27				281.00		
Connecticut	W					W						
Maine	W					W				W		
Massachusetts	W			237.10		W						
New Hampshire	176.35	183.56	NM	176.35	183.56							
Rhode Island												
Vermont												
Middle Atlantic	135.78	135.76	NM	182.18	135.76	131.73				163.28		
New Jersey	W	203.31	NM	245.38 144.40	203.31	W				 W/		
New York	W W	135.01	NM		135.01	W W				W W		
Pennsylvania	119.26	106.84	NM NM	120.49	106.84	116.58				124.98		
East North Central	119.26 W	116.91		<b>119.75</b> 112.92	116.91	110.58 W		220.38	-	124.98 W		
Illinois	W	114.17	NM NM		114.17	W						
Indiana Michigan	W W	114.69 127.21	NM NM	116.78 136.11	114.69 127.21			W				
Ohio	W	119.71	NM	120.48	119.71	W				W		
Wisconsin	W	103.88	NM	104.91	103.88					W		
West North Central	87.31	89.30	NM	86.56	89.30			181.10		131.35		
Iowa	W	79.05	NM	82.55	79.05			101.10		W		
Kansas	97.20	111.96	NM	97.20	111.96							
Minnesota	W	98.13	NM	104.28	98.13					W		
Missouri	w	93.57	NM	88.23	93.57			W				
Nebraska	57.63	56.58	NM	57.63	56.58							
North Dakota	71.87	77.31	NM	71.87	77.31							
South Dakota	122.96	102.60	NM	122.96	102.60							
South Atlantic	155.06	160.26	NM	154.14	160.26	156.34				170.39		
Delaware	W					W						
District of Columbia												
Florida	W	177.92	NM	168.74	177.92	W						
Georgia	W	165.02	NM	170.82	165.02					W		
Maryland	W					W						
North Carolina	W	158.50	NM		158.50	W				W		
South Carolina	W	162.91	NM	157.49	162.91					W		
Virginia	W	165.87	NM	159.13	165.87	W				W		
West Virginia	W	125.52	NM	124.74	125.52	W				W		
East South Central	132.29	126.44	NM	132.07	126.44	149.30				141.88		
Alabama	W	134.06	NM	144.64	134.06	W						
Kentucky	122.97	112.87	NM	122.97	112.87							
Mississippi	W	168.11	NM	164.57	168.11	W						
Tennessee	W	127.95	NM	122.06	127.95					W		
West South Central	115.99	121.19	NM	116.22	121.19	115.77				110.40		
Arkansas	131.95	62.83	NM	131.95	62.83							
Louisiana	125.16	133.83	NM	125.16	133.83							
Oklahoma	W	90.72	NM	90.07	90.72	W				W		
Texas	W	136.56	NM	127.03	136.56	W				W		
Mountain	101.13	107.55	NM	102.31	107.55	60.75			-	194.00		
Arizona	W	128.99	NM	127.77	128.99					W		
Colorado	91.35	93.23	NM	91.35	93.23							
Idaho	 W/	00.10	NIM	59.62	00.10	 W						
Montana	W 127 42	90.10	NM NM	58.63	90.10	W						
Nevada	137.43	123.09	NM NM	137.43	123.09							
New Mexico	164.74	128.15	NM NM	164.74	128.15							
Utah	93.52	114.48	NM NM	93.52	114.48							
Wyoming Pacific	74.79 <b>163.76</b>	73.48	NM NM	74.79 130.12	73.48	173.61				173.60		
California	163.76 W	138.10	INIVI	130.12	138.10	1/3.61 W		-		1/3.60 W		
Oregon	130.12	138.10	NM	130.12	138.10							
Washington	130.12 W	136.10	INIVI	130.12	136.10	W						
Alaska												
Hawaii	W					W						
U.S. Total	121.96	122.04	NM	118.43	122.04	132.46		204.43		147.21	_	

<sup>&</sup>lt;sup>1</sup> 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 power producers are included in this data dissemination. Prior to 2002 these data were not collected; the data for 2001 and previous years include only data collected from electric utilities via the FERC Form 423.

Notes: •See Glossary for definitions. •Data for 2002 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. •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."

electric utilities via the FERC Form 423.

<sup>2</sup> Data shown for electric utilities are collected by the Federal Energy Regulatory Commission on the FERC Form 423.

NM = Not meaningful.

W = Withheld to avoid disclosure of individual company data.

<sup>\*</sup> = For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

**Table 4.9.B.** Average Cost of Coal Delivered for Electricity Generation by State, Year-to-Date through December (Cents per Million Btu)

	Т.4.	J (All Ca-4	one)1		Electric P	ower Sector		Combined Power Pro		Combined Heat and Power Producers		
Census Division and State	1 ota	al (All Sect	ors)	Electric	c Utilities <sup>2</sup>	Independe Produ		Comme		Industrial		
	2002	2001	Percent Change	2002	2001	2002	2001	2002	2001	2002	2001	
New England	199.53	167.22	NM	185.23	167.22	203.44		-	-	276.88		
Connecticut	W					W						
Maine	W					W				W		
Massachusetts	W	167.00		223.84	167.00	W						
New Hampshire	180.27	167.22	NM	180.27	167.22							
Rhode Island Vermont												
Middle Atlantic	128.47	143.07	NM	161.44	143.07	126.17				170.07		
New Jersey	W	227.37	NM	232.64	227.37	W						
New York	W	141.60	NM	152.90	141.60	W				W		
Pennsylvania	W	120.63	NM	119.95	120.63	W				W		
East North Central	120.61	120.45	NM	119.23	120.45	123.84	-	249.22		132.55	-	
Illinois	W	119.16	NM	116.85	119.16	W				W		
Indiana	W	113.66	NM	115.81	113.66	W						
Michigan	W	127.48	NM	130.39	127.48	W		W				
Ohio	W	130.96	NM	119.44	130.96	W				W		
Wisconsin	W	104.64	NM	110.19	104.64			100.53		W		
West North Central	88.69 W	89.14	NM NM	88.01	<b>89.14</b> 81.37		-	180.52		129.92 W		
Iowa Kansas	98.29	81.37 104.76	NM	86.70 98.29	104.76							
Minnesota	96.29 W	104.76	NM	105.38	101.78					W		
Missouri	W	95.76	NM	89.18	95.76			W				
Nebraska	58.07	56.57	NM	58.07	56.57							
North Dakota	74.32	74.15	NM	74.32	74.15							
South Dakota	129.51	103.27	NM	129.51	103.27							
South Atlantic	159.17	157.08	NM	159.46	157.08	157.06	-	-		171.07		
Delaware	W	216.91	NM		216.91	W						
District of Columbia												
Florida	W	171.81	NM	173.50	171.81	W						
Georgia	W	166.07	NM	167.79	166.07					W		
Maryland	W	150.20	 NIM	174.64	150.20	W						
North Carolina	W W	159.30	NM	174.64	159.30	W				W W		
South Carolina Virginia	W	156.52 159.32	NM NM	158.52 160.12	156.52 159.32	W				W		
West Virginia	W	125.03	NM	124.10	125.03	W				W		
East South Central	128.81	126.35	NM	128.33	126.35	139.52				145.87	_	
Alabama	W	141.07	NM	141.61	141.07	W						
Kentucky	118.83	110.36	NM	118.83	110.36							
Mississippi	W	163.46	NM	164.44	163.46	W						
Tennessee	W	121.98	NM	120.17	121.98					W		
West South Central	117.45	120.86	NM	109.99	120.86	132.20				147.16		
Arkansas	83.60	87.47	NM	83.60	87.47							
Louisiana	W	130.89	NM	128.95	130.89	W						
Oklahoma	W	90.57	NM	93.51	90.57	W				W		
Texas Mountain	W 103.30	133.23 108.34	NM NM	126.34 <b>104.35</b>	133.23 108.34	61.82				W 193.64		
Arizona	103.30 W	124.96	NM	124.67	124.96	01.82				193.04 W	-	
Colorado	95.10	92.19	NM	95.10	92.19							
Idaho		72.17			72.17							
Montana	W	94.93	NM	60.86	94.93	W						
Nevada	133.86	126.19	NM	133.86	126.19							
New Mexico	152.88	147.37	NM	152.88	147.37							
Utah	97.49	112.30	NM	97.49	112.30							
Wyoming	78.53	76.74	NM	78.53	76.74							
Pacific	161.39	110.99	NM	132.90	110.99	167.95			-	171.94		
California	122 00	110.00	NIM	122.00	110.00	W				W		
Oregon	132.90	110.99	NM	132.90	110.99	W						
Washington Alaska	W 											
Hawaii	W					W						
U.S. Total	125.32	123.15	NM	121.81	123.15	135.70		227.71		151.56		
5 2 VIII.	120.02	120.10	. 1114	121.01	120,10	130.70		,,,,		101.00		

<sup>&</sup>lt;sup>1</sup> 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 power producers are included in this data dissemination. Prior to 2002 these data were not collected; the data for 2001 and previous years include only data collected from electric utilities via the FERC Form 423.

electric utilities via the FERC Form 423.

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

NM = Not meaningful.

W = Withheld to avoid disclosure of individual company data.

Notes: •See Glossary for definitions. •Data for 2002 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. •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, December 2002 and 2001 (Cents per Million Btu)

	Т.4.	al (All Secto	- me)1		Electric I	Power Sector		Combined Power Pr		Combined Heat and Power Producers		
Census Division and State	1002	ai (Ali Secto	ors)	Electric	Utilities <sup>2</sup>		ent Power ucers	Comm			ıstrial	
	Dec 2002	Dec 2001	Percent Change	Dec 2002	Dec 2001	Dec 2002	Dec 2001	Dec 2002	Dec 2001	Dec 2002	Dec 2001	
New England	420.77	416.37	NM	379.48	416.37	433.82	-	-	-	411.92	-	
Connecticut	W					W						
Maine	W					W				W		
Massachusetts	W			467.65		W						
New Hampshire	376.83	416.37	NM	376.83	416.37							
Rhode Island Vermont												
Middle Atlantic	456.67	281.46	NM	398.76	281.46	497.41				490.33		
New Jersey	W			618.76		W						
New York	W	281.42	NM	398.34	281.42	W				W		
Pennsylvania	W	444.30	NM	2188.40	444.30	W				W		
East North Central	276.65	247.73	NM	318.76	247.73	669.89				153.14	-	
Illinois	W	467.79	NM	730.58	467.79	W						
Indiana	W	224.52	NM	342.40	224.52					W		
Michigan	389.99	272.00	NM	389.99	272.00							
Ohio	W	460.79	NM	670.47	460.79	W				W		
Wisconsin	W	152.94	NM	176.46	152.94					W		
West North Central	297.62	160.37	NM	297.62	160.37				-	-	-	
Iowa	597.22	431.95	NM	597.22	431.95							
Kansas	253.44	256.59 46.29	NM NM	253.44 68.22	256.59 46.29							
Minnesota Missouri	68.22 607.83	149.52	NM	607.83	149.52							
Nebraska	660.42	1144.94	NM	660.42	1144.94							
North Dakota	646.71	486.40	NM	646.71	486.40							
South Dakota	040.71		14141	040.71								
South Atlantic	379.21	255.25	NM	367.52	255.25	493.37		630.42		439.18		
Delaware	W	263.80	NM	694.40	263.80	W				W		
District of Columbia	W					W						
Florida	$\mathbf{W}$	249.42	NM	353.26	249.42	W				W		
Georgia	W	429.68	NM	611.99	429.68	W				W		
Maryland	W					W						
North Carolina	W	393.96	NM		393.96	W				W		
South Carolina	W	411.82	NM	582.43	411.82					W		
Virginia	W	265.42	NM	422.27	265.42	W		W		W		
West Virginia	W	497.55	NM	652.30	497.55	W				W		
East South Central Alabama	641.15 W	<b>431.97</b> 419.06	NM NM	<b>649.19</b> 631.96	<b>431.97</b> 419.06					498.00 W	-	
	657.81	457.21	NM	657.81	457.21							
Kentucky Mississippi	527.10	372.80	NM	527.10	372.80							
Tennessee	641.83	412.63	NM	641.83	412.63							
West South Central	102.85	214.29	NM	606.34	214.29	87.63				444.56	_	
Arkansas	544.96	575.84	NM	544.96	575.84							
Louisiana	W	556.30	NM		556.30	W				W		
Oklahoma												
Texas	W	201.24	NM	636.00	201.24	W				W		
Mountain	588.38	488.83	NM	582.61	488.83				-	658.30	-	
Arizona	W	437.85	NM		437.85					W		
Colorado	834.94	605.19	NM	834.94	605.19							
Idaho												
Montana	654.68			654.68								
Nevada	542.10	460.00	NIM	542.10	460.00							
New Mexico	670.34	460.00 476.40	NM NM	670.34	460.00 476.40							
Utah	640.50 659.14	476.40 549.81	NM NM	640.50 659.14	476.40 549.81							
Wyoming Pacific	438.24	591.70	NM	039.14	591.70	438.46				201.00		
California	436.24 W	591.70	NM		591.70	W				201.00		
Oregon												
Washington	W									W		
Alaska												
Hawaii	W					W						
U.S. Total	389.37	256.08	NM	372.34	256.08	420.69		630.42		371.00		

<sup>&</sup>lt;sup>1</sup> 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 power producers are included in this data dissemination. Prior to 2002 these data were not collected; the data for 2001 and previous years include only data collected from electric utilities via the FERC Form 423.

Notes: •See Glossary for definitions. •Data for 2002 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. •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."

electric utilities via the FERC Form 423.

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

NM = Not meaningful.

W = Withheld to avoid disclosure of individual company data.

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

(Cents per Million Btu)

	Tr. 4	J (All S- 4			Electric P	ower Sector		Combined I Power Pro		Combined Heat and Power Producers		
Census Division and State	1 ota	al (All Sect	ors)	Electric	Utilities <sup>2</sup>	Independe Produ		Comme	rcial		strial	
	2002	2001	Percent Change	2002	2001	2002	2001	2002	2001	2002	2001	
New England	371.12	359.27	NM	372.44	359.27	372.03		460.00	-	359.87		
Connecticut	W					W						
Maine	W					W				W		
Massachusetts	W	494.02	NM	460.18	494.02	W		W				
New Hampshire	370.51	336.71	NM	370.51	336.71							
Rhode Island												
Vermont  Middle Atlantic	408.59	351.56	NM	349.21	351.56	439.53				461.95		
New Jersey	W	453.99	NM	405.59	453.99	W						
New York	W	350.25	NM	346.97	350.25	W				W		
Pennsylvania	W	372.93	NM	604.76	372.93	W				W		
East North Central	234.46	340.50	NM	244.13	340.50	552.44				173.67		
Illinois	W	578.72	NM	456.13	578.72	W						
Indiana	W	220.11	NM	231.82	220.11					W		
Michigan	273.78	397.95	NM	273.78	397.95							
Ohio	273.78 W	600.85	NM	529.22	600.85	W				W	_	
Wisconsin	W	145.87	NM	118.43	145.87	W				W		
		230.53			230.53	- W						
West North Central	180.83		NM NM	180.83								
Iowa Kansas	579.00 272.69	617.06 336.08	NM NM	579.00 272.69	617.06 336.08						-	
Minnesota	60.06	65.48	NM	60.06	65.48						-	
Missouri	117.50	133.88	NM	117.50	133.88						-	
Nebraska	554.77	655.61	NM	554.77	655.61						-	
North Dakota	572.86	638.56	NM	572.86	638.56						-	
South Dakota											-	
South Atlantic	339.89	345.55	NM	328.70	345.55	428.74		548.93		398.08	-	
Delaware	W	380.46	NM	388.65	380.46	W				W	-	
District of Columbia	W					W					-	
Florida	W	338.77	NM	320.37	338.77	W				W	-	
Georgia	W	668.41	NM	541.12	668.41	W				W	-	
Maryland	W					W					-	
North Carolina	W	584.28	NM	499.28	584.28	W				W	-	
South Carolina	W	584.56	NM	529.31	584.56					W	-	
Virginia	W	356.52	NM	377.37	356.52	W		W		W	-	
West Virginia	W	665.72	NM	586.38	665.72	W				W	-	
East South Central	494.48	383.83	NM	495.61	383.83					472.24	-	
Alabama	W	552.07	NM	520.11	552.07					W	-	
Kentucky	464.60	567.26	NM	464.60	567.26						_	
Mississippi	427.75	377.35	NM	427.75	377.35						-	
Tennessee	536.34	553.79	NM	536.34	553.79							
West South Central	135.14	543.33	NM	241.97	543.33	124.93				409.83	_	
Arkansas	550.02	626.39	NM	550.02	626.39	124.93				407.03	-	
Louisiana	W	519.00	NM	471.93	519.00	W				W		
Oklahoma	483.80	632.96	NM	483.80	632.96						-	
	483.80 W	555.52	NM NM	92.13	555.52	W				W		
Texas												
Mountain	453.90	698.30	NM NM	491.21	698.30	236.15	-		_	624.08	-	
Arizona	W 704.55	706.36	NM NM	673.50	706.36					W	-	
Colorado	704.55	721.37	NM	704.55	721.37						-	
Idaho	 W/			210.07		 W/						
Montana	W	 505.00	NIM	219.87	 595.00	W						
Nevada	600.20	585.06	NM	600.20	585.06							
New Mexico	613.90	631.49	NM	613.90	631.49							
Utah	556.40	634.47	NM	556.40	634.47						-	
Wyoming	553.00	707.19	NM	553.00	707.19							
Pacific	379.51	498.90	NM	573.11	498.90	385.54	_	-	-	236.10		
California	W	600.85	NM	591.70	600.85	W						
Oregon	572.32	636.17	NM	572.32	636.17						-	
Washington	W					$\mathbf{W}$				W	-	
Alaska											-	
Hawaii	W	490.33	NM		490.33	W					-	
J.S. Total	345.21	369.27	NM	325.13	369.27	378.94		538.19		324.40	_	

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 power producers are included in this data dissemination. Prior to 2002 these data were not collected; the data for 2001 and previous years include only data collected from electric utilities via the FERC Form 423.

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

Notes: • See Glossary for definitions. • Data for 2002 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. 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."

NM = Not meaningful.

W = Withheld to avoid disclosure of individual company data.

Table 4.11.A. Average Cost of Natural Gas Delivered for Electricity Generation by State, December 2002 and 2001 (Cents per Million Btu)

	Tota	ıl (All Secto	re) <sup>1</sup>		Electric I	Power Sector		Combined Power Pr		Combined Heat and Power Producers		
Census Division and State	1 ota	ii (Ali Secto	ors)	Electric	Utilities <sup>2</sup>		ent Power ucers	Comm			ıstrial	
	Dec 2002	Dec 2001	Percent Change	Dec 2002	Dec 2001	Dec 2002	Dec 2001	Dec 2002	Dec 2001	Dec 2002	Dec 2001	
New England	543.24	320.09	NM	588.03	320.09	542.88	-	-	-	-	-	
Connecticut	W					W						
Maine Massachusetts	W W	320.09	NM	563.64	320.09	W W						
New Hampshire	619.00	320.09	11111	619.00	320.09							
Rhode Island	W					W						
Vermont												
Middle Atlantic	511.45	311.36	NM	547.36	311.36	510.13	-	450.00		489.79		
New Jersey	W	347.33	NM		347.33	W				W		
New York	W	309.02	NM	547.36	309.02	W		W		W		
Pennsylvania	W 420.77	316.96	NM	450 63	216 06	W 404.65		505.00		W 476.47		
East North Central Illinois	420.77 W	295.72	NM	<b>459.63</b> 531.65	<b>316.96</b> 295.72	404.05 W	-	505.00		470.47 W		
Indiana	W W	402.38	NM	480.62	402.38	W				W		
Michigan	W	315.42	NM	453.33	315.42	w		W				
Ohio	W	562.47	NM	536.89	562.47	W				W		
Wisconsin	W	363.12	NM	471.02	363.12	W				W		
West North Central	498.16	297.69	NM	493.98	297.69	506.97	_	-	_	473.00	-	
Iowa	W	365.79	NM	487.22	365.79	W						
Kansas	413.58	261.29	NM	413.58	261.29							
Minnesota	W	345.40	NM	719.75	345.40	W				W		
Missouri	503.30	297.46	NM	503.30	297.46							
Nebraska North Dakota	524.27	366.39	NM 	524.27	366.39							
South Dakota												
South Atlantic	520.73	304.19	NM	566.46	304.19	428.13		472.00		406.67		
Delaware	W	302.20	NM	540.80	302.20	W				W		
District of Columbia												
Florida	W	303.58	NM	563.92	303.58	W				W		
Georgia	W	344.20	NM	640.90	344.20	W				W		
Maryland	W	452.06			450.06	W						
North Carolina	W	452.86	NM	569.78	452.86	W						
South Carolina	W W	557.03 339.30	NM NM	719.00	557.03 339.30	W W		W		W W		
Virginia West Virginia	W	296.89	NM	839.60	296.89	W				W		
East South Central	496.77	245.19	NM	500.17	245.19	470.54				451.63		
Alabama	W	249.24	NM	460.25	249.24	W				W		
Kentucky	511.22	356.40	NM	511.22	356.40							
Mississippi	W	242.67	NM	513.19	242.67	W				W		
Tennessee												
West South Central	423.01	281.76	NM	458.08	281.76	417.82		397.10		409.34		
Arkansas	W	264.62	NM	471.41	264.62	W						
Louisiana	W	269.17	NM NM	470.29	269.17	W				W		
Oklahoma Texas	W W	314.42 277.75	NM NM	480.66 437.05	314.42 277.75	W W		W		W W		
Mountain	387.20	381.85	NM NM	399.48	381.85	376.79		vv		383.32		
Arizona	367.20 W	286.92	NM	472.54	286.92	W			-	363.32 W		
Colorado	W	273.05	NM	348.32	273.05	W						
Idaho												
Montana	W	469.60	NM	610.30	469.60	W						
Nevada	W	562.27	NM	416.77	562.27	W						
New Mexico	W	248.89	NM	439.23	248.89	W						
Utah	 W			1000.70						 W/		
Wyoming Pacific	W 433.43	444.59	NM	1998.70 <b>298.51</b>	444.59	472.86				W 440.32		
California	433.43 W	597.24	NM	459.18	597.24	4/2.86 W	-			440.32 W		
Oregon	W	377.75	NM		377.75	W				W		
Washington	W	377.73 	NM			w				W		
Alaska	197.57	260.02	NM	197.57	260.02							
Hawaii			NM									
U.S. Total	454.11	307.63	NM	471.47	307.63	458.84	_	420.43	_	418.19	-	

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 power producers are included in this data dissemination. Prior to 2002 these data were not collected; the data for 2001 and previous years include only data collected from electric utilities via the FERC Form 423.

Notes: •See Glossary for definitions. •Data for 2002 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.

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."

electric utilities via the FERC Form 423.

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

NM = Not meaningful.

W = Withheld to avoid disclosure of individual company data.

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

(Cents per Million Btu)

	Teta	al (All Sect	ore)1		Electric P	ower Sector		Combined I Power Pro		Combined Heat and Power Producers		
Census Division and State	1012	ıı (Alı Sect	ors)	Electric	Utilities <sup>2</sup>	Independe Produ		Comme	ercial	Indu	strial	
	2002	2001	Percent Change	2002	2001	2002	2001	2002	2001	2002	2001	
New England	388.50	339.60	NM	393.87	339.60	388.41		-	-	-	-	
Connecticut	W					W						
Maine	W					W						
Massachusetts	W	347.56	NM	395.25	347.56	W						
New Hampshire	388.21	238.68	NM	388.21	238.68							
Rhode Island	W					W						
Vermont	383.92	477.63	NM	383.92	477.63							
Middle Atlantic	395.99	404.77	NM	380.30	404.77	400.65		345.83	-	383.46	-	
New Jersey	W W	335.64	NM	200.20	335.64	W W		W		W W		
New York	W W	404.76 851.79	NM NM	380.30	404.76 851.79	W W		W		W W		
Pennsylvania  East North Central	347.99	397.30	NM NM	340.26	397.30	343.47		418.68		381.49		
	347.99 W	368.40	NM	340.20	368.40	343.47 W		410.00		361.49 W		
IllinoisIndiana	W	506.95	NM	342.39	506.40	W				W		
Michigan	W	377.34	NM	331.15	377.34	W		W				
Ohio	W	797.14	NM	505.16	797.14	W				W		
Wisconsin	W	472.62	NM	378.26	472.62	W				W		
West North Central	335.77	400.91	NM	339.93	400.91	327.51		334.74	_	365.95		
Iowa	W	477.07	NM	386.62	477.07	W						
Kansas	309.42	357.89	NM	309.42	357.89							
Minnesota	W	520.70	NM	393.18	520.70	W				W		
Missouri	W	466.90	NM	338.76	466.90	W		W				
Nebraska	416.51	427.51	NM	416.51	427.51							
North Dakota	247.78	684.61	NM	247.78	684.61							
South Dakota												
South Atlantic	388.62	451.48	NM	409.46	451.48	356.59		381.99		321.18		
Delaware	W	427.23	NM	354.47	427.23	W				W		
District of Columbia												
Florida	W	453.00	NM	407.50	453.00	W				W		
Georgia	W	327.74	NM	302.05	327.74	W				W		
Maryland	W					W						
North Carolina	W	434.99	NM	421.40	434.99	W						
South Carolina	W	256.70	NM	501.58	256.70	W				W		
Virginia	W	437.87	NM	471.75	437.87	W		W		W		
West Virginia	W	646.47	NM	453.34	646.47	W				W		
East South Central	346.08	369.52	NM	350.33	369.52	325.42	-	336.76		357.60		
Alabama	W	505.74	NM	345.84	505.74	W				W		
Kentucky	W	458.94	NM	424.60	458.94	W		W				
Mississippi	W	344.52	NM	352.45	344.52	W				W		
Tennessee	W					W				W		
West South Central	333.39	422.81	NM	346.77	422.81	330.88	-	158.61		326.57		
Arkansas	W	429.10	NM	352.73	429.10	W						
Louisiana	W	412.99	NM	353.78	412.99	W		W		W		
Oklahoma	W	448.40	NM	349.96	448.40	W				W		
Texas	W	421.05	NM	337.18	421.05	W		W		W		
Mountain	339.03	515.61	NM	379.07	515.61	294.06			-	270.08	-	
Arizona	W	460.31	NM	320.45	460.31	W				W		
Colorado	W	375.54	NM	263.90	375.54	W						
Idaho	W	666 55	NIM	420.49	666.55	W						
Montana	W	666.55	NM	430.48	666.55	W						
Nevada	W	802.49	NM NM	544.68	802.49	W				 W	-	
New Mexico	W 455 20	415.07	NM NM	323.72	415.07	W				W		
Utah	455.39 W	463.66	NM NM	455.39	463.66 381.76					W		
Wyoming	W 363.24	381.76	NM NM	414.06	381.76	269 02					-	
Pacific California	363.24 W	681.30	NM NM	353.88 403.27	681.30	368.03		-	-	352.09	-	
California	W W	928.02	NM NM	403.27	928.02	W W				W W		
OregonWashington	W W	374.91	NM 	294.94	374.91	W W				W W		
Washington Alaska	W	236.09	NM	221.68	236.09	W						
Hawaii		230.09	INIVI	221.08	230.09							
114 17 411	354.73	448.73	NM	367.03	448.73	354.67		241.21				

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 power producers are included in this data dissemination. Prior to 2002 these data were not collected; the data for 2001 and previous years include only data collected from electric utilities via the FERC Form 423.

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

Notes: • See Glossary for definitions. • Data for 2002 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.

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."

NM = Not meaningful.

W = Withheld to avoid disclosure of individual company data.

Table 4.12. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Total (All Sectors) by State, December 2002

(Thousand Tons)

Census Division and State		Bituminous		:	Subbituminous	8		Lignite	
	Receipts	Sulfur %	Ash %	Receipts	Sulfur %	Ash %	Receipts	Sulfur %	Ash %
New England	534	.8	6.5	0		-	0	-	-
Connecticut	42	1.3	13.2	0			0		
Maine	23	.7	4.7	0			0		
Massachusetts	301	.6	6.3	0			0		
New Hampshire	168	.9	5.6	0			0		
Rhode Island									
Vermont									
Middle Atlantic	3,022	1.9	10.1	15	2.9	5.1	0		-
New Jersey	390	1.5	8.0	0			0		
New York	633	1.9	8.8	15	2.9	5.1	0		
Pennsylvania	1,999	2.0	10.9	0			0		
East North Central	7,022	2.0	9.0	8,835	.3	4.9	0		-
Illinois	1,018	1.7	8.4	3,711	.3	5.0	0		
Indiana	3,032	2.0	8.7	1,404	.2	4.6	0		
Michigan	701	1.1	9.0	1,924	.3	4.8	0		
Ohio	2,105	2.4	9.7	0			0		
Wisconsin	166	1.1	8.0	1,795	.3	5.0	0		
West North Central	258	1.7	8.5	10,717	.3	5.3	2,257	.7	9.4
Iowa	58	2.0	8.1	2,004	.3	5.3	0		
Kansas	26	4.9	20.2	1,811	.4	5.1	0		
Minnesota	0	1.1		1,887	.4	6.4			
Missouri	175	1.1	6.9	3,701	.3	4.9	0		
Nebraska	0			1,116	.3	4.9	0		0.4
North Dakota	0			20	.4	6.6	2,257	.7	9.4
South Dakota				177	.3	4.6			
South Atlantic	9,419	1.4	10.1	339	.3	5.2	0		-
Delaware	169	1.0	10.4	0			0		
District of Columbia	1 722	1.6	8.5	0			0		
Florida	1,732 1,484	1.0	8.5 10.8	339	.3	5.2	0		
Georgia	752	1.2	10.8	339	.3	3.2	0		
Maryland North Carolina	178	.9	8.1	0			0		
South Carolina	1,026	1.2	8.5	0			0		
Virginia	1.237	1.0	9.6	0			0		
West Virginia	2.841	1.8	11.4	0			0		
East South Central	6,730	1.6	10.6	1,281	.3	4.9	*	.5	14.3
Alabama	1,767	1.3	10.5	820	.3	4.9	0		17.5
Kentucky	2,344	2.3	11.8	130	.3	5.3	0		
Mississippi	471	.6	8.5	0	.5	5.5	*	.5	14.3
Tennessee	2.147	1.3	9.7	331	3	4.7	0	.5	14.5
West South Central	77	2.1	14.0	6,970	.3	5.1	3,374	1.2	16.2
Arkansas	0	2.1		1.093	.3	4.8	0	1.2	10.2
Louisiana	0			423	.5	5.6	345	.9	13.6
Oklahoma	77	2.1	14.0	2.107	.3	5.1	0		15.0
Texas	0			3,347	.3	5.2	3,029	1.2	16.5
Mountain	2,705	.6	10.1	6,050	.5	9.3	31	.5	9.6
Arizona	20	.5	8.6	1,308	.6	11.9	0		
Colorado	477	.5	10.1	1.156	.4	5.3	ő		
Idaho									
Montana	0			711	.6	8.4	31	.5	9.6
Nevada	694	.5	9.7	0			0		
New Mexico	0			687	.7	20.0	Õ		
Utah	1,264	.5	11.6	0			Õ		
Wyoming	251	1.0	4.3	2.187	.4	6.9	ŏ		
Pacific Contiguous	144	.5	8.2	761	.8	15.4	ŏ		
California	144	.5	8.2	0			0		
Oregon	0			224	.3	4.5	ŏ		
Washington	ő			537	1.0	20.0	ő		
Pacific Noncontiguous	Ŏ			62	.4	5.4	Ŏ		_
Alaska									
Hawaii	0			62	.4	5.4	0		
U.S. Total	29,911	1.5	9.9	35,027	.4	6.1	5,663	1.0	13.4

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

Notes: •See Glossary for definitions. •Data for 2002 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. •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 power producers are included in this data dissemination. Prior to 2002 these data were not collected; the data for 2001 and previous years include only data collected from electric utilities via 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."

Table 4.13. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Electric Utilities by State, December 2002

Census Division and State		Bituminous		5	Subbituminous	;	Lignite			
	Receipts	Sulfur %	Ash %	Receipts	Sulfur %	Ash %	Receipts	Sulfur %	Ash %	
New England	196	.9	5.8	0			0		_	
Connecticut										
Maine										
Massachusetts	. 28	.7	7.5	0			0			
New Hampshire		.9	5.6	0			0			
Rhode Island	<del></del>									
Vermont										
Middle Atlantic	209	2.4	8.7	0	-	-	0		_	
New Jersey		2.7	8.6	0			0			
New York		2.1 2.3	8.6 8.9	0			0			
Pennsylvania			9.0		.3	4.0	0			
East North Central	6,124	2.0 2.3		<b>5,476</b> 489		4.8	0			
Illinois		2.3	8.4 8.7	1,294	.2 .2	4.8	0			
Indiana Michigan		1.1	8.9	1,294	.3	4.7 4.8	0			
		2.5	9.6	1,924	.5	4.0	0			
Ohio Wisconsin		1.0	7.9	1,769	.3	5.0	0			
West North Central	213	1.3	8.4	10,579	.3	5.3	2,257	.7	9.4	
Iowa		.5	6.9	1.934	.3	5.3	2,237		7.4	
Kansas		4.9	20.2	1,811	.3	5.1	0			
Minnesota		4.5	20.2	1,820	.4	6.4	0			
Missouri		.9	6.8	3,701	.3	4.9	ő			
Nebraska		.,	0.0	1.116	.3	4.9	0			
North Dakota				20	.4	6.6	2,257	.7	9.4	
South Dakota				177	.3	4.6	0	. / 	7.7	
South Atlantic	6,989	1.2	10.2	339	.3	5.2	Ŏ			
Delaware										
District of Columbia										
Florida		1.7	8.4	0			0			
Georgia		.9	10.9	339	.3	5.2	Õ			
Maryland										
North Carolina										
South Carolina		1.2	8.5	0			0			
Virginia		1.1	10.1	0			0			
West Virginia		1.2	11.9	0			0			
East South Central	6,583	1.6	10.6	1,281	.3	4.9	0			
Alabama	1,754	1.3	10.5	820	.3	4.9	0			
Kentucky		2.3	11.8	130	.3	5.3	0			
Mississippi	. 471	.6	8.5	0			0			
Tennessee	2,013	1.3	9.8	331	.3	4.7	0			
West South Central	11	.5	9.3	6,221	.3	5.1	858	1.5	18.0	
Arkansas				1,093	.3	4.8	0			
Louisiana	. 0			423	.5	5.6	345	.9	13.6	
Oklahoma		.5	9.3	2,084	.3	5.1	0			
Texas				2,621	3	5.1	513	1.9	21.0	
Mountain	2,705	.6	10.1	5,707	.5	9.4	31	.5	9.6	
Arizona		.5	8.6	1,293	.6	11.9	0			
Colorado		.5	10.1	1,156	.4	5.3	0			
Idaho										
Montana				384	.7	9.1	31	.5	9.6	
Nevada		.5	9.7	0			0			
New Mexico				687	.7	20.0	0			
Utah	1,264	.5	11.6	0			0			
Wyoming		1.0	4.3	2,187	.4	6.9	0			
Pacific Contiguous	0	-	-	224	.3	4.5	0		-	
California				224		4.5				
Oregon				224	.3	4.5	0			
Washington										
Pacific Noncontiguous	-	-	-	-	-	-	-	-	-	
Alaska										
Hawaii								.9		
U.S. Total	23,029	1.5	9.9	29,825	.4	5.9	3,146	.9	11.8	

Notes: •See Glossary for definitions. •Data for 2002 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. •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 power producers are included in this data dissemination. Prior to 2002 these data were not collected; the data for 2001 and previous years include only data collected from electric utilities via the FERC Form 423.

Table 4.14. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Independent Power Producers by State, December 2002

Census Division and State		Bituminous			Subbituminous	s	Lignite			
	Receipts	Sulfur %	Ash %	Receipts	Sulfur %	Ash %	Receipts	Sulfur %	Ash %	
New England	329	.7	7.0	0			0		_	
Connecticut	42	1.3	13.2	0			0			
Maine	14	.7	3.8	0			0			
Massachusetts	273	.6	6.2	0			0			
New Hampshire										
Rhode Island										
Vermont	2,609	1.9	10.4		2.9		0			
Middle Atlantic New Jersey	2,609	1.1	7.8	15 0	2.9	5.1	0			
New York	522	1.1	7.8 8.9	15	2.9	5.1	0			
Pennsylvania	1,789	2.1	11.2	0	2.9	J.1 	0			
East North Central	685	1.2	8.7	3,278	.3	5.0	Ŏ			
Illinois	545	1.0	8.2	3,168	.3	5.0	0			
Indiana	0			111	.3	4.0	ő			
Michigan										
Ohio	140	1.9	10.5	0			0			
Wisconsin										
West North Central	-		-	_		_	_	_	_	
Iowa										
Kansas										
Minnesota										
Missouri										
Nebraska										
North Dakota										
South Dakota										
South Atlantic	2,221	1.8	10.1	0			0			
Delaware	169	1.0	10.4	0			0			
District of Columbia	164	.8		0			0			
Florida	164	.8	9.1	U			0			
Georgia Maryland	752	1.2	10.7	0			0			
North Carolina	96	.9	9.0	0			0			
South Carolina		., 	7.0							
Virginia	267	.8	8.4	0			0			
West Virginia	774	3.2	10.4	ő			ŏ			
East South Central	13	.8	8.9	Ŏ			*	.5	14.3	
Alabama	13	.8	8.9	0			0			
Kentucky										
Mississippi	0			0			*	.5	14.3	
Tennessee										
West South Central	66	2.4	14.7	726	.4	5.3	2,316	1.0	15.1	
Arkansas										
Louisiana	0		=	0			0			
Oklahoma	66	2.4	14.7	0			0			
Texas	0			726	.4	5.3	2,316	1.0	15.1	
Mountain	0		_	327	.6	7.7	0		-	
Arizona										
Colorado										
Idaho	0			327		7.7	0			
Montana	0			327	.6	7.7	0			
Nevada New Mexico										
Utah										
Wyoming										
Pacific Contiguous	69	.6	8.5	537	1.0	20.0	0			
California	69	.6	8.5	0			0			
Oregon										
Washington	0			537	1.0	20.0	0			
Pacific Noncontiguous	0		_	62	.4	5.4	Ö	-	-	
Alaska										
Hawaii	0			62	.4	5.4	0			
U.S. Total	5,992	1.7	9.9	4,945	.4	6.8	2,317	1.0	15.1	

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

Notes: •See Glossary for definitions. •Data for 2002 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. •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 power producers are included in this data dissemination. Prior to 2002 these data were not collected; the data for 2001 and previous years include only data collected from electric utilities via the FERC Form 423.

Table 4.15. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Commercial Combined Heat and Power Producers by State, December 2002

Census Division and State		Bituminous		s	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		1.6	10.2	0					
East North Central	17	1.6	10.2	*			0		
Illinois									
Indiana	17	1.6	10.2	0			0		
Michigan	17	1.0	10.2	0			0		
Ohio Wisconsin									
West North Central	14	3.6	8.5	0			0		
Iowa		3.0	o.s 			_			_
Kansas									
Minnesota									
Missouri	14	3.6	8.5	0			0		
Nebraska		5.0	0.5						
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									
U.S. Total	31	2.5	9.4	0	-		0		

Notes: • See Glossary for definitions. • Data for 2002 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. • 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 power producers are included in this data dissemination. Prior to 2002 these data were not collected; the data for 2001 and previous years include only data collected from electric utilities via the FERC Form 423.

Table 4.16. Receipts and Quality of Coal by Rank Delivered for Electricity Generation: Industrial Combined Heat and Power Producers by State, December 2002

Census Division and State		Bituminous		S	Subbituminous		Lignite			
and State	Receipts	Sulfur %	Ash %	Receipts	Sulfur %	Ash %	Receipts	Sulfur %	Ash %	
New England	10	.7	5.9	0	-		0	-	-	
Connecticut										
Maine	10	.7	5.9	0			0			
Massachusetts										
New Hampshire										
Rhode Island										
Vermont										
Middle Atlantic	204	1.0	7.5	0		-	0		_	
New Jersey	 54	1.0	8.5	0			0			
New York Pennsylvania	150	1.8	7.1	0			0			
East North Central	196	3.4	9.2	81	.3	4.2	0			
Illinois	159	3.3	9.0	55	.3	4.0	0			
Indiana	139	3.3	9.0		.5	4.0				
Michigan										
Ohio	27	4.1	10.4	0			0			
Wisconsin	9	2.9	9.0	26	.2	4.5	0			
West North Central	32	3.3	9.0	138	.3	5.2	Ŏ			
Iowa	32	3.3	9.0	70	.3	4.8	0			
Kansas										
Minnesota	0			68	.2	5.6	0			
Missouri										
Nebraska										
North Dakota										
South Dakota										
South Atlantic	209	1.0	7.4	0		-	0		_	
Delaware										
District of Columbia										
Florida										
Georgia	49	.8	7.6	0			0			
Maryland										
North Carolina	82	.9	7.1	0			0			
South Carolina	9	.9	8.3	0			0			
Virginia	23	.8	7.1	0			0			
West Virginia	47	1.4	7.7	0			0			
East South Central	134	.9	8.1	0			0		-	
Alabama										
Kentucky										
Mississippi Tennessee	134	.9	8.1	0			0			
West South Central	0	.,	0.1	23	.2	6.5	200	1.8	20.5	
Arkansas				25		0.3	200	1.0	20.3	
Louisiana										
Oklahoma	0			23	.2	6.5	0			
Texas	ŏ			0			200	1.8	20.5	
Mountain	Ŏ			16	.5	12.8	0		20.5	
Arizona	Ő			16	.5	12.8	Ö			
Colorado										
Idaho										
Montana										
Nevada										
New Mexico										
Utah										
Wyoming										
Pacific Contiguous	75	.4	8.0	0			0		-	
California	75	.4	8.0	0			0			
Oregon Washington										
Pacific Noncontiguous			_	_			-	-	-	
AlaskaHawaii										
U.S. Total	859	1.6	8.0	258	.3	5.5	200	1.8	20.5	

Notes: •See Glossary for definitions. •Data for 2002 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. •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 power producers are included in this data dissemination. Prior to 2002 these data were not collected; the data for 2001 and previous years include only data collected from electric utilities via the FERC Form 423.

Chapter 5. Retail Sales, Revenue, and Average Revenue per Kilowatthour

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

Period	Residential	Commercial	Industrial	Other <sup>1</sup>	All Sectors
1990	924,019	751,027	945,522	91,988	2,712,555
1991	,	765,664	946,583	94,339	2,762,003
1992		761,271	972,714	93,442	2,763,365
1993		794,573	977,164	94,944	2,861,462
1994		820,269	1,007,981	97,830	2,934,563
1995		862,685	1,012,693	95,407	3,013,287
1996		887,445	1,033,631	97,539	3,101,127
1997		928,633	1,038,197	102,901	3,145,610
1998		979,401	1,051,203	103,518	3,264,231
1999		1,001,996	1,058,217	106,952	3,312,087
2000		1,055,232	1,064,239	109,496	3,421,414
2001	1,172,110	1,055,252	1,001,209	100,100	3,121,111
	128,464	91,407	80,245	9,167	309,283
JanuaryFebruary	128,464	82,072	79,349	8,636	271,083
	93,568	84,477	80,533	8,730	,
March April	82,937	81,538	79.824	8,525	267,307 252,823
	81,539	87,955	82,736	9,038	261,269
May	98,689	96,153	82,616	10,075	287,533
June July	119,819	102,863	80.766	10,073	
•	,	*	,	. ,	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
Total	1,202,647	1,089,154	964,224	113,756	3,369,781
2002	117.054	00.712	70.204	0.162	202.022
January	117,854	88,712	78,304	8,162	293,032
February	97,402	81,921	78,113	7,880	265,317
March	96,011	84,432	79,861	7,862	268,165
April	86,185	84,922	80,674	7,861	259,643
May	87,577	90,154	84,072	8,344	270,147
June	107,956	97,916	84,266	9,135	299,274
July	133,517	107,299	87,631	9,879	338,327
August	134,080	106,652	88,669	9,996	339,397
September	115,061	99,405	85,978	10,077	310,521
October	94,328	94,491	85,647	9,282	283,748
November	89,012	84,738	80,816	8,308	262,874
December	109,190	87,430	79,768	8,389	284,777
Total	1,268,172	1,108,072	993,800	105,177	3,475,221
2003	105.005	22.512	60.271	0.740	262.112
January	125,307	93,712	80,351	8,743	308,113
Total	125,307	93,712	80,351	8,743	308,113
Year to Date					
2001		91,407	80,245	9,167	309,283
2002		88,712	78,304	8,162	293,032
2003	125,307	93,712	80,351	8,743	308,113
Rolling 12 Months Ending i	in January				
2002	1,192,037	1,086,458	962,284	112,751	3,353,530
2003		1,113,072	995,847	105,758	3,490,302

<sup>&</sup>lt;sup>1</sup> 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 2001 have been adjusted to reflect the Form EIA-861 annual total. See Technical Notes for methodology. •Values for 2002 have been revised and are preliminary. •Values for 2003 are 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;" 1990-2001: Form EIA-861, "Annual Electric Power Industry Report."

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

Period	Residential	Commercial	Industrial	Other <sup>1</sup>	All Sectors
1990	72,378	55,117	44,857	5,891	178,243
1991		57,655	45,737	6,138	186,359
1992		58,343	46,993	6,296	188,480
1993		61,521	47,357	6,528	198,220
994		63,396	48,069	6,689	202,706
995		66,365	47,175	6,567	207,717
996 <sup>R</sup>	90,503	67,829	47,536	6,741	212,609
997 <sup>R</sup>	90,704	70,497	47,023	7,110	215,334
997 <sup>R</sup> 998 <sup>R</sup>	93,360	72,575	47,050	6,863	219,848
999 <sup>R</sup>	93,483	72,771	46,846	6,796	219,896
.000	98,209	78,405	49,369	7,179	233,163
001	78,207	76,403	47,507	7,179	233,103
	10,001	6,732	4,000	608	21,341
January	10,001 8,176	6,732 6,192	4,000 3,834	596	21,341 18,799
February	,				
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	103,671	86,354	48,573	7,999	246,597
2002					
January	9,526	6,628	3,705	541	20,400
February	7,970	6,302	3,724	537	18,533
March	7,835	6,517	3,816	538	18,705
April	7,215	6,488	3,800	544	18,046
May	7,563	7,030	3,977	571	19,141
June	9,405	7,915	4,161	629	22,110
July	11,751	8,890	4,492	663	25,795
August	11,727	8,776	4,482	662	25,647
September	9,950	8,026	4,208	666	22,850
October	8,022	7,622	4,145	631	20,421
November	7,413	6,505	3,784	561	18,263
December	8,839	6,681	3,736	587	19,843
Total	107,215	87,380	48,028	7,129	249,752
003					
January	10,005	7,286	3,754	584	21,629
Total	10,005	7,286	3,754	584	21,629
Year to Date					
001	10,001	6,732	4,000	608	21,341
002		6,628	3,705	541	20,400
003		7,286	3,754	584	21,629
Rolling 12 Months Ending i			, -		,
002		86,249	48,278	7,932	245,656
003		88,038	48,077	7,172	250,981

<sup>&</sup>lt;sup>1</sup> Public street and highway lighting, other sales to public authorities, sales to railroads and railways, and interdepartmental sales.

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

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 2001 have been adjusted to reflect the Form EIA-861 annual total. See Technical Notes for methodology. •Values for 2002 have been revised and are preliminary. •Values for 2003 are 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

Sources: 2002-2003: Energy Information Administration, Form EIA-826, "Monthly Electric Sales and Revenue Report with State Distributions Report;" 1990-2001: Form EIA-861, "Annual Electric Power Industry Report."

R = Revised

Table 5.3. Average Revenue per Kilowatthour from Retail Sales to Ultimate Consumers: Total by Sector, 1990 through January 2003 (Cents)

Period	Residential	Commercial	Industrial	Other <sup>1</sup>	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		7.73	4.77	6.84	6.91
1995		7.69	4.66	6.88	6.89
1996	8.36	7.64	4.60	6.91	6.86
1997		7.59	4.53	6.91	6.85
1998		7.41	4.48	6.63	6.74
1999		7.26	4.43	6.35	6.64 <sup>R</sup>
2000		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
Total	8.62	7.93	5.04	7.03	7.32
2002	0.02	.150		7,00	7.62
January	8.08	7.47	4.73	6.63	6.96
February	8.18	7.69	4.77	6.81	6.99
March	8.16	7.72	4.78	6.84	6.98
April	8.37	7.64	4.71	6.91	6.95
May	8.64	7.80	4.73	6.84	7.09
June	8.71	8.08	4.94	6.88	7.39
July	8.80	8.29	5.13	6.71	7.62
August	8.75	8.23	5.05	6.62	7.56
September	8.65	8.07	4.89	6.61	7.36
October	8.50	8.07	4.84	6.80	7.20
November	8.33	7.68	4.68	6.76	6.95
December	8.09	7.64	4.68	7.00	6.97
Fotal	8.45	7.89	4.83	6.78	7.19
2003					
January	7.98	7.77	4.67	6.68	7.02
Total	7.98	7.77	4.67	6.68	7.02
Year to Date				0.00	
2001	7.78	7.36	4.99	6.63	6.90
2002	8.08	7.47	4.73	6.63	6.96
2003	7.98	7.77	4.67	6.68	7.02
Rolling 12 Months Ending i		7.17	7.07	0.00	7.02
2002		7.94	5.02	7.04	7.33
2003	8.44	7.94 7.91	4.83	6.78	7.33 7.19

<sup>&</sup>lt;sup>1</sup> 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 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 have been revised and are preliminary. •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). •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

Sources: 2002-2003: Energy Information Administration, Form EIA-826, "Monthly Electric Sales and Revenue Report with State Distributions Report;" 1990-2001: Form EIA-861, "Annual Electric Power Industry Report."

R = Revised

Table 5.4.A. Retail Sales of Electricity to Ultimate Consumers - Estimated by Sector, by State, January 2003 and 2002

(Million kWh)

·	Resid	lential	Comn	nercial	Indu	strial	Oth	ner¹	All So	ectors
Census Division and State	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002
New England	4,665	4,102	4,520	4,061	1,977	1,984	146	135	11,309	10,282
Connecticut	1,330	1,202	1,117	1,009	449	390	50	52	2,945	2,653
Maine <sup>2</sup>		379	335	324	268	353	5	5	1,040	1,061
Massachusetts		1,705	2,247	1,988	845	854	65	64	5,109	4,610
New Hampshire		350	363	304 270	180 103	149 95	12	3	995	806
Rhode Island Vermont		258 208	287 171	166	132	143	10 4	7 4	690 530	631 520
Middle Atlantic	12,416	11,066	12,157	11,370	6,934	6,806	1,481	1,432	32,989	30,673
New Jersey		2,213	3,090	2,771	948	912	53	55	6,657	5,951
New York	,	4,132	5,314	5,063	2,121	2,082	1,306	1,261	13,166	12,538
Pennsylvania		4,721	3,753	3,537	3,866	3,812	123	116	13,167	12,185
East North Central	19,003	17,425	14,055	13,076	16,505	15,426	1,452	1,378	51,015	47,305
Illinois	4,454	4,077	3,837	3,534	3,123	2,767	848	828	12,263	11,206
Indiana		2,940	1,901	1,729	3,926	3,635	68	61	9,350	8,365
Michigan		3,170	3,181	2,949	2,766	2,514	83	80	9,387	8,713
Ohio		5,273	3,504	3,310	4,610	4,499	390	347	14,125	13,429
Wisconsin		1,965	1,631	1,554	2,079	2,011	62	62	5,890	5,592
West North Central	9,311	8,513	6,849	6,483	6,428	6,089	535	486	23,123	21,570
Iowa		1,137	713	665	1,344	1,357	144	136	3,439	3,295
Kansas		1,058	1,084	992	827	820	33	34	3,071	2,905
Minnesota		1,823 2,948	1,625 2,211	1,590 2,099	1,994 1,255	1,833 1,132	57 111	55 97	5,682	5,301 6,276
Missouri Nebraska		792	633	584	626	583	109	97	6,874 2,210	2,053
North Dakota		390	311	306	245	227	44	39	1,018	962
South Dakota		364	271	246	137	137	NM	NM	830	779
South Atlantic	31,946	29,157	19,487	19,872	14,539	12,514	1,896	1,776	67,867	63,320
Delaware		376	323	296	300	331	5	5	1,041	1,008
District of Columbia		142	694	719	22	20	35	33	935	914
Florida	9,750	9,178	5,920	5,971	1,495	1,465	450	434	17,615	17,047
Georgia		4,333	3,163	3,177	2,834	2,635	149	137	10,978	10,283
Maryland <sup>3</sup>		2,293	1,447	2,159	2,333	856	80	92	6,802	5,401
North Carolina		5,011	3,192	3,133	2,426	2,385	184	171	10,985	10,701
South Carolina		2,625	1,453	1,416	2,493	2,413	80	75	6,797	6,530
Virginia		4,038	2,657	2,390	1,654	1,474	905	821	9,882	8,724
West Virginia		1,161	639	610	982	934	8	7	2,833	2,712
East South Central	11,669	10,905	6,097	5,630	10,038	10,009	502	447	28,305	26,991
Alabama Kentucky		2,980 2,508	1,616 1,288	1,548 1,093	2,439 3,793	2,535 3,728	66 288	62 230	7,207 8,208	7,127 7,559
Mississippi	,	1,563	950	863	1,218	1,214	61	63	3,867	3,702
Tennessee		3,854	2,242	2,126	2,588	2,531	87	92	9,024	8,603
West South Central	15,715	15,989	10,238	10,206	12,462	13,740	1,263	1,201	39,677	41,136
Arkansas	,	1,411	820	711	1,265	1,279	50	59	3,622	3,460
Louisiana		2,310	1,586	1,449	2,447	2,284	207	224	6,662	6,268
Oklahoma		1,776	1,033	1,014	1,047	1,012	324	256	4,246	4,058
Texas		10,492	6,799	7,032	7,704	9,164	681	662	25,148	27,350
Mountain	6,773	6,973	5,810	5,767	5,025	4,968	586	558	18,193	18,266
Arizona		2,166	1,601	1,566	819	880	214	197	4,703	4,810
Colorado		1,403	1,458	1,392	854	863	80	76	3,785	3,734
Idaho		793	446	467	481	533	28	26	1,690	1,818
Montana		434	343	345	294	266	22	20	1,090	1,066
Nevada		753	537	536	831	803	45	36	2,151	2,129
New Mexico		499 679	518	534	431 654	412	118	119	1,568	1,563
Utah Wyoming		247	637 270	673 253	654 661	543 669	68 NM	69 14	2,021 1,186	1,963 1,183
Pacific Contiguous	13,351	13,276	12,094	11,818	6,061	6,372	855	725	32,360	32,191
California		7,439	8,728	8,383	3,862	4,048	500	385	21,030	20,256
Oregon		2,089	1,215	1,250	894	910	42	37	4,075	4,287
Washington		3,748	2,150	2,185	1,305	1,414	313	302	7,255	7,648
Pacific Noncontiguous	459	447	2,406	429	382	396	28	26	3,275	1,298
Alaska		210	2,166	193	92	109	22	21	2,497	532
Hawaii		237	240	236	290	288	5	5	777	766
U.S. Total	125,307	117,854	93,712	88,712	80,351	78,304	8,743	8,162	308,113	293,032

<sup>&</sup>lt;sup>1</sup> 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 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 have been revised and are preliminary. •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.

<sup>&</sup>lt;sup>2</sup> Decline in Industrial sales in Maine is partly attributed to some large industrial customers generating their own electricity.

<sup>&</sup>lt;sup>3</sup> A major utility in Maryland reclassified consumers from commercial to industrial in July 2002.

NM = This estimated value is not meaningful due to either insufficient data, large data revisions or the impact that round-off has on small numbers.

Table 5.4.B. Retail Sales of Electricity to Ultimate Consumers - Estimated by Sector, by State, Year-to-Date through January

(Million kWh)

	Reside	ential	Comm	ercial	Indus	trial	Oth	er <sup>1</sup>	All Sectors	
Census Division and State	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002
New England	4,665	4,102	4,520	4,061	1,977	1,984	146	135	11,309	10,282
Connecticut	1,330	1,202	1,117	1,009	449	390	50	52	2,945	2,653
Maine <sup>2</sup>	431	379	335	324	268	353	5	5	1,040	1,061
Massachusetts	1,952	1,705	2,247	1,988	845	854	65	64	5,109	4,610
New Hampshire	439	350	363	304	180	149	12	3	995	806
Rhode Island	290	258	287	270	103	95	10	7	690	631
Vermont	223	208	171	166	132	143	4	4	530	520
Middle Atlantic	12,416	11,066	12,157	11,370	6,934	6,806	1,481	1,432	32,989	30,673
New Jersey	2,566	2,213	3,090	2,771	948	912	53	55	6,657	5,951
New York	4,426 5,425	4,132 4,721	5,314	5,063 3,537	2,121	2,082 3,812	1,306 123	1,261	13,166	12,538 12,185
Pennsylvania	19,003	17,425	3,753 <b>14,055</b>	13,076	3,866 <b>16,505</b>	15,426	1,452	116 <b>1,378</b>	13,167 <b>51,015</b>	47,305
East North Central	4,454	4,077	3,837	3,534	3,123	2,767	848	828	12,263	11,206
IllinoisIndiana	3,455	2,940	1,901	1,729	3,926	3,635	68	61	9,350	8,365
Michigan	3,357	3,170	3,181	2,949	2,766	2,514	83	80	9,387	8,713
Ohio	5,620	5,273	3,504	3,310	4,610	2,314 4,499	390	347	14,125	13,429
Wisconsin	2,117	1,965	1,631	1,554	2,079	2,011	62	62	5,890	5,592
West North Central	9,311	8,513	6,849	6,483	6,428	6,089	535	486	23,123	21,570
Iowa	1,237	1,137	713	665	1,344	1,357	144	136	3,439	3,295
Kansas	1,127	1,058	1,084	992	827	820	33	34	3,071	2,905
Minnesota	2,005	1,823	1,625	1,590	1,994	1,833	57	55	5,682	5,301
Missouri	3,297	2,948	2,211	2,099	1,255	1,132	111	97	6,874	6,276
Nebraska	841	792	633	584	626	583	109	93	2,210	2,053
North Dakota	417	390	311	306	245	227	44	39	1,018	962
South Dakota	386	364	271	246	137	137	NM	NM	830	779
South Atlantic	31,946	29,157	19,487	19,872	14,539	12,514	1,896	1,776	67,867	63,320
Delaware	413	376	323	296	300	331	5	5	1,041	1,008
District of Columbia	184	142	694	719	22	20	35	33	935	914
Florida	9,750	9,178	5,920	5,971	1,495	1,465	450	434	17,615	17,047
Georgia	4,832	4,333	3,163	3,177	2,834	2,635	149	137	10,978	10,283
Maryland <sup>3</sup>	2,941	2,293	1,447	2,159	2,333	856	80	92	6,802	5,401
North Carolina	5,183	5,011	3,192	3,133	2,426	2,385	184	171	10,985	10,701
South Carolina	2,772	2,625	1,453	1,416	2,493	2,413	80	75	6,797	6,530
Virginia	4,666	4,038	2,657	2,390	1,654	1,474	905	821	9,882	8,724
West Virginia	1,205	1,161	639	610	982	934	8	7	2,833	2,712
East South Central	11,669	10,905	6,097	5,630	10,038	10,009	502	447	28,305	26,991
Alabama	3,086	2,980	1,616	1,548	2,439	2,535	66	62	7,207	7,127
Kentucky	2,839	2,508	1,288	1,093	3,793	3,728	288	230	8,208	7,559
Mississippi	1,638	1,563	950	863	1,218	1,214	61	63	3,867	3,702
Tennessee	4,107	3,854	2,242	2,126	2,588	2,531	87	92	9,024	8,603
West South Central	15,715	15,989	10,238	10,206	12,462	13,740	1,263	1,201	39,677	41,136
Arkansas	1,487	1,411	820	711	1,265	1,279	50	59	3,622	3,460
Louisiana	2,422	2,310	1,586	1,449	2,447	2,284	207	224	6,662	6,268
Oklahoma	1,842	1,776	1,033	1,014	1,047	1,012	324	256	4,246	4,058
Texas	9,964	10,492	6,799	7,032	7,704	9,164	681	662	25,148	27,350
Mountain	6,773	6,973	5,810	5,767	5,025	4,968	586	558	18,193	18,266
Arizona	2,069	2,166	1,601	1,566	819	880	214	197	4,703	4,810
Colorado	1,392	1,403	1,458	1,392	854	863	80	76 26	3,785	3,734
Idaho	734 432	793 434	446	467 345	481 294	533	28 22	26 20	1,690	1,818
Montana	738	753	343 537	536	831	266 803	45	36	1,090	1,066 2,129
Nevada New Mexico									2,151	,
	501 662	499 679	518 637	534 673	431 654	412 543	118 68	119 69	1,568 2,021	1,563 1,963
Utah Wyoming	245	247	270	253	661	543 669	NM	14	1,186	1,963
Pacific Contiguous	13,351	13,276	12,094	11,818	6,061	6,372	855	725	32,360	32,191
California	7,940	7,439	8,728	8,383	3,862	4,048	500	385	21,030	20,256
Oregon	1,924	2,089	1,215	1,250	3,862 894	910	42	37	4,075	4,287
Washington	3,487	3,748	2,150	2,185	1,305	1,414	313	302	7,255	7,648
Pacific Noncontiguous	3,487 <b>459</b>	3,748	2,130 2,406	2,183 <b>429</b>	382	396	28	26	3,275	1,298
Alaska	217	210	2,166	193	92	109	22	21	2,497	532
Hawaii	243	237	240	236	290	288	5	5	777	766
	- IJ		210	200	270	200	3	5	, , ,	, 00

<sup>&</sup>lt;sup>1</sup> 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 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 have been revised and are preliminary.•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.

<sup>&</sup>lt;sup>2</sup> Decline in Industrial sales in Maine is partly attributed to some large industrial customers generating their own electricity.

<sup>&</sup>lt;sup>3</sup> A major utility in Maryland reclassified consumers from commercial to industrial in July 2002.

NM = This estimated value is not meaningful due to either insufficient data, large data revisions or the impact that round-off has on small numbers.

Table 5.5.A. Revenue from Retail Sales of Electricity to Ultimate Consumers - Estimated by Sector, by State, January 2003 and 2002

(Million Dollars)

	Resid	ential	Comn	iercial	Indu	strial	Otl	ier¹	All So	ectors
Census Division and State	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002
New England	506	470	403	408	146	151	18	20	1,073	1,049
Connecticut	140	128	100	92	33	31	4	5	277	255
Maine <sup>2</sup>	. 55	50	34	43	12	18	1	1	102	112
Massachusetts		198	191	201	67	70	8	10	470	479
New Hampshire		42	36	31	16	12	1	1	103	85
Rhode Island		27	24	23	8	8	2	2	62	60
Vermont		26	19	19	11	12	1	1	58	58
Middle Atlantic	1,294	1,181	1,157	1,098	397	405	122	118	2,970	2,803
New Jersey		215	258	251	67	74	8	6 99	581	545
New York Pennsylvania		531 435	592 307	565 282	104 225	106 225	100 14	14	1,356 1,034	1,302 956
East North Central	1,415	1,311	983	920	755	707	85	72	3,239	3,010
Illinois		307	291	268	164	142	47	35	831	752
Indiana		190	111	101	154	145	6	5	493	441
Michigan		262	223	219	132	134	8	8	642	623
Ohio		397	253	235	213	198	20	19	899	848
Wisconsin		154	105	98	93	88	5	5	373	344
West North Central	615	563	375	356	252	246	31	28	1,273	1,194
Iowa		86	43	40	53	51	9	8	199	186
Kansas		73	66	58	38	38	3	3	187	172
Minnesota		129	89	88	78	74	4	4	314	295
Missouri		181	112	109	44	46	6	6	360	342
Nebraska		46	32	29	24	22	6	5	111	102
North Dakota		22	17	16	NM	NM	2	1	53	49
South Dakota		25	16	15	6	6	1	1	51	47
South Atlantic	2,407	2,227	1,262	1,262	592	516	123	115	4,385	4,120
Delaware		30	22	20	12	15	1	1	67	65
District of Columbia		10	45	45	1	1	2	2	61	59
Florida		777	401	419	79	79	35	35	1,310	1,309
Georgia		309	212	202	112	96	13	12	684	618
Maryland <sup>3</sup>	196	158	95	117	77	31	7	7	375	313
North Carolina	408	389	205	198	111	109	12	12	736	708
South Carolina	209	194	95	89	96	90	5	5	405	378
Virginia		291	152	139	71	62	48	42	604	534
West Virginia		70	35	32	34	34	1	1	143	137
East South Central	736	670	387	349	373	354	31	28	1,527	1,400
Alabama		194	110	100	100	92	5	4	425	390
Kentucky		132	67	55	110	107	13	10	344	303
Mississippi		102	69	58	55	52	6	6	242	217
Tennessee		242	142	136	108	104	8	8	516	489
West South Central	1,140	1,208	710	666	560	655	85	78	2,495	2,606
Arkansas		98	43	41	50	54	3	4	194	197
Louisiana		147	105	90	111	89	15	15	396	341
Oklahoma		103	59 503	48	42	33	15	11	229	196
Texas		861	502	486	358	478 <b>227</b>	52 <b>34</b>	47 32	1,675	1,872
Mountain	<b>502</b> 149	506 153	380 107	366 107	235 40	41	10	9	1,151 306	<b>1,131</b> 310
Arizona Colorado		97	87	75	40	37	6	6	238	215
Idaho		52	27	27	22	22	1	1	99	102
Montana		30	21	20	13	13	2	2	65	65
Nevada		71	51	46	54	49	3	2	178	168
New Mexico		42	38	40	21	20	7	8	108	110
Utah		45	34	37	24	21	3	3	104	107
Wyoming		16	15	14	22	23	1	1	53	53
Pacific Contiguous	1,325	1,331	1,236	1,151	403	406	51	47	3,015	2,935
California		947	1,022	934	297	296	33	30	2,329	2,207
Oregon		148	80	84	46	47	3	3	264	282
Washington		236	134	134	60	63	14	14	423	446
Pacific Noncontiguous	64	59	392	51	41	37	3	3	500	150
Alaska		24	356	20	7	8	3	2	390	54
Hawaii		35	36	32	34	29	1	1	110	96
U.S. Total	10,005	9,526	7,286	6,628	3,754	3,705	584	541	21,629	20,400

<sup>&</sup>lt;sup>1</sup> 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 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 have been revised and are preliminary. •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.

<sup>&</sup>lt;sup>2</sup> Decline in Industrial sales in Maine is partly attributed to some large industrial customers generating their own electricity.

<sup>&</sup>lt;sup>3</sup> A major utility in Maryland reclassified consumers from commercial to industrial in July 2002.

NM = This estimated value is not meaningful due to either insufficient data, large data revisions or the impact that round-off has on small numbers.

Table 5.5.B. Revenue from Retail Sales of Electricity to Ultimate Consumers - Estimated by Sector, by State, Year-to-Date through January

(Million Dollars)

	Reside	ential	Comm	ercial	Indus	trial	Oth	er¹	All Sectors	
Census Division and State	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002
New England	506	470	403	408	146	151	18	20	1,073	1,049
Connecticut	140	128	100	92	33	31	4	5	277	255
Maine <sup>2</sup>	55	50	34	43	12	18	1	1	102	112
Massachusetts	204	198	191	201	67	70	8	10	470	479
New Hampshire	51	42	36	31	16	12	1	1	103	85
Rhode Island	28	27	24	23	8	8	2	2	62	60
Vermont	28	26	19	19	11	12	1 1 1 2 2	1	58	58
Middle Atlantic	1,294	1,181	1,157	1,098	397	405	122	118	2,970	2,803
New Jersey	247	215	258	251	67	74	8	6	581	545
New York Pennsylvania	560 487	531 435	592 307	565 282	104 225	106 225	100	99 14	1,356 1,034	1,302 956
East North Central	1,415	1,311	983	920	755	707	14 <b>85</b>	72	3,239	3,010
Illinois	330	307	291	268	164	142	47	35	831	752
Indiana	223	190	111	101	154	142	6	5	493	441
	280	262	223	219	134	134	8	8	642	623
Michigan	413	397	253 253	235	213	198	20	19	899	848
Ohio	170	397 154	105	235 98	93	88	20 5	5	373	848 344
West North Control	615	563	375	356	252	246	31	28	1,273	1,194
West North Central	95	86	43	40	53	246 51	9	28 8	1,273 199	1,194
Iowa Kansas	95 80	73	66	58	38	38	3	3	187	172
	143	129	89	88	78	74	4	4	314	295
Minnesota Missouri	198	181	112	109	44	46	6	6	360	342
	48	46	32	29	24	22	6	5	111	102
Nebraska North Dakota	24	22	17	16	NM	NM	2	3	53	49
	27	25	16	15	6	1NIVI 6	1	1	51	49
South Atlantia	2,407	2,227	1,262	1,262	592	516	123	115	4,385	4,120
South Atlantic Delaware	32	30	22	20	12	15	123	115	<b>4,363</b> 67	<b>4,120</b> 65
District of Columbia	32 14	10	45	45	12	13	2	2	61	59
Florida	795	777	401	419	79	79	35	35	1,310	1,309
Georgia	348	309	212	202	112	96	13	12	684	618
Maryland <sup>3</sup>	196	158	95	117	77	31	7	7	375	313
North Carolina	408	389	205	198	111	109	12	12	736	708
South Carolina	209	194	95	89	96	90	5	5	405	378
Virginia	333	291	152	139	71	62	48	42	604	534
West Virginia	73	70	35	32	34	34	1	1	143	137
East South Central	736	670	387	349	373	354	31	28	1,527	1,400
Alabama	210	194	110	100	100	92	5	4	425	390
Kentucky	153	132	67	55	110	107	13	10	344	303
Mississippi	113	102	69	58	55	52	6	6	242	217
Tennessee	259	242	142	136	108	104	8	8	516	489
West South Central	1,140	1,208	710	666	560	655	85	78	2,495	2,606
Arkansas	98	98	43	41	50	54	3	4	194	197
Louisiana	165	147	105	90	111	89	15	15	396	341
Oklahoma	114	103	59	48	42	33	15	11	229	196
Texas	763	861	502	486	358	478	52	47	1,675	1,872
Mountain	502	506	380	366	235	227	34	32	1,151	1,131
Arizona	149	153	107	107	40	41	10	9	306	310
Colorado	105	97	87	75	40	37	6	6	238	215
Idaho	48	52	27	27	22	22	1	1	99	102
Montana	30	30	21	20	13	13	2	2	65	65
Nevada	69	71	51	46	54	49	3	2	178	168
New Mexico	42	42	38	40	21	20	7	8	108	110
Utah	43	45	34	37	24	21	3	3	104	107
Wyoming	16	16	15	14	22	23	1	ĺ	53	53
Pacific Contiguous	1,325	1,331	1,236	1,151	403	406	51	47	3,015	2,935
California	976	947	1,022	934	297	296	33	30	2,329	2,207
Oregon	135	148	80	84	46	47	3	3	264	282
Washington	214	236	134	134	60	63	14	14	423	446
Pacific Noncontiguous	64	59	392	51	41	37	3	3	500	150
Alaska	25	24	356	20	7	8	3	2	390	54
Hawaii	39	35	36	32	34	29	1	1	110	96
U.S. Total	10,005	9,526	7,286	6,628	3,754	3,705	584	541	21,629	20,400

<sup>&</sup>lt;sup>1</sup> Public street and highway lighting, other sales to public authorities, sales to railroads and railways, and interdepartmental sales.

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<sup>&</sup>lt;sup>2</sup> Decline in Industrial sales in Maine is partly attributed to some large industrial customers generating their own electricity.

<sup>&</sup>lt;sup>3</sup> A major utility in Maryland reclassified consumers from commercial to industrial in July 2002.

NM = This estimated value is not meaningful due to either insufficient data, large data revisions or the impact that round-off has on small numbers.

Table 5.6.A. Average Revenue per Kilowatthour from Retail Sales to Ultimate Consumers - Estimated by Sector, by State, January 2003 and 2002

(Cents)

·	Resid	ential	Comn	iercial	Indu	strial	Oth	ier¹	All Se	ectors
Census Division and State	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002	Jan 2003	Jan 2002
New England	10.84	11.47	8.92	10.05	7.39	7.63	11.97	14.54	9.49	10.21
Connecticut	10.55	10.64	9.00	9.11	7.28	7.86	8.03	9.16	9.42	9.62
Maine	12.85	13.07	10.19	13.37	4.34	5.04	20.16	22.42	9.83	10.53
Massachusetts	10.43	11.61	8.48	10.09	7.98	8.24	12.70	16.38	9.20	10.40
New Hampshire	11.50	11.95	9.78	10.11	8.78	8.09	11.78	18.55	10.38	10.56
Rhode Island	9.82	10.34	8.34	8.36	7.31	8.90	20.95	27.79	8.99	9.48
Vermont  Middle Atlantic	12.35 <b>10.42</b>	12.67 <b>10.67</b>	10.87 <b>9.52</b>	11.46 <b>9.66</b>	8.36 <b>5.72</b>	8.45 <b>5.95</b>	17.86 <b>8.25</b>	17.59 <b>8.27</b>	10.92 <b>9.00</b>	11.16 <b>9.14</b>
New Jersey	9.64	9.72	8.35	9.06	7.08	8.09	15.83	10.19	8.73	9.14
New York	12.65	12.86	11.13	11.16	4.91	5.11	7.66	7.87	10.30	10.38
Pennsylvania	8.97	9.21	8.19	7.98	5.83	5.90	11.34	11.75	7.85	7.84
East North Central	7.45	7.52	7.00	7.04	4.58	4.58	5.85	5.24	6.35	6.36
Illinois	7.41	7.53	7.58	7.58	5.25	5.14	5.49	4.26	6.78	6.71
Indiana	6.45	6.47	5.85	5.85	3.91	3.99	8.15	8.44	5.28	5.28
Michigan	8.33	8.26	7.01	7.43	4.76	5.34	9.84	10.28	6.84	7.16
Ohio	7.35	7.53	7.23	7.09	4.62	4.39	5.04	5.39	6.36	6.32
Wisconsin	8.04	7.84	6.45	6.29	4.46	4.36	8.05	7.87	6.33	6.16
West North Central	6.61	6.61	5.47	5.50	3.92	4.05	5.85	5.79	5.51	5.53
Iowa	7.66	7.60	6.02	6.06	3.91	3.78	5.90	6.04	5.78	5.65
Kansas	7.07	6.94	6.11	5.89	4.54	4.59	9.66	8.73	6.08	5.94
Minnesota	7.14	7.07	5.46	5.56	3.89	4.04	7.17	7.07	5.52	5.57
Missouri	6.00	6.14	5.05	5.19	3.48	4.08	5.56	5.87	5.23	5.45
Nebraska	5.75	5.78	5.00	5.02	3.85	3.82	5.84	5.35	5.00	4.99
North DakotaSouth Dakota	5.86 6.98	5.72 6.85	5.47 6.05	5.19 6.12	4.08 4.46	4.05 4.38	3.73 NM	3.49 NM	5.22 6.11	5.07 6.04
South Atlantic	7.54	7.64	6.48	6.35	4.46	4.12	6.50	6.49	6.46	6.51
Delaware	7.80	7.89	6.93	6.66	3.96	4.45	15.55	14.18	6.46	6.43
District of Columbia	7.50	7.40	6.45	6.26	4.83	5.68	4.36	6.02	6.54	6.42
Florida	8.15	8.47	6.78	7.02	5.27	5.36	7.69	7.99	7.44	7.68
Georgia	7.20	7.12	6.69	6.36	3.94	3.65	8.49	8.55	6.23	6.01
Maryland	6.67	6.89	6.59	5.42	3.29	3.57	8.60	7.68	5.52	5.79
North Carolina	7.87	7.77	6.41	6.33	4.56	4.55	6.74	6.72	6.70	6.61
South Carolina	7.53	7.38	6.52	6.31	3.86	3.72	6.54	6.40	5.96	5.78
Virginia	7.13	7.19	5.72	5.80	4.29	4.22	5.34	5.12	6.11	6.12
West Virginia	6.06	6.00	5.45	5.32	3.50	3.67	9.32	9.48	5.04	5.06
East South Central	6.30	6.14	6.35	6.19	3.72	3.54	6.24	6.22	5.40	5.19
Alabama	6.82	6.51	6.82	6.45	4.09	3.63	7.18	6.99	5.90	5.48
Kentucky	5.40	5.25	5.20	5.07	2.91	2.86	4.52	4.21	4.19	4.01
Mississippi	6.93	6.55	7.21	6.67	4.48	4.26	9.73	8.99	6.27	5.87
Tennessee West South Central	6.30 <b>7.25</b>	6.27 <b>7.56</b>	6.31 <b>6.93</b>	6.39 <b>6.52</b>	4.19 <b>4.50</b>	4.11 <b>4.77</b>	8.76 <b>6.75</b>	8.83 <b>6.47</b>	5.72 <b>6.29</b>	5.69 <b>6.34</b>
Arkansas	6.61	6.93	5.26	5.77	3.93	4.23	6.61	7.12	5.37	5.70
Louisiana	6.81	6.37	6.64	6.24	4.54	3.91	7.18	6.58	5.95	5.45
Oklahoma	6.16	5.80	5.71	4.77	3.99	3.26	4.63	4.40	5.40	4.82
Texas	7.66	8.20	7.38	6.91	4.64	5.22	7.64	7.17	6.66	6.85
Mountain	7.41	7.25	6.55	6.35	4.68	4.57	5.76	5.78	6.33	6.19
Arizona	7.19	7.06	6.70	6.83	4.91	4.67	4.69	4.70	6.51	6.45
Colorado	7.52	6.90	5.97	5.37	4.63	4.31	8.00	8.21	6.28	5.76
Idaho	6.60	6.57	6.01	5.77	4.64	4.14	5.28	4.99	5.87	5.63
Montana	7.03	6.94	6.01	5.86	4.35	4.96	8.00	7.81	6.00	6.11
Nevada	9.38	9.39	9.55	8.63	6.53	6.10	6.77	6.59	8.27	7.91
New Mexico	8.30	8.38	7.37	7.49	4.79	4.94	6.24	6.49	6.87	7.03
Utah	6.52	6.69	5.38	5.52	3.62	3.84	4.45	4.57	5.15	5.43
Wyoming	6.53	6.35	5.48	5.42	3.31	3.48	5.77	4.39	4.49	4.51
Pacific Contiguous	9.93	10.02	10.22	9.74	6.65	6.37	5.98	6.49	9.32	9.12
California Oregon	12.30 7.01	12.72 7.10	11.71 6.57	11.15 6.68	7.69 5.10	7.31 5.17	6.70 8.19	7.86 8.38	11.07 6.47	10.90 6.58
Washington	6.15	6.29	6.24	6.11	4.61	3.17 4.47	4.54	8.38 4.49	5.83	5.83
Pacific Noncontiguous	13.92	13.23	16.31	11.92	10.63	9.37	11.66	12.10	15.28	11.59
Alaska	11.33	11.56	16.46	10.11	7.34	7.46	11.16	11.99	15.63	10.21
Hawaii	16.23	14.70	15.02	13.40	11.67	10.09	13.81	12.55	14.14	12.55
	20.20			7.47	4.67	4.73	6.68	6.63	7.02	12.00

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Table 5.6.B. Average Revenue per Kilowatthour from Retail Sales to Ultimate Consumers - Estimated by Sector, by State, Year-to-Date through January (Cents)

	Reside	ential	Comm	ercial	Indus	trial	Oth	er¹	All Sec	ctors
Census Division and State	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002
New England	10.84	11.47	8.92	10.05	7.39	7.63	11.97	14.54	9.49	10.21
Connecticut	10.55	10.64	9.00	9.11	7.28	7.86	8.03	9.16	9.42	9.62
Maine	12.85	13.07	10.19	13.37	4.34	5.04	20.16	22.42	9.83	10.53
Massachusetts	10.43	11.61	8.48	10.09	7.98	8.24	12.70	16.38	9.20	10.40
New Hampshire	11.50	11.95	9.78	10.11	8.78	8.09	11.78	18.55	10.38	10.56
Rhode Island	9.82	10.34	8.34	8.36	7.31	8.90	20.95	27.79	8.99	9.48
Vermont	12.35	12.67	10.87	11.46	8.36	8.45	17.86	17.59	10.92	11.16
Middle Atlantic	<b>10.42</b> 9.64	<b>10.67</b> 9.72	<b>9.52</b> 8.35	<b>9.66</b> 9.06	<b>5.72</b> 7.08	<b>5.95</b> 8.09	<b>8.25</b> 15.83	<b>8.27</b> 10.19	<b>9.00</b> 8.73	<b>9.14</b> 9.16
New Jersey New York	12.65	12.86	11.13	11.16	4.91	5.11	7.66	7.87	10.30	10.38
Pennsylvania	8.97	9.21	8.19	7.98	5.83	5.90	11.34	11.75	7.85	7.84
East North Central	7.45	7.52	7.00	7.04	4.58	4.58	5.85	5.24	6.35	6.36
Illinois	7.41	7.53	7.58	7.58	5.25	5.14	5.49	4.26	6.78	6.71
Indiana	6.45	6.47	5.85	5.85	3.91	3.99	8.15	8.44	5.28	5.28
Michigan	8.33	8.26	7.01	7.43	4.76	5.34	9.84	10.28	6.84	7.16
Ohio	7.35	7.53	7.23	7.09	4.62	4.39	5.04	5.39	6.36	6.32
Wisconsin	8.04	7.84	6.45	6.29	4.46	4.36	8.05	7.87	6.33	6.16
West North Central	6.61	6.61	5.47	5.50	3.92	4.05	5.85	5.79	5.51	5.53
Iowa	7.66	7.60	6.02	6.06	3.91	3.78	5.90	6.04	5.78	5.65
Kansas	7.07	6.94	6.11	5.89	4.54	4.59	9.66	8.73	6.08	5.94
Minnesota	7.14	7.07	5.46	5.56	3.89	4.04	7.17	7.07	5.52	5.57
Missouri	6.00	6.14	5.05	5.19	3.48	4.08	5.56	5.87	5.23	5.45
Nebraska North Dakota	5.75 5.86	5.78 5.72	5.00 5.47	5.02 5.19	3.85 4.08	3.82 4.05	5.84 3.73	5.35 3.49	5.00 5.22	4.99 5.07
South Dakota	6.98	6.85	6.05	6.12	4.46	4.38	NM	3.49 NM	6.11	6.04
South Atlantic	7.54	7.64	6.48	6.35	4.07	4.12	6.50	6.49	6.46	6.51
Delaware	7.80	7.89	6.93	6.66	3.96	4.45	15.55	14.18	6.46	6.43
District of Columbia	7.50	7.40	6.45	6.26	4.83	5.68	4.36	6.02	6.54	6.42
Florida	8.15	8.47	6.78	7.02	5.27	5.36	7.69	7.99	7.44	7.68
Georgia	7.20	7.12	6.69	6.36	3.94	3.65	8.49	8.55	6.23	6.01
Maryland	6.67	6.89	6.59	5.42	3.29	3.57	8.60	7.68	5.52	5.79
North Carolina	7.87	7.77	6.41	6.33	4.56	4.55	6.74	6.72	6.70	6.61
South Carolina	7.53	7.38	6.52	6.31	3.86	3.72	6.54	6.40	5.96	5.78
Virginia	7.13	7.19	5.72	5.80	4.29	4.22	5.34	5.12	6.11	6.12
West Virginia	6.06	6.00	5.45	5.32	3.50	3.67	9.32	9.48	5.04	5.06
East South Central	6.30	6.14	6.35	6.19	3.72	3.54	6.24	6.22	5.40	5.19
Alabama	6.82	6.51	6.82	6.45	4.09	3.63	7.18	6.99	5.90	5.48
Kentucky	5.40	5.25	5.20	5.07	2.91	2.86	4.52	4.21	4.19	4.01
Mississippi	6.93 6.30	6.55	7.21	6.67 6.39	4.48 4.19	4.26	9.73	8.99	6.27 5.72	5.87
Tennessee West South Central	7.25	6.27 <b>7.56</b>	6.31 <b>6.93</b>	6.52	4.50	4.11 <b>4.77</b>	8.76 <b>6.75</b>	8.83 <b>6.47</b>	6.29	5.69 <b>6.34</b>
Arkansas	6.61	6.93	5.26	5.77	3.93	4.23	6.61	7.12	5.37	5.70
Louisiana	6.81	6.37	6.64	6.24	4.54	3.91	7.18	6.58	5.95	5.45
Oklahoma	6.16	5.80	5.71	4.77	3.99	3.26	4.63	4.40	5.40	4.82
Texas	7.66	8.20	7.38	6.91	4.64	5.22	7.64	7.17	6.66	6.85
Mountain	7.41	7.25	6.55	6.35	4.68	4.57	5.76	5.78	6.33	6.19
Arizona	7.19	7.06	6.70	6.83	4.91	4.67	4.69	4.70	6.51	6.45
Colorado	7.52	6.90	5.97	5.37	4.63	4.31	8.00	8.21	6.28	5.76
Idaho	6.60	6.57	6.01	5.77	4.64	4.14	5.28	4.99	5.87	5.63
Montana	7.03	6.94	6.01	5.86	4.35	4.96	8.00	7.81	6.00	6.11
Nevada	9.38	9.39	9.55	8.63	6.53	6.10	6.77	6.59	8.27	7.91
New Mexico	8.30	8.38	7.37	7.49	4.79	4.94	6.24	6.49	6.87	7.03
Utah	6.52	6.69	5.38	5.52	3.62	3.84	4.45	4.57	5.15	5.43
Wyoming	6.53	6.35	5.48	5.42	3.31	3.48	5.77	4.39	4.49	4.51
Pacific Contiguous	<b>9.93</b> 12.30	<b>10.02</b> 12.72	<b>10.22</b> 11.71	<b>9.74</b> 11.15	<b>6.65</b> 7.69	<b>6.37</b> 7.31	<b>5.98</b>	6.49 7.86	<b>9.32</b> 11.07	<b>9.12</b> 10.90
California Oregon	7.01	7.10	6.57	6.68	5.10	5.17	6.70 8.19	7.86 8.38	6.47	6.58
Washington	6.15	6.29	6.24	6.11	4.61	4.47	4.54	6.36 4.49	5.83	5.83
Pacific Noncontiguous	13.92	13.23	16.31	11.92	10.63	9.37	11.66	12.10	15.28	11.59
Alaska	11.33	11.56	16.46	10.11	7.34	7.46	11.16	11.99	15.63	10.21
Hawaii	16.23	14.70	15.02	13.40	11.67	10.09	13.81	12.55	14.14	12.55
U.S. Total	7.98	8.08	7.77	7.47	4.67	4.73	6.68	6.63	7.02	6.96

<sup>&</sup>lt;sup>1</sup> Public street and highway lighting, other sales to public authorities, sales to railroads and railways, and interdepartmental sales.

NM = This estimated value is not meaningful due to either insufficient data, large data revisions or the impact that round-off has on small numbers.

Notes: •See Glossary for definitions. •Values for 2003 are 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 have been revised and are preliminary. •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

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

Period	Coal <sup>1</sup>	Petroleum <sup>2</sup>	Natural Gas <sup>3</sup>	Other Gases <sup>4</sup>	Nuclear	Hydro- electric <sup>5</sup>	Other Renewables <sup>6</sup>	Other <sup>7</sup>	Total
N E I I					0				
New England	1	4	1	0	0	3	1		1
Connecticut	0	8	5	0	0	9	2		1
Maine	0	7	1	0		6	1		I
Massachusetts	1	5	2		0	3	2		1
New Hampshire	0	13	175		0	8	6		2
Rhode Island		341	*			216	0		5
Vermont		99	0		0	11	5		2
Middle Atlantic	1	3	1	124	0	1	2		*
New Jersey	0	11	3	507	0	5	4		1
New York	2	3	1	466	0	1	4		1
Pennsylvania	1	6	7	120	0	2	3		*
East North Central	*	8	4	33	0	4	5	0	*
Illinois	1	6	19	268	0	63	17		1
Indiana	*	15	4	4		0	44		*
Michigan	1	16	2	0	0	5	3		1
Ohio	*	32	24	374	0	0	60		*
Wisconsin	1	69	6		0	11	13	0	1
West North Central	*	14	8	588	0	2	4	0	*
Iowa	1	179	26	300	0	5	7		1
Kansas	0	8	13		0	152	0		*
	1	22	25		0	19	5	0	1
Minnesota	1 *	57		0	•		12		1 *
Missouri			6		0	6			
Nebraska	0	204	114 945	0	0	0	40 0		1
North Dakota	1	344		609		-			1
South Dakota	0	0	0			0	0		0
South Atlantic		1	2	0	0	1	2	-	
Delaware	5	8	0	0					4
District of Columbia		0							0
Florida	0	*	2	0	0	0	4		1
Georgia	*	16	10		0	1	5		1
Maryland	0	3	8	0	0	0	5		*
North Carolina	*	10	3	0	0	*	7		*
South Carolina	1	8	1	0	0	1	0		*
Virginia	1	2	5		0	1	5		1
West Virginia	*	9	43	0		9	0		*
East South Central	*	11	3	75	0	0	3		*
Alabama	*	17	4	76	0	0	4		1
Kentucky	*	0	24			0	5		*
Mississippi	1	91	3	0	0	0	4		1
Tennessee	1	13	17	0	0	0	9		*
West South Central	1	11	1	13	0	1	2	0	1
Arkansas	0	1	3		0	2	1	0	*
Louisiana	0	6	2	17	0	0	*	0	1
Oklahoma	0	14	1	185		0	11		*
Texas	1	23	2	15	0	6	3		1
Mountain	*	40	5	193	0	2	6		*
Arizona	0	321	13		0	0	60		1
Colorado	1	445	9	0		5	17		2
Idaho	271	0	73			5	11		7
Montana	2	5	0	0		1	0		2
Nevada	0	0	0	0		2	2		*
New Mexico	*	146	23			72	164		2
Utah	*	191	47			29	11		1
Wyoming	1	293	15	1,812		8	20		1
Pacific Contiguous	2	23	2	2	0	*	1		1
California	13	22	3	2	0	1	1		2
Oregon	2	258	*			1	10		*
	2	238 247	1	0	0	1 *	5		*
Washington	25	12		244	U	15	15		9
Pacific Noncontiguous	82		21		-			-	
Alaska Hawaii	82 11	64 10	23 0	244		14 139	134 15		18 8
	11	10	U	244		139	15		δ

<sup>&</sup>lt;sup>1</sup> 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

<sup>&</sup>lt;sup>2</sup> Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

<sup>&</sup>lt;sup>3</sup> Natural gas, including a small amount of supplemental gaseous fuels.

<sup>&</sup>lt;sup>4</sup> Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

<sup>&</sup>lt;sup>5</sup> Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.

<sup>&</sup>lt;sup>6</sup> 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

<sup>&</sup>lt;sup>7</sup> Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

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

(Percent)

Period	Coal <sup>1</sup>	Petroleum <sup>2</sup>	Natural Gas <sup>3</sup>	Other Gases <sup>4</sup>	Nuclear	Hydro- electric <sup>5</sup>	Other Renewables <sup>6</sup>	Other <sup>7</sup>	Total
New England	0	4	139		0	19	0		2
Connecticut		1,322				152			205
Maine						358			358
Massachusetts		14	146			576			15
New Hampshire	0	1	0		0	0			*
Rhode Island		517							517
Vermont		99	0			34	0		16
Middle Atlantic	0	1	2		0	*	-		*
New Jersey	0	0	0			0			0
New York	0	1	1		0	*			*
Pennsylvania	0	62	853 17		0	2 <b>4</b>	0		*
East North Central	3	6 153	199			79	0		4
Illinois	<i>3</i>	5	199			0	U		*
Indiana Michigan	*	8	10		0	4	0		*
Ohio	*	7	19		0	0	U		*
Wisconsin	*	26	5		0	11	0		*
West North Central	*	8	11	0	0	1	1		*
Iowa	*	154	26		0	1	6		*
Kansas	0	8	22		0				*
Minnesota	1	10	47		0	8	0		1
Missouri	0	42	7	0	0	6	0		*
Nebraska	0	118	118	0	0	1	0		*
North Dakota	0	0	0			0			0
South Dakota	0	0	0			0	0		0
South Atlantic	*	1	2		0	*	0		*
Delaware		22	0						22
District of Columbia									
Florida	0	*	3		0	0	0		1
Georgia	*	13	63		0	1			*
Maryland		291	1,073						287
North Carolina	0	0	0		0	*			*
South Carolina	0	1	0		0	1	0		*
Virginia	1	2	*		0	1	0		*
West Virginia	0	0	0			0	0		0
East South Central	*	2	2		0	0	0		*
Alabama	0	0	4		0	0			*
Kentucky	*	0	0			0	0		*
Mississippi	1	31	*		0				*
Tennessee	0	0	0		0	0	0		0
West South Central		6			0	2	0		*
Arkansas	0	1 2	0		0	2			*
Louisiana	0	4	1 *		U	0			*
Oklahoma	1	84	*		0	6	0		*
Texas Mountain	1 *	71	6	0	0	1	*		*
Arizona	0	0	39		0	0	*		1
Colorado	0	35	3	0		2	0		*
Idaho		0	0		-	3			3
Montana	0	280	0			1			1
Nevada	0	0	0			0			0
New Mexico	*	0	19			72			1
Utah	0	190	29			28	0		1
Wyoming	0	0	0			8	0		*
Pacific Contiguous	0	0	2		0	*	*		*
California		0	3		0	1	*		*
Oregon	0	0	0			*	0		*
Washington	0	0	0		0	*	0		*
Pacific Noncontiguous	0	7	27		-	14	104		9
Alaska	0	54	27			14	134		18
/Maska									

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

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.

<sup>&</sup>lt;sup>3</sup> Natural gas, including a small amount of supplemental gaseous fuels.

<sup>&</sup>lt;sup>4</sup> Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

<sup>&</sup>lt;sup>5</sup> Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.

<sup>&</sup>lt;sup>6</sup> 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. <sup>7</sup> Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

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

Period	Coal <sup>1</sup>	Petroleum <sup>2</sup>	Natural Gas <sup>3</sup>	Other Gases <sup>4</sup>	Nuclear	Hydro- electric <sup>5</sup>	Other Renewables <sup>6</sup>	Other <sup>7</sup>	Total
New England	0	1	*	0	0	3	1		*
Connecticut	0	3	*	0	0	7	2		*
Maine	0	*	0	0		8	1		1
Massachusetts	0	1	1		0	3	2		*
New Hampshire		0			0	11	6		1
Rhode Island		0	0			216	0		*
Vermont					0	7	0		1
Middle Atlantic	*	3	1	0	0	3	3		*
New Jersey	0	5	2	0	0	90	3		*
New York	2	5	1		0	4	5		1
Pennsylvania	1	3	4	0	0	2	4		*
East North Central	*	2	1	429	0	59	7		*
Illinois	*	0	4		0	89	18		*
Indiana	2	11	2	2,027			62		3
Michigan	0	0	2	0		83	4		2
Ohio	3	321	26	457			84		7
	0	0	1			219	51		11
Wisconsin West North Central	212	1,039	15			95	3		12
	212	1,039				199	7		51
Iowa	212	1,039				152	0		12
Kansas		0	28			152	-		12
Minnesota		U				151	4		
Missouri			0						0
Nebraska			1,586				217		278
North Dakota									
South Dakota									
South Atlantic	*	1	2	0	0	5	2		*
Delaware	0	0	0						0
District of Columbia		0							0
Florida	0	0	1	0			2		*
Georgia		0	7			258	159		6
Maryland	0	0	0	0	0	0	3		*
North Carolina	5	6	2	0		124	10		3
South Carolina		0	0			64			5
Virginia	0	6	5			61	4		1
West Virginia	0	0	0			35	0		*
East South Central	0	37	2			0	13		1
Alabama	0	4,873	2				0		2
Kentucky	0	0	0						0
Mississippi	0		6			0			6
Tennessee		0	0				95		35
West South Central	3	16	2	0	0	2	4		1
Arkansas		0	0			4,369			*
Louisiana	0	8	2			0	0		1
Oklahoma	0		0						0
Texas	4	27	2	0	0	55	5		2
Mountain	3	9	4	0		12	8		2
Arizona			0						0
Colorado	82	4,012	19			269	0		19
Idaho		.,012	120			73	121		59
Montana	2	0	0	0		3	121		2
Nevada		0	0	0		411	2		1
		0	14	U		411	164		14
New Mexico	0	8,579	0			434	215		10
Utah	0	8,379	0			434	213		17
Wyoming	3	25	2			37	1		2
Pacific Contiguous				1012					
California	14	25	3	1,012		39	1		2
Oregon			*			52	18		2
Washington	2	2,644	*	0		110	12		1
Pacific Noncontiguous	24	10	0	-		220	5		11
Alaska	152 9	1,065	0						151
Hawaii		6				220	5		5

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

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.

<sup>&</sup>lt;sup>3</sup> Natural gas, including a small amount of supplemental gaseous fuels.

<sup>&</sup>lt;sup>4</sup> Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

<sup>&</sup>lt;sup>5</sup> Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.

<sup>&</sup>lt;sup>6</sup> 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. <sup>7</sup> Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

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

(1 616)				1					
Period	Coal <sup>1</sup>	Petroleum <sup>2</sup>	Natural Gas <sup>3</sup>	Other Gases <sup>4</sup>	Nuclear	Hydro- electric <sup>5</sup>	Other Renewables <sup>6</sup>	Other <sup>7</sup>	Total
New England		145	60			0	15		63
Connecticut		783	262						341
Maine		0	18,352				18		17
Massachusetts		96	60			0	0		49
New Hampshire		470							470
Rhode Island		490	920						474
Vermont									
Middle Atlantic	420	282	60			12,108	5		56
New Jersey		1,096	119			12,100	321		129
New York	457	306	84			12,108	8		94
Pennsylvania	1,076	903	110				0		65
East North Central	72	458	68			290	14		45
Illinois	408	1,011	109			443	205		118
		,	371			443	0		109
Indiana	107	1,115					-		
Michigan	0	2,447	44				8		14
Ohio	998	1,543	425				1,629		481
Wisconsin	381	643	187			384	117		176
West North Central	114	576	133				82		87
Iowa	242	683	346				166		194
Kansas		0	2,405						2,405
Minnesota		1,149	145				128		157
Missouri	0	1,644	547				0		51
Nebraska		1,049	603				215		531
North Dakota									
South Dakota									
South Atlantic	143	25	67			260	25		25
Delaware									
District of Columbia									
Florida			420				114		258
Georgia		1,694	0						1,694
Maryland		2,319					122		215
North Carolina	143	1,313	1,505			298			147
South Carolina		2,752	2,085			531	0		1,490
Virginia	0	6	0				26		8
West Virginia									
East South Central	326	2,315	334				188		222
Alabama		2,015							
Kentucky			0						0
Mississippi		2,315	753						723
Tennessee	326	2,515	263				188		220
		1,288	54				44		53
West South Central	<del></del>	1,200	1,896				303		688
Arkansas									
Louisiana		2.461	38						38
Oklahoma		2,461	696						674
Texas		1,511	95				0		90
Mountain		3,674	209		-		117		182
Arizona		3,674	859				374		684
Colorado			257				124		214
Idaho									
Montana									
Nevada									
New Mexico			460						460
Utah			757						757
Wyoming									
Pacific Contiguous	901	2,601	59	13,673		165	24		47
California		3,187	61	13,673			24		49
Oregon		5,216	675						761
Washington	901	8,004	198			165			135
Pacific Noncontiguous	197	476							187
Alaska	197	476							187
Hawaii									
114 W 411									

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

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.

<sup>&</sup>lt;sup>3</sup> Natural gas, including a small amount of supplemental gaseous fuels.

<sup>&</sup>lt;sup>4</sup> Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

<sup>&</sup>lt;sup>5</sup> Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.

<sup>&</sup>lt;sup>6</sup> 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. <sup>7</sup> Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

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

Table A5. Relative Standard Error for Net Generation by Fuel Type: Industrial Combined Heat and Power Producers by Census Division and State, January 2003
(Percent)

Period	Coal <sup>1</sup>	Petroleum <sup>2</sup>	Natural Gas³	Other Gases <sup>4</sup>	Nuclear	Hydro- electric <sup>5</sup>	Other Renewables <sup>6</sup>	Other <sup>7</sup>	Total
New England	39	50	7			7	3		9
Connecticut		521	105						149
Maine	0	35	2			7	2		5
Massachusetts	367	140	130			138	278		103
New Hampshire		433	176			171	417		213
Rhode Island		2,204							2,204
Vermont						103	183		105
Middle Atlantic	20	70	14	124		105	5		16
New Jersey		180	22	507			153		42
New York	23	42	38	466		105	0		26
Pennsylvania	28	117	10	120			5		23
East North Central	20	79	15	30		36	11	0	11
Illinois	13	221	37	268			56		26
Indiana	331	22	14	0			0		7
Michigan	88	936	121			150	10		51
Ohio	148	1,742	278	649			83		120
Wisconsin	31	104	21			36	14	0	17
West North Central	16	613	13	609		72	19	0	13
Iowa	31	2,938	0			, <u>-</u>	2,359		28
Kansas		0	12				2,555		12
Minnesota	13	869	55			72	19	0	11
Missouri	181	3,845	535				186		170
Nebraska	0	5,015	873						41
North Dakota	243	898	966	609			0		249
South Dakota	243								249
South Atlantic	12	26	31	0		1	4		5
Delaware	261	148	0	0					75
District of Columbia	201	140							75
Florida	0	37	36	0			9		15
	25	34	113	U		71	5		11
Georgia Maryland	0	1,676	223			/1	0		25
North Carolina	20	44	350			*	9		6
South Carolina	42	0	0	0			0		14
	42	135	63			329	10		19
Virginia	8	178	91	0		0			6
West Virginia						0	3		7
East South Central	20	<b>53</b> 60	31 33	<b>75</b> 76			4		9
Alabama	58								
Kentucky	0		102				5 4		31
Mississippi		337	75 99	0		0	9		33
Tennessee	21	100							11
West South Central	1	11	3	15	-		1	0	2
Arkansas	0	0	23				0	0	3
Louisiana	-	0	4	17				0	3
Oklahoma	0	0	21	185			11		14
Texas	2	16	4	18			3		3
Mountain	65	548	87	1,812		-	9		38
Arizona	0	496	13,200						10
Colorado		704	429						372
Idaho	271	0	36				8		35
Montana			0				0		0
Nevada									
New Mexico		2,268	262						260
Utah	144		249						159
Wyoming	152	1,783	35	1,812			63		73
Pacific Contiguous	33	60	10	0		939	5		8
California	30	54	10	0			8		8
Oregon	652	0	0				7		12
Washington	0	250	0			939	8		29
Pacific Noncontiguous	214	147	33	244	-	183	62	-	59
Alaska		213	33						58
Hawaii	214	199		244		183	62		119

<sup>&</sup>lt;sup>1</sup> 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

<sup>&</sup>lt;sup>2</sup> Distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke (converted to liquid petroleum, see Technical Notes for conversion methodology), and waste oil.

<sup>&</sup>lt;sup>3</sup> Natural gas, including a small amount of supplemental gaseous fuels.

<sup>&</sup>lt;sup>4</sup> Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

<sup>&</sup>lt;sup>5</sup> Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping.

<sup>6</sup> 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

energy, and wind. <sup>7</sup> Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

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

Census Division					
	Residential	Commercial	Industrial	Other <sup>1</sup>	All Sectors
and State					
New England	*	*	4	2	*
Connecticut	*	*	1	3	*
Maine	*	*	1	2	*
Massachusetts	1	*	7	2	1
New Hampshire	*	*	3	*	*
Rhode Island	*	*	2	*	*
Vermont	1	*	4	4	1
Middle Atlantic	*	*	9	14	1
New Jersey	*	*	2	1	*
New York	*	*	22	11	2
Pennsylvania	*	*		*	*
East North Central	*	*	i	1	*
Illinois	1	*	1	*	1
Indiana	ĺ	*	1	4	i i
Michigan	*	1	1	5	*
Ohio	1	*	i	1	1
Wisconsin	*	1	3	5	*
West North Central	1	i	1	16	1
Iowa	1	3	6	19	1
Kansas	1	2	2	9	1
	1	2	3	11	1
Minnesota	1	∠ *	5	11	1
Missouri	1	1	0	34	1
Nebraska	1	1	37		1
North Dakota	1	1		36	2
South Dakota	2	1	14	79	2
South Atlantic	1	I .	1		ı,
Delaware	*	*	3	1	1
District of Columbia	0	0	0	0	0
Florida	1	1	2	2	1
Georgia	2	1	1	4	1
Maryland	1	*	1	2	1
North Carolina	1	1	1	2	1
South Carolina	1	1	0	2	1
Virginia	1	*	0	*	*
West Virginia	*	*	0	1	*
East South Central	1	1	1	1	1
Alabama	1	1	2	6	1
Kentucky	1	1	1	1	1
Mississippi	1	3	2	7	1
Tennessee	1	1	3	2	1
West South Central	1	4	1	6	1
Arkansas	1	3	4	5	1
Louisiana	1	3	0	2	1
Oklahoma	ĺ	3	2	1	Í.
Texas	1	4	1	8	1
Mountain	1	*	i	7	1
Arizona	1	*	1	8	1
Colorado	2	1	i	6	i
Idaho	1	i	i	33	i
	1	1	1	42	1
Montana	1	1 *	4	19	1 *
Nevada	1	1	0	19	2
New Mexico	2	1	2	/	<u>Z</u>
Utah	2	1	0	4	1
Wyoming	I	1	2	50	1
Pacific Contiguous	1	*	5	40	
California	1	*	1	67	*
Oregon	1	1	. 7	18	3
Washington	1	1	17_	9	4
Pacific Noncontiguous	*	*	0	5	*
Alaska	*	*	1	6	*
Hawaii	0	0	0	11	*

<sup>&</sup>lt;sup>1</sup> Public street and highway lighting, other sales to public authorities, sales to railroads and railways,and interdepartmental sales.

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.•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.

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

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

Census Division	D .1		T 1	0/1 1	AHC
and State	Residential	Commercial	Industrial	Other <sup>1</sup>	All Sectors
	*	*	4		
New England	*	*	4	I 1	
Connecticut	*	*	1	1	
Maine	*	*	1 7	1	
Massachusetts	*		,	I v	
New Hampshire	*	~ *	2	T 4	
Rhode Island	1	~ *	2	2	
Vermont	1	7	5	2	
Middle Atlantic	*	*	4	8	
New Jersey	**************************************	~ 	2	Ť	
New York	*	*	9	7	
Pennsylvania	*	*	*	*	
East North Central	*	*		1	
Illinois	1	*	1	*	
Indiana	1	*	1	3	
Michigan	*	1	2	2	
Ohio	1	*	1	1	
Wisconsin	1	1	3	3	
West North Central	1	1	6	7	
Iowa	1	3	7	13	
Kansas	1	3	3	6	
Minnesota	i	2	4	4	
Missouri	ĺ	*	4	4	
Nebraska	i	2	24	20	
North Dakota	i	1	67	11	
South Dakota	2	2	24	22	
South Atlantic	1	1	27	1	
Delaware	*	*	5	1	
District of Columbia			3	1	
	0	0	0	0	
Florida	1	1	2	1	
Georgia	2	Į,	l i	3	
Maryland	1	Į.	Į.	1	
North Carolina	1	1	1	2	
South Carolina	1	1	1	2	
Virginia	1	1	1	*	
West Virginia	*	*	*	2	
East South Central	1	1	1	1	
Alabama	1	1	2	4	
Kentucky	2	1	1	1	
Mississippi	1	3	2	5	
Tennessee	1	1	2	2	
West South Central	1	4	1	5	
Arkansas	1	4	4	5	
Louisiana	1	3	*	3	
Oklahoma	ĺ	3	2	2	
Texas	i	4	1	6	
Mountain	i	1	1	ğ	
Arizona	2	1	1	8	
Colorado	2	2	3	10	
Idaho	1	1	1	23	
	1	1	1	12	
Montana	1	I *	9		
Nevada	1	2	T 4	13	
New Mexico	3	3	4	16	
Utah	2	2	I	8	
Wyoming	1	1	6	25	
Pacific Contiguous	1	*	3	17	
California	1	*	2	25	
Oregon	2	1	5	11	
Washington	2	1	12	7	
Pacific Noncontiguous	*	*	*	9	
Alaska	1	*	2	11	
Hawaii	0	0	0	8	

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

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.•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.

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

Table A8. Relative Standard Error for Average Revenue per Kilowatthour from Retail Sales to Ultimate Consumers by Sector, Census Division, and State, January 2003
(Percent)

Census Division					
	Residential	Commercial	Industrial	Other <sup>1</sup>	All Sectors
and State					
New England	*	*	1	2	*
Connecticut	*	*	*	2	*
Maine	*	*	*	1	*
Massachusetts	*	*	2	1	*
New Hampshire	*	*	1	*	*
Rhode Island	*	*	1	*	*
Vermont	11	*	1	3	*
Middle Atlantic	*	*	6	8	1
New Jersey	*	*	1	*	*
New York	*	*	13	6	1
Pennsylvania	*	*	*	*	*
East North Central	*	*	*	*	*
Illinois	*	*	*	*	*
Indiana	*	*	1	2	*
Michigan	*	*	1	3	*
Ohio	*	*	*	1	*
Wisconsin	*	1	1	3	*
West North Central	*	*	3	11	*
Iowa	1	1	2	7	1
Kansas	1	1	2	5	1
Minnesota	1	1	2	8	*
Missouri	1	*	3	1	1
Nebraska	1	1	16	21	1
North Dakota	1	1	30	27	1
South Dakota	1	1	12	60	1
South Atlantic	1	1	1	1	1
Delaware	*	*	2	1	*
District of Columbia	0	0	0	0	0
Florida	1	1	2	1	1
Georgia	1	1	1	3	1
Maryland	*	*	1	1	*
North Carolina	1	1	1	2	1
South Carolina	1	1	*	1	1
Virginia	1	*	1	*	*
West Virginia	*	*	*	1	*
East South Central	*	*	1	1	*
Alabama	1	1	2	4	1
Kentucky	1	*	1	*	1
Mississippi	1	1	1	3	1
Tennessee	*	*	1	1	1
West South Central	1	1	1	3	1
Arkansas	1	1	2	2	1
Louisiana	1	1	*	2	1
Oklahoma	1	1	1	1	1
Texas	1	1	1	4	1
Mountain	1	1	1	9	1
Arizona	1	1	1	9	1
Colorado	1	1	2	9	1
Idaho	1	1	1	17	1
Montana	1	*	6	34	*
Nevada	*	*	*	8	*
New Mexico	1	2	3	13	2
Utah	1	1	1	7	1
Wyoming	1	*	4	34	*
Pacific Contiguous	*	*	3	27	1
California	*	*	1	48	*
Oregon	1	1	3	12	1
Washington	i	i	8	5	2
Pacific Noncontiguous	*	*	*	7	*
Alaska	1	*	1	9	*
	0		0	á	

<sup>&</sup>lt;sup>1</sup> Public street and highway lighting, other sales to public authorities, sales to railroads and railways,and interdepartmental sales.

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.•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.

<sup>\* =</sup> For detailed data, the absolute value is less than 0.5; for percentage calculations, the absolute value is less than 0.05 percent.

## Appendix B

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

Date	Utility/Power Pool (NERC Region)	Time	Area	Type of Disturbance	Loss (megawatts)	Number of Customers Affected	Restoration Time
January							
1/25/03	Cinergy Corporation (ECAR)	2:00 pm	Cincinnati, Ohio	Cyber threat from internet	NA	NA	2:00am, January 26

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/ Insolators	None	None	April 9
July	D : G G 0 5	10.05	a re		212	1.0000	7.54
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		10.10					
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	October 12
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	None	None	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	10:30 pm, December 9
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	10:00 pm, December 13
12/14/02	Pacific Gas & Electric (WSCC)	11:00 am	Northern and Central California	Winter Storm	180	1.5 million	4:00 pm, December 19
12/19/02	Pacific Gas & Electric (WSCC)	6:00 am	Northern and Central California	Winter Storm	56	385,000	5:00 pm, December 21
12/25/02	PPL Corporation (MAAC)	5:00 pm	Eastern Pennsylvania	Winter Storm	250	106,000	5:00 am, December 26
12/25/02	Metropolitan Edison Co./First Energy (MAAC)	10:00 am	Reading, York, Hanover, Hamburg Pennsylvania	Winter Storm	NA	95,630	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, the CNEAF office 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**

The CNEAF office 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.

#### 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 Btu per ton.

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

For gas, units for fuel consumption and receipts are in thousand cubic feet (Mcf), average heat content (A) are in 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 = 
$$\frac{\sum_{i} (R_i \times A_i \times C_i)}{10^8 \sum_{i} R_i},$$

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*.

**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  $t_2$ .

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.

**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  $t_2$ .

**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. 1 2 3 (See previous issues of this publication for

<sup>&</sup>lt;sup>1</sup> 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.

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 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.<sup>4</sup>

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. <sup>4 5 6</sup>

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

<sup>&</sup>lt;sup>2</sup> 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.

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

<sup>&</sup>lt;sup>4</sup> 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>.)

<sup>&</sup>lt;sup>5</sup> 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.

<sup>&</sup>lt;sup>6</sup> 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>

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).

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.

**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  $t_2$ .

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

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

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 (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.

Rounding Rules for Data. Not applicable.

**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  $t_2$ .

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.

**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  $t_2$ .

**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 the EIA web on 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.

Adjusting Monthly Data to Annual Data. As a final adjustment based on our most complete data, use is made of annual Form EIA-906 data, when available. The annual totals of the monthly Form EIA-906 data by State and enduse sector are compared to the corresponding annual 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.

**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.

**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 = 
$$\left(\frac{x(t_2)-x(t_1)}{x(t_1)}\right)x100$$
,

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

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, December 2002

Census Division and State	Coal (Million Btu per Ton) <sup>1</sup>	Petroleum (Million Btu per Barrel) <sup>2</sup>	Natural Gas (Million Btu per Thousand Cubic Feet) <sup>3</sup>
New England	25.68	6.37	1.03
Connecticut	24.22	6.29	1.01
Maine	26.66	6.32	1.04
Massachusetts	25.39	6.38	1.02
New Hampshire	26.45	6.42	1.05
Rhode Island			1.04
Vermont			
Middle Atlantic	24.69	6.28	1.01
New Jersey	26.24	6.03	1.03
New York	25.62	6.32	1.02
			.96
Pennsylvania	24.33	6.06	
ast North Central	20.22	5.88	1.02
Illinois	18.33	5.80	1.02
Indiana	21.25	6.09	1.14
Michigan	20.11	6.12	1.00
Ohio	24.65	5.81	1.04
Wisconsin	17.91	5.56	1.00
Vest North Central	16.72	5.99	1.01
Iowa	17.25	5.88	1.00
Kansas	17.18	6.68	1.02
Minnesota	17.70	5.48	1.00
Missouri	17.74	5.79	1.02
Nebraska	17.39	5.80	1.00
North Dakota	12.99	5.85	
South Dakota	17.11		
South Atlantic	24.66	6.25	.85
Delaware	25.35	5.97	1.07
District of Columbia	23.33		
		5.83	
Florida	24.48	6.25	1.05
Georgia	23.38	5.83	1.03
Maryland	25.35	6.30	1.04
North Carolina	25.81	6.15	1.03
South Carolina	25.46	6.31	1.03
Virginia	25.57	6.35	1.04
West Virginia	24.56	5.88	NM
East South Central	22.80	5.87	1.03
Alabama	21.80	5.86	1.05
Kentucky	23.00	5.86	1.03
Mississippi	23.57	5.67	1.03
Tennessee	23.49	5.88	
Vest South Central	15.81	5.88	1.02
Arkansas	17.20	5.91	1.02
Louisiana	15.68	5.93	1.03
Oklahoma	17.68	3.73 	1.03
Texas	14.94	5.83	1.02
<b>Mountain</b>	19.63	5.81	.99
Arizona	20.66	5.87	1.02
Colorado	19.49	5.20	1.03
Idaho			
Montana	16.88	5.92	NM
Nevada	22.59	5.84	1.03
New Mexico	19.76	5.71	NM
Utah	22.43	5.86	
Wyoming	17.68	5.85	.99
acific Contiguous	17.48	5.79	1.02
California	24.08	5.79	1.03
Oregon	17.45		1.02
Washington	15.72	5.83	1.04
acific Noncontiguous	23.22	5.89	1.00
Alaska			1.00
	23.22	5.89	1:00
Hawaii			
U.S. Total	20.06	6.23	1.00

<sup>&</sup>lt;sup>1</sup> Data represents weighted values. Lignite, bituminous coal, subbituminous coal, anthracite, waste coal and synthetic coal..

Notes: •See Glossary for definitions. • Data for 2002 are preliminary.

<sup>&</sup>lt;sup>2</sup> 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 oil

oil.

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

NM = Not Meaningful.

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

To an	Mean Absolute Value of Change					
Item	1995	1996	1997	1998	1999	
onutility						
Generation (million kilowatthours)						
Coal	NA	NA	NA	NA	2,272	
Petroleum	NA	NA	NA	NA	1,205	
Gas	NA	NA	NA	NA	811	
Hydroelectric	NA NA	NA NA	NA NA	NA NA	936	
Nuclear	NA NA	NA NA	NA NA	NA NA	28	
Other <sup>1</sup>	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 <sup>1</sup>					•	
Coal (thousand short tons)	NA	NA	NA	NA	316	
Petroleum (thousand barrels)	NA	NA	NA	NA	40	
tility					.0	
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	
Nuclear	0	4	65	0	0	
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	
Stocks <sup>1</sup>			-,=	-,	-,000	
Coal (thousand short tons)	310	233	501	229	118	
Petroleum (thousand barrels)	239	201	130	98	165	
Retail Sales (million kilowatthours)	237	201	150	70	103	
Residential	79	345	250	626	454	
			350	626		
Commercial	780	476	1,265	175	2,233	
Industrial	141	1,129	257	771	654	
Other <sup>2</sup>	167	267	363	33	553	
Total	694	1,153	1,724	1,466	3,894	
Revenue (million dollars)						
Residential	17	2	3	42	27	
Commercial	51	29	60	17	214	
Industrial	23	46	32	30	34	
Other <sup>2</sup>	5	1	31	2	3	
Total	22	46	62	79	277	
Average Revenue per Kilowatthour (cents) <sup>3</sup>						
Residential	.01	.03	.03	.02	.01	
Commercial	.01	.01	.05	.01	.06	
Industrial	.03	.01	.02	.01	.01	
Other <sup>3</sup>	.20	.22	.07	.02	.39	
Total	.01		.02			
	.01	.01	.02	.01	.03	
Receipts	2.4	<i>C</i> 1	71	0.4	1.40	
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) <sup>3</sup>						
Coal	.10	.06	.16	.23	.22	
Petroleum	.01	.01	*	*	.01	
Gas	.15	.87	.68	.35	.09	

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.

<sup>\* =</sup> 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,

<sup>&</sup>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 <sup>1</sup>	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 <sup>2</sup>	,					
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 <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	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

<sup>&</sup>lt;sup>1</sup> Includes geothermal, wood, waste, wind, and solar.

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.

<sup>\* =</sup> 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 Repo

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."

Table C4. Unit-of-Measure Equivalents for Electricity

Tuble C.1. Cliff of Measure Equivalents for Electricity					
Unit	Equivalent				
Kilowatt (kW) Megawatt (MW) Gigawatt (GW) Terawatt (TW)	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)	1,000,000,000 (One Billion) Watthours				
Gigawatthours Thousand Gigawatthours	1,000,000 (One Million) Kilowatthours 1,000,000,000(One Billion Kilowatthours				

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) plants<sup>1</sup> 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.<sup>2</sup> Electric utilities were generally structured as vertically integrated<sup>3</sup> power companies that were responsible for generating, transmitting, and distributing power to consumers within their franchised service territory.

<sup>&</sup>lt;sup>1</sup> 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).

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

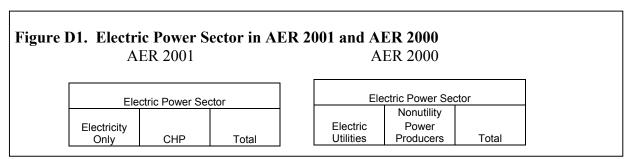
<sup>&</sup>lt;sup>3</sup> In this context "integrated" means that the company is involved in the three main sectors of the electric power business—generation, transmission, and distribution.

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)

Ī		Net Generation						
		Electric Power Sector 1			Commercial	Industrial		
	Year	Electric Utilities	Independent Power Producers	Total	Sector <sup>2</sup>	Sector <sup>3</sup>	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.

formine dar combined-near-and-power (CHP) and commercial electricity-only plants. See Appendix 6 for commercial sector NAICS codes.

findustrial combined-near-and-power (CHP) and industrial electricity-only plants. Through 1988, includes industrial hydroelectric power only. See Appendix G for industrial sector NAICS codes.

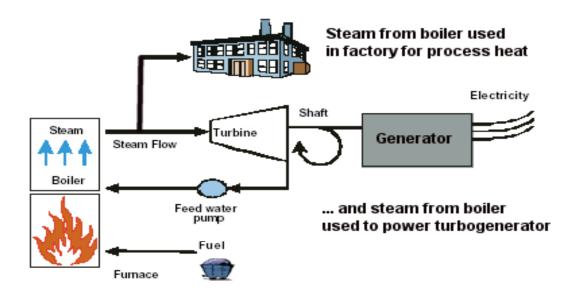
#### **Reporting of CHP Facility Fuel Use**

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.<sup>5</sup> 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.<sup>6</sup>

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, apacity factors, and power-to-steam ratios across 12

<sup>&</sup>lt;sup>4</sup> For the method used to separate the fuel used at CHP plants between electricity and useful thermal energy production, see Section III.

<sup>&</sup>lt;sup>5</sup> Energy Information Administration, Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition."

<sup>6</sup> 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.

<sup>8</sup> 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.

years of reported data was conducted. As a result, data for nonutility power producers for 1989 through 2000 have been 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.<sup>9</sup>
- 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*.

<sup>&</sup>lt;sup>9</sup> 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 <u>Generator Capacity</u> and <u>Generator Name Plate Capacity (Installed)</u>.

**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.
- 2) No. 2 Distillate: A petroleum distillate that can be used as either a diesel fuel (see No. 2 Diesel Fuel definition below) or a fuel oil. See No. 2 Fuel oil below.
  - No. 2 Diesel Fuel: A fuel that has distillation temperatures of 500 degrees Fahrenheit at the 10-percent recovery point and 640 degrees Fahrenheit at the 90-percent recovery point and meets the specifications defined in ASTM Specification D 396. It is used in atomizing type burners for domestic heating or for moderate capacity commercial/industrial burner units. See No. 2 Distillate above.
- 3) No. 4 Fuel: A distillate fuel oil made by blending distillate fuel oil and residual fuel oil stocks. It conforms with ASTM Specification D 396 or Federal Specification VV-F-815C and is used extensively in industrial plants and in commercial burner installations that are not equipped with preheating facilities. It also includes No. 4 diesel fuel used for low- and medium-speed diesel engines and conforms to ASTM Specification D 975.
  - *No. 4 Diesel Fuel and No. 4 Fuel Oil: See* No. 4 Fuel above.

**Electric Industry Restructuring:** The process of replacing a monopolistic system of electric utility suppliers with competing sellers, allowing individual 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.